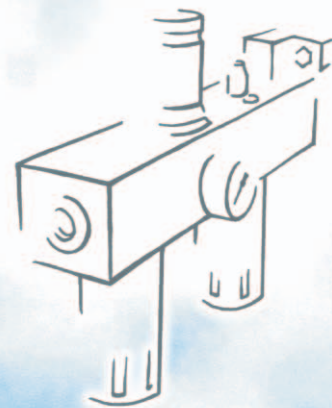


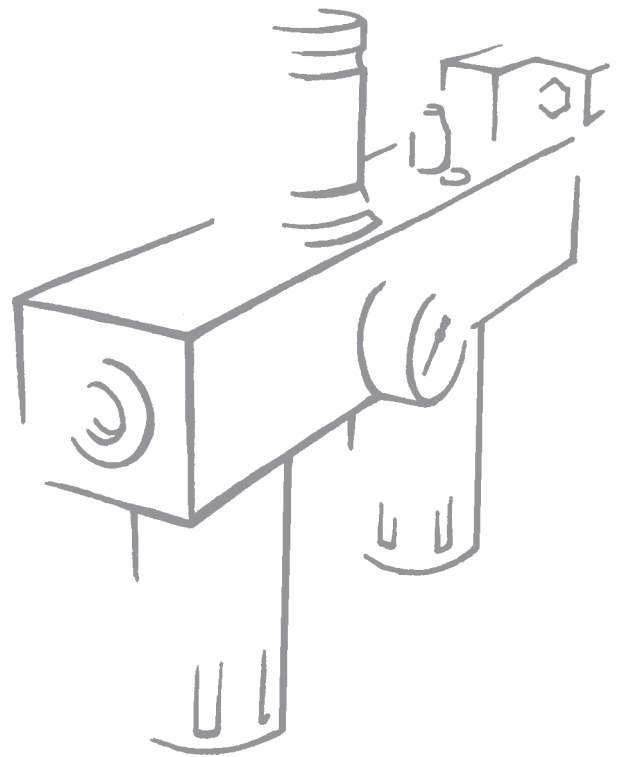
# **METAL<sup>®</sup> WORK**

P N E U M A T I C



## **FRL GENERAL CATALOG**

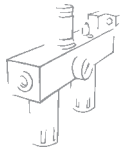




3

**Skillair<sup>®</sup>**  
**bit**  
**Newdeal**

**UNITS**



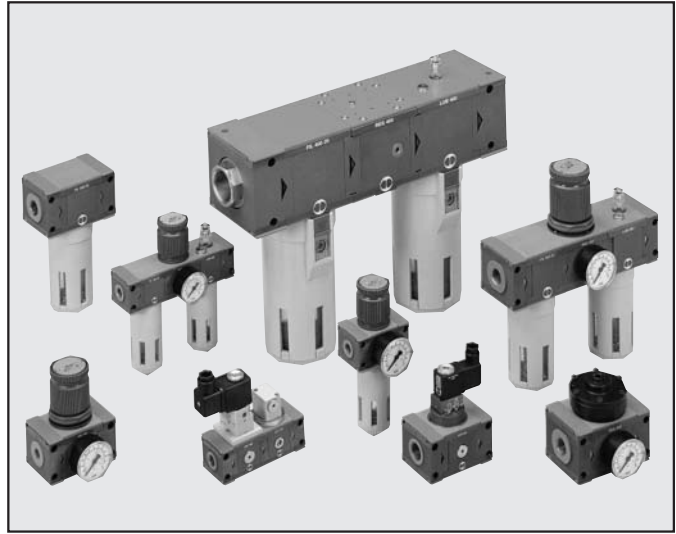
|                          |           |
|--------------------------|-----------|
| MAIN FEATURES            | PAGE 3/2  |
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| PRESSURE REGULATOR       | PAGE 3/11 |
| BATTERY REGULATOR        | PAGE 3/16 |
| PILOT REGULATOR          | PAGE 3/17 |
| PILOT OPERATED REGULATOR | PAGE 3/19 |
| SKILLTRONIC              | PAGE 3/20 |
| FILTER-REGULATOR         | PAGE 3/22 |
| LUBRICATOR               | PAGE 3/25 |
| DEPURATOR                | PAGE 3/32 |
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| VALVE 2/2                | PAGE 3/42 |
| SAFETY CONTROL VALVE     | PAGE 3/44 |
| AIR TAKE-OFF             | PAGE 3/48 |
| MANIFOLD SUBBASE         | PAGE 3/50 |
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The superior technology of Skillair® FRL units is the expression of Metal Work innovation. The FRL system is the brainchild of a joint study by Metal Work engineers and researchers from the Department of Mechanics in Turin. The integration of metal alloys and super-resistant techno-polymers is the result of co-operation between CESAP (European Center for the Development of Plastic Applications) and leading international companies such as Du Pont, EMS Chemie and Hoechst. The installation of advanced processing and quality control systems guarantees the reliability of Skillair® FRLs.

## Technical features

The Skillair units incorporate very interesting technological features:

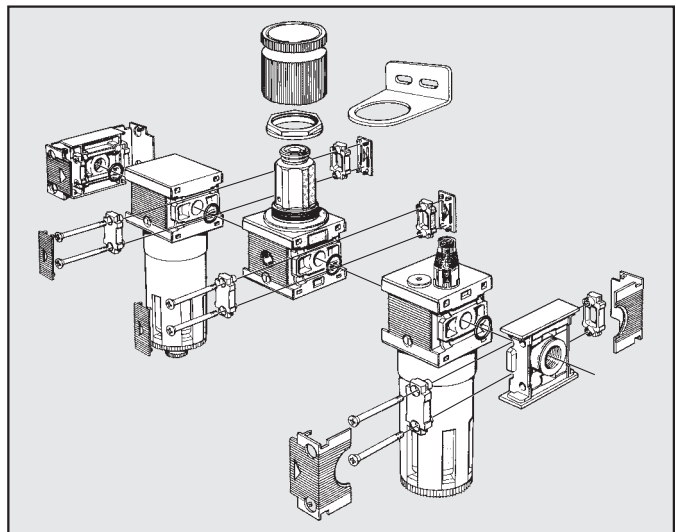
- **Compactness** – with the same flow capacity our unit is one of the smallest on the market.
- **Modularity** – various elements such as filters, reducers, lubricators, 3-way valves, progressive actuators and air take-offs can be combined at will. With the modular system the FRL units can be removed without disturbing the pipes.
- **Easy maintenance** – Any of the elements or the entire unit can be removed without disturbing the remaining part or pipes.

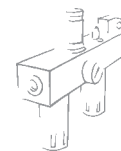


| TECHNICAL DATA                              |        | SK 100                                                                                                                                                                                          | SK 100 | SK 200 | SK 200 | SK 200 | SK 300 | SK 300 | SK 300 | SK 400 | SK 400  | SK 400  | SK 400 |
|---------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| Threaded port                               | NPT    | 1/4"                                                                                                                                                                                            | 3/8"   | 1/4"   | 3/8"   | 1/2"   | 1/2"   | 3/4"   | 1"     | 1"     | 1" 1/4" | 1" 1/2" | 2"     |
| Degree of filtration                        | micron | 5, 20, 50                                                                                                                                                                                       |        |        |        |        |        |        |        |        |         |         |        |
| Degree of purification                      |        | 99.97% at 0.4 micron                                                                                                                                                                            |        |        |        |        |        |        |        |        |         |         |        |
| Setting range                               | psi    | 0÷30 0÷60 0÷120 0÷180                                                                                                                                                                           |        |        |        |        |        |        |        |        |         |         |        |
| Max. input pressure                         | MPa    | 1.5                                                                                                                                                                                             | 1.3    |        |        | 1.3    |        |        | 1.3    |        |         |         |        |
|                                             | bar    | 15                                                                                                                                                                                              | 13     |        |        | 13     |        |        | 13     |        |         |         |        |
|                                             | psi    | 217                                                                                                                                                                                             | 188    |        |        | 188    |        |        | 188    |        |         |         |        |
| Flow rate at 6 bar (0.6 MPa-87 psi)         | scfm   | From 39 to                                                                                                                                                                                      |        |        |        |        |        |        |        |        |         |         |        |
| ΔP 0.5 bar (0.05 MPa – 7 psi)               |        | 700                                                                                                                                                                                             |        |        |        |        |        |        |        |        |         |         |        |
| Fluid                                       |        | Lubricated or unlubricated compressed air                                                                                                                                                       |        |        |        |        |        |        |        |        |         |         |        |
| Temperature range at 1 MPa; 10 bar; 145 psi | °C     | –10 to +50                                                                                                                                                                                      |        |        |        |        |        |        |        |        |         |         |        |
|                                             | °F     | 14 to 122                                                                                                                                                                                       |        |        |        |        |        |        |        |        |         |         |        |
| Elements comprising the range               |        | Filter, Coalescer, Regulator, Pilot operated regulator, In-series Regulator, Filter-regulator, Lubricator with various lubricant filling systems, Circuit Shut-off Valve, Progressive Actuator. |        |        |        |        |        |        |        |        |         |         |        |
|                                             |        |                                                                                                                                                                                                 |        |        |        |        |        |        |        |        |         |         |        |
|                                             |        |                                                                                                                                                                                                 |        |        |        |        |        |        |        |        |         |         |        |
|                                             |        |                                                                                                                                                                                                 |        |        |        |        |        |        |        |        |         |         |        |

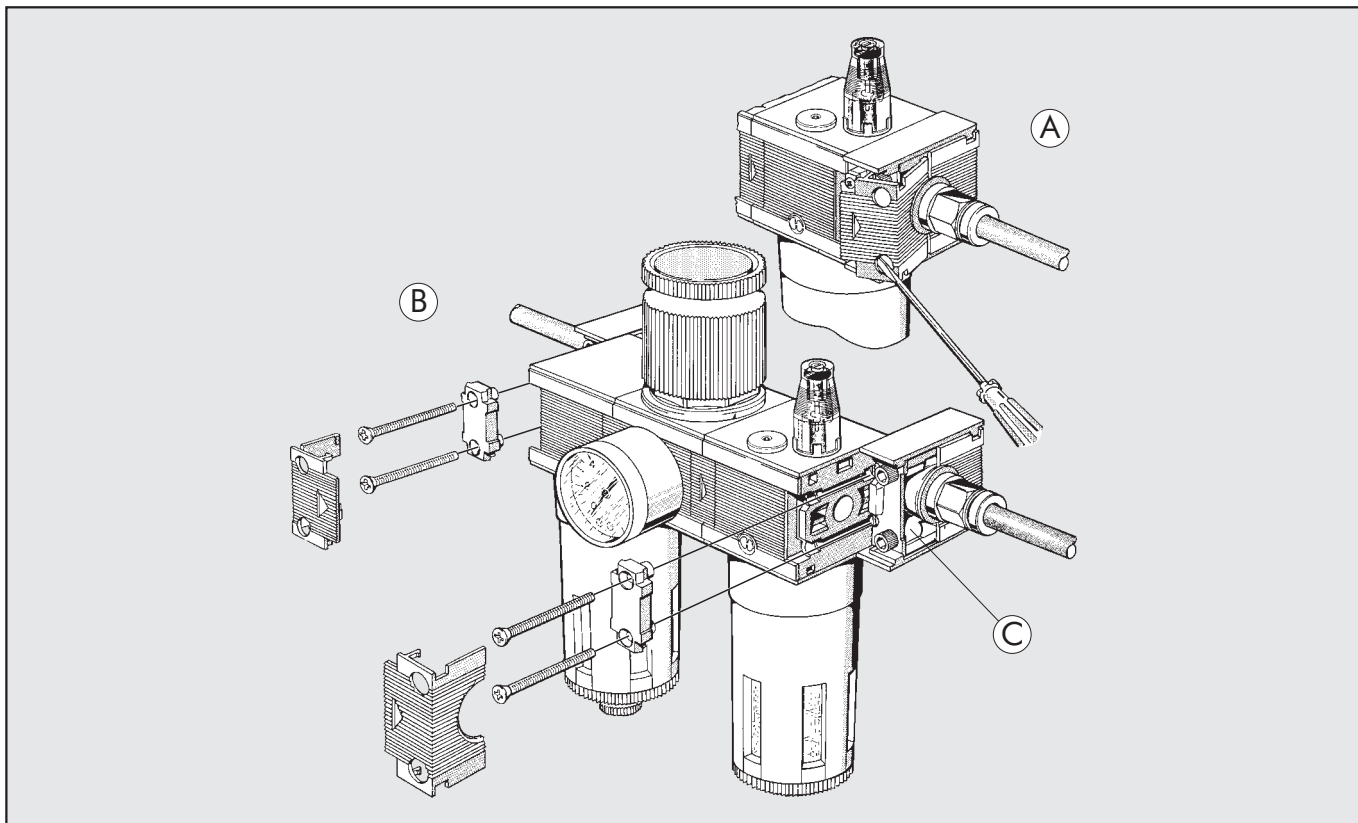
## SKILLAIR MODULARITY

The FRL units can be removed from the system without disturbing the pipes. This can be done with a single element or with the entire system. Assemble the unit so that the air flows in the direction marked by the arrows.





## DISASSEMBLING THE UNIT – WALL FIXING



3

How to disassemble Skillair end plates:

- Remove the plate (A).
- Unscrew the screws and remove the cams (B) to disassemble the unit.
- Screws to fix the end plates to the wall (C):

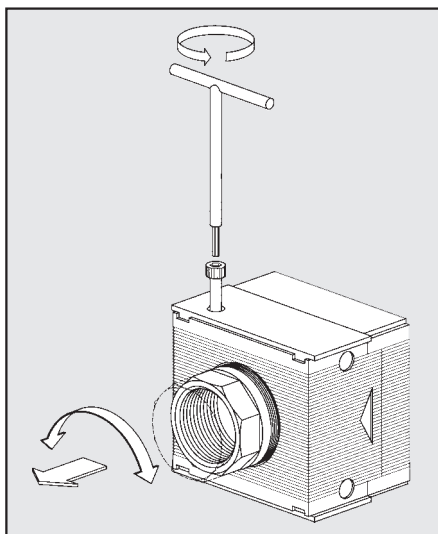
Series 100: N. 8-32 unc x 2

Series 200: N. 10-24 unc x 2.36

Series 300: N. 10-24 unc x 2.75

Series 400: N. 1/4-20 unc x 4.33

## SKILLAIR 400 – ROTARY SLIDING JOINT

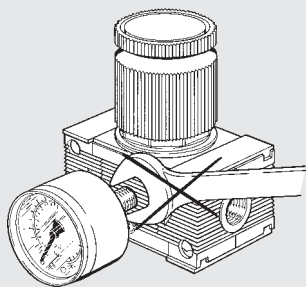


The series 400 comes with a patented system with a rotary sliding end joint to allow the unit to be adapted to the pipe cutting distance.

For correct assembly and disassembly, loosen the screw in the end plate before screwing in or unscrewing the bushing.

GENERAL RULES FOR USE AND MAINTENANCE

1

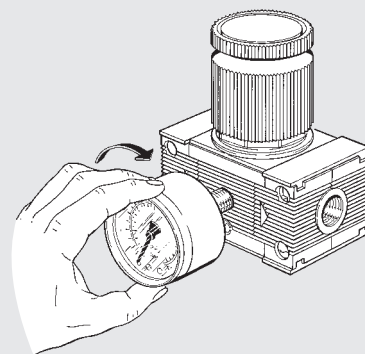


MOUNTING THE PRESSURE GAUGE

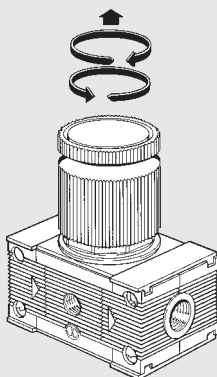
1 Do not use wrench.

2 The gauge must be mounted by hand. Use liquid sealants only. Do not use Teflon.

2



3

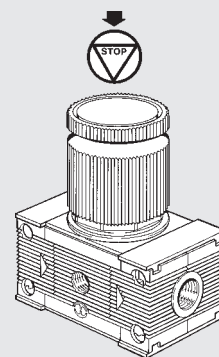


SETTING THE PRESSURE

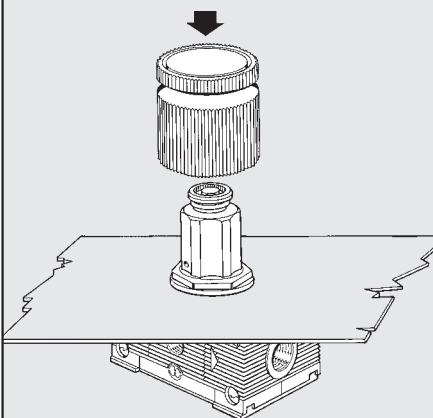
3 NB – The pressure in standard regulators must always be set upwards. Before setting the pressure, check that the knob is raised.

4 When the required pressure has been reached, press the knob downwards.

4



5

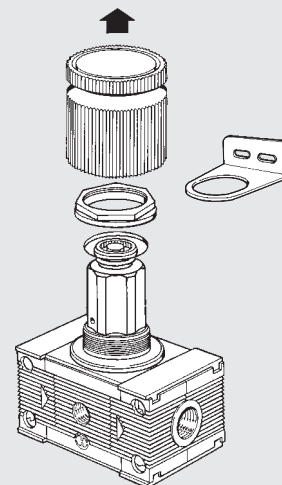


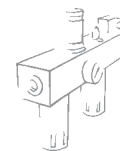
MOUNTING THE REGULATOR AND FILTER-REGULATOR

5 Panel mounting: remove the knob and lock the regulator with the ring nut.

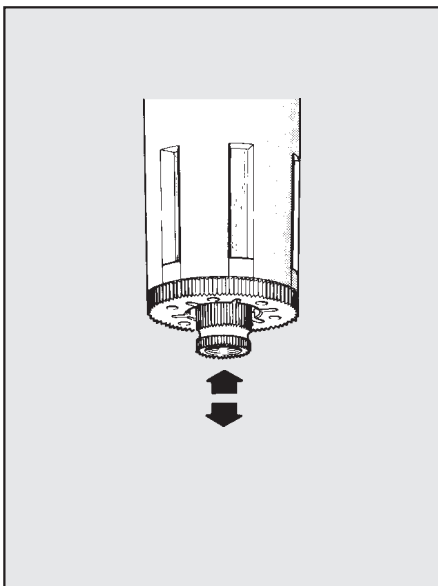
6 Wall mounting: use a suitable bracket (see Skillair accessories).

6

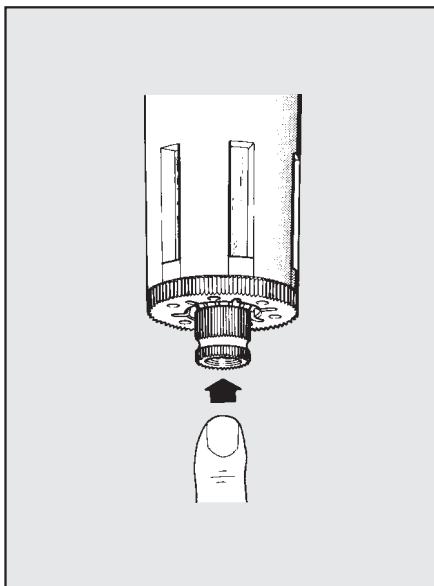




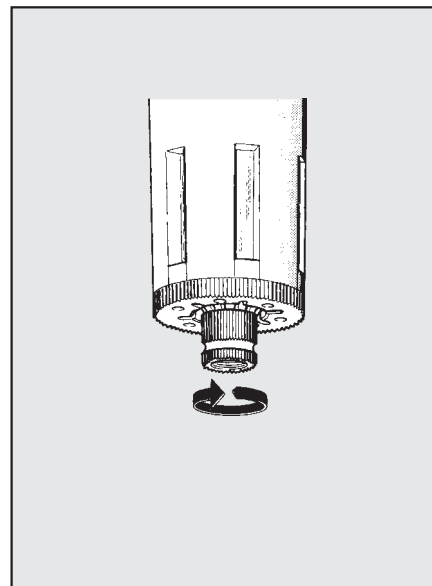
## SEMI-AUTO CONDENSATE DRAIN FOR FILTER, FILTER-REGULATOR AND DEPURATOR



The semi-auto condensate drain is the normally open type. When there is pressure in the bowl, the drain closes. When there is no pressure in the bowl, it opens and the condensate drains out.



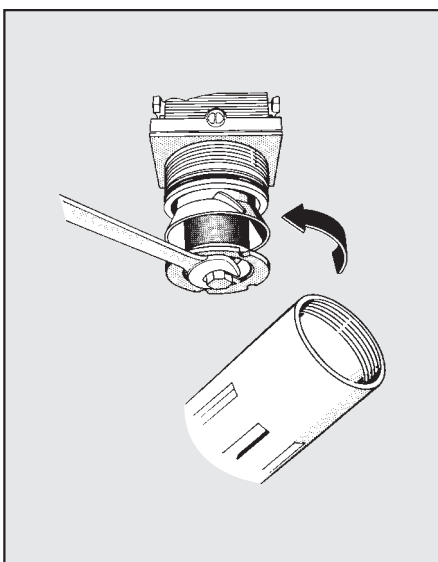
If necessary, it is possible to drain the condensate while the bowl is pressurised. The simple manual operation of "pushing up the valve" will allow the condensate to drain.



When rotating the button clockwise, the valve becomes in locked position, and can only work when the button is returned to the central position.

3

## CLEANING AND/OR REPLACING THE FILTER ELEMENTS



Before unscrewing the bowl to replace the filter elements, check that the line is not pressurized. Replace as shown in the diagram.

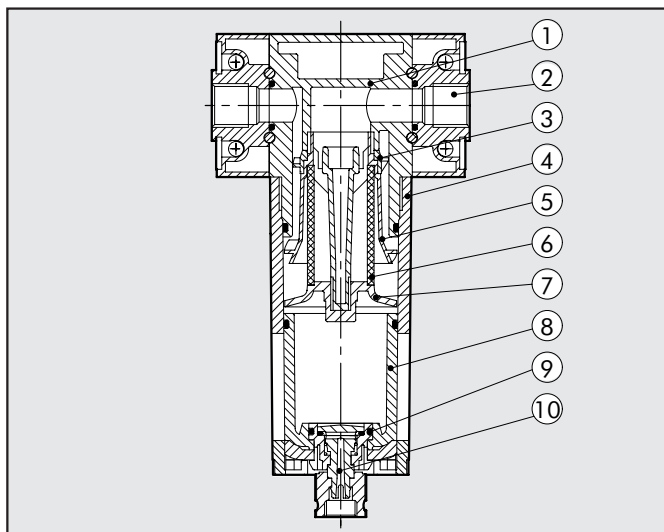
The Job of the filter is to remove any solid or liquid impurities from the air generated by the compressor. Incoming air is rotated by the centrifuge unit. The heaviest liquid and solid particles are propelled against the walls of the container and forced to adhere to it. As they accumulate they form drops that deposit on the bottom by gravity. The remaining solid particles are held back by the porous element depending on the filtering threshold. The condensate accumulation area is kept still to prevent previously deposited impurities from being re-circulated. The accumulated condensate is drained out through the drain – automatically when there is no pressure in the filter, or by hand pressing the button. An automatic drain is available. It automatically eliminates condensate from the container whenever necessary, whatever the pressure.



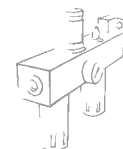
| TECHNICAL DATA                            |                | FIL 100                 | FIL 100 | FIL 200             | FIL 200 | FIL 200 | FIL 300             | FIL 300 | FIL 300 |
|-------------------------------------------|----------------|-------------------------|---------|---------------------|---------|---------|---------------------|---------|---------|
| Threaded port                             | NPT            | 1/4"                    | 3/8"    | 1/4"                | 3/8"    | 1/2"    | 1/2"                | 3/4"    | 1"      |
| Degree of filtration                      | micron         | 4 20 50                 |         |                     |         |         |                     |         |         |
| Max. input pressure                       | MPa            | 1.5                     |         | 1.3                 |         |         | 1.3                 |         |         |
|                                           | bar            | 15                      |         | 13                  |         |         | 13                  |         |         |
|                                           | psi            | 217                     |         | 188                 |         |         | 188                 |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min         | 1400                    |         | 2400                |         |         | 3800                |         |         |
| ΔP 0.5 bar (0.05 MPa – 7 psi)             | scfm           | 50                      |         | 85                  |         |         | 135                 |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min         | 2000                    |         | 3100                |         |         | 5300                |         |         |
| ΔP 1 bar (0.1 MPa – 14 psi)               | scfm           | 71                      |         | 110                 |         |         | 188                 |         |         |
| Fluid                                     |                | Compressed air          |         |                     |         |         |                     |         |         |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C             | 50                      |         |                     |         |         |                     |         |         |
|                                           | °F             | 122                     |         |                     |         |         |                     |         |         |
| Weight                                    | pounds         | 0.9                     |         | 1.5                 |         |         | 3                   |         |         |
| Wall fixing screws                        |                | N. 8-32 unc x 2         |         | N. 10-24 unc x 2.36 |         |         | N. 10-24 unc x 2.75 |         |         |
| Mounting position                         |                | Vertical                |         |                     |         |         |                     |         |         |
| Drain                                     |                | Manual                  |         |                     |         |         |                     |         |         |
|                                           |                | Manual/semi-auto (RMSA) |         |                     |         |         |                     |         |         |
|                                           |                | Automatic (SAC)         |         |                     |         |         |                     |         |         |
| Bowl capacity                             | fluid ounce oz | 0.74                    |         | 1.52                |         |         | 2.54                |         |         |

## COMPONENTS

- ① Technopolymer body
- ② Zamak end plate
- ③ Technopolymer centrifuge
- ④ Bowl: technopolymer for FIL 100 and FIL 200, metal for FIL 300
- ⑤ Technopolymer baffle
- ⑥ Sintered bronze filter cartridge
- ⑦ Technopolymer screen
- ⑧ Clear technopolymer glass
- ⑨ NBR gaskets
- ⑩ Drain (RMSA)

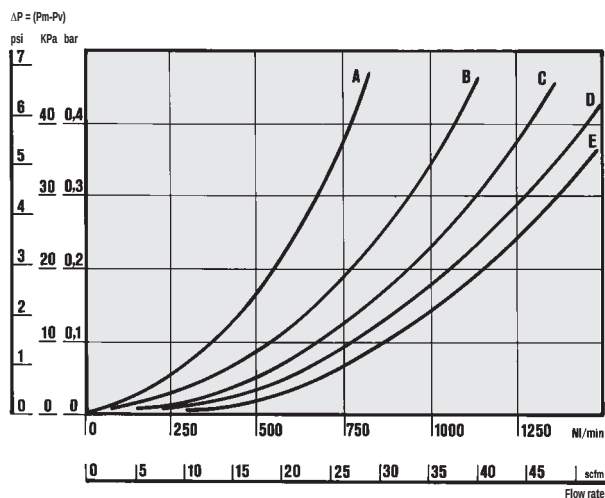




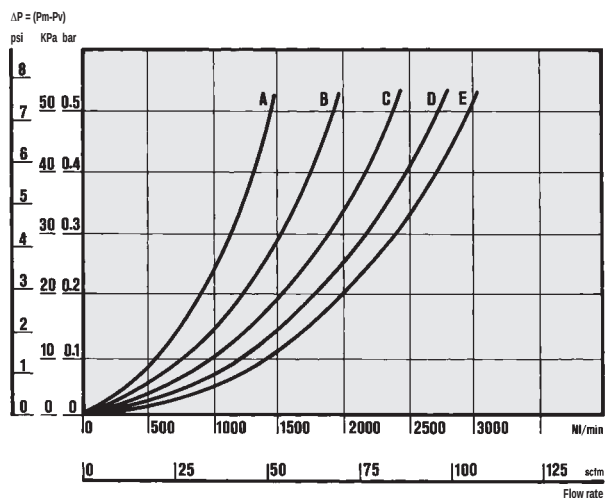


## FLOW CHARTS

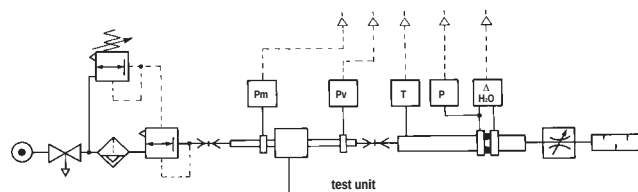
### FIL 100 1/4 - 3/8



### FIL 200 1/4 - 3/8 - 1/2



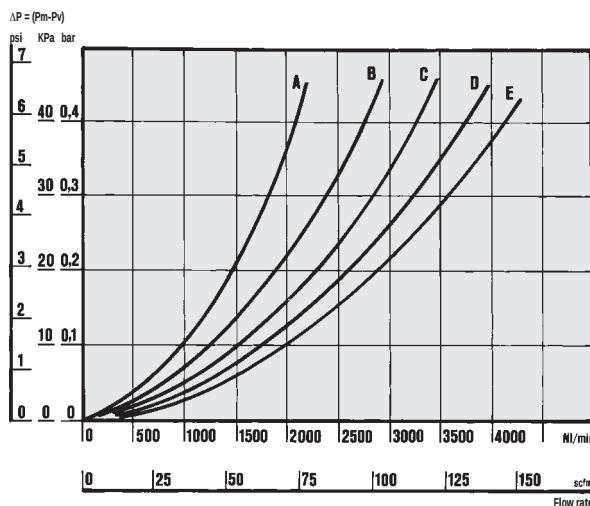
Department  
of Mechanics  
Turin Polytechnic



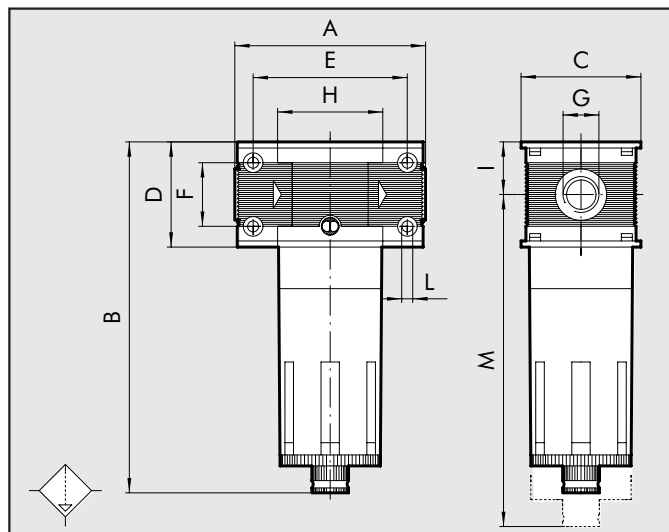
• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

- (A) = 2 bar - 0,2 MPa - 29 psi
- (B) = 4 bar - 0,4 MPa - 58 psi
- (C) = 6 bar - 0,6 MPa - 87 psi
- (D) = 8 bar - 0,8 MPa - 116 psi
- (E) = 10 bar - 1 MPa - 145 psi

### FIL 300 1/2 - 3/4 - 1



## DIMENSIONS



|   | FIL 100 | FIL 100 | FIL 200 | FIL 200 | FIL 200 | FIL 300 | FIL 300 | FIL 300 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
|   | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| A | 3.07    |         | 3.68    |         |         | 4.33    |         | 4.40    |
| B | 5.66    |         | 6.88    |         |         | 7.67    |         |         |
| C | 1.96    |         | 2.48    |         |         | 2.83    |         |         |
| D | 1.69    |         | 2.16    |         |         | 2.55    |         |         |
| E | 2.48    |         | 3.09    |         |         | 3.62    |         |         |
| F | 1.02    |         | 9.49    |         |         | 1.65    |         |         |
| G | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| H | 1.69    |         | 2.18    |         |         | 2.55    |         |         |
| I | 0.84    |         | 1.08    |         |         | 1.27    |         |         |
| L | 0.17    |         | 0.21    |         |         | 0.21    |         |         |
| M | 5.39    |         | 7.71    |         |         | 8.46    |         |         |
|   |         |         |         |         |         |         |         |         |
|   |         |         |         |         |         |         |         |         |
|   |         |         |         |         |         |         |         |         |
|   |         |         |         |         |         |         |         |         |
|   |         |         |         |         |         |         |         |         |

# Skillair® 400 FILTER

Filter with different degrees of impurity treatment and high performance:

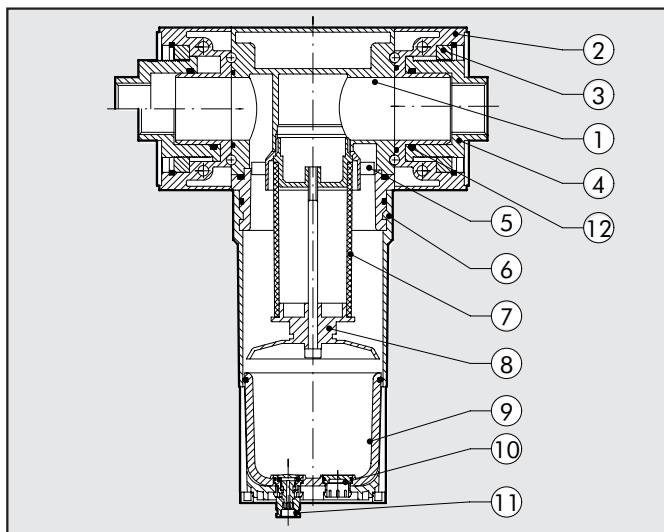
- minimum pressure drop with changes in flow rate
- maximum degree of condensate separation
- 360° condensate level display
- semi-auto or auto condensate drain

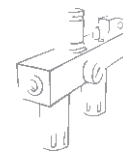


| TECHNICAL DATA                            |                | FIL 400                                                                                                                                                        |         |         |       |
|-------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-------|
|                                           |                | G1"                                                                                                                                                            | G1"1/4" | G1"1/2" | G2"   |
| Degree of filtration                      |                | 5µm 20µm 50µm                                                                                                                                                  |         |         |       |
| Max. input pressure                       | MPa            | 1.3                                                                                                                                                            |         |         |       |
|                                           | bar            | 13                                                                                                                                                             |         |         |       |
|                                           | psi            | 188                                                                                                                                                            |         |         |       |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min         | 16500                                                                                                                                                          |         |         | 20000 |
| ΔP 0.5 bar (0.05 MPa – 7 psi)             | scfm           | 590                                                                                                                                                            |         |         | 710   |
| Fluid                                     |                | Compressed air                                                                                                                                                 |         |         |       |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C             | 50                                                                                                                                                             |         |         |       |
|                                           | °F             | 122                                                                                                                                                            |         |         |       |
| Weight                                    | Kg             | 5.2                                                                                                                                                            |         |         |       |
| Wall fixing screws                        |                | 1/4-20 UNC x 4.33                                                                                                                                              |         |         |       |
| Mounting position                         |                | Vertical                                                                                                                                                       |         |         |       |
| Drain                                     |                | Manual/semi-auto (RMSA)<br>Automatic (RA)                                                                                                                      |         |         |       |
| Bowl capacity                             | fluid ounce oz | 9.13                                                                                                                                                           |         |         |       |
| Notes on use                              |                | Series 400 end plates come with a patented system with a rotary sliding end joint to allow the unit to be adapted to the pipe cutting distance (see page 3/3). |         |         |       |

## COMPONENTS

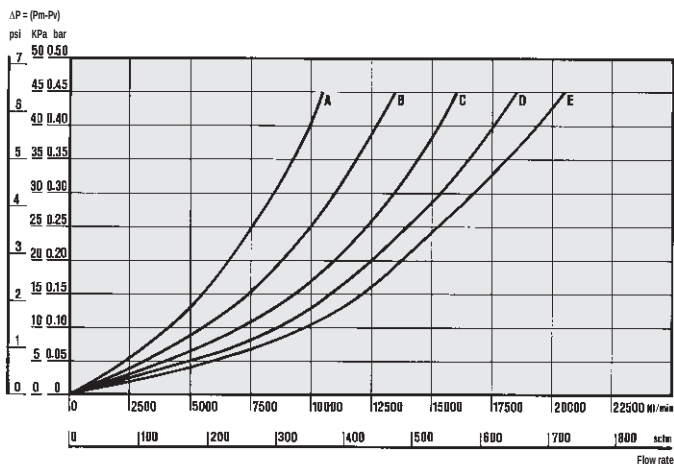
- ① Aluminium body
- ② Aluminium end plate
- ③ OT58 brass retaining ring
- ④ OT58 threaded bush, axial adjustment
- ⑤ Technopolymer centrifuge
- ⑥ Aluminium bowl
- ⑦ Sintered bronze filter cartridge
- ⑧ Aluminium screen
- ⑨ Clear technopolymer glass
- ⑩ Technopolymer plug
- ⑪ Drain (RMSA)
- ⑫ NBR gaskets



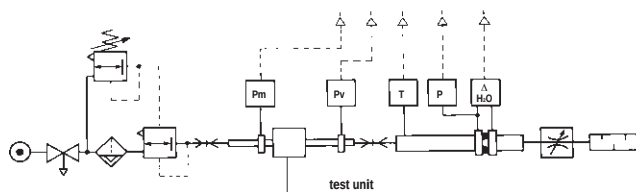


## FLOW CHARTS

### FIL 400 1"



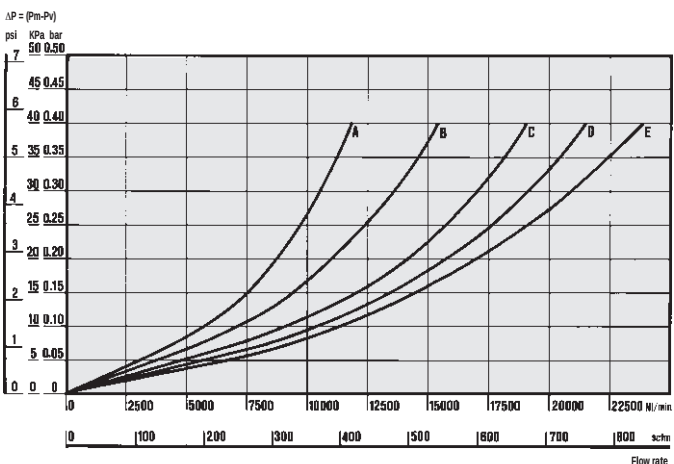
Department  
of Mechanics  
Turin Polytechnic



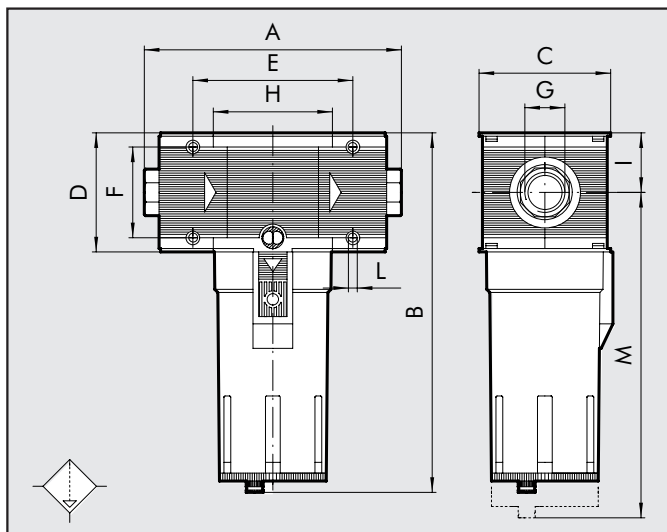
• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

- (A) = 2 bar - 0,2 MPa - 29 psi  
(B) = 4 bar - 0,4 MPa - 58 psi  
(C) = 6 bar - 0,6 MPa - 87 psi  
(D) = 8 bar - 0,8 MPa - 116 psi  
(E) = 10 bar - 1 MPa - 145 psi

### FIL 400 2"



## DIMENSIONS



|               | FIL 400    | FIL 400   | FIL 400   | FIL 400     |
|---------------|------------|-----------|-----------|-------------|
| Threaded port | NPT 1"     | NPT 1"1/4 | NPT 1"1/2 | NPT 2"      |
| A             | 8.85÷10.03 |           |           | 11.14÷12.32 |
| B             | 12.59      |           |           |             |
| C             | 4.56       |           |           |             |
| D             | 4.13       |           |           |             |
| E             | 5.56       |           |           |             |
| F             | 3.14       |           |           |             |
| G             | NPT 1"     | NPT 1"1/4 | NPT 1"1/2 | NPT 2"      |
| H             | 4.14       |           |           |             |
| I             | 2.06       |           |           |             |
| L             | 0.29       |           |           |             |
| M             | 14.88      |           |           |             |
|               |            |           |           |             |
|               |            |           |           |             |
|               |            |           |           |             |
|               |            |           |           |             |
|               |            |           |           |             |

## KEY TO CODES

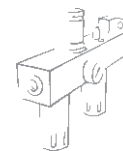
| FIL<br>FILTER<br>ELEMENT | 100<br>SIZE | 1/4<br>THREADED<br>PORT  | 20µm<br>DEGREE OF<br>FILTRATION | RMSA<br>TYPE OF DRAIN |
|--------------------------|-------------|--------------------------|---------------------------------|-----------------------|
| FIL.                     | 100         | 1/4<br>3/8               | 5 µm<br>20 µm<br>50 µm          | RMSA<br>SAC           |
|                          | 200         | 1/4<br>3/8<br>1/2        |                                 |                       |
|                          | 300         | 1/2<br>3/4<br>1          |                                 | RMSA<br>RA            |
|                          | 400         | 1<br>1 1/4<br>1 1/2<br>2 |                                 |                       |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain for sizes 100 and 200. Operates by depressurization – requires variable air take-offs.  
**RA:** Drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate.

## ORDERING CODES

| Code                       | Description                        | Code                       | Description                        | Code                       | Description                        |
|----------------------------|------------------------------------|----------------------------|------------------------------------|----------------------------|------------------------------------|
| <b>SKILLAIR 100 FILTER</b> |                                    | <b>SKILLAIR 300 FILTER</b> |                                    | <b>SKILLAIR 400 FILTER</b> |                                    |
| 3280001UA                  | FIL 100 5 RMSA WITHOUT END PLATES  | 4480001UA                  | FIL 300 5 RMSA WITHOUT END PLATES  | 6180001UA                  | FIL 400 5 RMSA WITHOUT END PLATES  |
| 3280007UA                  | FIL 100 5 SAC WITHOUT END PLATES   | 4480002UA                  | FIL 300 20 RMSA WITHOUT END PLATES | 6180002UA                  | FIL 400 20 RMSA WITHOUT END PLATES |
| 3280002UA                  | FIL 100 20 RMSA WITHOUT END PLATES | 4480003UA                  | FIL 300 50 RMSA WITHOUT END PLATES | 6180003UA                  | FIL 400 50 RMSA WITHOUT END PLATES |
| 3280008UA                  | FIL 100 20 SAC WITHOUT END PLATES  | 4480004UA                  | FIL 300 5 RA WITHOUT END PLATES    | 6180004UA                  | FIL 400 5 RA WITHOUT END PLATES    |
| 3280003UA                  | FIL 100 50 RMSA WITHOUT END PLATES | 4480005UA                  | FIL 300 20 RA WITHOUT END PLATES   | 6180005UA                  | FIL 400 20 RA WITHOUT END PLATES   |
| 3280009UA                  | FIL 100 50 SAC WITHOUT END PLATES  | 4480006UA                  | FIL 300 50 RA WITHOUT END PLATES   | 6180006UA                  | FIL 400 50 RA WITHOUT END PLATES   |
| 3280001U                   | FIL 100 1/4 5 RMSA                 | 4480001U                   | FIL 300 1/2 5 RMSA                 | 6180001U                   | FIL 400 1 5 RMSA                   |
| 3280007U                   | FIL 100 1/4 5 SAC                  | 4480002U                   | FIL 300 1/2 20 RMSA                | 6180002U                   | FIL 400 1 20 RMSA                  |
| 3280002U                   | FIL 100 1/4 20 RMSA                | 4480003U                   | FIL 300 1/2 50 RMSA                | 6180003U                   | FIL 400 1 50 RMSA                  |
| 3280008U                   | FIL 100 1/4 20 SAC                 | 4480004U                   | FIL 300 1/2 5 RA                   | 6180004U                   | FIL 400 1 5 RA                     |
| 3280003U                   | FIL 100 1/4 50 RMSA                | 4480005U                   | FIL 300 1/2 20 RA                  | 6180005U                   | FIL 400 1 20 RA                    |
| 3280009U                   | FIL 100 1/4 50 SAC                 | 4480006U                   | FIL 300 1/2 50 RA                  | 6180006U                   | FIL 400 1 50 RA                    |
| 3380001U                   | FIL 100 3/8 5 RMSA                 | 4580001U                   | FIL 300 3/4 5 RMSA                 | 6280001U                   | FIL 400 1 1/4 5 RMSA               |
| 3380007U                   | FIL 100 3/8 5 SAC                  | 4580002U                   | FIL 300 3/4 20 RMSA                | 6280002U                   | FIL 400 1 1/4 20 RMSA              |
| 3380002U                   | FIL 100 3/8 20 RMSA                | 4580003U                   | FIL 300 3/4 50 RMSA                | 6280003U                   | FIL 400 1 1/4 50 RMSA              |
| 3380008U                   | FIL 100 3/8 20 SAC                 | 4580004U                   | FIL 300 3/4 5 RA                   | 6280004U                   | FIL 400 1 1/4 5 RA                 |
| 3380003U                   | FIL 100 3/8 50 RMSA                | 4580005U                   | FIL 300 3/4 20 RA                  | 6280005U                   | FIL 400 1 1/4 20 RA                |
| 3380009U                   | FIL 100 3/8 50 SAC                 | 4580006U                   | FIL 300 3/4 50 RA                  | 6280006U                   | FIL 400 1 1/4 50 RA                |
| <b>SKILLAIR 200 FILTER</b> |                                    | 4680001U                   | FIL 300 1 5 RMSA                   | 6380001U                   | FIL 400 1 1/2 5 RMSA               |
| 3480001UA                  | FIL 200 5 RMSA WITHOUT END PLATES  | 4680002U                   | FIL 300 1 20 RMSA                  | 6380002U                   | FIL 400 1 1/2 20 RMSA              |
| 3480007UA                  | FIL 200 5 SAC WITHOUT END PLATES   | 4680003U                   | FIL 300 1 50 RMSA                  | 6380003U                   | FIL 400 1 1/2 50 RMSA              |
| 3480002UA                  | FIL 200 20 RMSA WITHOUT END PLATES |                            |                                    | 6380004U                   | FIL 400 1 1/2 5 RA                 |
| 3480008UA                  | FIL 200 20 SAC WITHOUT END PLATES  |                            |                                    | 6380005U                   | FIL 400 1 1/2 20 RA                |
| 3480003UA                  | FIL 200 50 RMSA WITHOUT END PLATES |                            |                                    | 6380006U                   | FIL 400 1 1/2 50 RA                |
| 3480009UA                  | FIL 200 50 SAC WITHOUT END PLATES  |                            |                                    | 6480001U                   | FIL 400 2 5 RMSA                   |
| 3480001U                   | FIL 200 1/4 5 RMSA                 |                            |                                    | 6480002U                   | FIL 400 2 20 RMSA                  |
| 3480007U                   | FIL 200 1/4 5 SAC                  |                            |                                    | 6480003U                   | FIL 400 2 50 RMSA                  |
| 3480002U                   | FIL 200 1/4 20 RMSA                |                            |                                    | 6480004U                   | FIL 400 2 5 RA                     |
| 3480008U                   | FIL 200 1/4 20 SAC                 |                            |                                    | 6480005U                   | FIL 400 2 20 RA                    |
| 3480003U                   | FIL 200 1/4 50 RMSA                |                            |                                    | 6480006U                   | FIL 400 2 50 RA                    |
| 3480009U                   | FIL 200 1/4 50 SAC                 |                            |                                    |                            |                                    |
| 3580001U                   | FIL 200 3/8 5 RMSA                 |                            |                                    |                            |                                    |
| 3580007U                   | FIL 200 3/8 5 SAC                  |                            |                                    |                            |                                    |
| 3580002U                   | FIL 200 3/8 20 RMSA                |                            |                                    |                            |                                    |
| 3580008U                   | FIL 200 3/8 20 SAC                 |                            |                                    |                            |                                    |
| 3580003U                   | FIL 200 3/8 50 RMSA                |                            |                                    |                            |                                    |
| 3580009U                   | FIL 200 3/8 50 SAC                 |                            |                                    |                            |                                    |
| 3680001U                   | FIL 200 1/2 5 RMSA                 |                            |                                    |                            |                                    |
| 3680007U                   | FIL 200 1/2 5 SAC                  |                            |                                    |                            |                                    |
| 3680002U                   | FIL 200 1/2 20 RMSA                |                            |                                    |                            |                                    |
| 3680008U                   | FIL 200 1/2 20 SAC                 |                            |                                    |                            |                                    |
| 3680003U                   | FIL 200 1/2 50 RMSA                |                            |                                    |                            |                                    |
| 3680009U                   | FIL 200 1/2 50 SAC                 |                            |                                    |                            |                                    |

# Skillair® REGULATORS



Each system served by the air supply line (e.g. actuators and general appliances) requires its own constant operating pressure. It is necessary to use a regulator to regulate the pressure within a set range by means of regulating springs, with the pressure never exceeding the line pressure.

The new Skillair regulator uses a rolling diaphragm which gives a much better performance than the flat version.

Advantages of this system:

- Increased stroke, increased valve opening and hence higher flow rate.
- Decreased dynamic and inrush friction; faster, more sensitive operation.
- Reduced working stress and hence longer life allowing the use of thinner diaphragms (0.017 inch versus 0.03÷0.05 inch for a flat one) which increases regulator sensitivity and fast action.
- Increased accuracy in maintaining the set pressure with both variable flow rates and different feed pressures.
- Downstream overpressures relieved quickly.

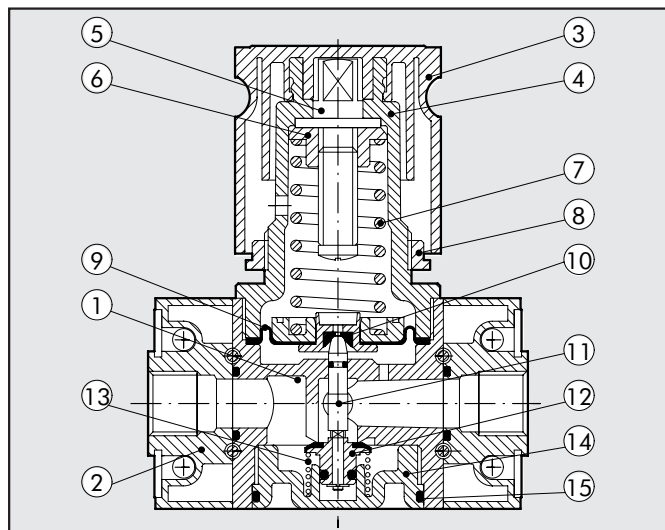


| TECHNICAL DATA                            |        | REG 100                                                                                                                                                                                                             | REG 100 | REG 200             | REG 200 | REG 200             | REG 300 | REG 300 | REG 300 |
|-------------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------|---------|---------------------|---------|---------|---------|
| Threaded port                             | NPT    | 1/4"                                                                                                                                                                                                                | 3/8"    | 1/4"                | 3/8"    | 1/2"                | 1/2"    | 3/4"    | 1"      |
| Setting range                             | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180                                                                                                                                                                                         |         |                     |         |                     |         |         |         |
| Max. input pressure                       | MPa    | 1.5                                                                                                                                                                                                                 |         | 1.3                 |         | 1.3                 |         |         |         |
|                                           | bar    | 15                                                                                                                                                                                                                  |         | 13                  |         | 13                  |         |         |         |
|                                           | psi    | 217                                                                                                                                                                                                                 |         | 188                 |         | 188                 |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min | 1100                                                                                                                                                                                                                |         | 2500                |         | 3500                |         |         |         |
| ΔP 0.5 bar (0.05 MPa – 7 psi)             | scfm   | 39                                                                                                                                                                                                                  |         | 88                  |         | 124                 |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min | 1600                                                                                                                                                                                                                |         | 3500                |         | 7000                |         |         |         |
| ΔP 1 bar (0.1 MPa – 14 psi)               | scfm   | 57                                                                                                                                                                                                                  |         | 124                 |         | 247                 |         |         |         |
| Fluid                                     |        | Filtered lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.                                                                                                                       |         |                     |         |                     |         |         |         |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C     | 50                                                                                                                                                                                                                  |         |                     |         |                     |         |         |         |
|                                           | °F     | 122                                                                                                                                                                                                                 |         |                     |         |                     |         |         |         |
| Weight                                    | pounds | 0.9                                                                                                                                                                                                                 |         | 1.5                 |         | 3                   |         |         |         |
| Wall fixing screws                        |        | N. 8-32 unc x 2                                                                                                                                                                                                     |         | N. 10-24 unc x 2.36 |         | N. 10-24 unc x 2.75 |         |         |         |
| Mounting                                  |        | In any position                                                                                                                                                                                                     |         |                     |         |                     |         |         |         |
| Pressure gauge port                       |        | G 1/8"                                                                                                                                                                                                              |         |                     |         |                     |         |         |         |
| Notes on use                              |        | The regulator pressure must always be set upwards. For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value. Do not take air from pressure gauge ports. |         |                     |         |                     |         |         |         |
|                                           |        |                                                                                                                                                                                                                     |         |                     |         |                     |         |         |         |

3

## COMPONENTS

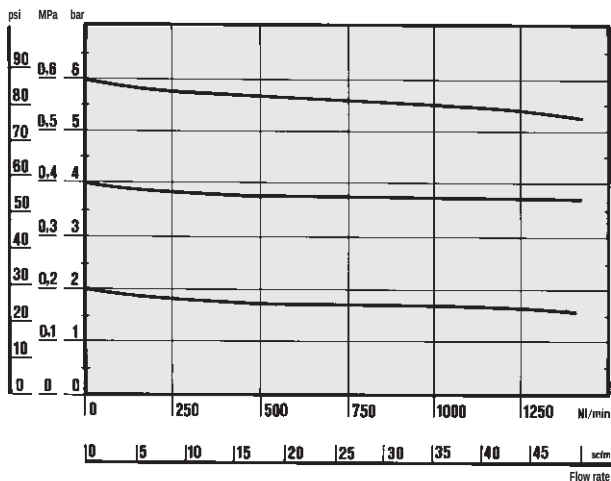
- ① Technopolymer body
- ② Zamak end plate
- ③ Technopolymer knob
- ④ Technopolymer bell
- ⑤ OT58 brass adjusting screw
- ⑥ OT58 brass scroll
- ⑦ Steel adjusting spring
- ⑧ Technopolymer ring nut
- ⑨ Rolling diaphragm
- ⑩ NBR relieving gaskets
- ⑪ OT58 brass stem
- ⑫ Valve with NBR vulcanized gasket
- ⑬ Stainless steel valve spring
- ⑭ Technopolymer plug
- ⑮ NBR gaskets



## FLOW CHARTS

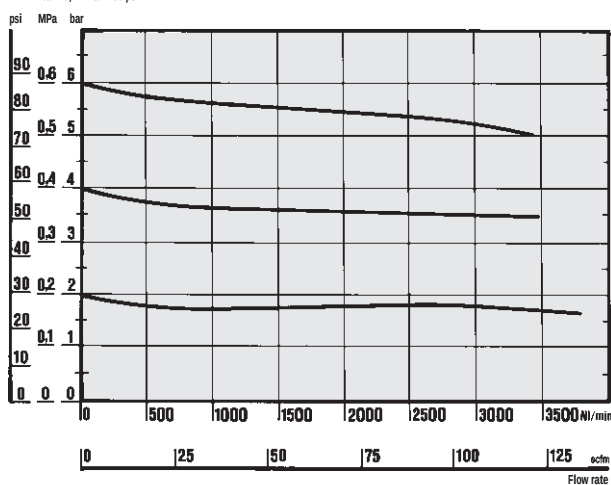
### REG 100 1/4 - 3/8

Preset pressure  
Pm = 7 bar - 0,7 MPa - 100 psi

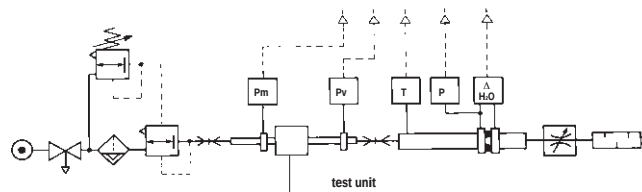


### REG 200 1/4 - 3/8 - 1/2

Preset pressure  
Pm = 7 bar - 0,7 MPa - 100 psi



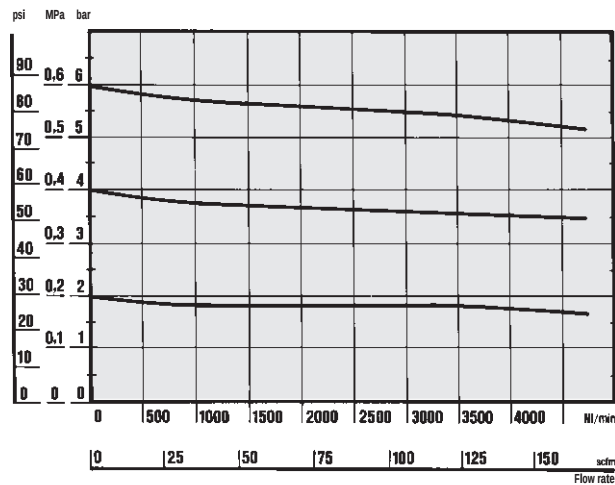
Department  
of Mechanics  
Turin Polytechnic



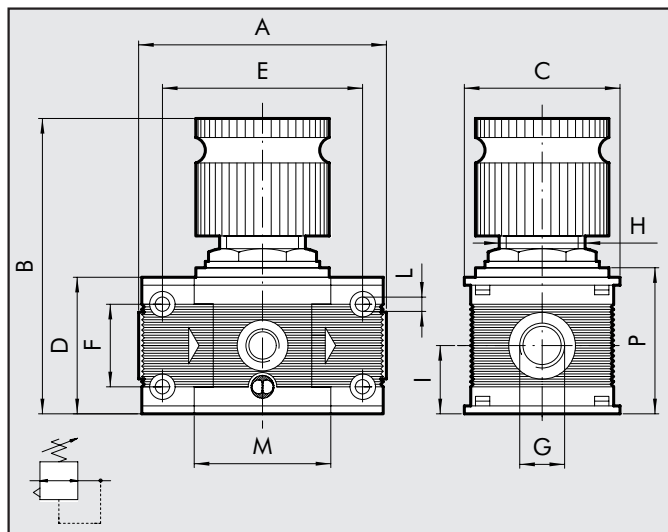
- Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

### REG 300 1/2 - 3/4 - 1

Preset pressure  
Pm = 7 bar - 0,7 MPa - 100 psi

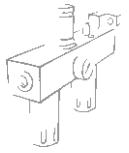


## DIMENSIONS

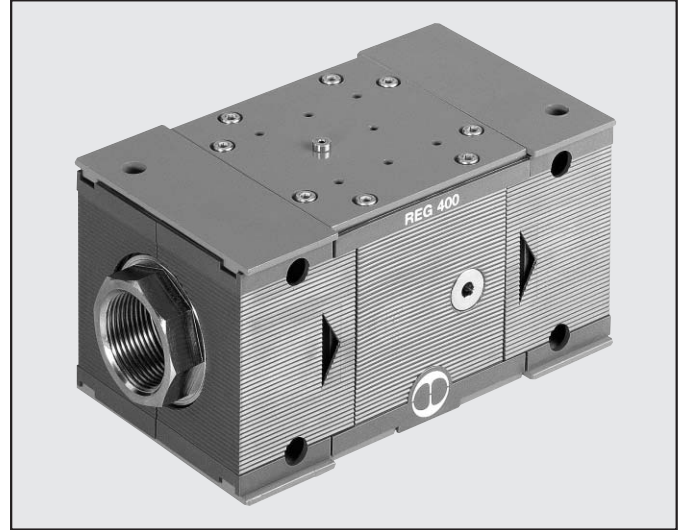


|   | REG 100 | REG 100 | REG 200 | REG 200 | REG 200 | REG 300 | REG 300 | REG 300 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
|   | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| A | 3.07    |         |         | 3.68    |         | 4.33    |         | 4.40    |
| B | 3.85    |         |         | 4.92    |         | 5.82    |         |         |
| C | 1.96    |         |         | 2.48    |         | 2.83    |         |         |
| D | 1.69    |         |         | 2.16    |         | 2.55    |         |         |
| E | 2.48    |         |         | 3.09    |         | 3.62    |         |         |
| F | 1.02    |         |         | 1.41    |         | 1.65    |         |         |
| G | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| H | 30x15   |         |         | 40x15   |         | 48x1.5  |         |         |
| I | 0.84    |         |         | 1.08    |         | 1.27    |         |         |
| L | 0.97    |         |         | 0.21    |         | 0.21    |         |         |
| M | 1.69    |         |         | 2.18    |         | 2.55    |         |         |
| P | 1.81    |         |         | 2.28    |         | 2.71    |         |         |
|   |         |         |         |         |         |         |         |         |
|   |         |         |         |         |         |         |         |         |
|   |         |         |         |         |         |         |         |         |
|   |         |         |         |         |         |         |         |         |

# Skillair® 400 REGULATOR

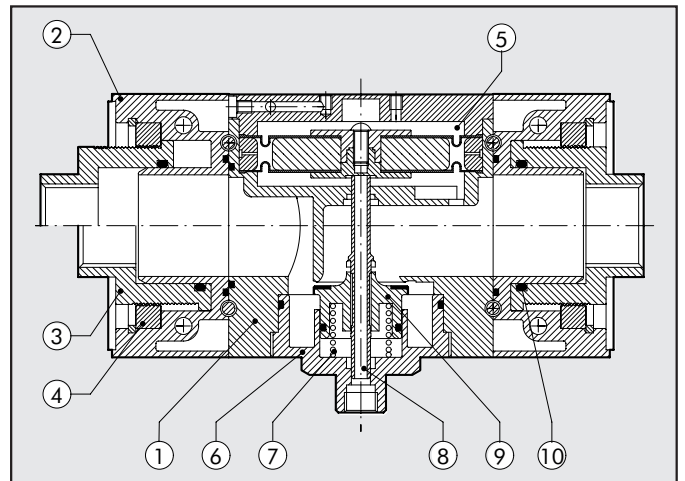


| TECHNICAL DATA                                                                                                                                  |        | REG 400                                                                                        | REG 400 | REG 400 | REG 400 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------------------|---------|---------|---------|
| Threaded port                                                                                                                                   | NPT    | 1"                                                                                             | 1"1/4   | 1"1/2   | 2"      |
| Setting range                                                                                                                                   |        | Depending on the pilot operated regulator                                                      |         |         |         |
| Max. input pressure                                                                                                                             | MPa    | 1.3                                                                                            |         |         |         |
|                                                                                                                                                 | bar    | 13                                                                                             |         |         |         |
|                                                                                                                                                 | psi    | 188                                                                                            |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)                                                                                                             | Nl/min | 18000                                                                                          |         | 20000   |         |
| ΔP 0.5 bar (0.05 MPa – 7 psi)                                                                                                                   | scfm   | 636                                                                                            |         | 707     |         |
| Fluid                                                                                                                                           |        | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous. |         |         |         |
| Max temperature                                                                                                                                 | °C     | 50                                                                                             |         |         |         |
| at 1 MPa; 10 bar; 145 psi                                                                                                                       | °F     | 122                                                                                            |         |         |         |
| Weight                                                                                                                                          | pounds | 10.5                                                                                           |         | 12      |         |
| Wall fixing screws                                                                                                                              |        | 1/4-20 unc 4.33                                                                                |         |         |         |
| Mounting                                                                                                                                        |        | In any position                                                                                |         |         |         |
| Pressure gauge port                                                                                                                             |        | NPT 1/4"                                                                                       |         |         |         |
| Notes on use: The regulator pressure must always be set upwards.                                                                                |        |                                                                                                |         |         |         |
| Series 400 end plates come with a patented system with a rotary sliding end joint to allow the unit to be adapted to the pipe cutting distance. |        |                                                                                                |         |         |         |



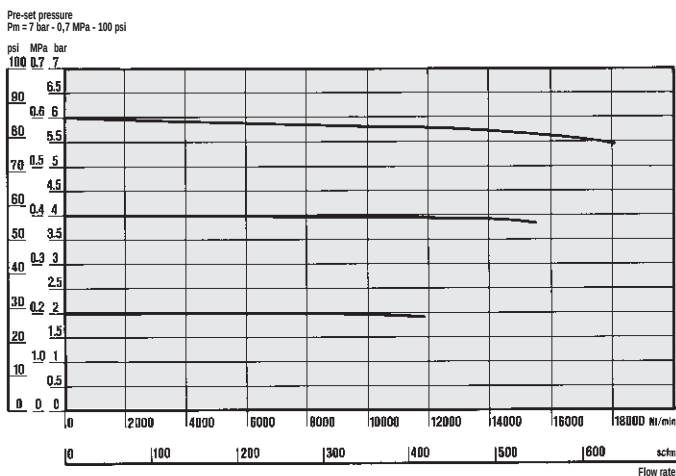
## COMPONENTS

- ① Aluminium body
- ② Aluminium end plate
- ③ OT58 threaded bushing, axial adjustment
- ④ OT58 brass retaining ring
- ⑤ Rolling diaphragm
- ⑥ OT58 brass plug
- ⑦ Stainless steel valve spring
- ⑧ OT58 brass stem with air relief hole
- ⑨ Valve with NBR vulcanized gasket
- ⑩ NBR gaskets.

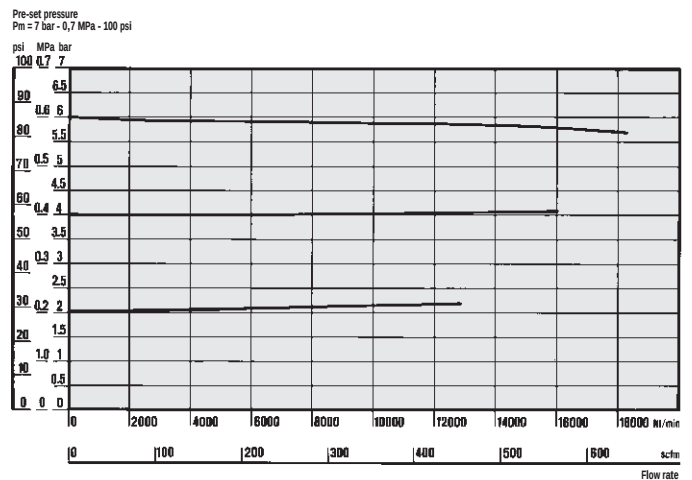


## FLOW CHARTS

### REG 400 1"

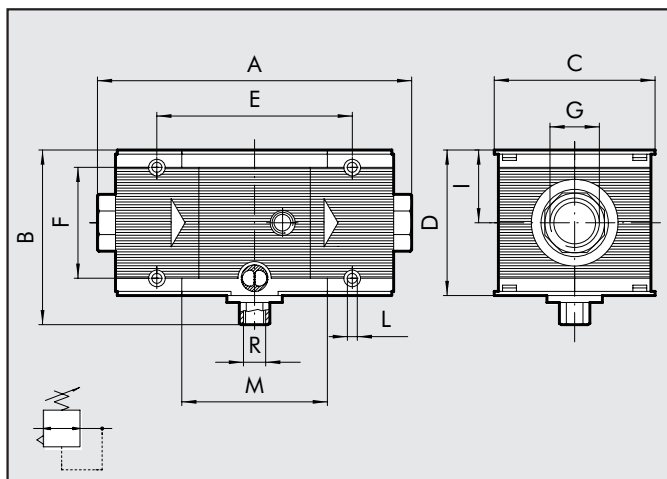


### REG 400 2"



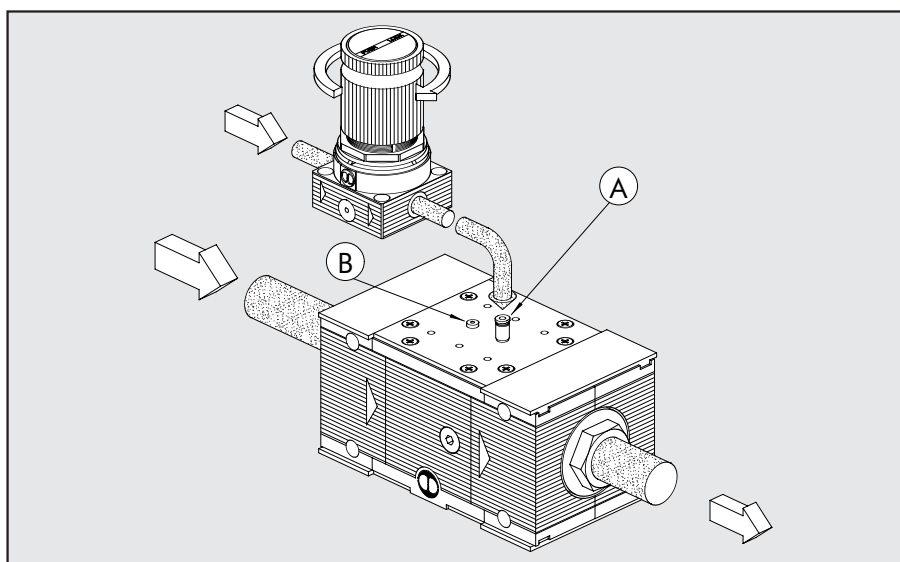


## DIMENSIONS



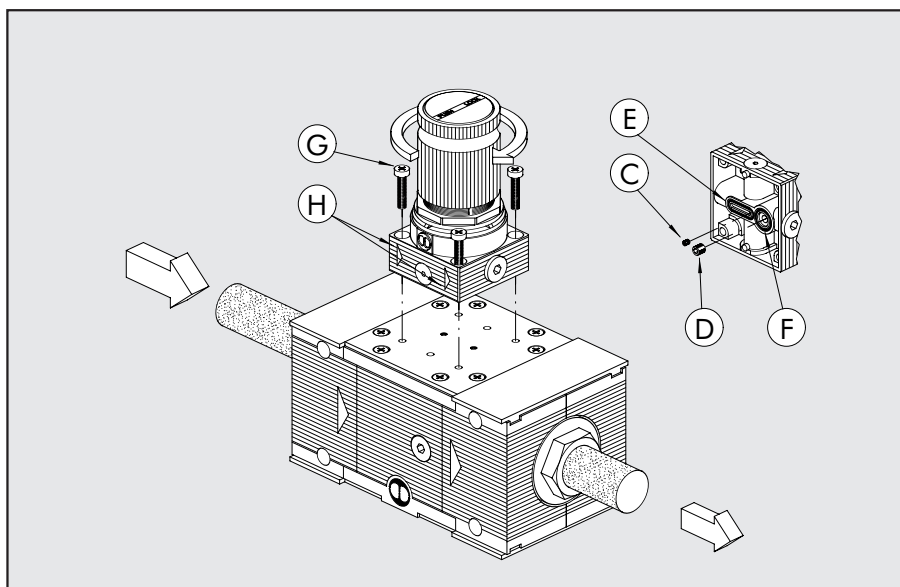
|               | REG 400    | REG 400   | REG 400   | REG 400     |
|---------------|------------|-----------|-----------|-------------|
| Threaded port | NPT 1"     | NPT 1"1/4 | NPT 1"1/2 | NPT 2"      |
| A             | 8.85÷10.03 |           |           | 11.14÷12.32 |
| B             | 4.99       |           |           |             |
| C             | 4.56       |           |           |             |
| D             | 4.13       |           |           |             |
| E             | 5.56       |           |           |             |
| F             | 3.14       |           |           |             |
| G             | NPT        |           |           |             |
| I             | 1"         |           |           |             |
| L             | NPT 1"1/4  | NPT 1"1/2 | NPT 2"    |             |
| M             | 2.06       |           |           |             |
| P             | 0.29       |           |           |             |
| R             | 4.14       |           |           |             |
|               | NPT 1/4    |           |           |             |
|               | NPT 1/4    |           |           |             |
|               |            |           |           |             |
|               |            |           |           |             |

## INSTRUCTIONS FOR USE



### 1 REMOTE PILOT

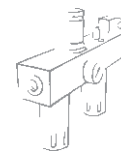
- Fit the A7 M5 plug into the threaded hole B (close to the entrance).
- Fit the M5 fitting into the threaded hole A as close to the entrance as possible.
- Connect the downstream circuit of the selected pilot operated regulator to the input A (R1 fitting).
- Set the required pressure on the pilot operated regulator.



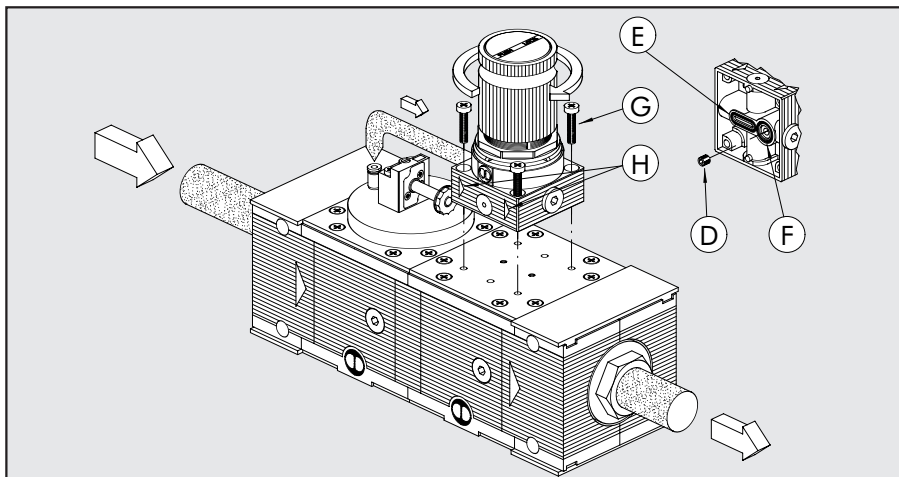
### 2 DIRECT PILOT WITH SKILLAIR PILOT OPERATED REGULATOR

- Remove the pins C and D under the pilot operated regulator.
- Check that the two gaskets E and F under the pilot are in place.
- Fix the pilot operated regulator to the base of the regulator using the self-threading screws G. Make sure the arrows H point in the same direction as the arrows in relief under the base of the regulator.





## INSTRUCTIONS FOR USE



### 3 PILOT REGULATOR FOLLOW-UP LINK

This is used when the regulator is mounted downstream of a V3V valve or an APR. The air can be bled from the V3V or APR valves instead of from the regulator relieving system.

Remove only the stud pin marked with a letter D under the pilot regulator.

Check the two gaskets under the pilot regulator marked E and F.

Secure the pilot regulator to the regulator base with the self-tapping screws marked with a letter G. Making sure the arrows marked H point in the same direction as the arrows in relief under the regulator base. Remove the A7 M5 plug from the V3V or APR plate and remount the fitting.

Connect the pilot regulator supply to the fitting.

## KEY TO CODES

| REG<br>FILTER<br>ELEMENT | 100<br>SIZE | 1/4<br>THREADED<br>PORT | 02<br>SETTING RANGE         |
|--------------------------|-------------|-------------------------|-----------------------------|
| REG                      | 100         | 1/4                     | 0 ÷ 2 bar = 0 ÷ 30 psi      |
|                          | 200         | 3/8                     | 0 ÷ 4 bar = 0 ÷ 60 psi      |
|                          | 300         | 1/2                     | 0 ÷ 8 bar = 0 ÷ 120 psi     |
|                          | 400         | 1                       | 0 ÷ 12 bar = 0 ÷ 180 psi    |
|                          |             | 1 1/4                   |                             |
|                          |             | 1 1/2                   |                             |
|                          |             | 2                       |                             |
|                          |             |                         | Depending on the pilot used |

The pilot operated regulator is necessary for size 400.  
See pag. 3/17.

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## ORDERING CODES

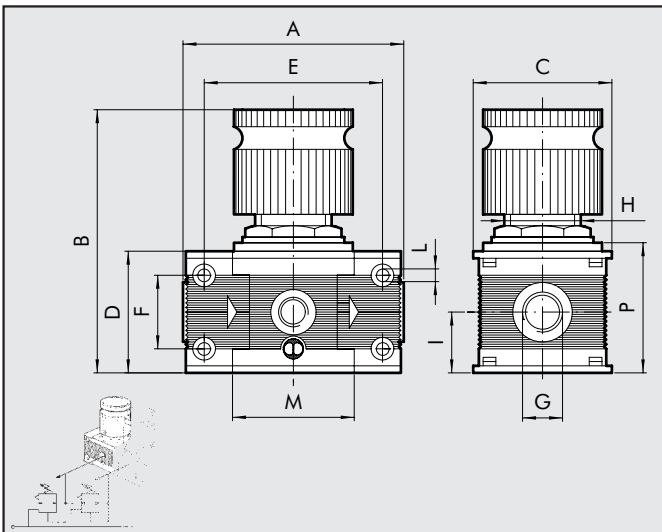
| Code                          | Description                    | Code                          | Description                    | Code                          | Description                    |
|-------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|--------------------------------|
| <b>SKILLAIR 100 REGULATOR</b> |                                | <b>SKILLAIR 200 REGULATOR</b> |                                | <b>SKILLAIR 300 REGULATOR</b> |                                |
| 3202001UA                     | REG 100 02 WITHOUT END PLATES  | 3402001UA                     | REG 200 02 WITHOUT END PLATES  | 4402000UA                     | REG 300 02 WITHOUT END PLATES  |
| 3202002UA                     | REG 100 04 WITHOUT END PLATES  | 3402002UA                     | REG 200 04 WITHOUT END PLATES  | 4402001UA                     | REG 300 04 WITHOUT END PLATES  |
| 3202003UA                     | REG 100 08 WITHOUT END PLATES  | 3402003UA                     | REG 200 08 WITHOUT END PLATES  | 4402002UA                     | REG 300 08 WITHOUT END PLATES  |
| 3202004UA                     | REG 100 012 WITHOUT END PLATES | 3402004UA                     | REG 200 012 WITHOUT END PLATES | 4402003UA                     | REG 300 012 WITHOUT END PLATES |
| 3202001U                      | REG 100 1/4 02                 | 3402001U                      | REG 200 1/4 02                 | 4402000U                      | REG 300 1/2 02                 |
| 3202002U                      | REG 100 1/4 04                 | 3402002U                      | REG 200 1/4 04                 | 4402001U                      | REG 300 1/2 04                 |
| 3202003U                      | REG 100 1/4 08                 | 3402003U                      | REG 200 1/4 08                 | 4402002U                      | REG 300 1/2 08                 |
| 3202004U                      | REG 100 1/4 012                | 3402004U                      | REG 200 1/4 012                | 4402003U                      | REG 300 1/2 012                |
| 3302001U                      | REG 100 3/8 02                 | 3502001U                      | REG 200 3/8 02                 | 4502000U                      | REG 300 3/4 02                 |
| 3302002U                      | REG 100 3/8 04                 | 3502002U                      | REG 200 3/8 04                 | 4502001U                      | REG 300 3/4 04                 |
| 3302003U                      | REG 100 3/8 08                 | 3502003U                      | REG 200 3/8 08                 | 4502002U                      | REG 300 3/4 08                 |
| 3302004U                      | REG 100 3/8 012                | 3502004U                      | REG 200 3/8 012                | 4502003U                      | REG 300 3/4 012                |
|                               |                                | 3602001U                      | REG 200 1/2 02                 | 4602000U                      | REG 300 1 02                   |
|                               |                                | 3602002U                      | REG 200 1/2 04                 | 4602001U                      | REG 300 1 04                   |
|                               |                                | 3602003U                      | REG 200 1/2 08                 | 4602002U                      | REG 300 1 08                   |
|                               |                                | 3602004U                      | REG 200 1/2 012                | 4602003U                      | REG 300 1 012                  |
|                               |                                |                               |                                | <b>SKILLAIR 400 REGULATOR</b> |                                |
|                               |                                |                               |                                | 6102001UA                     | REG 400 WITHOUT END PLATES     |
|                               |                                |                               |                                | 6102001U                      | REG 400 1                      |
|                               |                                |                               |                                | 6202001U                      | REG 400 1 1/4                  |
|                               |                                |                               |                                | 6302001U                      | REG 400 1 1/2                  |
|                               |                                |                               |                                | 6402001U                      | REG 400 2                      |

# Skillair® 100 IN-SERIES REGULATOR

| TECHNICAL DATA                      |                                                                                                                                                                          |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Threaded inlet port                 | NPT 1/4"                                                                                                                                                                 |
| Threaded user port                  | NPT 1/8"                                                                                                                                                                 |
| Setting range                       | psi 0÷30 0÷60 0÷120 0÷180                                                                                                                                                |
| Max. input pressure                 | 1.5 MPa - 15 bar - 217 psi                                                                                                                                               |
| Flow rate at 6 bar (0.6 MPa-87 psi) | 500 NI/min                                                                                                                                                               |
| ΔP 0.5 bar (0.05 MPa - 7 psi)       | 18 scfm                                                                                                                                                                  |
| Flow rate at 6 bar (0.6 MPa-87 psi) | 950 NI/min                                                                                                                                                               |
| ΔP 1 bar (0.1 MPa - 14 psi)         | 34 scfm                                                                                                                                                                  |
| Fluid                               | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.                                                                           |
| Max temperature                     | °C 50                                                                                                                                                                    |
| at 1 MPa; 10 bar; 145 psi           | °F 122                                                                                                                                                                   |
| Weight                              | pounds 0.9                                                                                                                                                               |
| Wall fixing screws                  | N. 8-32 unc x 2                                                                                                                                                          |
| Mounting                            | In any position                                                                                                                                                          |
| Pressure gauge port                 | G 1/8"                                                                                                                                                                   |
| Notes on use                        | The regulator pressure must always be set upwards. For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value. |



## DIMENSIONS

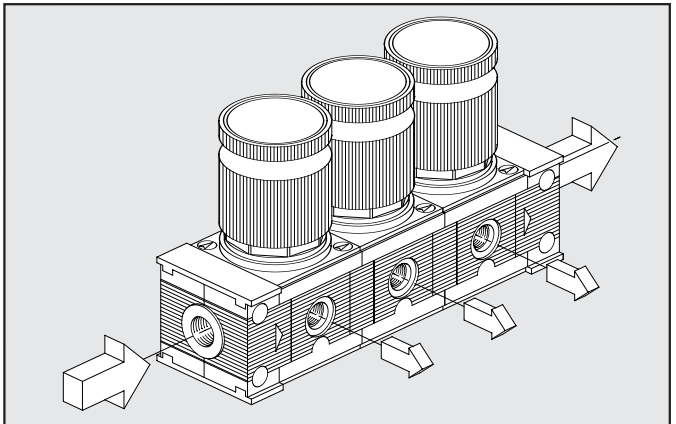


|               | REG 100  | REG 100  |
|---------------|----------|----------|
| Threaded port | NPT 1/4" | NPT 3/8" |
| A             |          | 3.07     |
| B             |          | 3.85     |
| C             |          | 1.96     |
| D             |          | 1.69     |
| E             |          | 2.48     |
| F             |          | 1.02     |
| G             | NPT 1/4" | NPT 3/8" |
| H             |          | 30x1.5   |
| I             |          | 0.84     |
| L             |          | 0.17     |
| M             |          | 1.69     |
| P             |          | 1.81     |

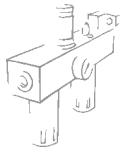
## ORDERING CODES

| Code                           | Description                               |
|--------------------------------|-------------------------------------------|
| <b>100 IN-SERIES REGULATOR</b> |                                           |
| 3202101UA                      | 100 IN-SERIES REG. 0-2 WITHOUT TERMINALS  |
| 3202102UA                      | 100 IN-SERIES REG. 0-4 WITHOUT TERMINALS  |
| 3202103UA                      | 100 IN-SERIES REG. 0-8 WITHOUT TERMINALS  |
| 3202104UA                      | 100 IN-SERIES REG. 0-12 WITHOUT TERMINALS |
| 3202101U                       | 100 IN-SERIES REG. 1/4 0-2                |
| 3202102U                       | 100 IN-SERIES REG. 1/4 0-4                |
| 3202103U                       | 100 IN-SERIES REG. 1/4 0-8                |
| 3202104U                       | 100 IN-SERIES REG. 1/4 0-12               |
| 3302101U                       | 100 IN-SERIES REG. 3/8 0-2                |
| 3302102U                       | 100 IN-SERIES REG. 3/8 0-4                |
| 3302103U                       | 100 IN-SERIES REG. 3/8 0-8                |
| 3302104U                       | 100 IN-SERIES REG. 3/8 0-12               |

Several of these Skillair® regulators can be mounted in series, all fed by the same pressure. They can give different set pressures, each independent of the previous regulator. Operating compressed air can be taken from the pressure gauge ports (G 1/8").



# Skillair® PILOT REGULATOR



The pilot regulator is used when great accuracy is required in maintaining the set pressure under changing operating conditions.

It is ideal for use as:

- a precision regulator for flow rates < 3.5 scfm
- a pilot in general – typically for large size regulators (see REG 400)

The system's high operating accuracy and low hysteresis are determined by the virtually total lack of friction. The presence of a slight air leak is necessary for the regulator to operate properly – it is not a malfunction. It is advisable to use filtered air.

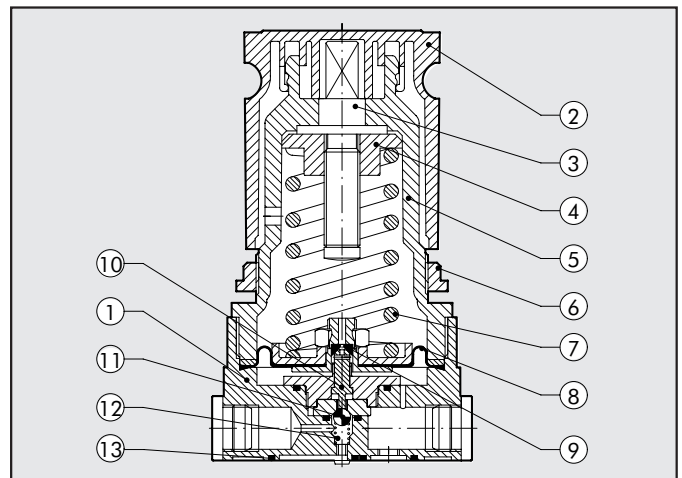


| TECHNICAL DATA                                                    |        | PILOT REGULATOR                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Threaded port                                                     |        | NPT 1/4"                                                                                                                                                                                                                                              |
| Setting range                                                     | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180                                                                                                                                                                                                                           |
| Max. input pressure                                               | MPa    | 1.3                                                                                                                                                                                                                                                   |
|                                                                   | bar    | 13                                                                                                                                                                                                                                                    |
|                                                                   | psi    | 188                                                                                                                                                                                                                                                   |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |        | 120 NI/min - 4,3 scfm                                                                                                                                                                                                                                 |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |        | 140 NI/min - 5 scfm                                                                                                                                                                                                                                   |
| Fluid                                                             |        | Filtered, lubricated or unlubricated compressed air.<br>Lubrication, if used, must be continuous.                                                                                                                                                     |
| Max temperature at 1 MPa; 10 bar; 145 psi                         | °C     | 50                                                                                                                                                                                                                                                    |
|                                                                   | °F     | 122                                                                                                                                                                                                                                                   |
| Weight                                                            | pounds | 1.3                                                                                                                                                                                                                                                   |
| Mounting                                                          |        | In any position                                                                                                                                                                                                                                       |
| Pressure gauge port                                               |        | NPT 1/8"                                                                                                                                                                                                                                              |
| Notes on use                                                      |        | The regulator pressure must always be set upwards. For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value.<br>Do not take air from the pressure gauge ports. Mount directly on REG 400. |
|                                                                   |        |                                                                                                                                                                                                                                                       |
|                                                                   |        |                                                                                                                                                                                                                                                       |
|                                                                   |        |                                                                                                                                                                                                                                                       |
|                                                                   |        |                                                                                                                                                                                                                                                       |

3

## COMPONENTS

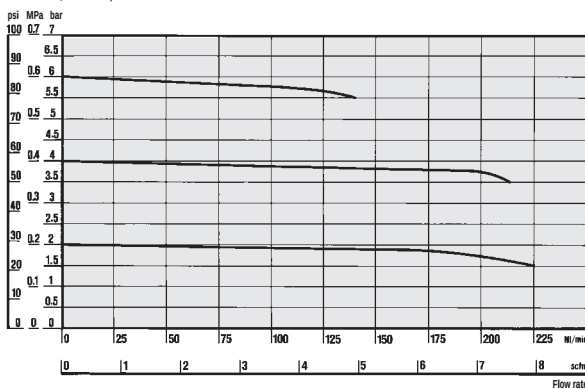
- ① Aluminium body
- ② Technopolymer knob
- ③ OT58 brass adjusting screw
- ④ OT58 brass scroll
- ⑤ Technopolymer bell
- ⑥ Technopolymer ring nut
- ⑦ Steel adjusting screw
- ⑧ Rolling diaphragm
- ⑨ NBR relieving gaskets
- ⑩ OT58 brass stem
- ⑪ Stainless steel ball valve
- ⑫ Stainless steel valve spring
- ⑬ NBR gaskets



## FLOW CHARTS

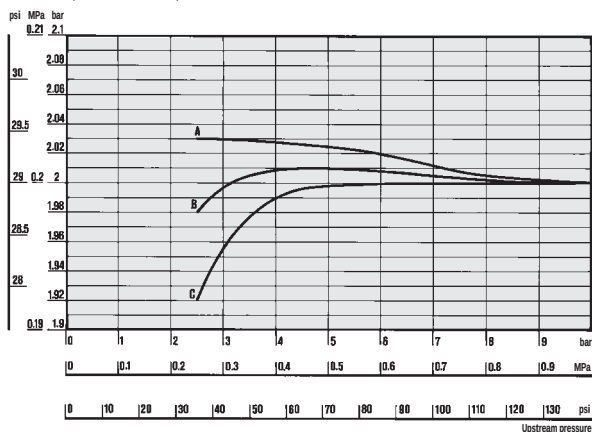
### FLOW FEATURES REG. P 1/4"

Preset pressure  
Pm = 7 bar = 0,7 MPa - 100 psi



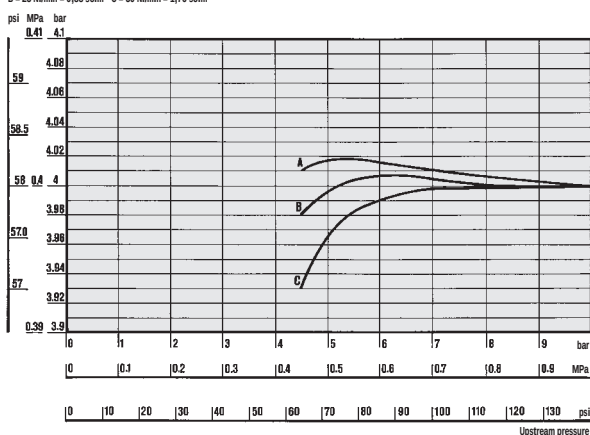
### REGULATION FEATURES REG. P 1/4"

Downstream pressure: A = 0 Nl/min = 0 scfm  
B = 25 Nl/min = 0,88 scfm - C = 50 Nl/min = 1,76 scfm



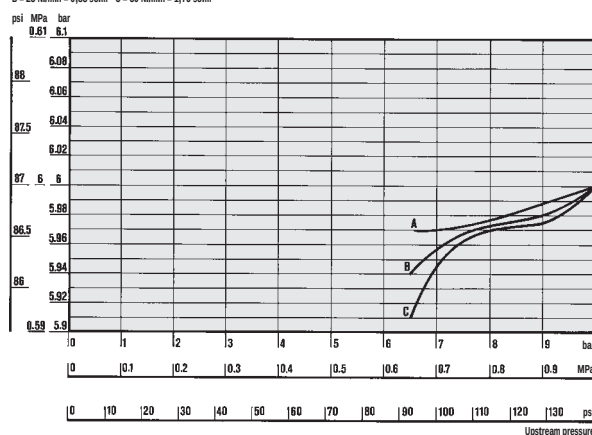
### REGULATION FEATURES REG. P 1/4"

Downstream pressure: A = 0 Nl/min = 0 scfm  
B = 25 Nl/min = 0,88 scfm - C = 50 Nl/min = 1,76 scfm

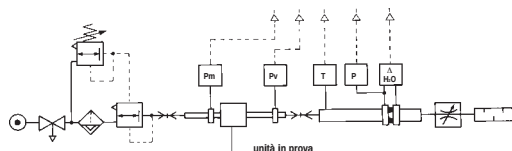


### REGULATION FEATURES REG. P 1/4"

Downstream pressure: A = 0 Nl/min = 0 scfm  
B = 25 Nl/min = 0,88 scfm - C = 50 Nl/min = 1,76 scfm

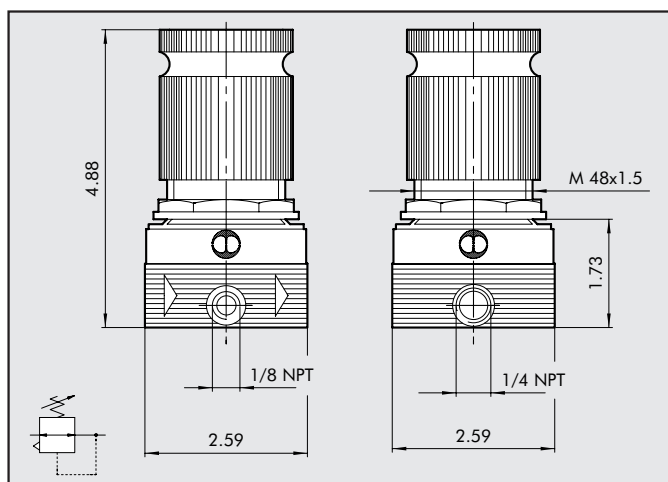


 Department  
of Mechanics  
Turin Polytechnic



● Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

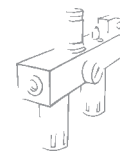
## DIMENSIONS



## ORDERING CODES

| Code     | Description     |
|----------|-----------------|
| 3206001U | REG. P 1/4" 02  |
| 3206002U | REG. P 1/4" 04  |
| 3206003U | REG. P 1/4" 08  |
| 3206004U | REG. P 1/4" 012 |

# Skillair® 300 PILOT OPERATED REGULATOR



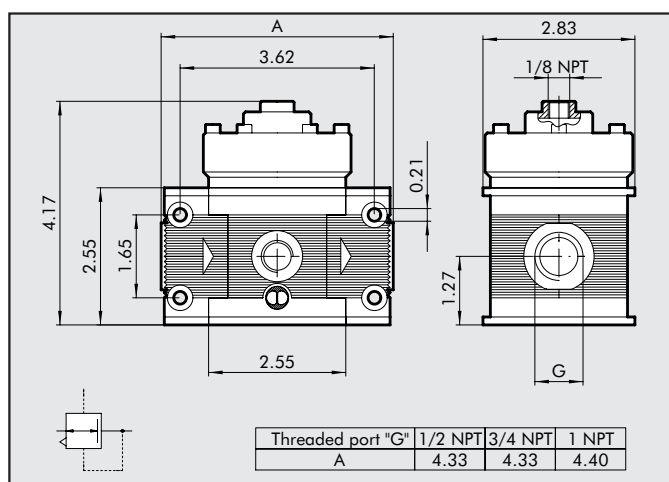
- Pilot-operated or servo-piloted regulator
- Twin rolling diaphragm to ensure improved opening and hence greater flow rate.
- Low load losses
- Excellent precision in pressure setting
- Excellent sensitivity during relieving.



| TECHNICAL DATA                            | 300 PILOT OPERATED REG                                                                            |          |        |
|-------------------------------------------|---------------------------------------------------------------------------------------------------|----------|--------|
|                                           | NPT 1/2"                                                                                          | NPT 3/4" | NPT 1" |
| Threaded port                             | Depending on the pilot regulator                                                                  |          |        |
| Setting range                             |                                                                                                   |          |        |
| Max. input pressure                       | MPa                                                                                               | 1.3      |        |
|                                           | bar                                                                                               | 13       |        |
|                                           | psi                                                                                               | 188      |        |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min                                                                                            | 4500     |        |
| ΔP 0.5 bar (0.05 MPa – 7 psi)             | scfm                                                                                              | 160      |        |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min                                                                                            | 7000     |        |
| ΔP 1 bar (0.1 MPa – 14 psi)               | scfm                                                                                              | 247      |        |
| Fluid                                     | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.    |          |        |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C                                                                                                | 50       |        |
|                                           | °F                                                                                                | 122      |        |
| Weight                                    | pounds                                                                                            | 2.8      |        |
| Wall fixing screws                        | N. 10-24 unc x 2.75                                                                               |          |        |
| Mounting                                  | In any position                                                                                   |          |        |
| Pressure gauge port                       | G 1/8"                                                                                            |          |        |
| Notes on use                              | The regulator pressure must always be set upwards. Do not take air from the pressure gauge ports. |          |        |
|                                           |                                                                                                   |          |        |
|                                           |                                                                                                   |          |        |

3

## DIMENSIONS



## ORDERING CODES

| Code      | Description                               |
|-----------|-------------------------------------------|
| 4403003UA | 300 PILOT OPERATED REG WITHOUT END PLATES |
| 4403003U  | 300 1/2" PILOT OPERATED REG               |
| 4503003U  | 300 3/4" PILOT OPERATED REG               |
| 4603003U  | 300 1" PILOT OPERATED REG                 |

# Skillair® SKILLTRONIC

Skilltronic is an electronically-controlled pressure regulator equipped with an 8-bit microcontroller. The control signal can be analog, digital via RS232 or digital from the keyboard. It is converted into a proportional pressure signal by means of solenoid valves. The regulator can be used alone within the indicated flow values, or in combination with a Skillair 300 or 400 pilot-operated pressure regulator (power stage).

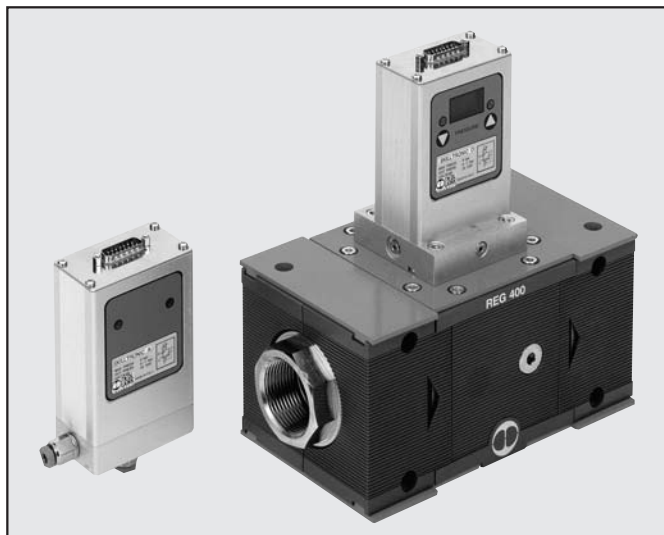
The advantages are:

- Integration with analog or digital control systems (PC, PLC, etc.).
- Extremely fast response times.
- Excellent repeatability and reliability.
- Low power absorption.

Skilltronic is available in two basic versions:

Version A, with analog control via voltage or RS232 serial line.

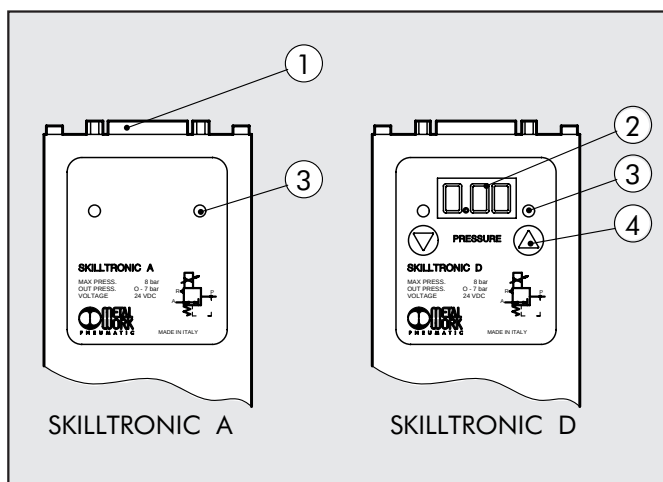
Version D, with control via RS232 serial line or keyboard or voltage, with display of the set and regulated pressures.

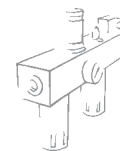


| TECHNICAL DATA                              |        | SKILLTRONIC A and D                                 | SKILLTRONIC 300 A and 300 D | SKILLTRONIC 400 A and 400 D |
|---------------------------------------------|--------|-----------------------------------------------------|-----------------------------|-----------------------------|
| Setting range                               | MPa    | 0.03 - 0.7                                          |                             |                             |
|                                             | bar    | 0.3 - 7                                             |                             |                             |
|                                             | psi    | 4 - 100                                             |                             |                             |
| Control pressure                            | MPa    | 0.1 - 0.8                                           |                             |                             |
|                                             | bar    | 1 - 8                                               |                             |                             |
|                                             | psi    | 15 - 115                                            |                             |                             |
| Temperature range                           | °C     | -10°C to +50°C                                      |                             |                             |
|                                             | °F     | 14 - 122                                            |                             |                             |
| Degree of protection                        |        | IP 60                                               | IP 65                       | IP 65                       |
| Weight                                      | pounds | 0.8                                                 | 4.2                         | 12.3                        |
| Fluid                                       |        | 20 µm filtered air, de-humidified and unlubricated. |                             |                             |
| Supply voltage                              |        | 24 V DC                                             |                             |                             |
| Max. absorbed power                         | W      | 2                                                   |                             |                             |
| Control                                     |        | 0-5V / 0-10V / RS 232                               |                             |                             |
| Flow rate at 6 bar ΔP 0.5 bar               | scfm   | 2                                                   | 159                         | 636                         |
| Reaction time                               | ms     | < 5                                                 | —                           | —                           |
| Response time – rise time*                  | ms     | 60                                                  | —                           | —                           |
| Response time – fall time**                 | ms     | 100                                                 | —                           | —                           |
| * Volume 30 cm³ Pal= 8bar, from 2 to 4 bar  |        |                                                     |                             |                             |
| ** Volume 30 cm³ Pal= 8bar, from 4 to 2 bar |        |                                                     |                             |                             |

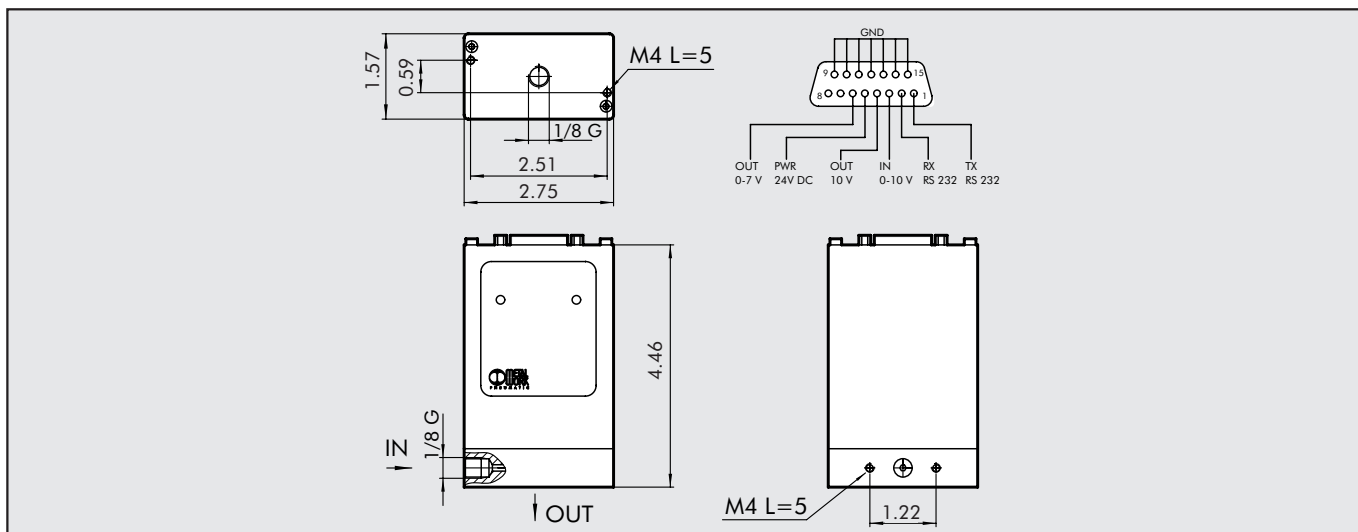
## COMPONENTS

- ① Connection for power supply and serial line
- ② 3-digit digital display
- ③ Led
- ④ Instrument configuration and pressure setting keys

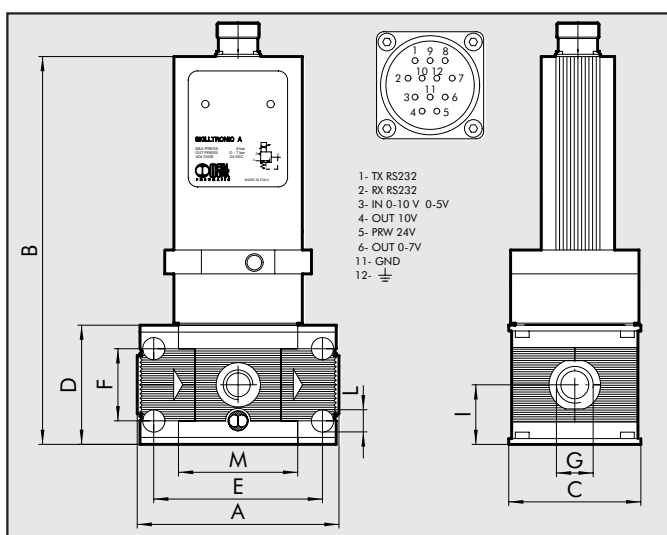




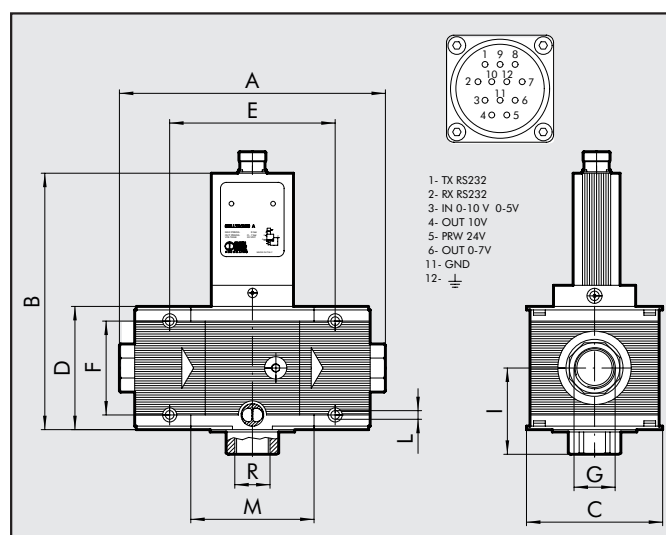
## SKILLTRONIC A/D



## SKILLTRONIC 300 A/D



## SKILLTRONIC 400 A/D



## DIMENSIONS

|               | SKILLTRONIC 300 |          |        | SKILLTRONIC 400 |            |            |               |
|---------------|-----------------|----------|--------|-----------------|------------|------------|---------------|
| Threaded port | NPT 1/2"        | NPT 3/4" | NPT 1" | NPT 1"          | NPT 1 1/4" | NPT 1 1/2" | NPT 2         |
| A             | 4.33            | 4.33     | 4.40   | 8.85 ÷ 10.03    |            |            | 11.14 ÷ 12.32 |
| B             | 8.51            |          |        | 9.21            |            |            |               |
| C             | 2.83            |          |        | 4.56            |            |            |               |
| D             | 2.55            |          |        | 4.13            |            |            |               |
| E             | 3.62            |          |        | 5.56            |            |            |               |
| F             | 1.65            |          |        | 3.14            |            |            |               |
| G             | NPT 1/2"        | NPT 3/4" | NPT 1" | NPT 1"          | NPT 1 1/4" | NPT 1 1/2" | NPT 2         |
| I             | 1.27            |          |        | 2.93            |            |            |               |
| L             | 0.21            |          |        | 0.29            |            |            |               |
| M             | 2.55            |          |        | 4.14            |            |            |               |
|               |                 |          |        |                 |            |            |               |
|               |                 |          |        |                 |            |            |               |
|               |                 |          |        |                 |            |            |               |
|               |                 |          |        |                 |            |            |               |
|               |                 |          |        |                 |            |            |               |

## ORDERING CODES

| Code        | Description              |
|-------------|--------------------------|
| W0214000000 | SKILLTRONIC A            |
| W0214000100 | SKILLTRONIC D            |
| 4403010U    | SKILLTRONIC 300 1/2" A   |
| 4503010U    | SKILLTRONIC 300 3/4" A   |
| 4603010U    | SKILLTRONIC 300 1" A     |
| 4403011U    | SKILLTRONIC 300 1/2" D   |
| 4503011U    | SKILLTRONIC 300 3/4" D   |
| 4603011U    | SKILLTRONIC 300 1" D     |
| 6102010U    | SKILLTRONIC 400 1" A     |
| 6202010U    | SKILLTRONIC 400 1" 1/4 A |
| 6302010U    | SKILLTRONIC 400 1" 1/2 A |
| 6402010U    | SKILLTRONIC 400 2" A     |
| 6102011U    | SKILLTRONIC 400 1" D     |
| 6202011U    | SKILLTRONIC 400 1" 1/4 D |
| 6302011U    | SKILLTRONIC 400 1" 1/2 D |
| 6402011U    | SKILLTRONIC 400 2" D     |



# Skillair® FILTER REGULATOR

This device combines a filter and a pressure regulator in a single unit. It has the dual function of filtering and regulating air from the compressor. As the filter regulator is made up of the same elements as the regulator and the filter, the performance is the same.

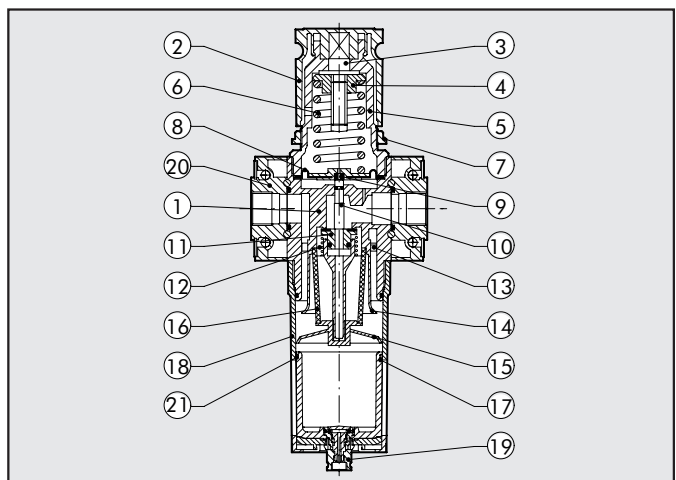
- High flow rates with low load loss.
- Special rolling diaphragm – higher flow rate, greater stability, improved sensitivity.
- Rapid relief of downstream overpressures.
- Stability of the regulated pressure as the mains pressure fluctuates.
- Maximum degree of condensate separation.
- 360° condensate level display.
- Condensate drain with manual/semi-automatic or automatic function.



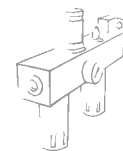
| TECHNICAL DATA                      |                | FR 100                                                                                                                | FR 100 | FR 200                  | FR 200 | FR 200 | FR 300                  | FR 300 | FR 300 |
|-------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------|--------|-------------------------|--------|--------|-------------------------|--------|--------|
| Threaded port                       | NPT            | 1/4"                                                                                                                  | 3/8"   | 1/4"                    | 3/8"   | 1/2"   | 1/2"                    | 3/4"   | 1"     |
| Setting range                       | psi            | 0÷30 0÷60 0÷120 0÷180                                                                                                 |        |                         |        |        |                         |        |        |
| Degree of filtration                | micron         | 4 - 20 - 50                                                                                                           |        |                         |        |        |                         |        |        |
| Max. input pressure                 |                | 1.3 MPa - 13 bar - 188 psi                                                                                            |        |                         |        |        |                         |        |        |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 1100                                                                                                                  |        | 1600                    |        |        | 3500                    |        |        |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm           | 39                                                                                                                    |        | 57                      |        |        | 125                     |        |        |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 1600                                                                                                                  |        | 3000                    |        |        | 5600                    |        |        |
| ΔP 1 bar (0.1 MPa – 14 psi)         | scfm           | 57                                                                                                                    |        | 106                     |        |        | 200                     |        |        |
| Fluid                               |                | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.                        |        |                         |        |        |                         |        |        |
| Max temperature                     | °C             | 50                                                                                                                    |        |                         |        |        |                         |        |        |
| at 1 MPa; 10 bar; 145 psi           | °F             | 122                                                                                                                   |        |                         |        |        |                         |        |        |
| Weight                              | pounds         | 1.1                                                                                                                   |        | 2.2                     |        |        | 4                       |        |        |
| Wall fixing screws                  |                | N. 8-32 unc x 2"                                                                                                      |        | N. 10-24 unc x 2.36     |        |        | N. 10-24 unc x 2.75     |        |        |
| Mounting position                   |                | Vertical                                                                                                              |        |                         |        |        |                         |        |        |
| Pressure gauge port                 |                | G 1/8"                                                                                                                |        |                         |        |        |                         |        |        |
| Bowl capacity                       | fluid ounce oz | 0.74                                                                                                                  |        | 1.52                    |        |        | 2.54                    |        |        |
| Drain                               |                | Manual/semi-auto (RMSA)                                                                                               |        | Manual/semi-auto (RMSA) |        |        | Manual/semi-auto (RMSA) |        |        |
|                                     |                | Automatic (SAC)                                                                                                       |        | Automatic (SAC)         |        |        | Automatic (RA)          |        |        |
| Notes                               |                | The regulator pressure must always be set upwards.                                                                    |        |                         |        |        |                         |        |        |
|                                     |                | For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value. |        |                         |        |        |                         |        |        |
|                                     |                | Do not take air from pressure gauge ports.                                                                            |        |                         |        |        |                         |        |        |

## COMPONENTS

- |                                    |                                                             |
|------------------------------------|-------------------------------------------------------------|
| ① Technopolymer body               | ⑭ Technopolymer baffle plug                                 |
| ② Technopolymer knob               | ⑮ Technopolymer screen                                      |
| ③ OT58 brass adjusting screw       | ⑯ Sintered bronze filtered cartridge                        |
| ④ OT58 brass scroll                | ⑰ Clear technopolymer glass                                 |
| ⑤ Technopolymer bell               | ⑱ Bowl: technopolymer for FR100 and FR200, metal for FR 300 |
| ⑥ Steel adjusting spring           | ⑲ Drain (RMSA)                                              |
| ⑦ Technopolymer ring nut           | ⑳ Zamak end plate                                           |
| ⑧ Rolling diaphragm                | ㉑ NBR gaskets                                               |
| ⑨ NBR relieving gasket             |                                                             |
| ⑩ OT58 brass stem                  |                                                             |
| ⑪ Valve with NBR vulcanized gasket |                                                             |
| ⑫ Stainless steel valve spring     |                                                             |
| ⑬ Technopolymer centrifuge         |                                                             |



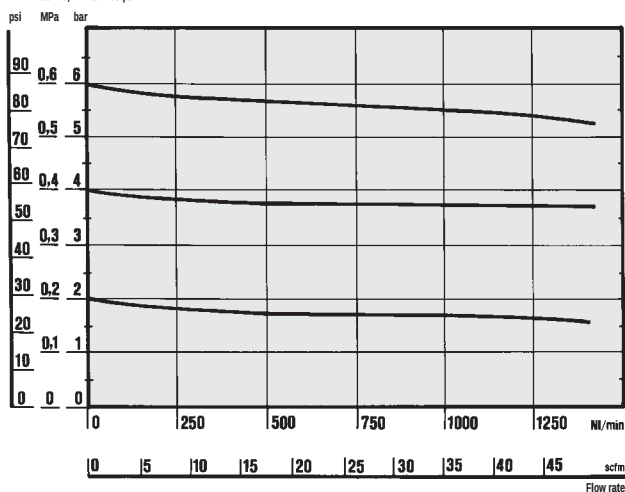




## FLOW CHARTS

### FR 100 1/4 - 3/8

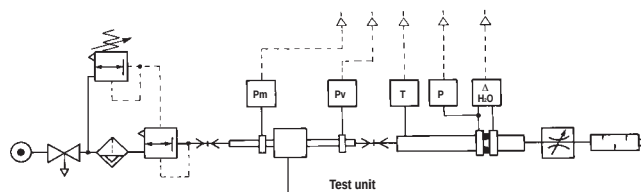
Preset pressure  
Pm = 7 bar - 0,7 MPa - 100 psi



Departments  
of Mechanics



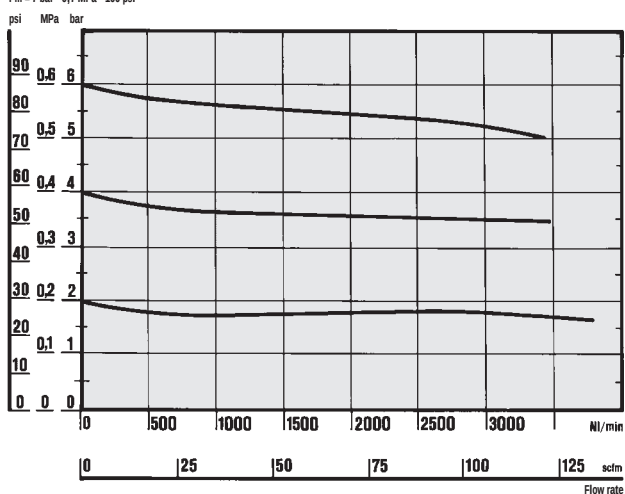
Turin Polytechnic



• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

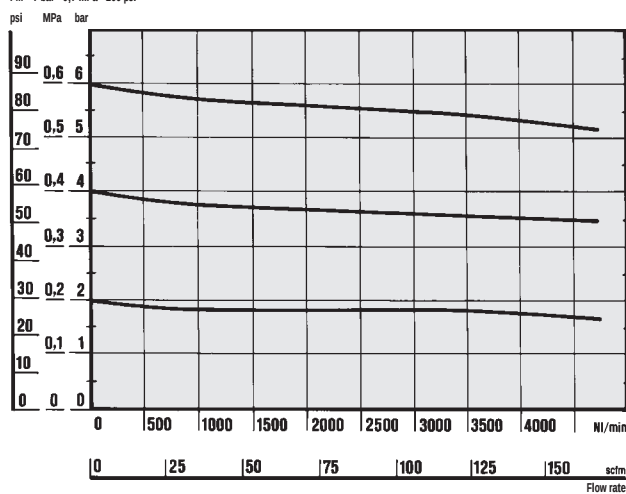
### FR 200 1/4 - 3/8 - 1/2

Preset pressure  
Pm = 7 bar - 0,7 MPa - 100 psi



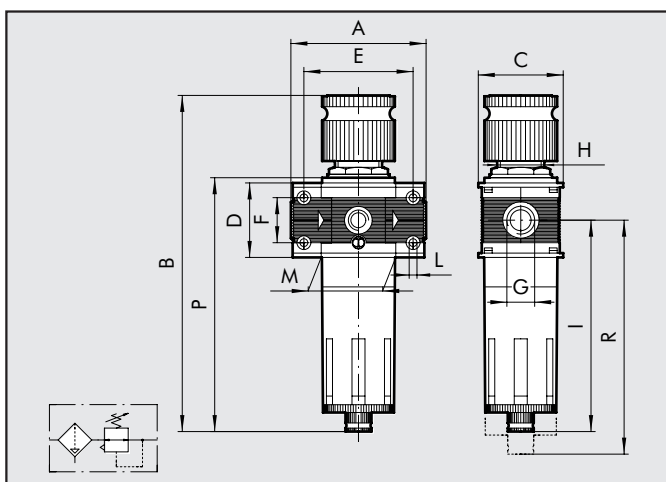
### FR 300 1/2 - 3/4 - 1

Preset pressure  
Pm = 7 bar - 0,7 MPa - 100 psi



3

## DIMENSIONS



|   | FR 100   | FR 100  | FR 200  | FR 200   | FR 200  | FR 300  | FR 300   | FR 300 |
|---|----------|---------|---------|----------|---------|---------|----------|--------|
|   | NPT 1/4  | NPT 3/8 | NPT 1/4 | NPT 3/8  | NPT 1/2 | NPT 1/2 | NPT 3/4  | NPT 1" |
| A | 3.07     |         |         | 3.68     |         | 110     |          | 112    |
| B | 7.84     |         |         | 9.65     |         |         | 4.33     |        |
| C | 1.97     |         |         | 2.48     |         |         | 4.41     |        |
| D | 1.70     |         |         | 2.17     |         |         | 10.95    |        |
| E | 2.48     |         |         | 3.09     |         |         | 2.84     |        |
| F | 1.02     |         |         | 1.42     |         |         | 3.62     |        |
| G | NPT 1/4  | NPT 3/8 | NPT 1/4 | NPT 3/8  | NPT 1/2 | NPT 1/2 | NPT 3/4  | NPT 1" |
| H | 1.18x.06 |         |         | 1.58x.06 |         |         | 1.89x.06 |        |
| I | 4.82     |         |         | 5.80     |         |         | 6.40     |        |
| L | .157     |         |         | .197     |         |         | .197     |        |
| M | 1.69     |         |         | 2.19     |         |         | 2.56     |        |
| P | 5.79     |         |         | 7.00     |         |         | 7.87     |        |
| R | 5.39     |         |         | 7.72     |         |         | 8.47     |        |

## KEY TO CODES

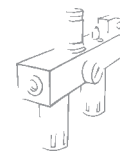
| FR      | 100  | 1/4           | 5 µm                 | 02                   | RMSA          |
|---------|------|---------------|----------------------|----------------------|---------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | SETTING RANGE        | TYPE OF DRAIN |
| FR      | 100  | 1/4           | 5 µm                 | 0÷2 bar = 0÷30 psi   | RMSA<br>SAC   |
|         |      | 3/8           | 20 µm                | 0÷4 bar = 0÷60 psi   |               |
|         | 200  | 1/4           | 50 µm                | 0÷8 bar = 0÷120 psi  |               |
|         |      | 3/8           |                      | 0÷12 bar = 0÷180 psi |               |
|         |      | 1/2           |                      |                      |               |
|         | 300  | 1/2           |                      |                      | RMSA<br>RA    |
|         |      | 3/4           |                      |                      |               |
|         |      | 1             |                      |                      |               |

**RMSA:** Semi-auto drain  
**SAC:** Automatic drain for sizes 100 and 200. Operates by depressurization – requires variable air take-offs.  
**RA:** Automatic drain for size 300. Float-type operation irrespective of the pressure and flow rate.

## ORDERING CODES

| Code                           | Description                           | Code      | Description                           | Code      | Description                           |
|--------------------------------|---------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|
| <b>SK 100 FILTER REGULATOR</b> |                                       |           |                                       |           |                                       |
| 3283007UA                      | FR 100 5 08 RMSA WITHOUT END PLATES   | 3483007UA | FR 200 5 08 RMSA WITHOUT END PLATES   | 4483004UA | FR 300 5 08 RMSA WITHOUT END PLATES   |
| 3283008UA                      | FR 100 20 08 RMSA WITHOUT END PLATES  | 3483008UA | FR 200 20 08 RMSA WITHOUT END PLATES  | 4483005UA | FR 300 20 08 RMSA WITHOUT END PLATES  |
| 3283009UA                      | FR 100 50 08 RMSA WITHOUT END PLATES  | 3483009UA | FR 200 50 08 RMSA WITHOUT END PLATES  | 4483006UA | FR 300 50 08 RMSA WITHOUT END PLATES  |
| 3283010UA                      | FR 100 5 012 RMSA WITHOUT END PLATES  | 3483010UA | FR 200 5 012 RMSA WITHOUT END PLATES  | 4483007UA | FR 300 5 012 RMSA WITHOUT END PLATES  |
| 3283011UA                      | FR 100 20 012 RMSA WITHOUT END PLATES | 3483011UA | FR 200 20 012 RMSA WITHOUT END PLATES | 4483008UA | FR 300 20 012 RMSA WITHOUT END PLATES |
| 3283012UA                      | FR 100 50 012 RMSA WITHOUT END PLATES | 3483012UA | FR 200 50 012 RMSA WITHOUT END PLATES | 4483009UA | FR 300 50 012 RMSA WITHOUT END PLATES |
| 3283031UA                      | FR 100 5 08 SAC WITHOUT END PLATES    | 3483031UA | FR 200 5 08 SAC WITHOUT END PLATES    | 4483013UA | FR 300 5 08 RA WITHOUT END PLATES     |
| 3283032UA                      | FR 100 20 08 SAC WITHOUT END PLATES   | 3483032UA | FR 200 20 08 SAC WITHOUT END PLATES   | 4483014UA | FR 300 20 08 RA WITHOUT END PLATES    |
| 3283033UA                      | FR 100 50 08 SAC WITHOUT END PLATES   | 3483033UA | FR 200 50 08 SAC WITHOUT END PLATES   | 4483015UA | FR 300 50 08 RA WITHOUT END PLATES    |
| 3283034UA                      | FR 100 5 012 SAC WITHOUT END PLATES   | 3483034UA | FR 200 5 012 SAC WITHOUT END PLATES   | 4483016UA | FR 300 5 012 RA WITHOUT END PLATES    |
| 3283035UA                      | FR 100 20 012 SAC WITHOUT END PLATES  | 3483035UA | FR 200 20 012 SAC WITHOUT END PLATES  | 4483017UA | FR 300 20 012 RA WITHOUT END PLATES   |
| 3283036UA                      | FR 100 50 012 SAC WITHOUT END PLATES  | 3483036UA | FR 200 50 012 SAC WITHOUT END PLATES  | 4483018UA | FR 300 50 012 RA WITHOUT END PLATES   |
| 3283007U                       | FR 100 1/4 5 08 RMSA                  | 3483007U  | FR 200 1/4 5 08 RMSA                  | 4483004U  | FR 300 1/2 5 08 RMSA                  |
| 3283008U                       | FR 100 1/4 20 08 RMSA                 | 3483008U  | FR 200 1/4 20 08 RMSA                 | 4483005U  | FR 300 1/2 20 08 RMSA                 |
| 3283009U                       | FR 100 1/4 50 08 RMSA                 | 3483009U  | FR 200 1/4 50 08 RMSA                 | 4483006U  | FR 300 1/2 50 08 RMSA                 |
| 3283010U                       | FR 100 1/4 5 012 RMSA                 | 3483010U  | FR 200 1/4 5 012 RMSA                 | 4483007U  | FR 300 1/2 5 012 RMSA                 |
| 3283011U                       | FR 100 1/4 20 012 RMSA                | 3483011U  | FR 200 1/4 20 012 RMSA                | 4483008U  | FR 300 1/2 20 012 RMSA                |
| 3283012U                       | FR 100 1/4 50 012 RMSA                | 3483012U  | FR 200 1/4 50 012 RMSA                | 4483009U  | FR 300 1/2 50 012 RMSA                |
| 3283031U                       | FR 100 1/4 5 08 SAC                   | 3483031U  | FR 200 1/4 5 08 SAC                   | 4483013U  | FR 300 1/2 5 08 RA                    |
| 3283032U                       | FR 100 1/4 20 08 SAC                  | 3483032U  | FR 200 1/4 20 08 SAC                  | 4483014U  | FR 300 1/2 20 08 RA                   |
| 3283033U                       | FR 100 1/4 50 08 SAC                  | 3483033U  | FR 200 1/4 50 08 SAC                  | 4483015U  | FR 300 1/2 50 08 RA                   |
| 3283034U                       | FR 100 1/4 5 012 SAC                  | 3483034U  | FR 200 1/4 5 012 SAC                  | 4483016U  | FR 300 1/2 5 012 RA                   |
| 3283035U                       | FR 100 1/4 20 012 SAC                 | 3483035U  | FR 200 1/4 20 012 SAC                 | 4483017U  | FR 300 1/2 20 012 RA                  |
| 3283036U                       | FR 100 1/4 50 012 SAC                 | 3483036U  | FR 200 1/4 50 012 SAC                 | 4483018U  | FR 300 1/2 50 012 RA                  |
| 3383007U                       | FR 100 3/8 5 08 RMSA                  | 3583007U  | FR 200 3/8 5 08 RMSA                  | 4583004U  | FR 300 3/4 5 08 RMSA                  |
| 3383008U                       | FR 100 3/8 20 08 RMSA                 | 3583008U  | FR 200 3/8 20 08 RMSA                 | 4583005U  | FR 300 3/4 20 08 RMSA                 |
| 3383009U                       | FR 100 3/8 50 08 RMSA                 | 3583009U  | FR 200 3/8 50 08 RMSA                 | 4583006U  | FR 300 3/4 50 08 RMSA                 |
| 3383010U                       | FR 100 3/8 5 012 RMSA                 | 3583010U  | FR 200 3/8 5 012 RMSA                 | 4583007U  | FR 300 3/4 5 012 RMSA                 |
| 3383011U                       | FR 100 3/8 20 012 RMSA                | 3583011U  | FR 200 3/8 20 012 RMSA                | 4583008U  | FR 300 3/4 20 012 RMSA                |
| 3383012U                       | FR 100 3/8 50 012 RMSA                | 3583012U  | FR 200 3/8 50 012 RMSA                | 4583009U  | FR 300 3/4 50 012 RMSA                |
| 3383031U                       | FR 100 3/8 5 08 SAC                   | 3583031U  | FR 200 3/8 5 08 SAC                   | 4583013U  | FR 300 3/4 5 08 RA                    |
| 3383032U                       | FR 100 3/8 20 08 SAC                  | 3583032U  | FR 200 3/8 20 08 SAC                  | 4583014U  | FR 300 3/4 20 08 RA                   |
| 3383033U                       | FR 100 3/8 50 08 SAC                  | 3583033U  | FR 200 3/8 50 08 SAC                  | 4583015U  | FR 300 3/4 50 08 RA                   |
| 3383034U                       | FR 100 3/8 5 012 SAC                  | 3583034U  | FR 200 3/8 5 012 SAC                  | 4583016U  | FR 300 3/4 5 012 RA                   |
| 3383035U                       | FR 100 3/8 20 012 SAC                 | 3583035U  | FR 200 3/8 20 012 SAC                 | 4583017U  | FR 300 3/4 20 012 RA                  |
| 3383036U                       | FR 100 3/8 50 012 SAC                 | 3583036U  | FR 200 3/8 50 012 SAC                 | 4583018U  | FR 300 3/4 50 012 RA                  |
|                                |                                       | 3683007U  | FR 200 1/2 5 08 RMSA                  | 4683004U  | FR 300 1 5 08 RMSA                    |
|                                |                                       | 3683008U  | FR 200 1/2 20 08 RMSA                 | 4683005U  | FR 300 1 20 08 RMSA                   |
|                                |                                       | 3683009U  | FR 200 1/2 50 08 RMSA                 | 4683006U  | FR 300 1 50 08 RMSA                   |
|                                |                                       | 3683010U  | FR 200 1/2 5 012 RMSA                 | 4683007U  | FR 300 1 5 012 RMSA                   |
|                                |                                       | 3683011U  | FR 200 1/2 20 012 RMSA                | 4683008U  | FR 300 1 20 012 RMSA                  |
|                                |                                       | 3683012U  | FR 200 1/2 50 012 RMSA                | 4683009U  | FR 300 1 50 012 RMSA                  |
|                                |                                       | 3683031U  | FR 200 1/2 5 08 SAC                   | 4683013U  | FR 300 1 5 08 RA                      |
|                                |                                       | 3683032U  | FR 200 1/2 20 08 SAC                  | 4683014U  | FR 300 1 20 08 RA                     |
|                                |                                       | 3683033U  | FR 200 1/2 50 08 SAC                  | 4683015U  | FR 300 1 50 08 RA                     |
|                                |                                       | 3683034U  | FR 200 1/2 5 012 SAC                  | 4683016U  | FR 300 1 5 012 RA                     |
|                                |                                       | 3683035U  | FR 200 1/2 20 012 SAC                 | 4683017U  | FR 300 1 20 012 RA                    |
|                                |                                       | 3683036U  | FR 200 1/2 50 012 SAC                 | 4683018U  | FR 300 1 50 012 RA                    |

# Skillair® LUBRICATOR



The pneumatic lubricator is the simplest way of properly lubricating actuators connected to a circuit.

As air flows from the supply line through the lubricator, it encounters the diaphragm which obstructs the flow and the air is forced through the Venturi tube. The inside of the Venturi tube is connected to the inspection dome, which connects with the bowl via a tube with a regulating needle in between. The drop in pressure caused by the Venturi tube sucks up air through the dome, the tube and lastly into the bowl containing oil.

The quantity of oil controlled by the regulating needle then flows back from the bowl to the circuit.

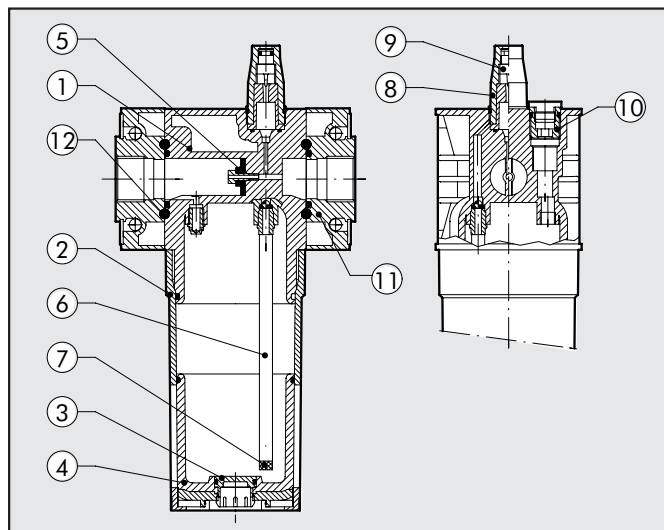


| TECHNICAL DATA                      |                | LUB 100                                                                                                                                                                                               | LUB 100 | LUB 200                 | LUB 200 | LUB 200                                       | LUB 300 | LUB 300 | LUB 300 |
|-------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------|---------|-----------------------------------------------|---------|---------|---------|
| Threaded port                       | NPT            | 1/4"                                                                                                                                                                                                  | 3/8"    | 1/4"                    | 3/8"    | 1/2"                                          | 1/2"    | 3/4"    | 1"      |
| Type of lubrication                 |                | Mist                                                                                                                                                                                                  |         | Mist                    |         | Mist                                          |         |         |         |
| Bowl capacity                       | fluid ounce oz | 1.69                                                                                                                                                                                                  |         | 3.21                    |         | 5.41                                          |         |         |         |
| Versions                            |                | Standard - CA - CD                                                                                                                                                                                    |         | Standard - CA - CD      |         | Standard - CA - CD - ML<br>CA ML - CDV - CDML |         |         |         |
| Max. input pressure                 |                | 1.5MPa - 15bar - 217psi                                                                                                                                                                               |         | 1.3MPa - 13bar - 188psi |         | 1.3MPa - 13bar - 188psi                       |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 1100                                                                                                                                                                                                  |         | 2200                    |         | 3500                                          |         |         |         |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm           | 39                                                                                                                                                                                                    |         | 78                      |         | 125                                           |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 1500                                                                                                                                                                                                  |         | 3700                    |         | 5500                                          |         |         |         |
| ΔP 1 bar (0.1 MPa – 14 psi)         | scfm           | 53                                                                                                                                                                                                    |         | 131                     |         | 196                                           |         |         |         |
| Fluid                               |                | Filtered compressed air                                                                                                                                                                               |         |                         |         |                                               |         |         |         |
| Max temperature                     | °C             | 50                                                                                                                                                                                                    |         | 50                      |         | 50                                            |         |         |         |
| at 1 MPa; 10 bar; 145 psi           | °F             | 122                                                                                                                                                                                                   |         | 122                     |         | 122                                           |         |         |         |
| Weight                              | pounds         | 0.9                                                                                                                                                                                                   |         | 1.5                     |         | 3                                             |         |         |         |
| Wall fixing screws                  |                | N. 8-32 unc x 2                                                                                                                                                                                       |         | N. 10-24 unc x 2.36     |         | N. 10-24 unc x 2.75                           |         |         |         |
| Mounting position                   |                | Vertical                                                                                                                                                                                              |         |                         |         |                                               |         |         |         |
| Recommended oils                    |                | ISO and UNI FD22 (Energol HPL ÷ Spinesso ÷ Mobil DTE ÷ Tellus Oil)                                                                                                                                    |         |                         |         |                                               |         |         |         |
| Notes on use                        |                | Install the lubricator as close as possible to the point of use. Fill the lubricator bowl with oil before pressurizing the system. Do not use cleaning oils, brake fluid oils or solvents in general. |         |                         |         |                                               |         |         |         |
|                                     |                | For the best lubrication results, set the drip rate to one drop per 10.6-21.2 scfm                                                                                                                    |         |                         |         |                                               |         |         |         |

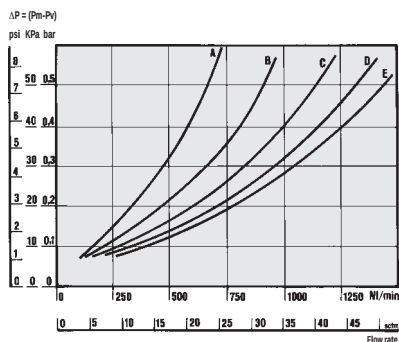
3

## COMPONENTS

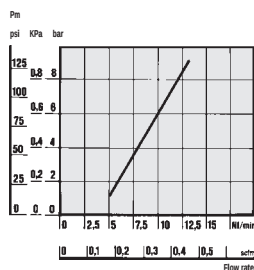
- ① Technopolymer body
- ② Bowl: technopolymer for LUB 100 and 200, metal for LUB 300
- ③ Technopolymer plug
- ④ Clear technopolymer glass
- ⑤ NBR Venturi tube diaphragm
- ⑥ Nylon oil suction tube
- ⑦ Filter
- ⑧ Clear technopolymer inspection dome
- ⑨ OT58 brass oil flow regulating needle
- ⑩ OT58 brass oil filling plug
- ⑪ Zamak end plate
- ⑫ NBR gaskets



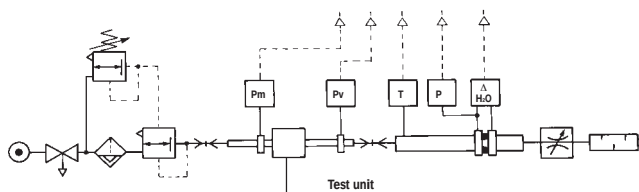
**LUB 100 1/4 - 3/8**



### MINIMUM OPERATING FLOW CHART



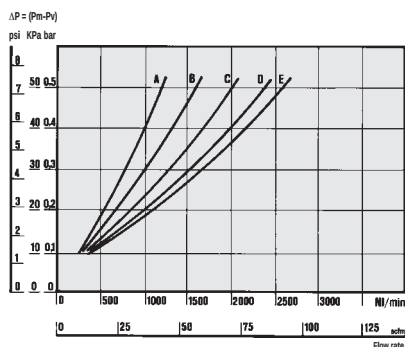
Department  
of Mechanics  
Turin Polytechnic



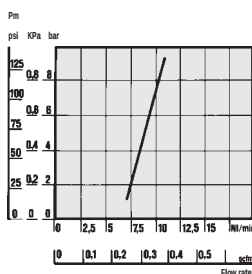
- Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

- (A) = 2 bar - 0,2 MPa - 29 psi      (D) = 8 bar - 0,8 MPa - 116 psi  
(B) = 4 bar - 0,4 MPa - 58 psi      (E) = 10 bar - 1 MPa - 145 psi  
(C) = 6 bar - 0,6 MPa - 87 psi

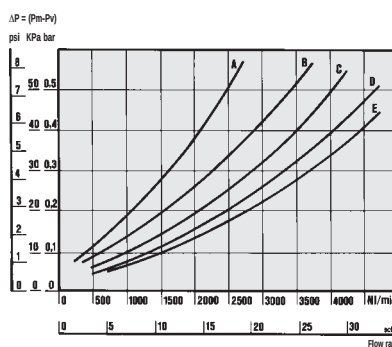
LUB 200 1/4 - 3/8 - 1/2



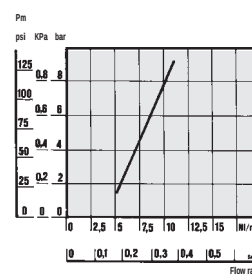
### MINIMUM OPERATING FLOW CHART



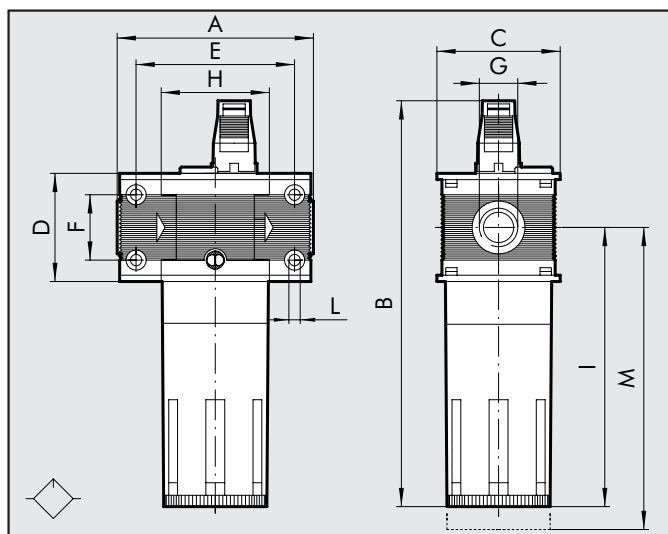
LUB 300 1/2 - 3/4 - 1



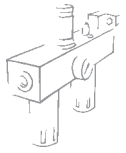
### MINIMUM OPERATING FLOW CHART



## DIMENSIONS

[illegible]

# Skillair® 400 LUBRICATOR



High-performance mist lubricator in various versions.

- Activation guaranteed at low flows
- High ratio of quantity of lubricant to air flow.
- Various oil filling configurations.

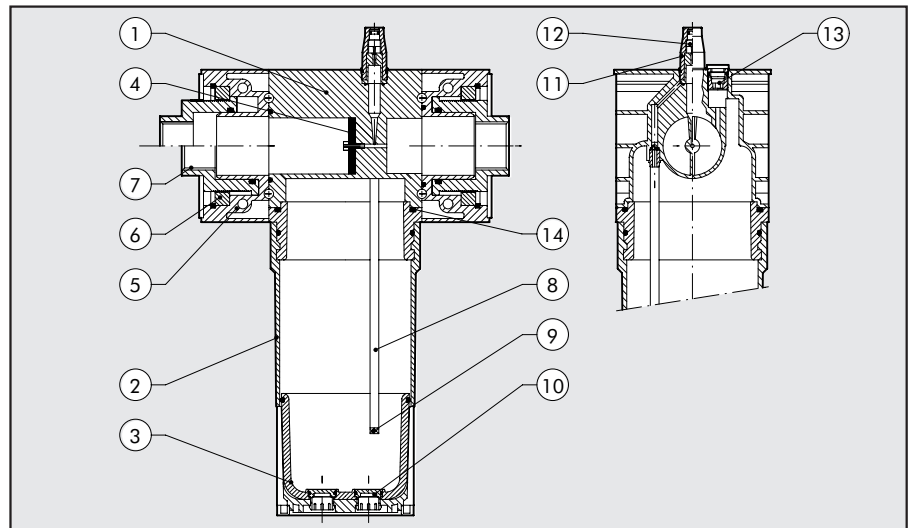


| TECHNICAL DATA                      |                | LUB 400                                                                                                                                                                                               |       |       |        |
|-------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|--------|
| Threaded port                       | NPT            | 1"                                                                                                                                                                                                    | 1"1/4 | 1"1/2 | 2"     |
| Type of lubrication                 |                | Mist                                                                                                                                                                                                  |       |       |        |
| Bowl capacity                       | fluid ounce oz | 27.00                                                                                                                                                                                                 |       |       |        |
| Versions                            |                | Standard - CA - CD - ML - CA ML - CDV - CDML                                                                                                                                                          |       |       |        |
| Max. input pressure                 | MPa            | 1.3                                                                                                                                                                                                   |       |       |        |
|                                     | Bar            | 13                                                                                                                                                                                                    |       |       |        |
|                                     | psi            | 188                                                                                                                                                                                                   |       |       |        |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 18.000                                                                                                                                                                                                |       |       | 21.000 |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm           | 640                                                                                                                                                                                                   |       |       | 750    |
| Fluid                               |                | Filtered compressed air                                                                                                                                                                               |       |       |        |
| Max temperature                     | °C             | 50                                                                                                                                                                                                    |       |       |        |
| at 1 MPa; 10 bar; 145 psi           | °F             | 122                                                                                                                                                                                                   |       |       |        |
| Weight                              | pounds         | 10.8                                                                                                                                                                                                  |       |       | 12.5   |
| Wall fixing screws                  |                | 1/4 - 20 unc x 4.33                                                                                                                                                                                   |       |       |        |
| Mounting position                   |                | Vertical                                                                                                                                                                                              |       |       |        |
| Recommended oils                    |                | ISO and UNI FD22 (Energol HPL ÷ Spinesso ÷ Mobil DTE ÷ Tellus Oil)                                                                                                                                    |       |       |        |
| Notes on use                        |                | Install the lubricator as close as possible to the point of use. Fill the lubricator bowl with oil before pressurizing the system. Do not use cleaning oils, brake fluid oils or solvents in general. |       |       |        |
|                                     |                | For the best lubrication results, set the drip rate to one drop per 10.6 - 21.2 scfm                                                                                                                  |       |       |        |

3

## COMPONENTS

- ① Aluminium body
- ② Aluminium bowl
- ③ Clear technopolymer glass
- ④ NBR Venturi tube diaphragm
- ⑤ Aluminium end plate
- ⑥ OT58 brass retaining ring
- ⑦ OT48 brass threaded bush with axial adjustment
- ⑧ Nylon oil suction pipe
- ⑨ Filter
- ⑩ Technopolymer plug
- ⑪ Clear technopolymer inspection dome
- ⑫ OT58 brass oil flow regulating needle
- ⑬ OT58 brass oil filling plug
- ⑭ NBR gaskets

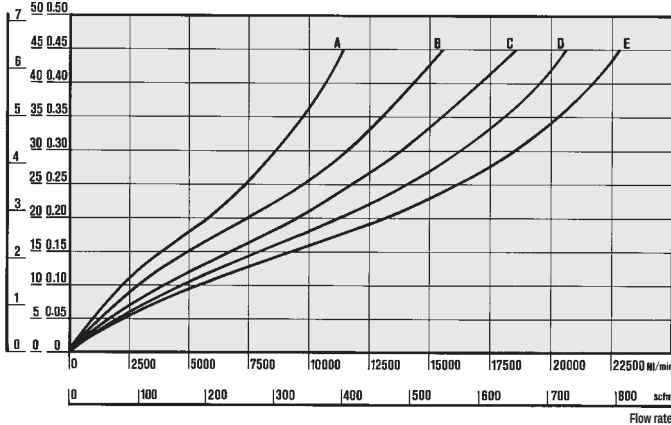


## FLOW CHARTS

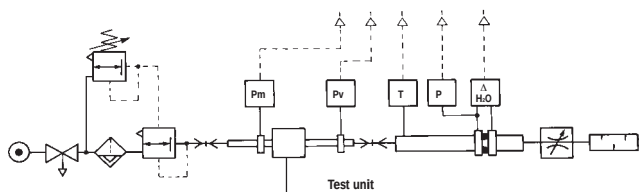
### LUB 400 1"

$\Delta P = (P_m - P_v)$

psi KPa bar



Department  
of Mechanics  
Turin Polytechnic



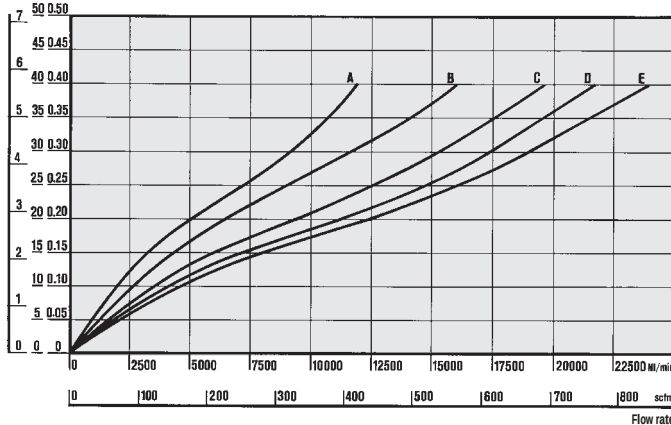
• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

- (A) = 2 bar - 0,2 MPa - 29 psi (D) = 8 bar - 0,8 MPa - 116 psi  
(B) = 4 bar - 0,4 MPa - 58 psi (E) = 10 bar - 1 MPa - 145 psi  
(C) = 6 bar - 0,6 MPa - 87 psi

### LUB 400 2"

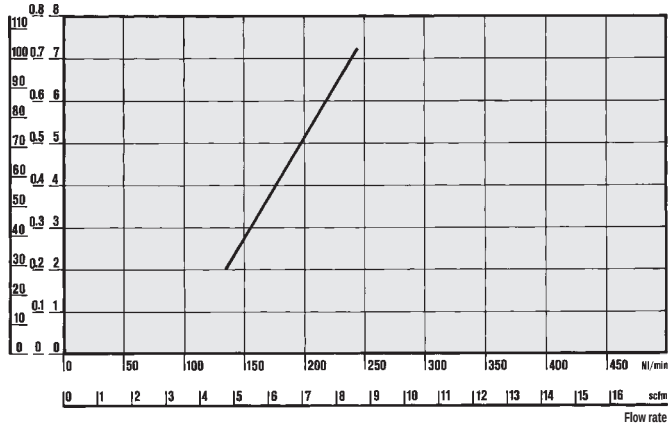
$\Delta P = (P_m - P_v)$

psi KPa bar

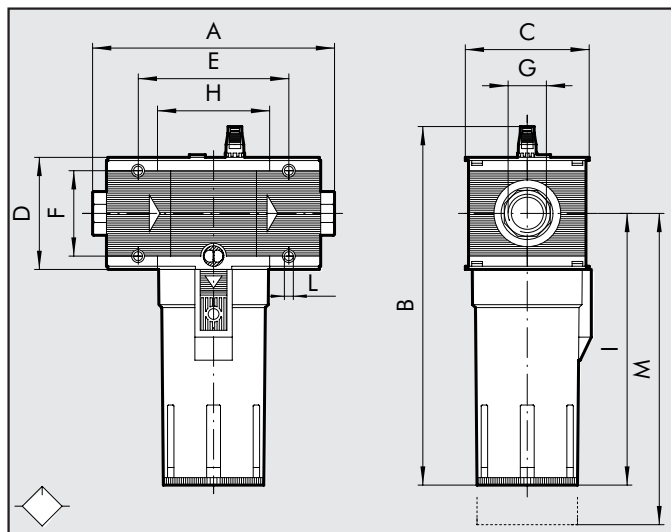


$\Delta P = (P_m - P_v)$

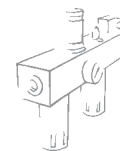
psi KPa bar



## DIMENSIONS



|               | LUB 400 | LUB 400    | LUB 400   | LUB 400     |
|---------------|---------|------------|-----------|-------------|
| Threaded port | NPT 1"  | NPT 1"1/4  | NPT 1"1/2 | NPT 2"      |
| A             |         | 8.85÷10.03 |           | 11.14÷12.32 |
| B             |         | 13.30      |           |             |
| C             |         | 4.56       |           |             |
| D             |         | 4.13       |           |             |
| E             |         | 5.56       |           |             |
| F             |         | 3.15       |           |             |
| G             | NPT 1"  | NPT 1"1/4  | NPT 1"1/2 | NPT 2"      |
| H             |         | 4.15       |           |             |
| I             |         | 10.08      |           |             |
| L             |         | 0.24       |           |             |
| M             |         | 11.22      |           |             |
|               |         |            |           |             |
|               |         |            |           |             |
|               |         |            |           |             |
|               |         |            |           |             |



## LUBRICATORS : MINIMUM LEVEL (ML)

Available in sizes 300 and 400.  
This version gives two electric signals controlling maximum and minimum level. They can be used to control audio alarms, lights, etc. There is no signal between minimum and maximum level.

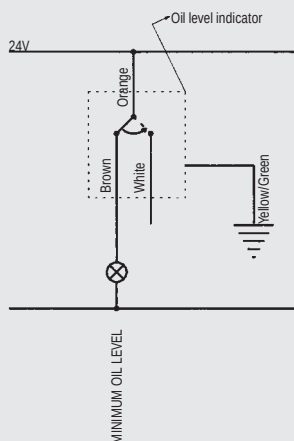
### WIRING

#### Level indicator

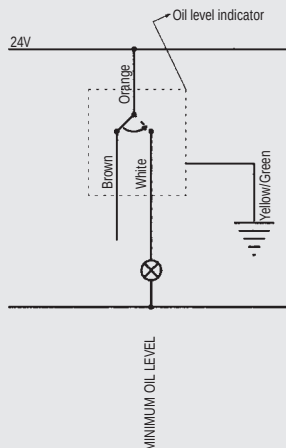
White = 1st signal (maximum oil level)  
Brown = 2nd signal (minimum oil level)  
Orange = Common  
Yellow/Green = Ground  
Voltage = 24V  
Contact = 0.75 A 10W

NB: The unused end plate must be suitably insulated.

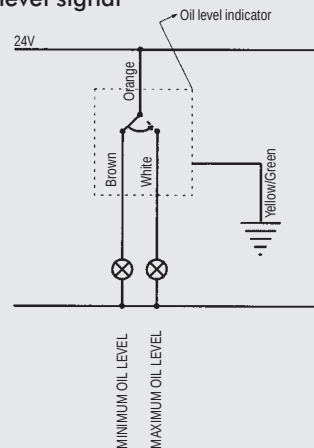
#### 1.1 Minimum level signal



#### 1.2 Maximum level signal



#### 1.3 Minimum and maximum oil level signal



## LUBRICATORS: AUTOMATIC MINIMUM LEVEL FILLING (CAML)

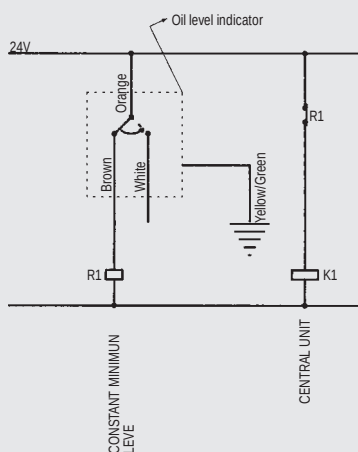
Available in size 300 and 400.  
Used for filling the bowl with oil during operation of the system only if the oil inlet pressure is higher than the pressure inside the lubricator bowl.

The electric indicator inside the bowl sends an electric signal that is used to activate the oil unit.

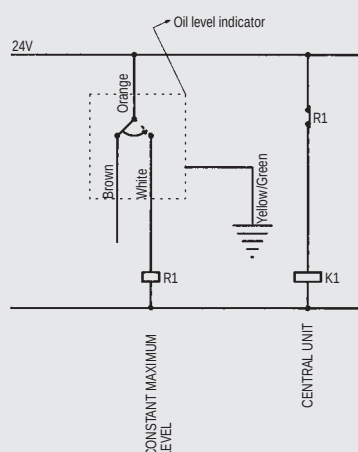
When the oil reaches the maximum level, another signal deactivates the unit. In this case the lubrication system operates with

the oil level between the maximum and minimum values. If it is necessary to keep the oil level in the bowl constant, only one of the two signals can be used. Pressure range 3-10 bar. Connect the pipe from the central unit to the G1/4 fitting on the bowl. The wiring features are the same as for model ML.

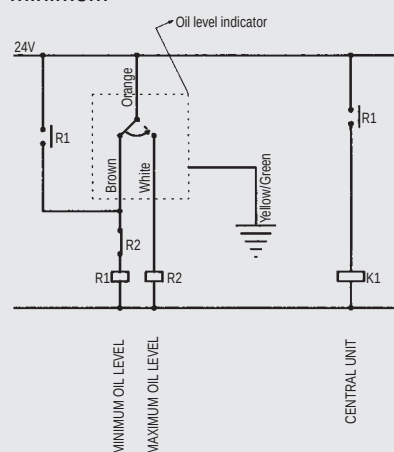
#### 1.1 Constant minimum level



#### 1.2 Constant maximum level



#### Oil level between maximum and minimum





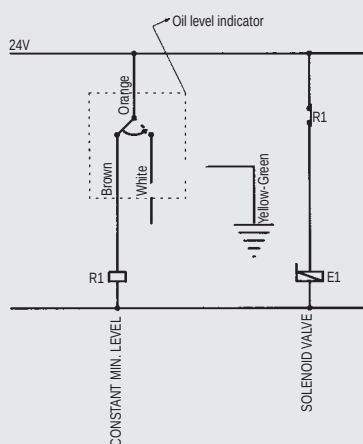
## LUBRICATOR: DEPRESSION FILLING WITH MINIMUM LEVEL (CD ML)

### DEPRESSION FILLING WITH MINIMUM LEVEL

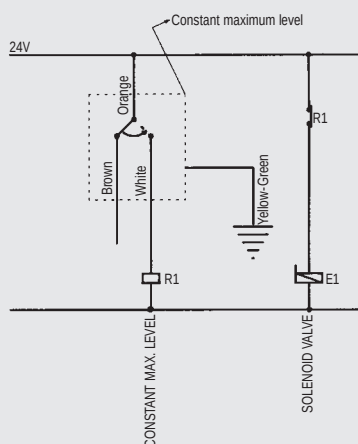
Available in sizes 300 and 400, this lubricator is controlled by a solenoid valve (2/2 NC minimum bore 3) situated on the lubricator body. It reduces pressure inside the bowl allow it to be filled with oil taken from a tank at ambient pressure, which can be located in a lower position than the lubricator (max. difference in height 6.56 feet).

The electric indicator inside the bowl sends an electric signal used to activate the valve. When the oil reaches the maximum level, another signal deactivates the valve. In this case, the lubricator system operates with the oil level between minimum and maximum. If it is necessary to keep the oil level in the bowl constant, only one of the two signals can be used. Pressure range 44 ÷ 145 psi. Connect the oil tank to the 1/4 NPT fitting on the bowl.

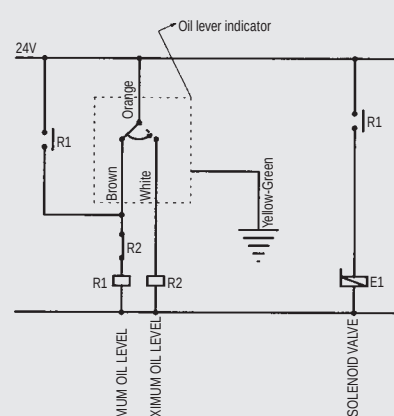
#### 1.1 Constant minimum level



#### 1.2 Constant maximum level



#### 1.3 Oil level between maximum and minimum



## OTHER VERSIONS SHOWN IN THE CATALOG

### AUTOMATIC FILLING (CA)

Available in all sizes. The bowl is only filled with oil during operation of the system if the oil inlet pressure is about 44 psi higher than the pressure inside the bowl. In any case, it must not exceed 215 psi. The float opens and closes the oil intake valve. Lubrication continues during oil filling. The timer can be used to control the central unit so that cycles are performed between zero and the filling pressure. These timed cycles allow the oil level in the lubricator to be topped up. Connect the tube from the central unit to the 1/4 NPT fitting below the bowl.

### FILLING BY VACUUM (CD)

Available in all sizes. It is operated by means of a button on the lubricator body. The pressure inside the bowl drops to allow it to be filled with oil taken from a tank at ambient pressure, which can be located in a lower position than the lubricator (max. difference in height 6.56 feet). Oil filling stops when the level of oil raises the float and shuts off a specific valve. Important – The SK4 lubricator is filled with oil by hand. Filling must stop when the oil level is visible through the spy-hole in the bowl release lever. Pressure range 44 ÷ 145 psi. Lubrication is discontinued during filling. Connect the oil tank to the 1/4 NPT fitting below the bowl.

### FILLING BY VACUUM (CVD) WITH VALVE

Available in sizes 300 and 400. It is operated by means of a solenoid valve (2/2 NC minimum bore 3) situated on the lubricator body. The pressure inside the bowl drops to allow it to be filled with oil taken from a tank at ambient pressure, which can be located in a lower position than the lubricator (max. difference in height 6.56 feet). Oil filling stops when the level of oil raises the float and shuts off a specific valve. Important – The SK4 lubricator is filled with oil by hand. Filling must stop when the oil level is visible through the spy-hole in the bowl release lever. Pressure range 44 ÷ 145 psi. Lubrication is discontinued during filling. Connect the oil tank to the 1/4 NPT fitting below the bowl.



# Skillair® COALESCER

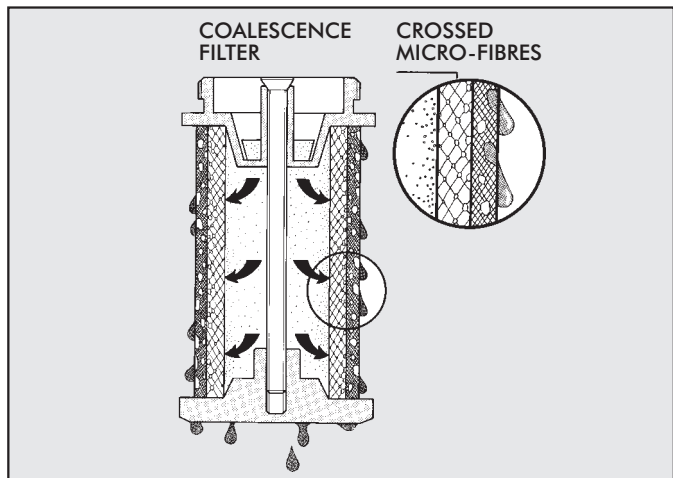
The role of the coalescer is to separate the liquid and solid particles contained in the compressed air with a high degree of efficiency. This separation is carried out using a special filtering element called a "coalescence cartridge".

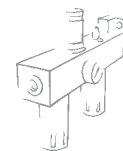


| TECHNICAL DATA                      |                | DEP 100                                                                                        | DEP 100 | DEP 200             | DEP 200 | DEP 200 | DEP 300                 | DEP 300             | DEP 300 |
|-------------------------------------|----------------|------------------------------------------------------------------------------------------------|---------|---------------------|---------|---------|-------------------------|---------------------|---------|
| Threaded port                       | NPT            | 1/4                                                                                            | 3/8     | 1/4                 | 3/8     | 1/2     | 1/2                     | 3/4                 | 1''     |
| Degree of filtering                 |                | 99.97% at 0.01 micron                                                                          |         |                     |         |         |                         |                     |         |
| Max. inlet pressure                 | MPa            | 1.5                                                                                            |         |                     |         | 1.3     |                         |                     |         |
|                                     | Bar            | 15                                                                                             |         |                     |         | 13      |                         |                     |         |
|                                     | psi            | 217                                                                                            |         |                     |         | 188     |                         |                     |         |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 750                                                                                            |         | 1200                |         |         |                         | 2800                |         |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm           | 27                                                                                             |         | 43                  |         |         |                         | 100                 |         |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 1100                                                                                           |         | 1700                |         |         |                         | 4200                |         |
| ΔP 1 bar (0.1 MPa – 14 psi)         | scfm           | 39                                                                                             |         | 61                  |         |         |                         | 150                 |         |
| Fluid                               |                | 5 micron filtered air                                                                          |         |                     |         |         |                         |                     |         |
| Max temperature                     | °C             | 50                                                                                             |         |                     |         |         |                         |                     |         |
| at 1 MPa; 10 bar; 145 psi           | °F             | 122                                                                                            |         |                     |         |         |                         |                     |         |
| Weight                              | pounds         | 0.9                                                                                            |         | 2                   |         |         |                         | 3                   |         |
| Wall fixing screws                  |                | N. 8-32 unc x 2                                                                                |         | N. 10-24 unc x 2.36 |         |         |                         | N. 10-24 unc x 2.75 |         |
| Mounting position                   |                | Vertical                                                                                       |         |                     |         |         |                         |                     |         |
| Bowl capacity                       | fluid ounce oz | 0.74                                                                                           |         | 1.52                |         |         |                         | 2.54                |         |
| Drain                               |                | Manual/Semi-auto (RMSA)                                                                        |         |                     |         |         | Manual/Semi-auto (RMSA) |                     |         |
|                                     |                | Automatic (SAC)                                                                                |         |                     |         |         | Automatic (RA)          |                     |         |
| Notes on use                        |                | It is advisable to mount a 5 micron pre-filter in order to separate the solid particles first. |         |                     |         |         |                         |                     |         |
|                                     |                |                                                                                                |         |                     |         |         |                         |                     |         |

## HOW THE COALESCENCE CARTRIDGE WORKS

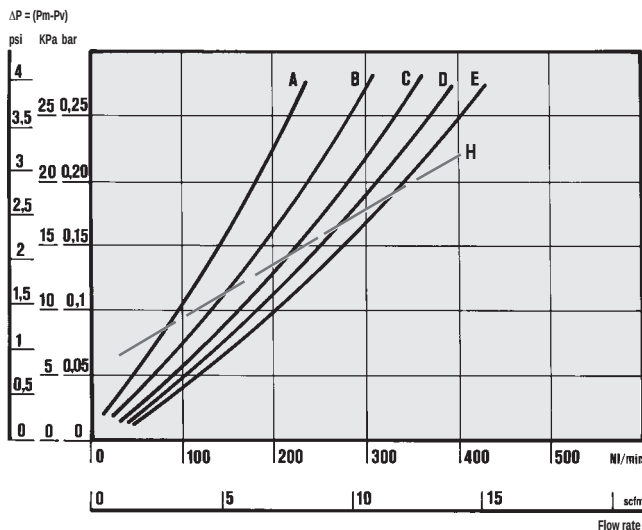
Air from the supply line – full of impurities – flows into the coalescence cartridge and then passes through the crossed micro-fibres that make up the cartridge. During this movement the liquid particles come into contact with the crossed micro-fibres and adhere to them. Due to the air pressure and gravity they join up with other micro-drops at each cross-over point and gradually increase in volume, leading to the physical phenomenon called coalescence. When they stop moving, the drops deposit on the outside of the cartridge, from which they detach and drop to the bottom. Since the volume of liquid leaving the cartridge is exactly the same as the drops arriving, the coalescence cartridge ought to work indefinitely. Solid particles are caught with the same efficiency but, unlike drops, they are not drained out and clog the cartridge. To eliminate this problem, it is necessary to mount a 5 Mm pre-filter before the fine oil filter to separate the solid particles first.



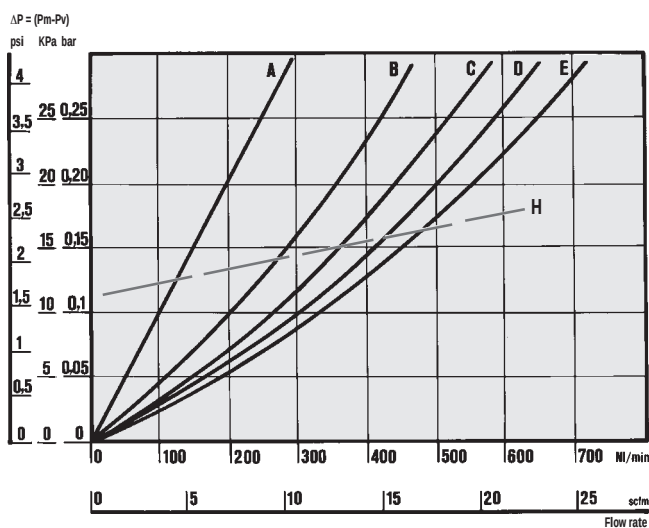


## FLOW CHARTS

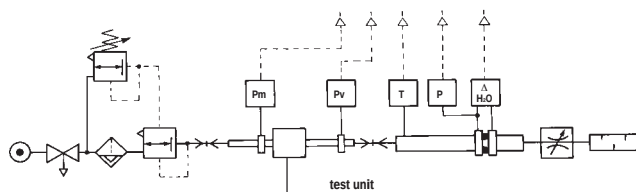
### DEP 100 1/4 - 3/8



### DEP 200 1/4 - 3/8 - 1/2



Department  
of Mechanics  
Turin Polytechnic

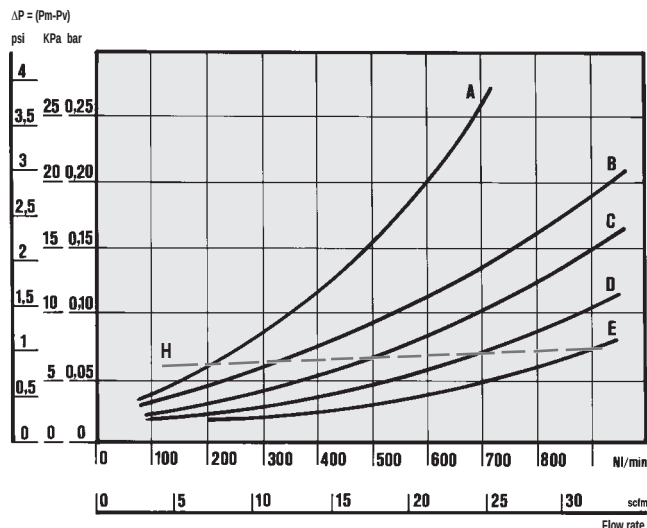


• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

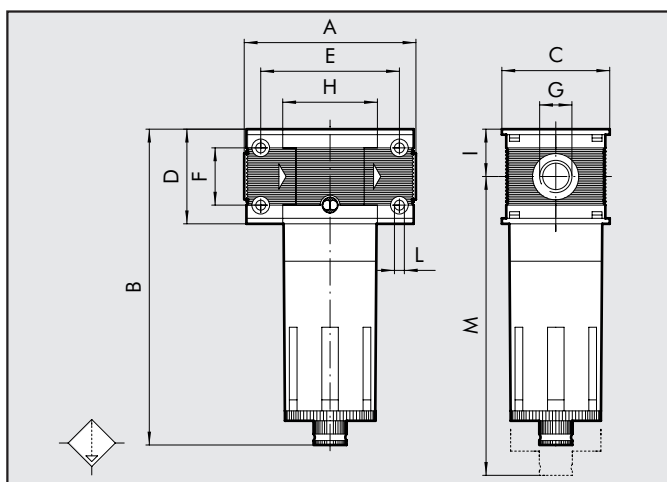
(A) = 2 bar - 0,2 MPa - 29 psi  
(B) = 4 bar - 0,4 MPa - 58 psi  
(C) = 6 bar - 0,6 MPa - 87 psi

(D) = 8 bar - 0,8 MPa - 116 psi  
(E) = 10 bar - 1 MPa - 145 psi  
(H) = maximum flow rate recommended for optimal operation

### DEP 300 1/2 - 3/4 - 1



## DIMENSIONS



|        | DEP 100 | DEP 100 | DEP 200 | DEP 200 | DEP 200 | DEP 300 | DEP 300 | DEP 300 |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| Th. p. | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| A      | 3.07    |         |         | 3.68    |         | 4.33    |         | 4.40    |
| B      | 5.66    |         |         | 6.88    |         |         | 7.67    |         |
| C      | 1.96    |         |         | 2.48    |         |         | 2.83    |         |
| D      | 1.69    |         |         | 2.16    |         |         | 2.55    |         |
| E      | 2.48    |         |         | 3.09    |         |         | 3.62    |         |
| F      | 1.02    |         |         | 1.41    |         |         | 1.65    |         |
| G      | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| H      | 1.69    |         |         | 2.18    |         |         | 2.55    |         |
| I      | 0.84    |         |         | 1.08    |         |         | 1.27    |         |
| L      | 0.17    |         |         | 0.21    |         |         | 0.21    |         |
| M      | 5.39    |         |         | 7.71    |         |         | 8.46    |         |

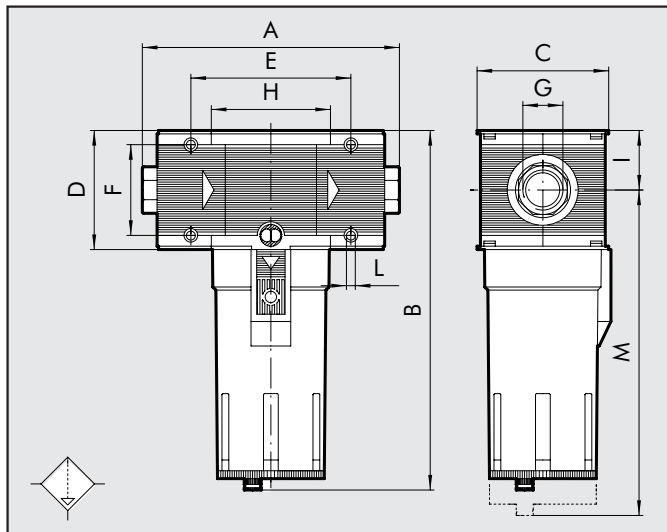
# Skillair® 400 COALESCER

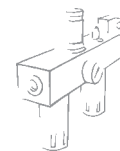
- Coalescence cartridge with a very high degree of filtration
- Metal bowl with bayonet coupling, safety lock and 360° condensate display
- Manual/semi-auto condensate drain
- Optional activated carbon cartridge with 0.003 ppm oil residue (food industry, pharmaceuticals, cosmetics).



| TECHNICAL DATA                      |                | DEP 400                                                                                                                                                                                                                                                   |       |       |    |
|-------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|----|
| Threaded port                       | NPT            | 1"                                                                                                                                                                                                                                                        | 1"1/4 | 1"1/2 | 2" |
| Degree of filtration                |                | 99.99% at 0.01 μm                                                                                                                                                                                                                                         |       |       |    |
| Max. inlet pressure                 | MPa            | 1.3                                                                                                                                                                                                                                                       |       |       |    |
|                                     | Bar            | 13                                                                                                                                                                                                                                                        |       |       |    |
|                                     | psi            | 188                                                                                                                                                                                                                                                       |       |       |    |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min         | 8.000                                                                                                                                                                                                                                                     |       |       |    |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm           | 284                                                                                                                                                                                                                                                       |       |       |    |
| Fluid                               |                | 200 microinch filtered air                                                                                                                                                                                                                                |       |       |    |
| Max temperature                     | °C             | 50                                                                                                                                                                                                                                                        |       |       |    |
| at 1 MPa; 10 bar; 145 psi           | °F             | 122                                                                                                                                                                                                                                                       |       |       |    |
| Weight                              | pounds         | 9.26                                                                                                                                                                                                                                                      |       |       | 11 |
| Wall fixing screws                  |                | 1/4 - 20 unc x 4.33                                                                                                                                                                                                                                       |       |       |    |
| Mounting position                   |                | Vertical                                                                                                                                                                                                                                                  |       |       |    |
| Drain                               |                | Manual/semi-auto (RMSA) - Automatic (RA)                                                                                                                                                                                                                  |       |       |    |
| Bowl capacity                       | fluid ounce oz | 9.13                                                                                                                                                                                                                                                      |       |       |    |
| Notes on use                        |                | It is advisable to mount a 5 μm pre-filter in order to separate the solid particles first. Series 400 end plates come with a patented system with a rotary sliding end joint to allow the unit to be adapted to the pipe cutting distance (see page 3/3). |       |       |    |
|                                     |                |                                                                                                                                                                                                                                                           |       |       |    |

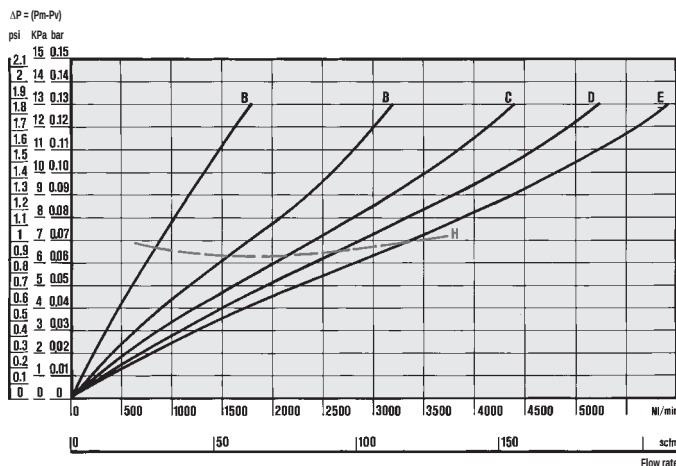
| DIMENSIONS    |  | LUB 400    | LUB 400   | LUB 400   | LUB 400     |
|---------------|--|------------|-----------|-----------|-------------|
| Threaded port |  | NPT 1"     | NPT 1"1/4 | NPT 1"1/2 | NPT 2"      |
| A             |  | 8.85÷10.03 |           |           | 11.14÷12.32 |
| B             |  | 12.59      |           |           |             |
| C             |  | 4.56       |           |           |             |
| D             |  | 4.13       |           |           |             |
| E             |  | 5.56       |           |           |             |
| F             |  | 3.14       |           |           |             |
| G             |  | NPT 1"     | NPT 1"1/4 | NPT 1"1/2 | NPT 2"      |
| H             |  | 4.14       |           |           |             |
| I             |  | 2.06       |           |           |             |
| L             |  | 0.29       |           |           |             |
| M             |  | 14.88      |           |           |             |
|               |  |            |           |           |             |
|               |  |            |           |           |             |
|               |  |            |           |           |             |
|               |  |            |           |           |             |





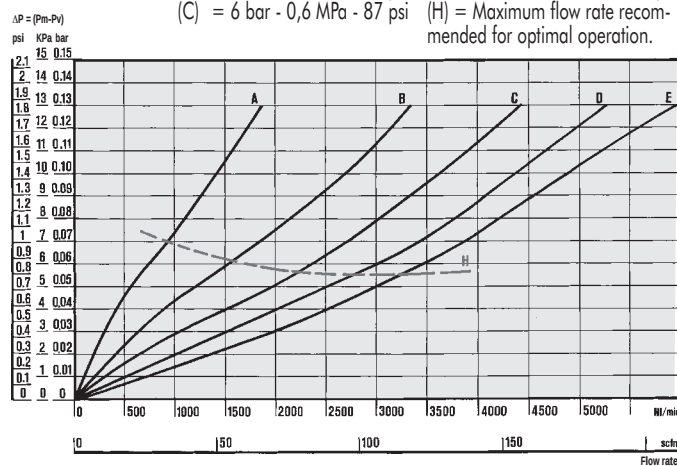
## FLOW CHARTS

### DEP 400 1''



### DEP 400 2''

(A) = 2 bar - 0,2 MPa - 29 psi (D) = 8 bar - 0,8 MPa - 116 psi  
 (B) = 4 bar - 0,4 MPa - 58 psi (E) = 10 bar - 1 MPa - 145 psi  
 (C) = 6 bar - 0,6 MPa - 87 psi (H) = Maximum flow rate recommended for optimal operation.



## KEY TO CODES

| DEP     | 100  | 1/4           | RMSA          |
|---------|------|---------------|---------------|
| ELEMENT | SIZE | THREADED PORT | TYPE OF DRAIN |
| DEP     | 100  | 1/4           | RMSA          |
|         | 200  | 3/8           |               |
|         |      | 1/4           |               |
|         | 300  | 3/8           |               |
|         |      | 1/2           |               |
|         | 400  | 1/2           | RMSA          |
|         |      | 3/4           | RA            |
|         |      | 1             |               |
|         |      | 1 1/4         |               |
|         |      | 1 1/2         |               |
|         |      | 2             |               |

RMSA: Manual/semi-auto drain  
 RA: Automatic drain. Float-type operation irrespective of the pressure and flow rate.

3

## ORDERING CODES

| Code                   | Description                   | Code                   | Description                   | Code                   | Description                   |
|------------------------|-------------------------------|------------------------|-------------------------------|------------------------|-------------------------------|
| SKILLAIR 100 DEPURATOR |                               | SKILLAIR 300 DEPURATOR |                               | SKILLAIR 400 DEPURATOR |                               |
| 3288001UA              | D 100 RMSA WITHOUT END PLATES | 4488001UA              | D 300 RMSA WITHOUT END PLATES | 6188001UA              | D 400 RMSA WITHOUT END PLATES |
| 3288001U               | D 100 1/4 RMSA                | 4488002U               | D 300 RA WITHOUT END PLATES   | 6188002UA              | D 400 RA WITHOUT END PLATES   |
| 3388001U               | D 100 3/8 RMSA                | 4488001U               | D 300 1/2 RMSA                | 6188001U               | D 400 1 RMSA                  |
|                        |                               | 4488002U               | D 300 1/2 RA                  | 6188002U               | D 400 1 RA                    |
| SKILLAIR 200 DEPURATOR |                               | 4588001U               | D 300 3/4 RMSA                | 6288001U               | D 400 1 1/4 RMSA              |
| 3488001UA              | D 200 RMSA WITHOUT END PLATES | 4588002U               | D 300 3/4 RA                  | 6288002U               | D 400 1 1/4 RA                |
| 3488001U               | D 200 1/4 RMSA                | 4688001U               | D 300 1 RMSA                  | 6388001U               | D 400 1 1/2 RMSA              |
| 3588001U               | D 200 3/8 RMSA                | 4688002U               | D 300 1 RA                    | 6388002U               | D 400 1 1/2 RA                |
| 3688001U               | D 200 1/2 RMSA                |                        |                               | 6488001U               | D 400 2 RMSA                  |
|                        |                               |                        |                               | 6488002U               | D 400 2 RA                    |
|                        |                               |                        |                               |                        |                               |
|                        |                               |                        |                               |                        |                               |
|                        |                               |                        |                               |                        |                               |
|                        |                               |                        |                               |                        |                               |
|                        |                               |                        |                               |                        |                               |

# Skillair® SHUT-OFF VALVE

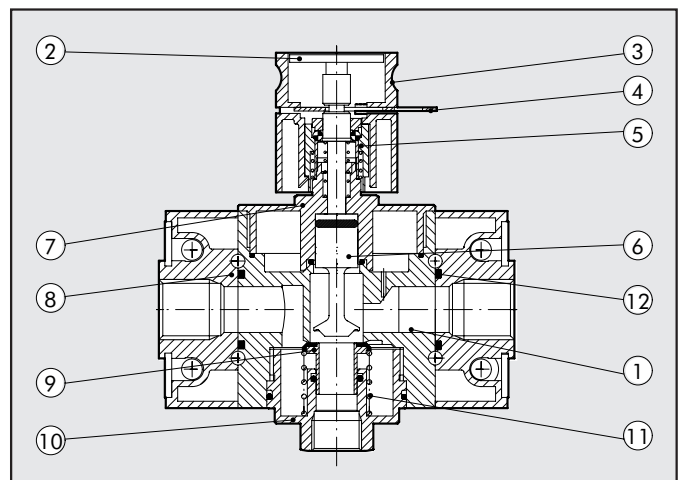
The job of this valve is to make the circuit independent from the air supply. It is basically a three-way valve. In the closed position, it cuts off the air supply and discharges the downstream circuit at the same time, which means it is particularly useful during servicing operations. The hand-operated version can be padlocked to lock the knob in a closed position so that it can only be opened by someone with the right key. An interlocked version is available for low pressure operation.

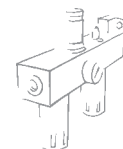


| TECHNICAL DATA                                                                                                                |        | V3V 100                                                                                       | V3V 100 | V3V 200             | V3V 200 | V3V 200             | V3V 300 | V3V 300 | V3V 300 |
|-------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------|---------|---------------------|---------|---------------------|---------|---------|---------|
| Threaded port                                                                                                                 | NPT    | 1/4                                                                                           | 3/8     | 1/4                 | 3/8     | 1/2                 | 1/2     | 3/4     | 1"      |
| Min. inlet pressure for solenoid version **                                                                                   | MPa    | 0.3                                                                                           |         | 0.3                 |         | 0.2                 |         |         |         |
|                                                                                                                               | bar    | 3                                                                                             |         | 3                   |         | 2                   |         |         |         |
|                                                                                                                               | psi    | 43.5                                                                                          |         | 43.5                |         | 29                  |         |         |         |
| Max. inlet pressure*                                                                                                          | MPa    | 1.5                                                                                           |         | 1.3                 |         | 1.3                 |         |         |         |
|                                                                                                                               | bar    | 15                                                                                            |         | 13                  |         | 13                  |         |         |         |
|                                                                                                                               | psi    | 217                                                                                           |         | 188                 |         | 188                 |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)                                                                                           | NI/min | 1300                                                                                          |         | 2400                |         | 3200                |         |         |         |
| ΔP 0.5 bar (0.05 MPa – 7 psi)                                                                                                 | scfm   | 46                                                                                            |         | 85                  |         | 113                 |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)                                                                                           | NI/min | 1650                                                                                          |         | 3000                |         | 4700                |         |         |         |
| ΔP 1 bar (0.1 MPa – 14 psi)                                                                                                   | scfm   | 58                                                                                            |         | 106                 |         | 166                 |         |         |         |
| Fluid                                                                                                                         |        | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous |         |                     |         |                     |         |         |         |
| Max temperature                                                                                                               | °C     | 50                                                                                            |         | 50                  |         | 50                  |         |         |         |
|                                                                                                                               | °F     | 122                                                                                           |         | 122                 |         | 122                 |         |         |         |
| Weight                                                                                                                        | pounds | 1.1                                                                                           |         | 1.8                 |         | 2.6                 |         |         |         |
| Wall fixing screws                                                                                                            |        | N. 8-32 unc x 2                                                                               |         | N. 10-24 unc x 2.36 |         | N. 10-24 unc x 2.75 |         |         |         |
| Mounting                                                                                                                      |        | In any position                                                                               |         |                     |         |                     |         |         |         |
| Type of control                                                                                                               |        | Manual – Pneumatic – Solenoid – Solenoid pilot-assisted                                       |         |                     |         |                     |         |         |         |
| * 1 MPa – 10 bar – 145 psi for solenoid version                                                                               |        |                                                                                               |         |                     |         |                     |         |         |         |
| ** 0.01 MPa – 0.1 bar – 1.45 psi for manual, pneumatic and pilot-assisted versions with controls min. 0.3 MPa 3 bar 43.5 psi. |        |                                                                                               |         |                     |         |                     |         |         |         |

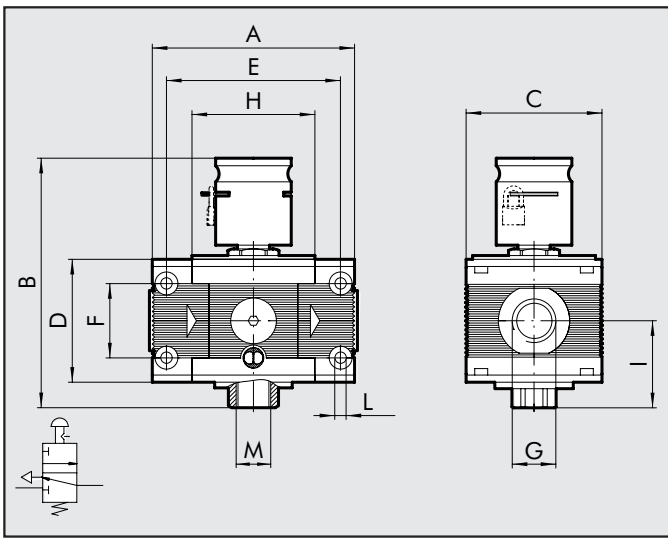
## COMPONENTS

- ① Technopolymer body
- ② Operating button
- ③ Technopolymer knob
- ④ Stainless steel safety lamination
- ⑤ Locking unit
- ⑥ OT58 brass piston rod
- ⑦ OT58 brass top plug
- ⑧ Zamak end plate
- ⑨ Valve with vulcanized NBR gasket
- ⑩ OT58 brass bottom plug
- ⑪ Stainless steel valve spring
- ⑫ NBR gaskets



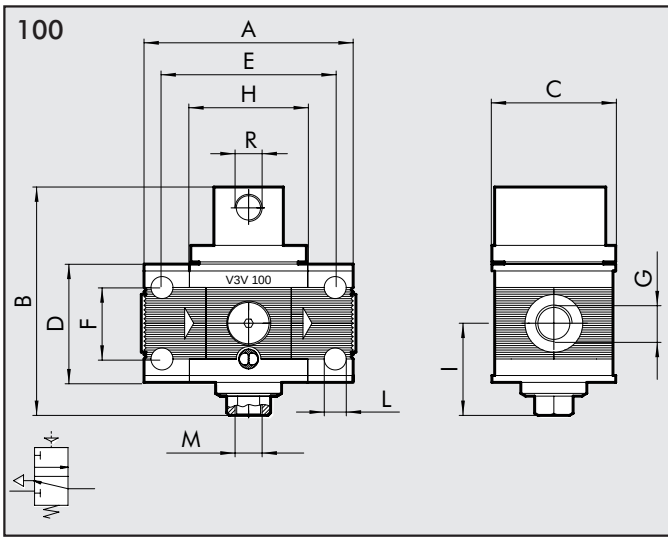


# DIMENSIONS OF V3V MANUAL VERSION (LOCKABLE)

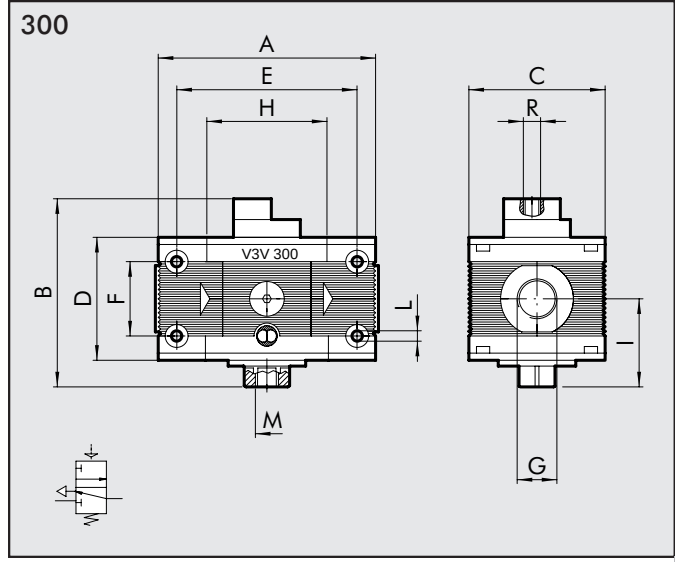
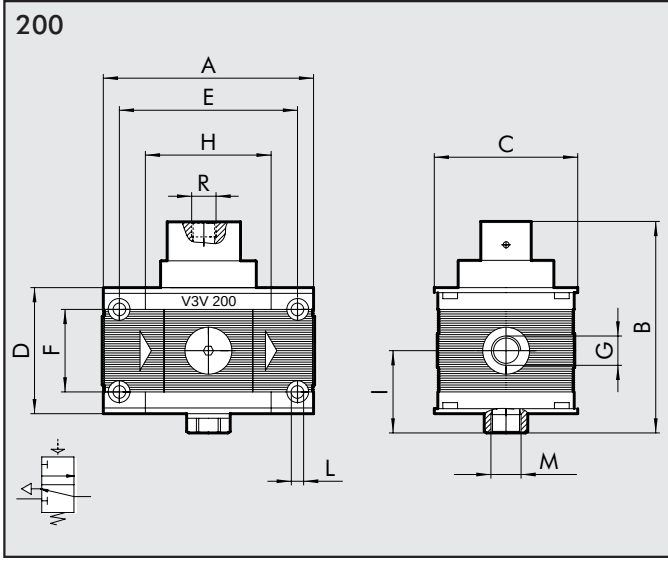


|          | V3V 100 | V3V 100 | V3V 200 | V3V 200 | V3V 200 | V3V 300 | V3V 300 | V3V 300 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| Thr. p.  | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| A        | 3.07    |         |         | 3.68    |         | 4.33    |         | 4.40    |
| B        | 4.17    |         |         | 4.68    |         |         | 5.20    |         |
| C        | 1.97    |         |         | 2.48    |         |         | 2.83    |         |
| D        | 1.69    |         |         | 2.16    |         |         | 2.55    |         |
| E        | 2.48    |         |         | 3.09    |         |         | 3.62    |         |
| F        | 1.02    |         |         | 1.41    |         |         | 1.65    |         |
| G        | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| H        | 1.69    |         |         | 2.18    |         |         | 2.55    |         |
| I        | 1.31    |         |         | 1.57    |         |         | 1.83    |         |
| L        | 0.17    |         |         | 0.21    |         |         | 0.21    |         |
| M        | NPT 1/8 |         |         | NPT 1/4 |         |         | NPT 3/8 |         |
| (relief) |         |         |         |         |         |         |         |         |
|          |         |         |         |         |         |         |         |         |
|          |         |         |         |         |         |         |         |         |
|          |         |         |         |         |         |         |         |         |
|          |         |         |         |         |         |         |         |         |

# DIMENSIONS OF V3V PNEUMATIC VERSION



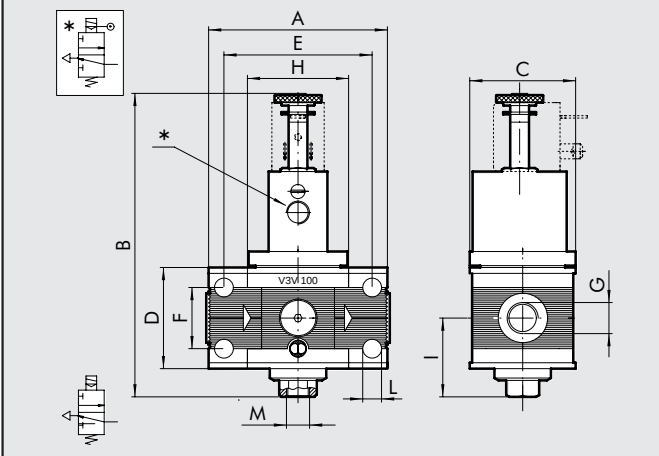
|          | V3V 100 | V3V 100 | V3V 200 | V3V 200 | V3V 200 | V3V 300 | V3V 300 | V3V 300 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| Thr. p.  | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| A        | 3.07    |         |         | 3.68    |         | 4.33    |         | 4.40    |
| B        | 3.26    |         |         | 3.78    |         |         | 4.17    |         |
| C        | 1.96    |         |         | 2.48    |         |         | 2.83    |         |
| D        | 1.69    |         |         | 2.16    |         |         | 2.56    |         |
| E        | 2.48    |         |         | 3.09    |         |         | 3.62    |         |
| F        | 1.02    |         |         | 1.41    |         |         | 1.65    |         |
| G        | NPT 1/4 | NPT 3/8 | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 1/2 | NPT 3/4 | NPT 1"  |
| H        | 1.69    |         |         | 2.18    |         |         | 1.83    |         |
| I        | 1.31    |         |         | 1.57    |         |         | 2.91    |         |
| L        | 0.17    |         |         | 0.21    |         |         | 0.21    |         |
| M        | NPT 1/8 |         |         | NPT 1/4 |         |         | NPT 3/8 |         |
| (relief) |         |         |         |         |         |         |         |         |
| R        | NPT 1/8 |         |         | NPT 1/8 |         |         | NPT 1/8 |         |
| (pilot)  |         |         |         |         |         |         |         |         |
|          |         |         |         |         |         |         |         |         |
|          |         |         |         |         |         |         |         |         |
|          |         |         |         |         |         |         |         |         |





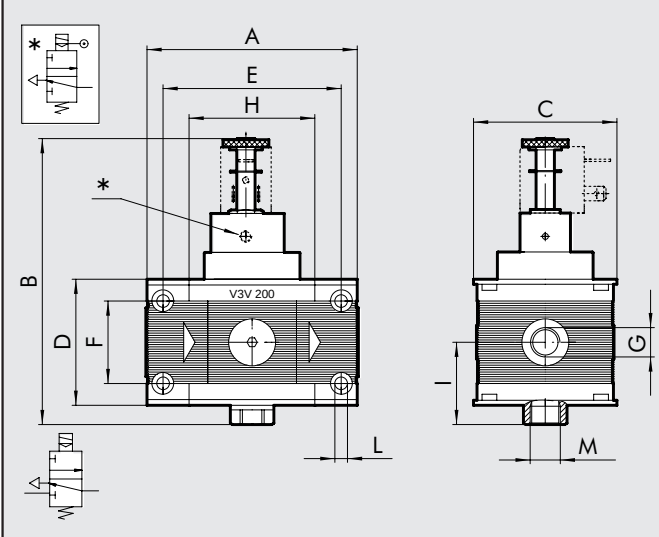
# DIMENSIONS OF V3V SOLENOID/SOLENOID PILOT-ASSISTED VALVE

## V3V 100 SOLENOID/SOLENOID PILOT-ASSISTED VALVE

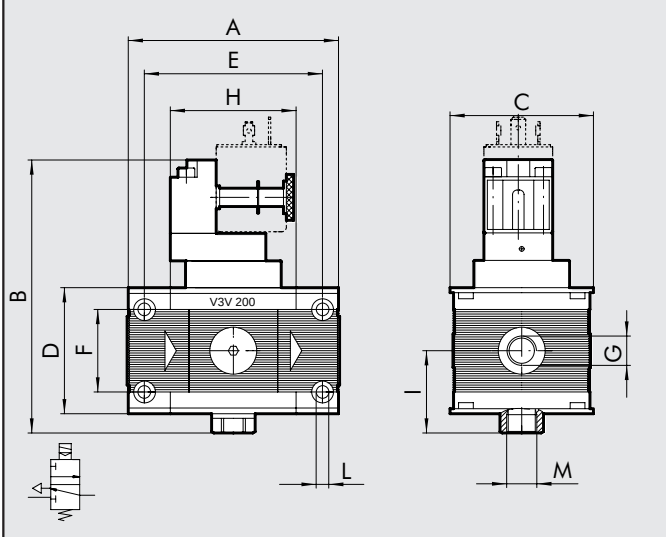


|                     | V3V 100 |         | V3V 200   |         |         | V3V 300   |         |        |
|---------------------|---------|---------|-----------|---------|---------|-----------|---------|--------|
| Threaded port       | NPT 1/4 | NPT 3/8 | NPT 1/4   | NPT 3/8 | NPT 1/2 | NPT 1/2   | NPT 3/4 | NPT 1" |
| A                   | 3.07    |         | 3.68      |         |         | 4.33      |         | 4.40   |
| B Solenoid          | 5.03    |         | 5.07      |         |         | 5.98      |         |        |
| Solenoid pilot-ass. | 5.07    |         | 5.07      |         |         | —         |         |        |
| CNOMO control       | —       |         | 4.84      |         |         | 4.92      |         |        |
| CNOMO pilot-ass.    | —       |         | —         |         |         | 5.43      |         |        |
| Microsol control    | —       |         | —         |         |         | 4.88      |         |        |
| C                   | 1.96    |         | 2.48      |         |         | 2.83      |         |        |
| D                   | 1.69    |         | 2.16      |         |         | 2.55      |         |        |
| E                   | 2.48    |         | 3.09      |         |         | 3.62      |         |        |
| F                   | 1.02    |         | 1.41      |         |         | 1.65      |         |        |
| G                   | NPT 1/4 | NPT 3/8 | NPT 1/4   | NPT 3/8 | NPT 1/2 | NPT 1/2   | NPT 3/4 | NPT 1" |
| H                   | 1.69    |         | 2.18      |         |         | 2.55      |         |        |
| I                   | 1.31    |         | 1.57      |         |         | 1.83      |         |        |
| L                   | 0.17    |         | 0.21      |         |         | 0.21      |         |        |
| M (relief)          | NPT 1/8 |         | NPT 1/4   |         |         | NPT 3/8   |         |        |
| * (pilot)           | NPT 1/8 |         | 10/32 UNF |         |         | 10/32 UNF |         |        |

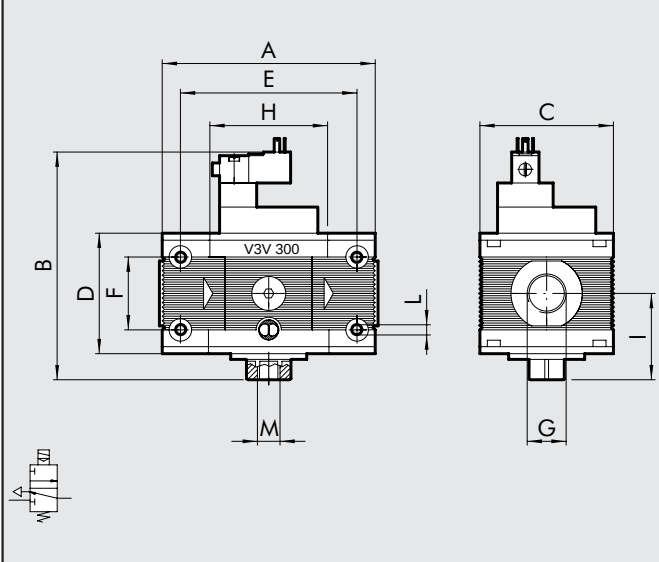
## V3V 200 SOLENOID/SOLENOID PILOT-ASSISTED VALVE



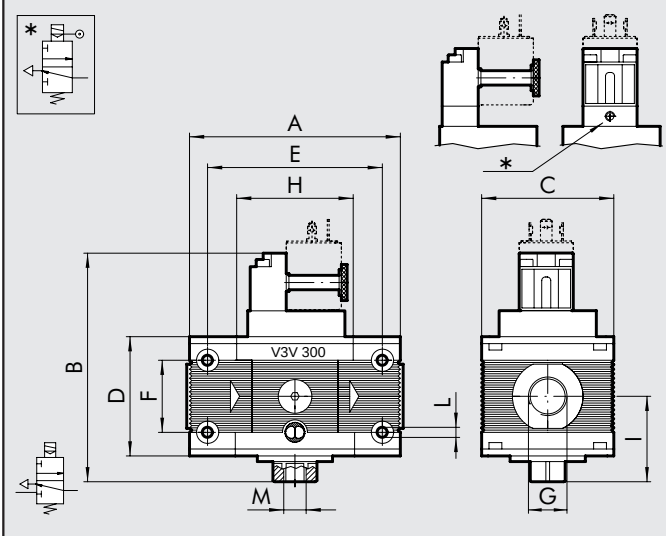
## V3V 200 CNOMO

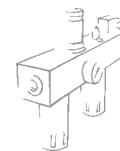


## V3V 300 SOLENOID MICRO VALVE



## V3V 300 CNOMO SOLENOID VALVE/ SOLENOID PILOT-ASSISTED





# Skillair® 400 SHUT-OFF VALVE

The main module of size 400 is now available with manual key-operated, pneumatic, solenoid and solenoid pilot-assisted.

N.B. With size 400, when the V3V is mounted upstream of the regulator, the pilot regulator must be piloted at a pressure taken upstream of the V3V, otherwise when the system is relieved, most of the air downstream will be relieved by the regulator and not the V3V relief port.



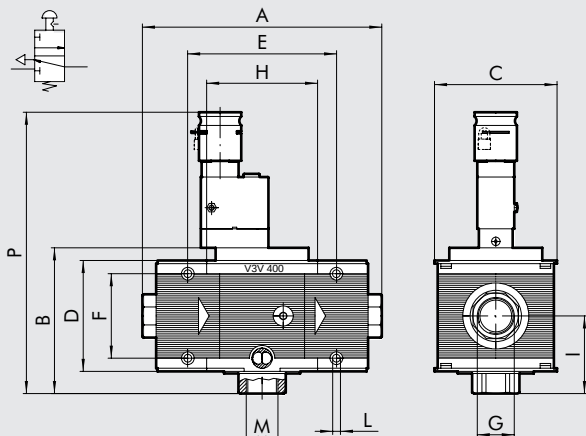
| TECHNICAL DATA                      |        | V3V 400                                                                                                                                               | V3V 400             | V3V 400 | V3V 400      |
|-------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|--------------|
| Threaded port                       | NPT    | 1"                                                                                                                                                    | 1 1/4"              | 1 1/2"  | 2"           |
| Min. inlet pressure **              | MPa    |                                                                                                                                                       |                     | 0.3     |              |
|                                     | bar    |                                                                                                                                                       |                     | 3       |              |
|                                     | psi    |                                                                                                                                                       |                     | 43.5    |              |
| Max. inlet pressure*                | MPa    |                                                                                                                                                       |                     | 1.3     |              |
|                                     | bar    |                                                                                                                                                       |                     | 13      |              |
|                                     | psi    |                                                                                                                                                       |                     | 188     |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) |        |                                                                                                                                                       | 13000 NI/min        |         | 14000 NI/min |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       |        |                                                                                                                                                       | 460 scfm            |         | 494 scfm     |
| Fluid                               |        | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous                                                         |                     |         |              |
| Temperatura max.                    | °C     |                                                                                                                                                       | 50                  |         |              |
|                                     | °F     |                                                                                                                                                       | 122                 |         |              |
| Weight                              | pounds |                                                                                                                                                       | 10.5                |         | 12.3         |
| Wall fixing screws                  |        |                                                                                                                                                       | 1/4 - 20 unc x 4.33 |         |              |
| Mounting                            |        |                                                                                                                                                       |                     |         |              |
| Type of control                     |        | In any position: Manual – Key-operated- Pneumatic – Solenoid – Solenoid pilot-assisted                                                                |                     |         |              |
| Notes:                              |        | The end plates in the 400 series have a patented system with a rotary and sliding end joint to adapt the unit perfectly to the pipe cutting distance. |                     |         |              |

\* 1 MPa – 10 bar – 145 psi for solenoid version

\*\* 0.01 MPa – 0.1 bar – 1.45 psi for pneumatic and pilot-assisted versions with controls at min. 0.3 MPa 3 bar 43.5 psi.

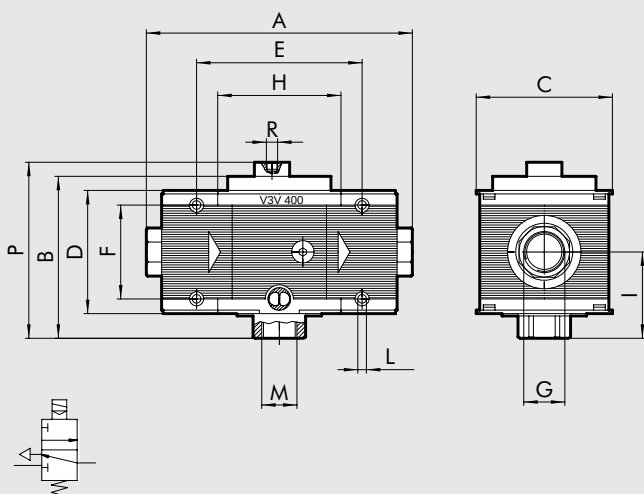
## DIMENSIONS OF V3V 400 VALVE

### V3V 400 MANUAL (LOCKABLE)

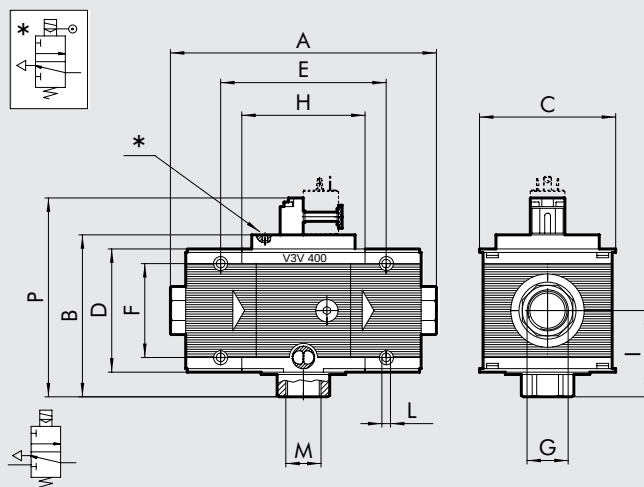


| Threaded port      | V3V 400    | V3V 400   | V3V 400   | V3V 400     |
|--------------------|------------|-----------|-----------|-------------|
| A                  | NPT 1"     | NPT 1"1/4 | NPT 1"1/2 | NPT 2"      |
| B                  | 8.85÷10.03 |           |           | 11.14÷12.32 |
| C                  | 5.39       |           |           |             |
| D                  | 4.56       |           |           |             |
| E                  | 4.13       |           |           |             |
| F                  | 5.56       |           |           |             |
| G                  | 3.15       |           |           |             |
| H                  | NPT 1"     | NPT 1"1/4 | NPT 1"1/2 | NPT 2"      |
| I                  | 4.15       |           |           |             |
| L                  | 2.85       |           |           |             |
| M (relief)         | .236       |           |           |             |
| P Manual           | NPT 1"     |           |           |             |
| Key-operated       | 10.47      |           |           |             |
| CNOMO control      | 9.80       |           |           |             |
| Pneumatic control  | 6.65       |           |           |             |
| R (pilot)          | 5.90       |           |           |             |
| * (pilot-assisted) | NPT 1/8    |           |           |             |
|                    | 10/32 UNF  |           |           |             |

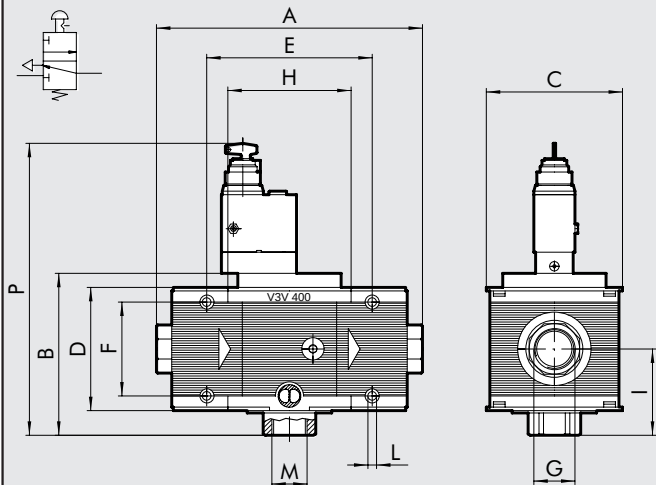
### V3V 400 PNEUMATIC



### V3V 200 SOLENOID CNOMO/SOLENOID PILOT-ASSISTED



### V3V 400 KEY-OPERATED





# Skillair® PROGRESSIVE START VALVE

The 2/2 progressive valve comes in two versions, with solenoid or pneumatic actuation.

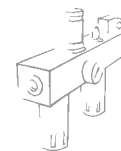
- STD progressive start valve: a differential balanced valve automatically opens the air port fully when the downstream pressure is about 50% of the upstream pressure.
- Progressive start valve with pneumatic or solenoid actuation: without a pilot, the upstream air flows downstream through the regulation needle. When an external or pneumatic solenoid signal is generated, the valve opens the main port to create full flow. It does not relieve the downstream circuit.



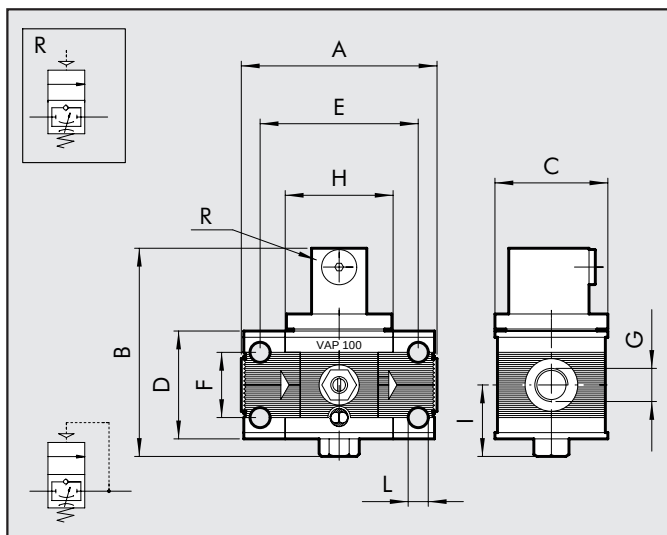
| TECHNICAL DATA                      |        | VAP 100                                                                                       |        |
|-------------------------------------|--------|-----------------------------------------------------------------------------------------------|--------|
| Threaded port                       | NPT    | 1/4"                                                                                          | G 3/8" |
| Min. inlet pressure **              | MPa    | 0.3                                                                                           |        |
|                                     | bar    | 3                                                                                             |        |
|                                     | psi    | 43.5                                                                                          |        |
| Max. inlet pressure*                | MPa    | 1.5                                                                                           |        |
|                                     | bar    | 15                                                                                            |        |
|                                     | psi    | 217                                                                                           |        |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min | 1300                                                                                          |        |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm   | 46                                                                                            |        |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min | 2000                                                                                          |        |
| ΔP 1 bar (0.1 MPa – 14 psi)         | scfm   | 71                                                                                            |        |
| Fluid                               |        | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous |        |
| Max temperature                     | °C     | 50                                                                                            |        |
|                                     | °F     | 122                                                                                           |        |
| Weight                              | pounds | 1.1                                                                                           |        |
| Wall fixing screws                  |        | N. 8-32 unc x 2                                                                               |        |
| Mounting                            |        | In any position                                                                               |        |
| Type of control                     |        | Automatic - Pneumatic – Solenoid – Solenoid pilot-assisted                                    |        |
|                                     |        |                                                                                               |        |

\*\* 0.01 MPa – 0.1 bar – 1.45 psi for pneumatic and pilot-assisted versions with controls at min. 0.3 MPa 3 bar 43.5 psi.

\* 1 MPa – 10 bar – 145 psi

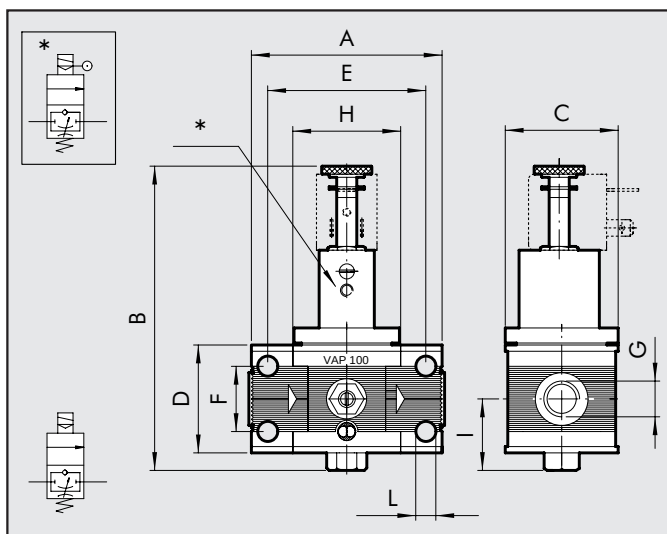


## DIMENSIONS OF VAP 100 STD/PNEUMATIC VALVE



| Threaded port                 | VAP 100 |         |
|-------------------------------|---------|---------|
|                               | NPT 1/4 | NPT 3/8 |
| A                             |         | 3.07    |
| B                             |         | 3.50    |
| C                             |         | 1.96    |
| D                             |         | 1.69    |
| E                             |         | 2.48    |
| F                             |         | 1.02    |
| G                             | NPT 1/4 | NPT 3/8 |
| H                             |         | 1.69    |
| I                             |         | 1.35    |
| L                             |         | 0.17    |
| R (pilot - pneumatic version) |         | NPT 1/8 |
|                               |         |         |
|                               |         |         |
|                               |         |         |
|                               |         |         |

## DIMENSIONS OF VAP 100 SOLENOID/SOLENOID PILOT-ASSISTED VALVE



| Threaded port      | VAP 100 |           |
|--------------------|---------|-----------|
|                    | NPT 1/4 | NPT 3/8   |
| A                  |         | 3.07      |
| B                  |         | 5.03      |
| C                  |         | 1.96      |
| D                  |         | 1.69      |
| E                  |         | 2.48      |
| F                  |         | 1.02      |
| G                  | NPT 1/4 | NPT 3/8   |
| H                  |         | 1.69      |
| I                  |         | 1.35      |
| L                  |         | 0.17      |
| M                  |         | NPT 1/8   |
| O                  |         | 3.50      |
| * (pilot assisted) |         | 10/32 UNF |
|                    |         |           |
|                    |         |           |
|                    |         |           |
|                    |         |           |

## ORDERING CODES

| Code     | Description                                    |
|----------|------------------------------------------------|
| 3271000A | VAP 100 WITHOUT END PLATES                     |
| 3271500A | VAP 100 PNEUM. WITHOUT END PLATES              |
| 3271600A | VAP 100 SOLENOID WITHOUT END PLATES            |
| 3271700A | VAP 100 SOLENOID PILOT-ASS. WITHOUT END PLATES |
| 3271000  | VAP 100 1/4                                    |
| 3271500  | VAP 100 1/4 PNEUM.                             |
| 3271600  | VAP 100 1/4 SOLENOID                           |
| 3271700  | VAP 100 1/4 SOLENOID PILOT-ASS.                |
| 3371000  | VAP 100 3/8                                    |
| 3371500  | VAP 100 3/8 PNEUM.                             |
| 3371600  | VAP 100 3/8 SOLENOID                           |
| 3371700  | VAP 100 3/8 SOLENOID PILOT-ASS.                |

## NOTES

# Skillair® PROGRESSIVE STARTER

The job of the progressive starter is to feed air into the circuit gradually with controlled flow. It comes in two versions with solenoid or pneumatic actuation.

Both control signals cause the valve to open, which allows the air controlled by the flow regulator to flow slowly towards the downstream circuit. In the APR, when the pressure in the downstream circuit reaches 50%-60% of the upstream pressure, the valve opens the main inlet duct connecting it directly to the output duct. This supplies the circuit with the maximum pressure and flow rate available upstream. The time elapsing between starting and opening the valve can be adjusted via the built-in flow regulator.

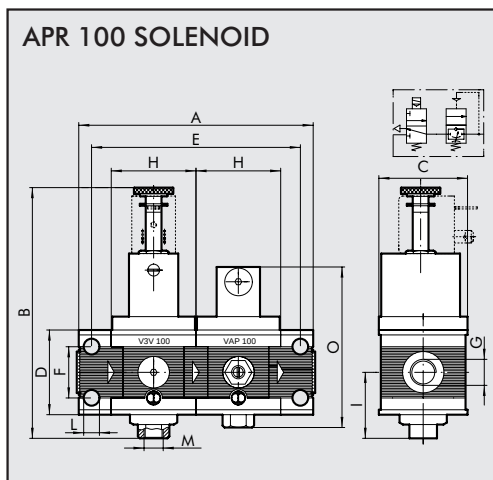
If it is necessary to relieve the downstream circuit quickly, merely operate the control valve which cuts off air flow in the pipe. This closes the valve and starts relieving the downstream circuit.

The progressive starter acts both as an actuator positioner, which eliminates the risk of sudden kickback, and as a safety valve that relieves the circuit quickly when the remote control is operated.

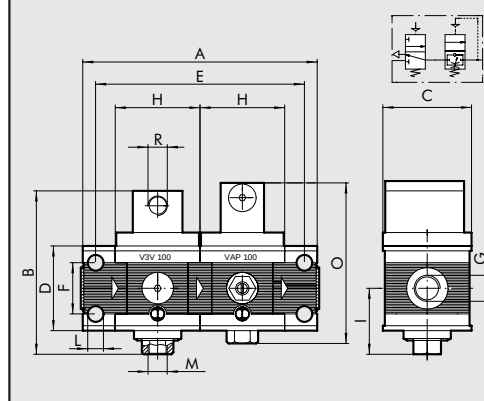


| TECHNICAL DATA                                  |        | APR 100                                                                                       | APR 100 | APR 200                                                                                                         | APR 200 | APR 200                             | APR 300 | APR 300 | APR 300 |
|-------------------------------------------------|--------|-----------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------|---------|-------------------------------------|---------|---------|---------|
| Threaded port                                   | NPT    | 1/4                                                                                           | 3/8     | 1/4                                                                                                             | 3/8     | 1/2                                 | 1/2     | 3/4     | 1"      |
| Min. inlet pressure                             |        | 0.3MPa - 3bar - 43.5psi                                                                       |         | 0.3MPa - 3bar - 43.5psi                                                                                         |         | 0.4MPa - 4bar - 58psi               |         |         |         |
| Max. inlet pressure*                            |        | 1.5MPa - 15bar - 217psi                                                                       |         | 1.3MPa - 13bar - 188.5psi                                                                                       |         | 1.3MPa - 13bar - 188.5psi           |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)             | NI/min | 1300                                                                                          |         | 2000                                                                                                            |         | 2400                                |         |         |         |
| ΔP 0.5 bar (0.05 MPa – 7 psi)                   | scfm   | 46                                                                                            |         | 71                                                                                                              |         | 85                                  |         |         |         |
| Flow rate at 6 bar (0.6 MPa-87 psi)             | NI/min | 2000                                                                                          |         | 3200                                                                                                            |         | 3600                                |         |         |         |
| ΔP 1 bar (0.1 MPa – 14 psi)                     | scfm   | 71                                                                                            |         | 113                                                                                                             |         | 127                                 |         |         |         |
| Fluid                                           |        | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous |         |                                                                                                                 |         |                                     |         |         |         |
| Max temperature                                 | °C     | 50                                                                                            |         | 50                                                                                                              |         | 50                                  |         |         |         |
|                                                 | °F     | 122                                                                                           |         | 122                                                                                                             |         | 122                                 |         |         |         |
| Weight                                          | pounds | 1.8                                                                                           |         | 1.9                                                                                                             |         | 3.3                                 |         |         |         |
| Wall fixing screws                              |        | N. 8-32 unc x 2                                                                               |         | N. 10-24 unc x 2.36                                                                                             |         | N. 10-24 unc x 2.75                 |         |         |         |
| Mounting                                        |        | In any position                                                                               |         |                                                                                                                 |         |                                     |         |         |         |
| Type of control                                 |        | Pneumaticc<br>Solenoid                                                                        |         | Pneumatic<br>Solenoid                                                                                           |         | CNOMO solenoid<br>Microsol solenoid |         |         |         |
|                                                 |        |                                                                                               |         | CNOMO solenoid                                                                                                  |         | Pneumatic                           |         |         |         |
| Notes                                           |        |                                                                                               |         | For the pneumatic version 200 the control<br>pressure must range between the inlet P and<br>the inlet P + 2 bar |         |                                     |         |         |         |
|                                                 |        |                                                                                               |         |                                                                                                                 |         |                                     |         |         |         |
|                                                 |        |                                                                                               |         |                                                                                                                 |         |                                     |         |         |         |
| * 1 MPa – 10 bar – 145 psi for solenoid version |        |                                                                                               |         |                                                                                                                 |         |                                     |         |         |         |

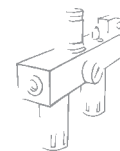
## APR 100 DIMENSIONS



## APR 100 PNEUMATIC

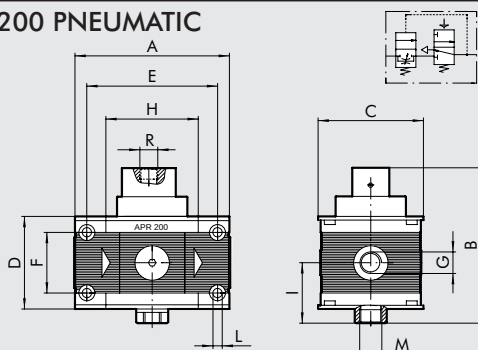


|                             | APR 100           |
|-----------------------------|-------------------|
| Threaded port               | NPT 1/4   NPT 3/8 |
| A                           | 4.76              |
| B APR 100 solenoid          | 5.03              |
| APR 100 pneumatic           | 3.26              |
| C                           | 1.96              |
| D                           | 1.69              |
| E                           | 4.17              |
| F                           | 1.02              |
| G                           | NPT 1/4   NPT 3/8 |
| H                           | 1.69              |
| I                           | 1.35              |
| L                           | 0.17              |
| M (relief)                  | NPT 1/8           |
| O                           | 3.50              |
| R (pilot pneumatic version) | NPT 1/8           |



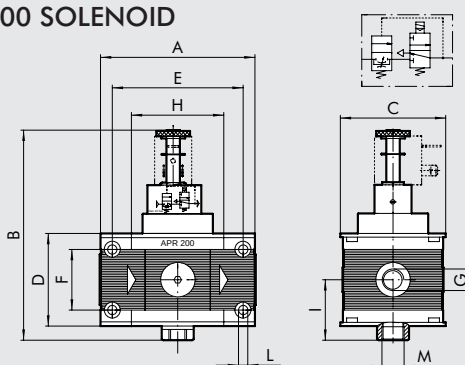
## APR 200 DIMENSIONS

### APR 200 PNEUMATIC

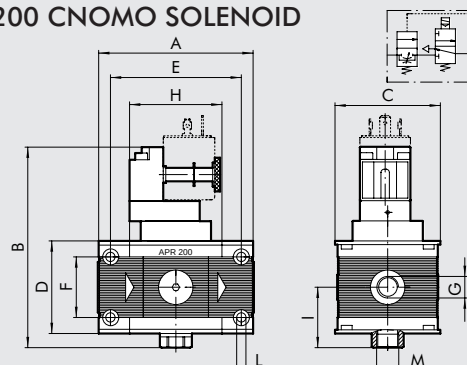


|               | APR 200 PN |         |         | APR 200 ELPN |         |         | APR 200 ELPN CNOMO |         |         |
|---------------|------------|---------|---------|--------------|---------|---------|--------------------|---------|---------|
| Threaded port | NPT 1/4    | NPT 3/8 | NPT 1/2 | NPT 1/4      | NPT 3/8 | NPT 1/2 | NPT 1/4            | NPT 3/8 | NPT 1/2 |
| A             |            |         |         | 3.68         |         |         |                    |         |         |
| B             | 3.62       |         |         | 4.92         |         |         | 4.72               |         |         |
| C             |            |         |         | 2.48         |         |         |                    |         |         |
| D             |            |         |         | 2.16         |         |         |                    |         |         |
| E             |            |         |         | 3.09         |         |         |                    |         |         |
| F             |            |         |         | 1.41         |         |         |                    |         |         |
| G             | NPT 1/4    | NPT 3/8 | NPT 1/2 | NPT 1/4      | NPT 3/8 | NPT 1/2 | NPT 1/4            | NPT 3/8 | NPT 1/2 |
| H             |            |         |         | 2.18         |         |         |                    |         |         |
| I             |            |         |         | 1.41         |         |         |                    |         |         |
| L             |            |         |         | 0.21         |         |         |                    |         |         |
| M (relief)    |            |         |         | NPT 1/4      |         |         |                    |         |         |
| R (pilot)     | NPT 1/8    |         |         | -            |         |         | -                  |         |         |

### APR 200 SOLENOID

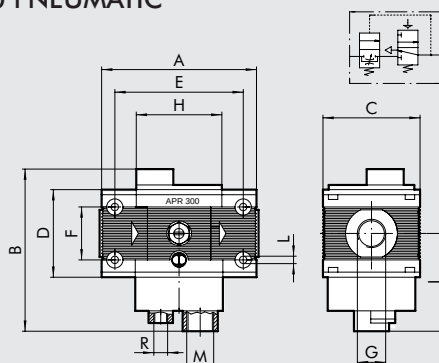


### APR 200 CNOMO SOLENOID



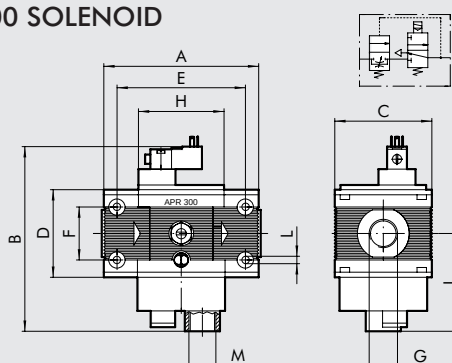
## APR 300 DIMENSIONS

### APR 300 PNEUMATIC

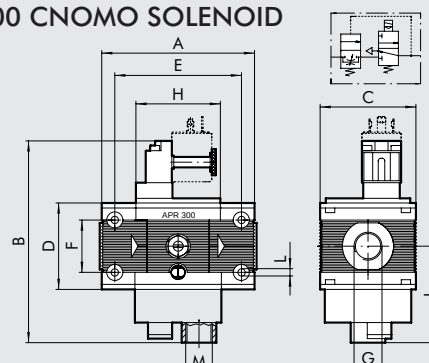


|               | APR 300 PN |         |        | APR 300 ELPN MICRO |         |        | APR 300 ELPN CNOMO |         |        |
|---------------|------------|---------|--------|--------------------|---------|--------|--------------------|---------|--------|
| Threaded port | NPT 1/2    | NPT 3/4 | NPT 1" | NPT 1/2            | NPT 3/4 | NPT 1" | NPT 1/2            | NPT 3/4 | NPT 1" |
| A             | 4.33       |         |        | 4.40               |         |        | 4.33               |         |        |
| B             | 4.80       |         |        | 5.59               |         |        | 5.98               |         |        |
| C             |            |         |        | 2.83               |         |        |                    |         |        |
| D             |            |         |        | 2.55               |         |        |                    |         |        |
| E             |            |         |        | 3.62               |         |        |                    |         |        |
| F             |            |         |        | 1.65               |         |        |                    |         |        |
| G             | NPT 1/2    | NPT 3/4 | NPT 1" | NPT 1/2            | NPT 3/4 | NPT 1" | NPT 1/2            | NPT 3/4 | NPT 1" |
| H             |            |         |        | 2.55               |         |        |                    |         |        |
| I             |            |         |        | 2.91               |         |        |                    |         |        |
| L             |            |         |        | 0.21               |         |        |                    |         |        |
| M (relief)    |            |         |        | NPT 1/2            |         |        |                    |         |        |
| R (pilot)     | NPT 1/4    |         |        | -                  |         |        | -                  |         |        |

### APR 300 SOLENOID



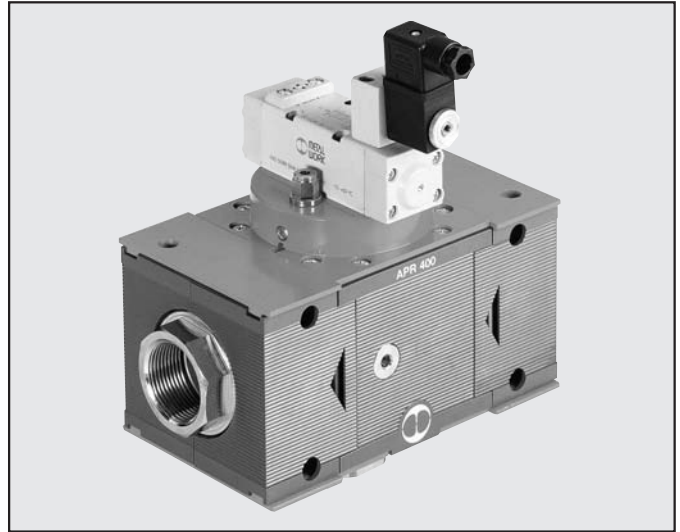
### APR 300 CNOMO SOLENOID





# Skillair® 400 PROGRESSIVE STARTER

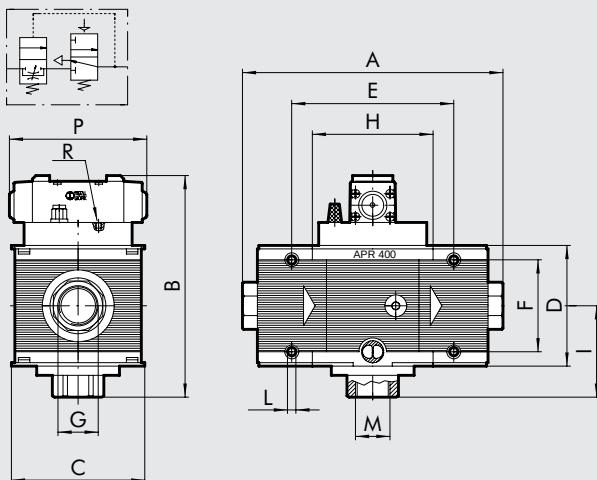
In the 400 series, an ISO1 spring return solenoid valve acts as solenoid actuator. With pneumatic actuation, the valve is the spring return pneumatic type and it is operated via the M5 thread in the plate.



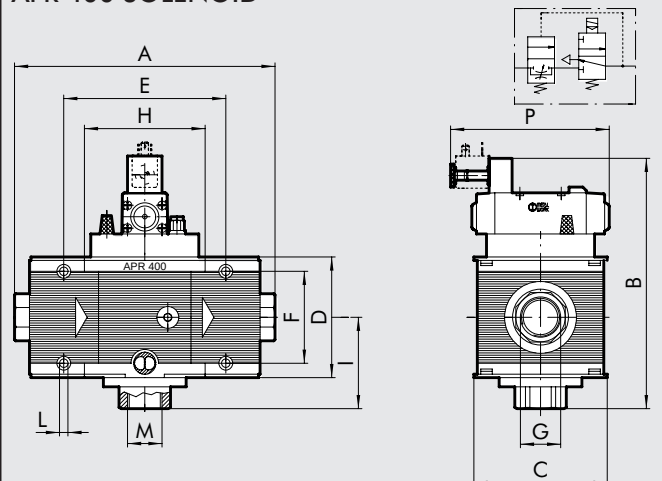
| TECHNICAL DATA                      |        | APR 400                                              |        |              |    |
|-------------------------------------|--------|------------------------------------------------------|--------|--------------|----|
| Threaded port                       | NPT    | 1"                                                   | 1"1/4" | 1"1/2"       | 2" |
| Inlet pressure range                | MPa    | 0.3 to 1.3                                           |        |              |    |
|                                     | bar    | 3-13                                                 |        |              |    |
|                                     | psi    | 43.5-188.52                                          |        |              |    |
| Flow rate at 6 bar (0.6 MPa-87 psi) |        | 13000 NI/min                                         |        | 14000 NI/min |    |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       |        | 460 scfm                                             |        | 494 scfm     |    |
| Fluid                               |        | Filtered, lubricated or unlubricated compressed air. |        |              |    |
|                                     |        | Lubrication, if used, must be continuous             |        |              |    |
| Max temperature                     | °C     | 50                                                   |        |              |    |
|                                     | °F     | 122                                                  |        |              |    |
| Weight                              | pounds | 12.3                                                 |        |              | 14 |
| Wall fixing screws                  |        | 1/4-20 unc x 4.33                                    |        |              |    |
| Mounting                            |        | In any position                                      |        |              |    |
| Type of control                     |        | Pneumatic/solenoid                                   |        |              |    |
|                                     |        |                                                      |        |              |    |
|                                     |        |                                                      |        |              |    |
|                                     |        |                                                      |        |              |    |

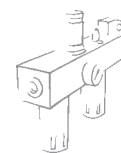
|          | DIMENSIONS APR 400 PN |            |            |             | DIMENSIONS APR 400 SOLENOID |            |            |             |
|----------|-----------------------|------------|------------|-------------|-----------------------------|------------|------------|-------------|
| Th. p.   | 1''                   | 1''1/4     | 1''1/2     | 2''         | 1''                         | 1''1/4     | 1''1/2     | 2''         |
| A        | 8.85÷10.03            |            |            | 11.14÷12.32 | 8.85÷10.03                  |            |            | 11.14÷12.32 |
| B        | 7.59                  |            |            |             | 8.58                        |            |            |             |
| C        |                       |            |            |             | 4.56                        |            |            |             |
| D        |                       |            |            |             | 4.13                        |            |            |             |
| E        |                       |            |            |             | 5.56                        |            |            |             |
| F        |                       |            |            |             | 3.14                        |            |            |             |
| G        | NPT 1''               | NPT 1''1/4 | NPT 1''1/2 | NPT 2''     | NPT 1''                     | NPT 1''1/4 | NPT 1''1/2 | NPT 2''     |
| H        |                       |            |            |             | 4.14                        |            |            |             |
| I        |                       |            |            |             | 3.14                        |            |            |             |
| L        |                       |            |            |             | 0.29                        |            |            |             |
| M        |                       |            |            |             | NPT 1''                     |            |            |             |
| (relief) |                       |            |            |             |                             |            |            |             |
| P        | 4.68                  |            |            |             | 5.43                        |            |            |             |
| R        | 10/32 UNF             |            |            |             | —                           |            |            |             |
| (pilot)  |                       |            |            |             |                             |            |            |             |
|          |                       |            |            |             |                             |            |            |             |
|          |                       |            |            |             |                             |            |            |             |

## APR 400 PNEUMATIC



## APR 400 SOLENOID





## KEY TO CODES

| APR<br>ELEMENT | 100<br>SIZE | 1/4<br>THREADED<br>PORT | PNEUMATIC<br>TYPE OF CONTROL |
|----------------|-------------|-------------------------|------------------------------|
| APR            | 100         | 1/4                     | PNEUMATIC                    |
|                | 200         | 3/8                     | SOLENOID                     |
|                |             | 1/4                     |                              |
|                |             | 3/8                     |                              |
|                | 300         | 1/2                     |                              |
|                |             | 1/2                     |                              |
|                |             | 3/4                     |                              |
|                | 400         | 1                       |                              |
|                |             | 1                       |                              |
|                |             | 1 1/4                   |                              |
|                |             | 1 1/2                   |                              |
|                |             | 2                       |                              |

## ORDERING CODES

| Code                           | Description                                       | Code                           | Description                                             |
|--------------------------------|---------------------------------------------------|--------------------------------|---------------------------------------------------------|
| <b>PROGRESSIVE STARTER 100</b> |                                                   | <b>PROGRESSIVE STARTER 300</b> |                                                         |
| 3267001UA                      | APR 100 PNEUMATIC WITHOUT END PLATES              | 4471906UA                      | APR 300 SOLENOID MICRO 24V DC WITHOUT END PLATES        |
| 3267051UA                      | APR 100 SOLENOID WITHOUT END PLATES               | 4471907UA                      | APR 300 SOLENOID MICRO 24V 50/60 HZ WITHOUT END PLATES  |
| 3267001U                       | APR 100 1/4 PNEUMATIC                             | 4471908UA                      | APR 300 SOLENOID MICRO 110V 50/60 HZ WITHOUT END PLATES |
| 3267051U                       | APR 100 1/4 SOLENOID                              | 4471909UA                      | APR 300 SOLENOID MICRO 220V 50/60 HZ WITHOUT END PLATES |
| 3367001U                       | APR 100 3/8 PNEUMATIC                             | 4471901UA                      | APR 300 SOLENOID CONTROL CNOMO WITHOUT END PLATES       |
| 3367051U                       | APR 100 3/8 SOLENOID                              | 4471900UA                      | APR 300 PNEUMATIC WITHOUT END PLATES                    |
| <b>PROGRESSIVE STARTER 200</b> |                                                   | 4471900U                       | APR 300 1/2 PNEUMATIC                                   |
| 3471000UA                      | APR 200 PNEUMATIC WITHOUT END PLATES              | 4471906U                       | APR 300 1/2 SOLENOID MICRO 24V DC                       |
| 3471001UA                      | APR 200 SOLENOID WITHOUT END PLATES               | 4471907U                       | APR 300 1/2 SOLENOID MICRO 24V 50/60 HZ                 |
| 3471004UA                      | APR 200 SOLENOID CNOMO CONTROL WITHOUT END PLATES | 4471908U                       | APR 300 1/2 SOLENOID MICRO 110V 50/60 HZ                |
| 3471000U                       | APR 200 1/4 PNEUMATIC                             | 4471909U                       | APR 300 1/2 SOLENOID MICRO 220V 50/60 HZ                |
| 3471001U                       | APR 200 1/4 SOLENOID                              | 4471901U                       | APR 300 1/2 SOLENOID CONTROL CNOMO                      |
| 3471004U                       | APR 200 1/4 SOLENOID CNOMO CONTROL                | 4571900U                       | APR 300 3/4 PNEUMATIC                                   |
| 3571000U                       | APR 200 3/8 PNEUMATIC                             | 4571906U                       | APR 300 3/4 SOLENOID MICRO 24V DC                       |
| 3571001U                       | APR 200 3/8 SOLENOID                              | 4571907U                       | APR 300 3/4 SOLENOID MICRO 24V 50/60 HZ                 |
| 3571004U                       | APR 200 3/8 SOLENOID CNOMO CONTROL                | 4571908U                       | APR 300 3/4 SOLENOID MICRO 110V 50/60 HZ                |
| 3671000U                       | APR 200 1/2 PNEUMATIC                             | 4571909U                       | APR 300 3/4 SOLENOID MICRO 220V 50/60 HZ                |
| 3671001U                       | APR 200 1/2 SOLENOID                              | 4571901U                       | APR 300 3/4 SOLENOID CONTROL CNOMO                      |
| 3671004U                       | APR 200 1/2 SOLENOID CNOMO CONTROL                | 4671900U                       | APR 300 1 PNEUMATIC                                     |
|                                |                                                   | 4671906U                       | APR 300 1 SOLENOID MICRO 24V DC                         |
|                                |                                                   | 4671907U                       | APR 300 1 SOLENOID MICRO 24V 50/60 HZ                   |
|                                |                                                   | 4671908U                       | APR 300 1 SOLENOID MICRO 110V 50/60 HZ                  |
|                                |                                                   | 4671909U                       | APR 300 1 SOLENOID MICRO 220V 50/60 HZ                  |
|                                |                                                   | 4671901U                       | APR 300 1 SOLENOID CONTROL CNOMO                        |
|                                |                                                   | <b>PROGRESSIVE STARTER 400</b> |                                                         |
|                                |                                                   | 6171002UA                      | APR 400 PNEUMATIC WITHOUT END PLATES                    |
|                                |                                                   | 6171003UA                      | APR 400 SOLENOID WITHOUT END PLATES                     |
|                                |                                                   | 6171002U                       | APR 400 1 PNEUMATIC                                     |
|                                |                                                   | 6171003U                       | APR 400 1 SOLENOID                                      |
|                                |                                                   | 6271002U                       | APR 400 1"1/4 PNEUMATIC                                 |
|                                |                                                   | 6271003U                       | APR 400 1"1/4 SOLENOID                                  |
|                                |                                                   | 6371002U                       | APR 400 1"1/2 PNEUMATIC                                 |
|                                |                                                   | 6371003U                       | APR 400 1"1/2 SOLENOID                                  |
|                                |                                                   | 6471002U                       | APR 400 2" PNEUMATIC                                    |
|                                |                                                   | 6471003U                       | APR 400 2" SOLENOID                                     |

# Skillair® AIR TAKE-OFF

The air take-off takes air from the SKILLAIR® FRL unit irrespective of the assembly position. It is necessary when air needs to be taken from the FRL unit at any stage of the treatment (normal, filtered and regulated, lubricated, etc.). If used separately from the FRL unit, which is infinitely modular, it acts as a distributor allowing air take-off through the threaded ports.



| TECHNICAL DATA             |        | PA 100          | PA 100 | PA 200              | PA 200 | PA 200              | PA 300 | PA 300            | PA 300 | PA 400            | PA 400 | PA 400 | PA 400 |
|----------------------------|--------|-----------------|--------|---------------------|--------|---------------------|--------|-------------------|--------|-------------------|--------|--------|--------|
| Threaded port              | NPT    | 1/4             | 3/8    | 1/4                 | 3/8    | 1/2                 | 1/2    | 3/4               | 1"     | 1"                | 1"1/4  | 1"1/2  | 2      |
| Max. working temperature   | °C     | 50              |        | 50                  |        | 50                  |        | 50                |        | 50                |        |        |        |
| at: 1 MPa; 10 bar; 145 psi | °F     | 122             |        | 122                 |        | 122                 |        | 122               |        | 122               |        |        |        |
| Max. operating pressure    | MPa    | 1.5             |        | 1.3                 |        | 1.3                 |        | 1.3               |        | 1.3               |        |        |        |
|                            | bar    | 15              |        | 13                  |        | 13                  |        | 13                |        | 13                |        |        |        |
|                            | psi    | 217             |        | 188                 |        | 188                 |        | 188               |        | 188               |        |        |        |
| Wall fixing screws         |        | N. 8-32 unc x 2 |        | N. 10-24 unc x 2.36 |        | N. 10-24 unc x 2.75 |        | 1/4-20 unc x 4.33 |        | 1/4-20 unc x 4.33 |        |        |        |
| Threaded port              | NPT    | 1/4"            |        | 1/4"                |        | 3/8"                |        | 3/8"              |        | 1"                |        |        |        |
| Weight                     | pounds | 0.66            |        | 1.1                 |        | 1.7                 |        | 9.48              |        | 11.24             |        | 11.24  |        |
|                            |        |                 |        |                     |        |                     |        |                   |        |                   |        |        |        |
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|                            |        |                 |        |                     |        |                     |        |                   |        |                   |        |        |        |
|                            |        |                 |        |                     |        |                     |        |                   |        |                   |        |        |        |
|                            |        |                 |        |                     |        |                     |        |                   |        |                   |        |        |        |
|                            |        |                 |        |                     |        |                     |        |                   |        |                   |        |        |        |



# Skillair® SUB-BASE AND ADAPTER BASE

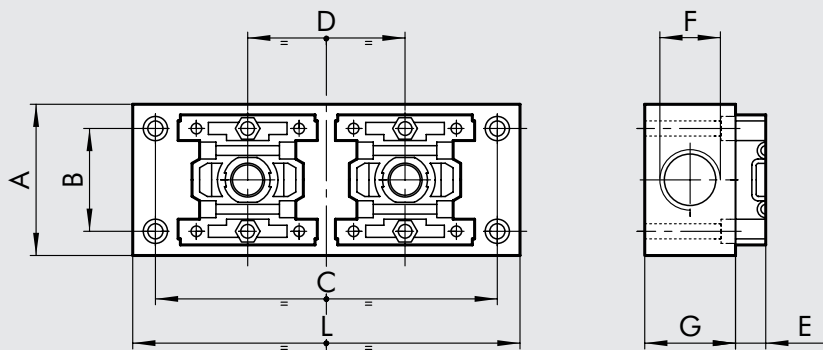
The adapter base is used to adapt the Skillair® FRL system to various assemblies without affecting modularity or servicing.

If you use the universal adapter base plus the intermediate plate, you can assemble several elements of different sizes.

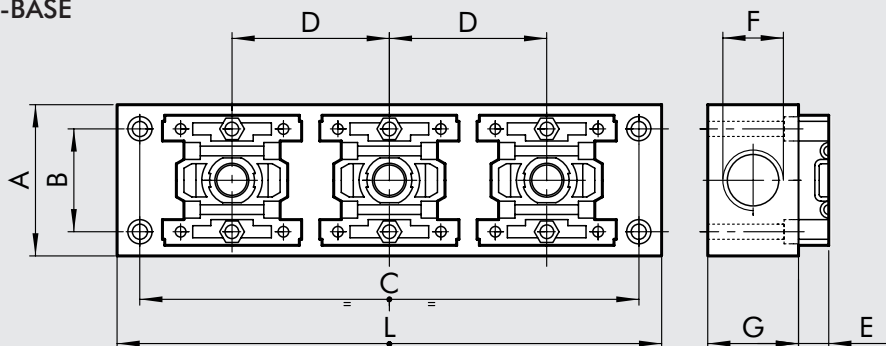


| DIMENSIONS | 100 - 2 POS. | 100 - 3 POS | 200 - 2 POS | 200 - 3 POS | 300 - 2 POS | 300 - 3 POS |
|------------|--------------|-------------|-------------|-------------|-------------|-------------|
| A          | 1.96         | 1.96        | 2.16        | 2.16        | 2.36        | 2.36        |
| B          | 1.33         | 1.33        | 1.73        | 1.73        | 1.92        | 1.92        |
| C          | 4.44         | 6.49        | 5.31        | 7.87        | 5.90        | 8.66        |
| D          | 2.04         | 2.04        | 2.55        | 2.55        | 2.75        | 2.75        |
| E          | 0.39         | 0.39        | 0.33        | 0.33        | 0.41        | 0.41        |
| F          | NPT 1/2      | NPT 1/2     | NPT 3/4     | NPT 3/4     | NPT 3/4     | NPT 3/4     |
| G          | 1.18         | 1.18        | 1.57        | 1.57        | 1.57        | 1.57        |
| L          | 5.03         | 7.08        | 8.46        | 8.46        | 6.49        | 9.25        |

## 2-POSITION SUB-BASE



## 3-POSITION SUB-BASE





| DIMENSIONS OF ADAPTER BASE                                                                             |   | BA 100   | BA 200   | BA 300   |
|--------------------------------------------------------------------------------------------------------|---|----------|----------|----------|
| <p>Technical drawing of the adapter base showing front and side views with dimensions A through I.</p> | A | 1.81     | 2.32     | 2.71     |
|                                                                                                        | B | 1.33     | 1.73     | 1.92     |
|                                                                                                        | C | 1.33     | 1.73     | 1.92     |
|                                                                                                        | D | 1.69     | 2.16     | 2.55     |
|                                                                                                        | E | 0.39     | 0.33     | 0.41     |
|                                                                                                        | F | 0.39     | 0.59     | 0.70     |
|                                                                                                        | G | 0.17     | 0.17     | 0.21     |
|                                                                                                        | H | Es. 0.27 | Es. 0.27 | Es. 0.31 |
|                                                                                                        | I | 0.19     | 0.07     | 0.19     |
|                                                                                                        |   |          |          |          |

[illegible]

| ORDERING CODES                    |               | NOTES |
|-----------------------------------|---------------|-------|
| Code                              | Description   |       |
| MULTIPLE SUB-BASES FOR REGULATORS |               |       |
| 9200202                           | ACC. SB 2 100 |       |
| 9300202                           | ACC. SB 2 200 |       |
| 9400202                           | ACC. SB 2 300 |       |
| 9200302                           | ACC. SB 3 100 |       |
| 9300302                           | ACC. SB 3 200 |       |
| 9400302                           | ACC. SB 3 300 |       |
| ADAPTER BASE                      |               |       |
| 9201801                           | BA 100        |       |
| 9321801                           | BA 200        |       |
| 9401801                           | BA 300        |       |
| SIZE ADAPTER                      |               |       |
| 9301801                           | BA 100 - 200  |       |
| 9301802                           | BA 100 - 300  |       |
| 9301803                           | BA 200 - 300  |       |
|                                   |               |       |

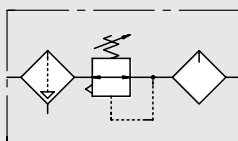
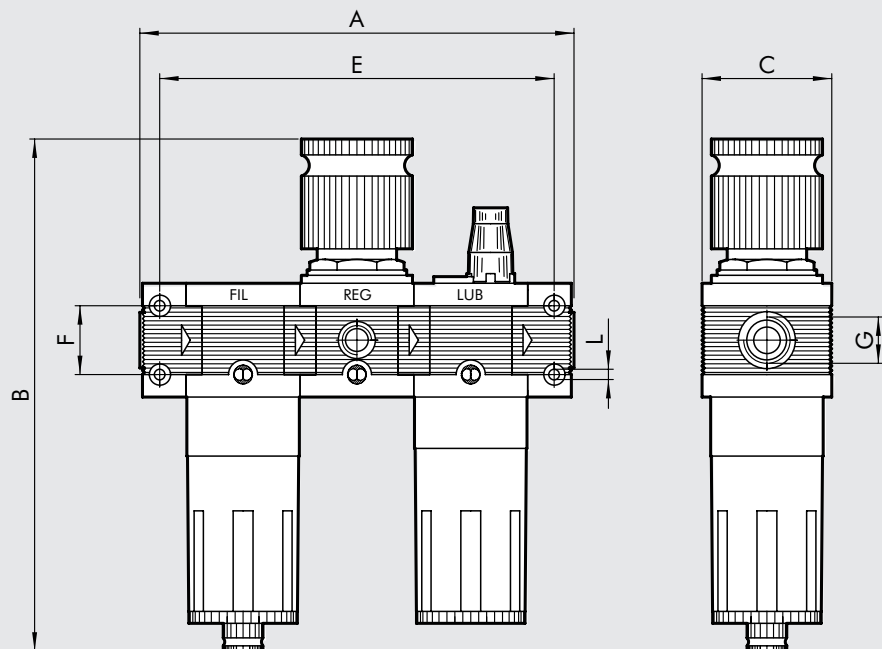
# FIL+REG+LUB

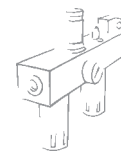
## Skilair® 100-200-300

| TECHNICAL DATA       |        | FRL 100         |      | FRL 200             |      | FRL 300             |      |    |
|----------------------|--------|-----------------|------|---------------------|------|---------------------|------|----|
| Threaded port        | NPT    | 1/4"            | 3/8" | 1/4"                | 3/8" | 1/2"                | 3/4" | 1" |
| Setting range        | psi    | 0÷120 to 0÷180  |      | 0÷120 to 0÷180      |      | 0÷120 to 0÷180      |      |    |
| Degree of filtration | micron | 5µm 20µm 50µm   |      |                     |      |                     |      |    |
| Max. inlet pressure  | MPa    | 1.5             |      | 1.3                 |      | 1.3                 |      |    |
|                      | bar    | 15              |      | 13                  |      | 13                  |      |    |
|                      | psi    | 217             |      | 188                 |      | 188                 |      |    |
| Flow rate at 6 bar   | NI/min | 300             |      | 1300                |      | 2500                |      |    |
| ΔP 0.5 bar           | scfm   | 11              |      | 46                  |      | 89                  |      |    |
| Flow rate at 6 bar   | NI/min | 800             |      | 3000                |      | 4500                |      |    |
| ΔP 1 bar             | scfm   | 28              |      | 106                 |      | 160                 |      |    |
| Fluid                |        | Compressed air  |      |                     |      |                     |      |    |
| Max temperature      | °F     | 50              |      | 50                  |      | 50                  |      |    |
| at 10 bar            | °C     | 122             |      | 122                 |      | 122                 |      |    |
| Weight               | pounds | 1.65            |      | 3.3                 |      | 6.4                 |      |    |
| Wall fixing screws   |        | N. 8-32 unc x 2 |      | N. 10-24 unc x 2.36 |      | N. 10-24 unc x 2.75 |      |    |
|                      |        |                 |      |                     |      |                     |      |    |
|                      |        |                 |      |                     |      |                     |      |    |
|                      |        |                 |      |                     |      |                     |      |    |
|                      |        |                 |      |                     |      |                     |      |    |



| DIMENSIONS      |  | FIL+REG+LUB 100 |         | FIL+REG+LUB 200 |         |         | FIL+REG+LUB 300 |         |        |
|-----------------|--|-----------------|---------|-----------------|---------|---------|-----------------|---------|--------|
| THREADED PORT G |  | NPT 1/4         | NPT 3/8 | NPT 1/4         | NPT 3/8 | NPT 1/2 | NPT 1/2         | NPT 3/4 | NPT 1" |
| A               |  | 6.45            |         | 8.05            |         |         | 9.44            |         |        |
| B               |  | 7.83            |         | 9.64            |         |         | 10.94           |         |        |
| C               |  | 1.96            |         | 2.48            |         |         | 2.83            |         |        |
| E               |  | 5.86            |         | 7.46            |         |         | 8.74            |         |        |
| F               |  | 1.02            |         | 1.41            |         |         | 1.65            |         |        |
| L               |  | 0.17            |         | 0.21            |         |         | 0.21            |         |        |



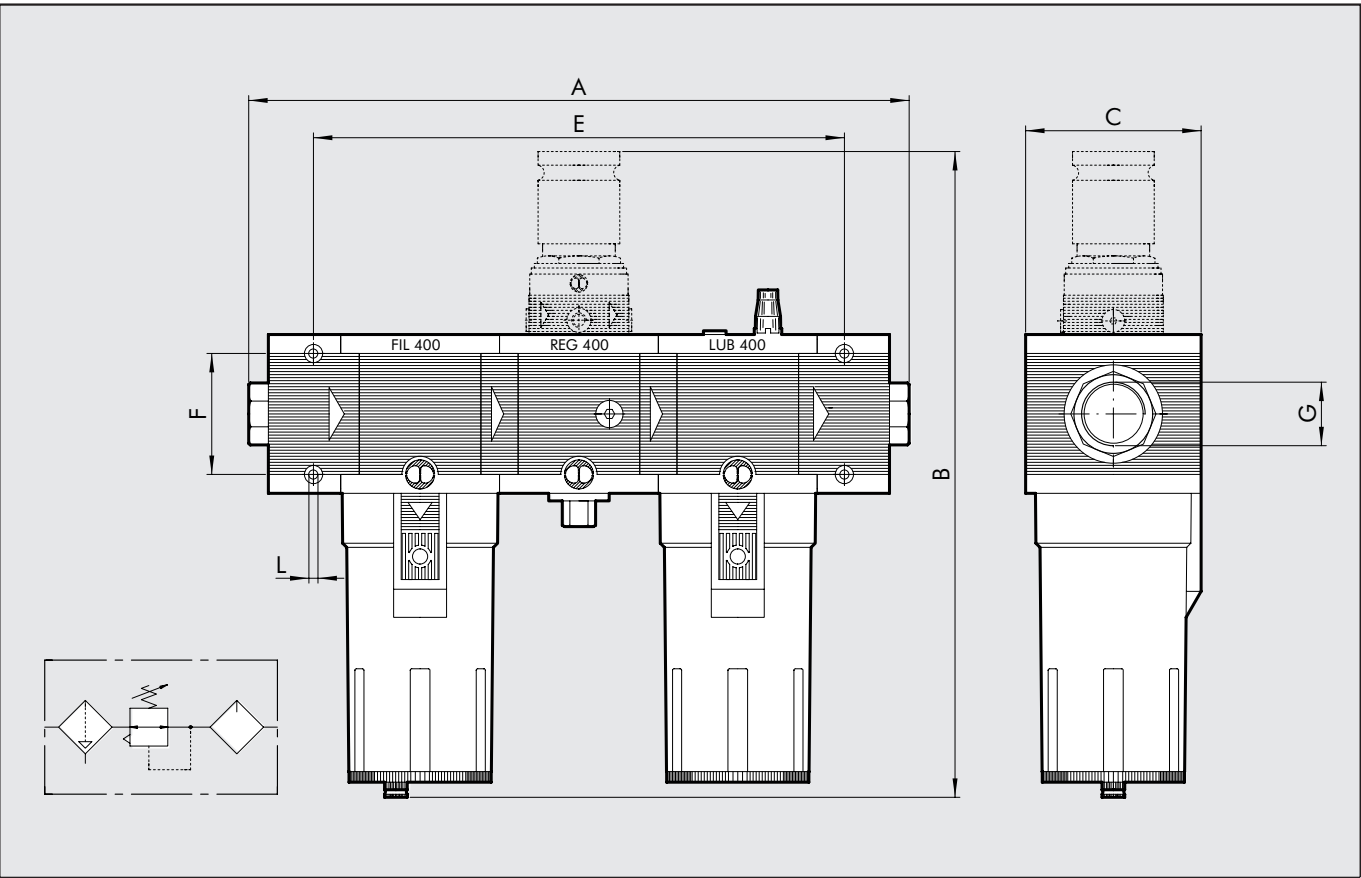


# FIL+REG+LUB Skillair® 400

| TECHNICAL DATA       |                                                                                                                                                                                                     | FRL 400                      |        |        |    |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------|--------|----|
| Threaded port        | NPT                                                                                                                                                                                                 | 1"                           | 1"1/4" | 1"1/2" | 2" |
| Setting range        |                                                                                                                                                                                                     | Depending on pilot regulator |        |        |    |
| Degree of filtration | micron                                                                                                                                                                                              | 5µm                          | 20µm   | 50µm   |    |
| Max. inlet pressure  | MPa                                                                                                                                                                                                 | 1.3                          |        |        |    |
|                      | bar                                                                                                                                                                                                 | 13                           |        |        |    |
|                      | psi                                                                                                                                                                                                 | 188                          |        |        |    |
| Flow rate at 6 bar   | NI/min                                                                                                                                                                                              | 9000                         |        | 14000  |    |
| ΔP 0.5 bar           | scfm                                                                                                                                                                                                | 320                          |        | 500    |    |
| Fluid                |                                                                                                                                                                                                     | Compressed air               |        |        |    |
| Max temperature      | °F                                                                                                                                                                                                  | 50                           |        |        |    |
| at 10 bar            | °C                                                                                                                                                                                                  | 122                          |        |        |    |
| Weight               | pounds                                                                                                                                                                                              | 22                           |        |        |    |
| Wall fixing screws   |                                                                                                                                                                                                     | 1/4-20 unc x 4.33            |        |        |    |
| Mounting             |                                                                                                                                                                                                     | Vertical                     |        |        |    |
| Bowl capacity        | fluid ounce oz                                                                                                                                                                                      | 9.13                         |        |        |    |
| Notes                | The end plates in the 400 series have a patented system with a rotary and sliding end joint to adapt the unit perfectly to the pipe cutting distance. This unit does not include a pilot regulator. |                              |        |        |    |
|                      |                                                                                                                                                                                                     |                              |        |        |    |
|                      |                                                                                                                                                                                                     |                              |        |        |    |



| DIMENSIONS      |  | FIL+REG+LUB 400 |            |            |        |
|-----------------|--|-----------------|------------|------------|--------|
| THREADED PORT G |  | NPT 1"          | NPT 1"1/4" | NPT 1"1/2" | NPT 2" |
| A               |  | 17.1 ÷ 18.34    |            |            |        |
| B               |  | 17.5            |            |            |        |
| C               |  | 4.56            |            |            |        |
| E               |  | 13.85           |            |            |        |
| F               |  | 3.14            |            |            |        |
| L               |  | 0.29            |            |            |        |





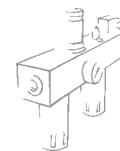
## KEY TO CODES

| FRL     | 100  | 1/4           | 5µm                  | 0÷8                                         | RMSA                       |
|---------|------|---------------|----------------------|---------------------------------------------|----------------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | SETTING RANGE                               | TYPE OF CONDENSATION DRAIN |
| FRL     | 100  | 1/4           | 5µm<br>20µm<br>50µm  | 0÷8 bar = 0÷120 psi<br>0÷12 bar = 0÷180 psi | RMSA                       |
|         | 200  | 3/8           |                      |                                             | SAC                        |
|         |      | 1/2           |                      |                                             |                            |
|         | 300  | 1/2           |                      |                                             | RMSA                       |
|         | 400  | 3/4           |                      |                                             | RA                         |
|         |      | 1             |                      |                                             |                            |
|         |      | 1 1/4         |                      |                                             |                            |
|         |      | 1 1/2         |                      |                                             |                            |
|         |      | 2             |                      |                                             |                            |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain for sizes 100 and 200. Operates by depression – requires variable air take-offs.  
**RA:** Automatic drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate.

## ORDERING CODES

| Code     | Description             | Code     | Description             | Code     | Description           |
|----------|-------------------------|----------|-------------------------|----------|-----------------------|
| 3282007U | FRL 100 1/4 5 08 RMSA   | 3582108U | FRL 200 3/8 20 08 SAC   | 4682004U | FRL 300 1 5 08 RMSA   |
| 3282008U | FRL 100 1/4 20 08 RMSA  | 3582109U | FRL 200 3/8 50 08 SAC   | 4682005U | FRL 300 1 20 08 RMSA  |
| 3282009U | FRL 100 1/4 50 08 RMSA  | 3582110U | FRL 200 3/8 5 012 SAC   | 4682006U | FRL 300 1 50 08 RMSA  |
| 3282010U | FRL 100 1/4 5 012 RMSA  | 3582111U | FRL 200 3/8 20 012 SAC  | 4682007U | FRL 300 1 5 012 RMSA  |
| 3282011U | FRL 100 1/4 20 012 RMSA | 3582112U | FRL 200 3/8 50 012 SAC  | 4682008U | FRL 300 1 20 012 RMSA |
| 3282012U | FRL 100 1/4 50 012 RMSA | 3682007U | FRL 200 1/2 5 08 RMSA   | 4682009U | FRL 300 1 50 012 RMSA |
| 3282107U | FRL 100 1/4 5 08 SAC    | 3682008U | FRL 200 1/2 20 08 RMSA  | 4682013U | FRL 300 1 5 08 RA     |
| 3282108U | FRL 100 1/4 20 08 SAC   | 3682009U | FRL 200 1/2 50 08 RMSA  | 4682014U | FRL 300 1 20 08 RA    |
| 3282109U | FRL 100 1/4 50 08 SAC   | 3682010U | FRL 200 1/2 5 012 RMSA  | 4682015U | FRL 300 1 50 08 RA    |
| 3282110U | FRL 100 1/4 5 012 SAC   | 3682011U | FRL 200 1/2 20 012 RMSA | 4682016U | FRL 300 1 5 012 RA    |
| 3282111U | FRL 100 1/4 20 012 SAC  | 3682012U | FRL 200 1/2 50 012 RMSA | 4682017U | FRL 300 1 20 012 RA   |
| 3282112U | FRL 100 1/4 50 012 SAC  | 3682019U | FRL 200 1/2 5 08 RA     | 4682018U | FRL 300 1 50 012 RA   |
| 3382007U | FRL 100 3/8 5 08 RMSA   | 3682020U | FRL 200 1/2 20 08 RA    | 6182001U | FRL 400 1 5 RMSA      |
| 3382008U | FRL 100 3/8 20 08 RMSA  | 3682107U | FRL 200 1/2 5 08 SAC    | 6182002U | FRL 400 1 20 RMSA     |
| 3382009U | FRL 100 3/8 50 08 RMSA  | 3682108U | FRL 200 1/2 20 08 SAC   | 6182003U | FRL 400 1 50 RMSA     |
| 3382010U | FRL 100 3/8 5 012 RMSA  | 3682109U | FRL 200 1/2 50 08 SAC   | 6182004U | FRL 400 1 5 RA        |
| 3382011U | FRL 100 3/8 20 012 RMSA | 3682110U | FRL 200 1/2 5 012 SAC   | 6182005U | FRL 400 1 20 RA       |
| 3382012U | FRL 100 3/8 50 012 RMSA | 3682111U | FRL 200 1/2 20 012 SAC  | 6182006U | FRL 400 1 50 RA       |
| 3382107U | FRL 100 3/8 5 08 SAC    | 3682112U | FRL 200 1/2 50 012 SAC  | 6282001U | FRL 400 1 1/4 5 RMSA  |
| 3382108U | FRL 100 3/8 20 08 SAC   | 4482004U | FRL 300 1/2 5 08 RMSA   | 6282002U | FRL 400 1 1/4 20 RMSA |
| 3382109U | FRL 100 3/8 50 08 SAC   | 4482005U | FRL 300 1/2 20 08 RMSA  | 6282003U | FRL 400 1 1/4 50 RMSA |
| 3382110U | FRL 100 3/8 5 012 SAC   | 4482006U | FRL 300 1/2 50 08 RMSA  | 6282004U | FRL 400 1 1/4 5 RA    |
| 3382111U | FRL 100 3/8 20 012 SAC  | 4482007U | FRL 300 1/2 5 012 RMSA  | 6282005U | FRL 400 1 1/4 20 RA   |
| 3382112U | FRL 100 3/8 50 012 SAC  | 4482008U | FRL 300 1/2 20 012 RMSA | 6282006U | FRL 400 1 1/4 50 RA   |
| 3482007U | FRL 200 1/4 5 08 RMSA   | 4482009U | FRL 300 1/2 50 012 RMSA | 6382001U | FRL 400 1 1/2 5 RMSA  |
| 3482008U | FRL 200 1/4 20 08 RMSA  | 4482013U | FRL 300 1/2 5 08 RA     | 6382002U | FRL 400 1 1/2 20 RMSA |
| 3482009U | FRL 200 1/4 50 08 RMSA  | 4482014U | FRL 300 1/2 20 08 RA    | 6382003U | FRL 400 1 1/2 50 RMSA |
| 3482010U | FRL 200 1/4 5 012 RMSA  | 4482015U | FRL 300 1/2 50 08 RA    | 6382004U | FRL 400 1 1/2 5 RA    |
| 3482011U | FRL 200 1/4 20 012 RMSA | 4482016U | FRL 300 1/2 5 012 RA    | 6382005U | FRL 400 1 1/2 20 RA   |
| 3482012U | FRL 200 1/4 50 012 RMSA | 4482017U | FRL 300 1/2 20 012 RA   | 6382006U | FRL 400 1 1/2 50 RA   |
| 3482107U | FRL 200 1/4 5 08 SAC    | 4482018U | FRL 300 1/2 50 012 RA   | 6482001U | FRL 400 2 5 RMSA      |
| 3482108U | FRL 200 1/4 20 08 SAC   | 4582004U | FRL 300 3/4 5 08 RMSA   | 6482002U | FRL 400 2 20 RMSA     |
| 3482109U | FRL 200 1/4 50 08 SAC   | 4582005U | FRL 300 3/4 20 08 RMSA  | 6482003U | FRL 400 2 50 RMSA     |
| 3482110U | FRL 200 1/4 5 012 SAC   | 4582006U | FRL 300 3/4 50 08 RMSA  | 6482004U | FRL 400 2 5 RA        |
| 3482111U | FRL 200 1/4 20 012 SAC  | 4582007U | FRL 300 3/4 5 012 RMSA  | 6482005U | FRL 400 2 20 RA       |
| 3482112U | FRL 200 1/4 50 012 SAC  | 4582008U | FRL 300 3/4 20 012 RMSA | 6482006U | FRL 400 2 50 RA       |
| 3582007U | FRL 200 3/8 5 08 RMSA   | 4582009U | FRL 300 3/4 50 012 RMSA |          |                       |
| 3582008U | FRL 200 3/8 20 08 RMSA  | 4582013U | FRL 300 3/4 5 08 RA     |          |                       |
| 3582009U | FRL 200 3/8 50 08 RMSA  | 4582014U | FRL 300 3/4 20 08 RA    |          |                       |
| 3582010U | FRL 200 3/8 5 012 RMSA  | 4582015U | FRL 300 3/4 50 08 RA    |          |                       |
| 3582011U | FRL 200 3/8 20 012 RMSA | 4582016U | FRL 300 3/4 5 012 RA    |          |                       |
| 3582012U | FRL 200 3/8 50 012 RMSA | 4582017U | FRL 300 3/4 20 012 RA   |          |                       |
| 3582107U | FRL 200 3/8 5 08 SAC    | 4582018U | FRL 300 3/4 50 012 RA   |          |                       |

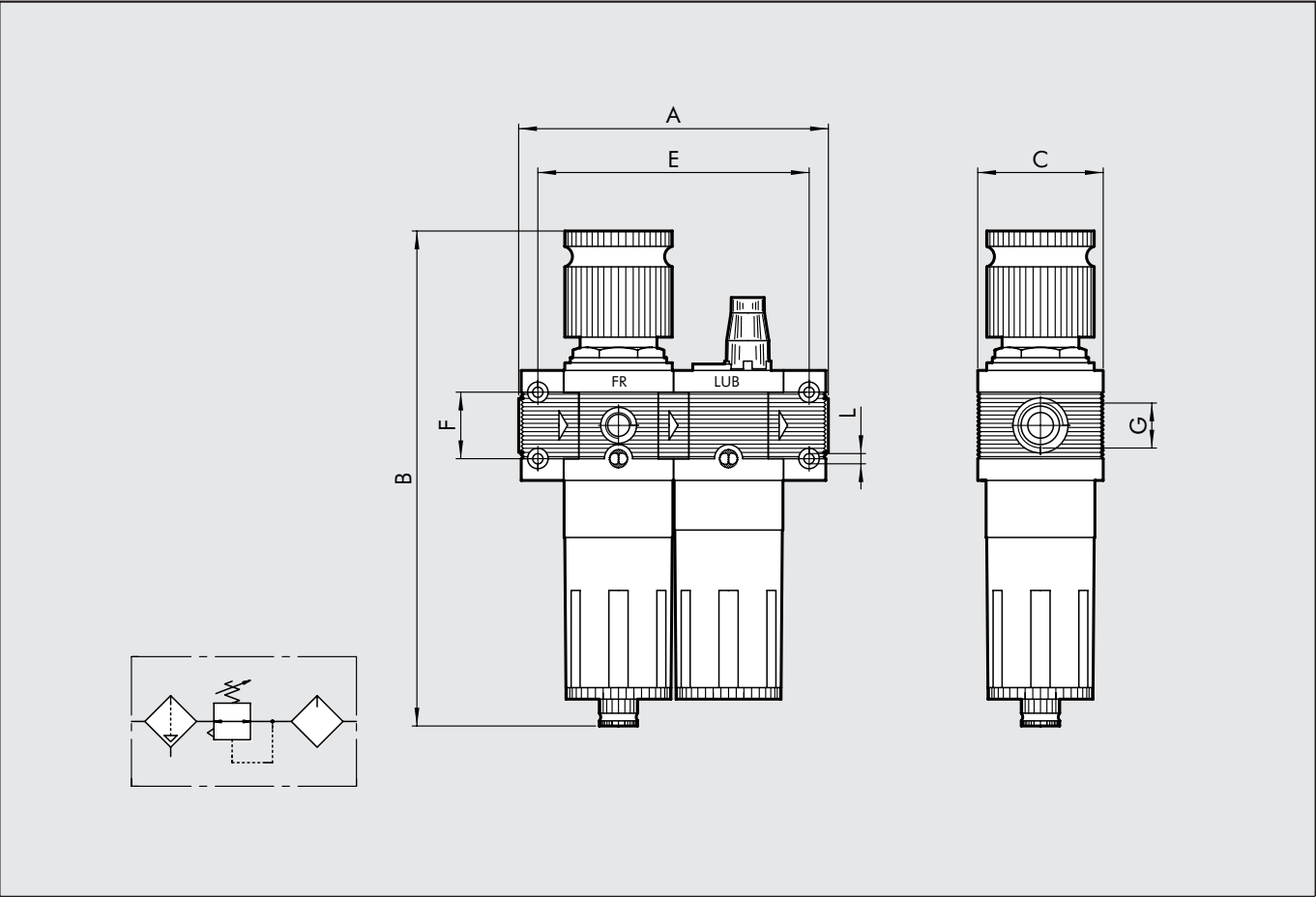


# FR+LUB Skillair® 100-200-300

| TECHNICAL DATA       |        | FR+L 100        |      | FR+L 200            |      |      | FR+L 300            |      |    |
|----------------------|--------|-----------------|------|---------------------|------|------|---------------------|------|----|
| Threaded port        | NPT    | 1/4"            | 3/8" | 1/4"                | 3/8" | 1/2" | 1/2"                | 3/4" | 1" |
| Setting range        | psi    | 0÷120 0÷180     |      | 0÷120 0÷180         |      |      | 0÷120 0÷180         |      |    |
| Degree of filtration | micron | 5µm             |      | 20µm                | 50µm |      |                     |      |    |
| Max. inlet pressure  | MPa    | 1.5             |      | 1.3                 |      |      | 1.3                 |      |    |
|                      | bar    | 15              |      | 13                  |      |      | 13                  |      |    |
|                      | psi    | 217             |      | 188                 |      |      | 188                 |      |    |
| Flow rate at 6 bar   | NI/min | 300             |      | 1200                |      |      | 2300                |      |    |
| ΔP 0.5 bar           | scfm   | 11              |      | 43                  |      |      | 82                  |      |    |
| Flow rate at 6 bar   | NI/min | 800             |      | 2400                |      |      | 4000                |      |    |
| ΔP 1 bar             | scfm   | 28              |      | 85                  |      |      | 142                 |      |    |
| Fluid                |        | Compressed air  |      |                     |      |      |                     |      |    |
| Max temperature      | °F     | 50              |      | 50                  |      |      | 50                  |      |    |
| at 10 bar            | °C     | 122             |      | 122                 |      |      | 122                 |      |    |
| Weight               | pounds | 1.5             |      | 3                   |      |      | 5.9                 |      |    |
| Wall fixing screws   |        | N. 8-32 unc x 2 |      | N. 10-24 unc x 2.36 |      |      | N. 10-24 unc x 2.75 |      |    |
|                      |        |                 |      |                     |      |      |                     |      |    |
|                      |        |                 |      |                     |      |      |                     |      |    |
|                      |        |                 |      |                     |      |      |                     |      |    |



| DIMENSIONS      |  | FR+LUB 100 |         | FR+LUB 200 |         |         | FR+LUB 300 |         |        |
|-----------------|--|------------|---------|------------|---------|---------|------------|---------|--------|
| THREADED PORT G |  | NPT 1/4    | NPT 3/8 | NPT 1/4    | NPT 3/8 | NPT 1/2 | NPT 1/2    | NPT 3/4 | NPT 1" |
| A               |  | 4.76       |         |            | 5.86    |         | 6.88       |         | 6.96   |
| B               |  | 7.83       |         |            | 9.64    |         |            | 10.94   |        |
| C               |  | 1.96       |         |            | 2.48    |         |            | 2.83    |        |
| E               |  | 4.17       |         |            | 5.27    |         |            | 6.18    |        |
| F               |  | 1.02       |         |            | 1.41    |         |            | 1.65    |        |
| L               |  | 0.17       |         |            | 0.21    |         |            | 0.21    |        |



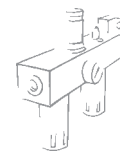
## KEY TO CODES

| FR+L<br>ELEMENT | 100<br>SIZE | 1/4<br>THREADED<br>PORT | 5µm<br>DEGREE OF<br>FILTRATION                                       | 0÷8<br>SETTING<br>RANGE                     | RMSA<br>TYPE OF CONDEN-<br>SATION RANGE |
|-----------------|-------------|-------------------------|----------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|
| FR+L            | 100         | 1/4                     | 5µm = 200 microinch<br>20µm = 790 microinch<br>50µm = 2000 microinch | 0÷8 bar = 0÷120 psi<br>0÷12 bar = 0÷180 psi | RMSA                                    |
|                 |             | 3/8                     |                                                                      |                                             | SAC                                     |
|                 | 200         | 1/4                     |                                                                      |                                             |                                         |
|                 |             | 3/8                     |                                                                      |                                             |                                         |
|                 |             | 1/2                     |                                                                      |                                             |                                         |
|                 | 300         | 1/2                     |                                                                      |                                             | RMSA                                    |
|                 |             | 3/4                     |                                                                      |                                             | RA                                      |
|                 |             | 1                       |                                                                      |                                             |                                         |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain for sizes 100 and 200. Operates by depressurization – requires variable air take-offs.  
**RA:** Automatic drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate.

## ORDERING CODES

| Code     | Description              | Code     | Description              | Code     | Description            |
|----------|--------------------------|----------|--------------------------|----------|------------------------|
| 3284007U | FR+L 100 1/4 5 08 RMSA   | 3584108U | FR+L 200 3/8 20 08 SAC   | 4684004U | FR+L 300 1 5 08 RMSA   |
| 3284008U | FR+L 100 1/4 20 08 RMSA  | 3584109U | FR+L 200 3/8 50 08 SAC   | 4684005U | FR+L 300 1 20 08 RMSA  |
| 3284009U | FR+L 100 1/4 50 08 RMSA  | 3584110U | FR+L 200 3/8 5 012 SAC   | 4684006U | FR+L 300 1 50 08 RMSA  |
| 3284010U | FR+L 100 1/4 5 012 RMSA  | 3584111U | FR+L 200 3/8 20 012 SAC  | 4684007U | FR+L 300 1 5 012 RMSA  |
| 3284011U | FR+L 100 1/4 20 012 RMSA | 3584112U | FR+L 200 3/8 50 012 SAC  | 4684008U | FR+L 300 1 20 012 RMSA |
| 3284012U | FR+L 100 1/4 50 012 RMSA | 3684007U | FR+L 200 1/2 5 08 RMSA   | 4684009U | FR+L 300 1 50 012 RMSA |
| 3284107U | FR+L 100 1/4 5 08 SAC    | 3684008U | FR+L 200 1/2 20 08 RMSA  | 4684013U | FR+L 300 1 5 08 RA     |
| 3284108U | FR+L 100 1/4 20 08 SAC   | 3684009U | FR+L 200 1/2 50 08 RMSA  | 4684014U | FR+L 300 1 20 08 RA    |
| 3284109U | FR+L 100 1/4 50 08 SAC   | 3684010U | FR+L 200 1/2 5 012 RMSA  | 4684015U | FR+L 300 1 50 08 RA    |
| 3284110U | FR+L 100 1/4 5 012 SAC   | 3684011U | FR+L 200 1/2 20 012 RMSA | 4684016U | FR+L 300 1 5 012 RA    |
| 3284111U | FR+L 100 1/4 20 012 SAC  | 3684012U | FR+L 200 1/2 50 012 RMSA | 4684017U | FR+L 300 1 20 012 RA   |
| 3284112U | FR+L 100 1/4 50 012 SAC  | 3684107U | FR+L 200 1/2 5 08 SAC    | 4684018U | FR+L 300 1 50 012 RA   |
| 3384007U | FR+L 100 3/8 5 08 RMSA   | 3684108U | FR+L 200 1/2 20 08 SAC   |          |                        |
| 3384008U | FR+L 100 3/8 20 08 RMSA  | 3684109U | FR+L 200 1/2 50 08 SAC   |          |                        |
| 3384009U | FR+L 100 3/8 50 08 RMSA  | 3684110U | FR+L 200 1/2 5 012 SAC   |          |                        |
| 3384010U | FR+L 100 3/8 5 012 RMSA  | 3684111U | FR+L 200 1/2 20 012 SAC  |          |                        |
| 3384011U | FR+L 100 3/8 20 012 RMSA | 3684112U | FR+L 200 1/2 50 012 SAC  |          |                        |
| 3384012U | FR+L 100 3/8 50 012 RMSA | 3684019U | FR+L 200 1/2 5 08 RA     |          |                        |
| 3384107U | FR+L 100 3/8 5 08 SAC    | 3684020U | FR+L 200 1/2 20 08 RA    |          |                        |
| 3384108U | FR+L 100 3/8 20 08 SAC   | 4484004U | FR+L 300 1/2 5 08 RMSA   |          |                        |
| 3384109U | FR+L 100 3/8 50 08 SAC   | 4484005U | FR+L 300 1/2 20 08 RMSA  |          |                        |
| 3384110U | FR+L 100 3/8 5 012 SAC   | 4484006U | FR+L 300 1/2 50 08 RMSA  |          |                        |
| 3384111U | FR+L 100 3/8 20 012 SAC  | 4484007U | FR+L 300 1/2 5 012 RMSA  |          |                        |
| 3384112U | FR+L 100 3/8 50 012 SAC  | 4484008U | FR+L 300 1/2 20 012 RMSA |          |                        |
| 3484007U | FR+L 200 1/4 5 08 RMSA   | 4484009U | FR+L 300 1/2 50 012 RMSA |          |                        |
| 3484008U | FR+L 200 1/4 20 08 RMSA  | 4484013U | FR+L 300 1/2 5 08 RA     |          |                        |
| 3484009U | FR+L 200 1/4 50 08 RMSA  | 4484014U | FR+L 300 1/2 20 08 RA    |          |                        |
| 3484010U | FR+L 200 1/4 5 012 RMSA  | 4484015U | FR+L 300 1/2 50 08 RA    |          |                        |
| 3484011U | FR+L 200 1/4 20 012 RMSA | 4484016U | FR+L 300 1/2 5 012 RA    |          |                        |
| 3484012U | FR+L 200 1/4 50 012 RMSA | 4484017U | FR+L 300 1/2 20 012 RA   |          |                        |
| 3484107U | FR+L 200 1/4 5 08 SAC    | 4484018U | FR+L 300 1/2 50 012 RA   |          |                        |
| 3484108U | FR+L 200 1/4 20 08 SAC   | 4584004U | FR+L 300 3/4 5 08 RMSA   |          |                        |
| 3484109U | FR+L 200 1/4 50 08 SAC   | 4584005U | FR+L 300 3/4 20 08 RMSA  |          |                        |
| 3484110U | FR+L 200 1/4 5 012 SAC   | 4584006U | FR+L 300 3/4 50 08 RMSA  |          |                        |
| 3484111U | FR+L 200 1/4 20 012 SAC  | 4584007U | FR+L 300 3/4 5 012 RMSA  |          |                        |
| 3484112U | FR+L 200 1/4 50 012 SAC  | 4584008U | FR+L 300 3/4 20 012 RMSA |          |                        |
| 3584007U | FR+L 200 3/8 5 08 RMSA   | 4584009U | FR+L 300 3/4 50 012 RMSA |          |                        |
| 3584008U | FR+L 200 3/8 20 08 RMSA  | 4584013U | FR+L 300 3/4 5 08 RA     |          |                        |
| 3584009U | FR+L 200 3/8 50 08 RMSA  | 4584014U | FR+L 300 3/4 20 08 RA    |          |                        |
| 3584010U | FR+L 200 3/8 5 012 RMSA  | 4584015U | FR+L 300 3/4 50 08 RA    |          |                        |
| 3584011U | FR+L 200 3/8 20 012 RMSA | 4584016U | FR+L 300 3/4 5 012 RA    |          |                        |
| 3584012U | FR+L 200 3/8 50 012 RMSA | 4584017U | FR+L 300 3/4 20 012 RA   |          |                        |
| 3584107U | FR+L 200 3/8 5 08 SAC    | 4584018U | FR+L 300 3/4 50 012 RA   |          |                        |



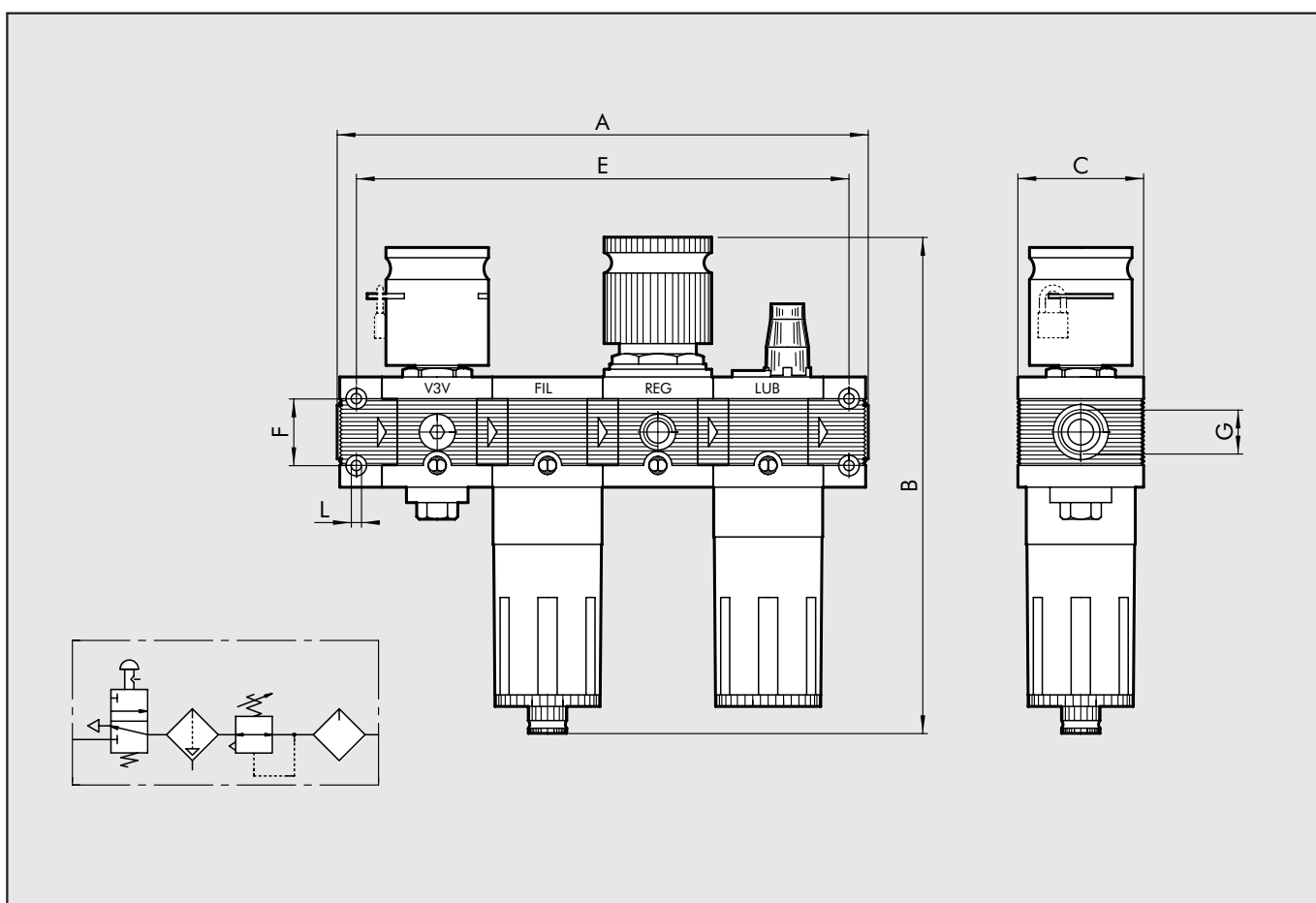
# V3V+FIL+REG+LUB Skillair® 100-200-300

| TECHNICAL DATA            |        | VFRL 100        |      | VFRL 200            |      |      | VFRL 300            |      |    |
|---------------------------|--------|-----------------|------|---------------------|------|------|---------------------|------|----|
| Threaded port             | NPT    | 1/4"            | 3/8" | 1/4"                | 3/8" | 1/2" | 1/2"                | 3/4" | 1" |
| Setting range             | psi    | 0÷120 0÷180     |      | 0÷120 0÷180         |      |      | 0÷120 0÷180         |      |    |
| Degree of filtration      | micron | 5μm, 20μm, 50μm |      |                     |      |      |                     |      |    |
| Max. inlet pressure       | MPa    | 1.5             |      | 1.3                 |      |      | 1.3                 |      |    |
|                           | bar    | 15              |      | 13                  |      |      | 13                  |      |    |
|                           | psi    | 217             |      | 188                 |      |      | 188                 |      |    |
| Flow rate at 6 bar        | NI/min | 300             |      | 1300                |      |      | 2200                |      |    |
| ΔP 0.5 bar                | scfm   | 11              |      | 46                  |      |      | 82                  |      |    |
| Flow rate at 6 bar        | NI/min | 800             |      | 2500                |      |      | 4000                |      |    |
| ΔP 1 bar                  | scfm   | 28              |      | 89                  |      |      | 142                 |      |    |
| Fluid                     |        | Compressed air  |      |                     |      |      |                     |      |    |
| Max temperature at 10 bar | °F     | 50              |      | 50                  |      |      | 50                  |      |    |
|                           | °C     | 122             |      | 122                 |      |      | 122                 |      |    |
| Weight                    | pounds | 2.2             |      | 4.4                 |      |      | 7                   |      |    |
| Wall fixing screws        |        | N. 8-32 unc x 2 |      | N. 10-24 unc x 2.36 |      |      | N. 10-24 unc x 2.75 |      |    |
|                           |        |                 |      |                     |      |      |                     |      |    |
|                           |        |                 |      |                     |      |      |                     |      |    |



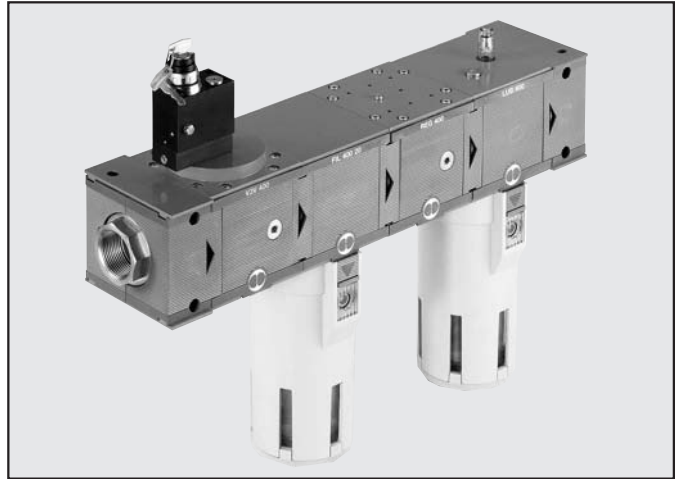
| DIMENSIONS | V3V+FIL+REG+LUB 100 |        | V3V+FIL+REG+LUB 200 |         |         | V3V+FIL+REG+LUB 300 |         |        |
|------------|---------------------|--------|---------------------|---------|---------|---------------------|---------|--------|
|            | THREAD              | PORT G | NPT 1/4             | NPT 3/8 | NPT 1/2 | NPT 1/2             | NPT 3/4 | NPT 1" |
| A          |                     |        | 8.14                |         | 10.23   | 12                  |         | 12.08  |
| B          |                     |        | 7.83                |         | 9.64    |                     | 10.94   |        |
| C          |                     |        | 1.96                |         | 2.48    |                     | 2.83    |        |
| E          |                     |        | 7.55                |         | 9.64    |                     | 11.29   |        |
| F          |                     |        | 1.02                |         | 1.41    |                     | 1.65    |        |
| L          |                     |        | 0.17                |         | 0.21    |                     | 0.21    |        |

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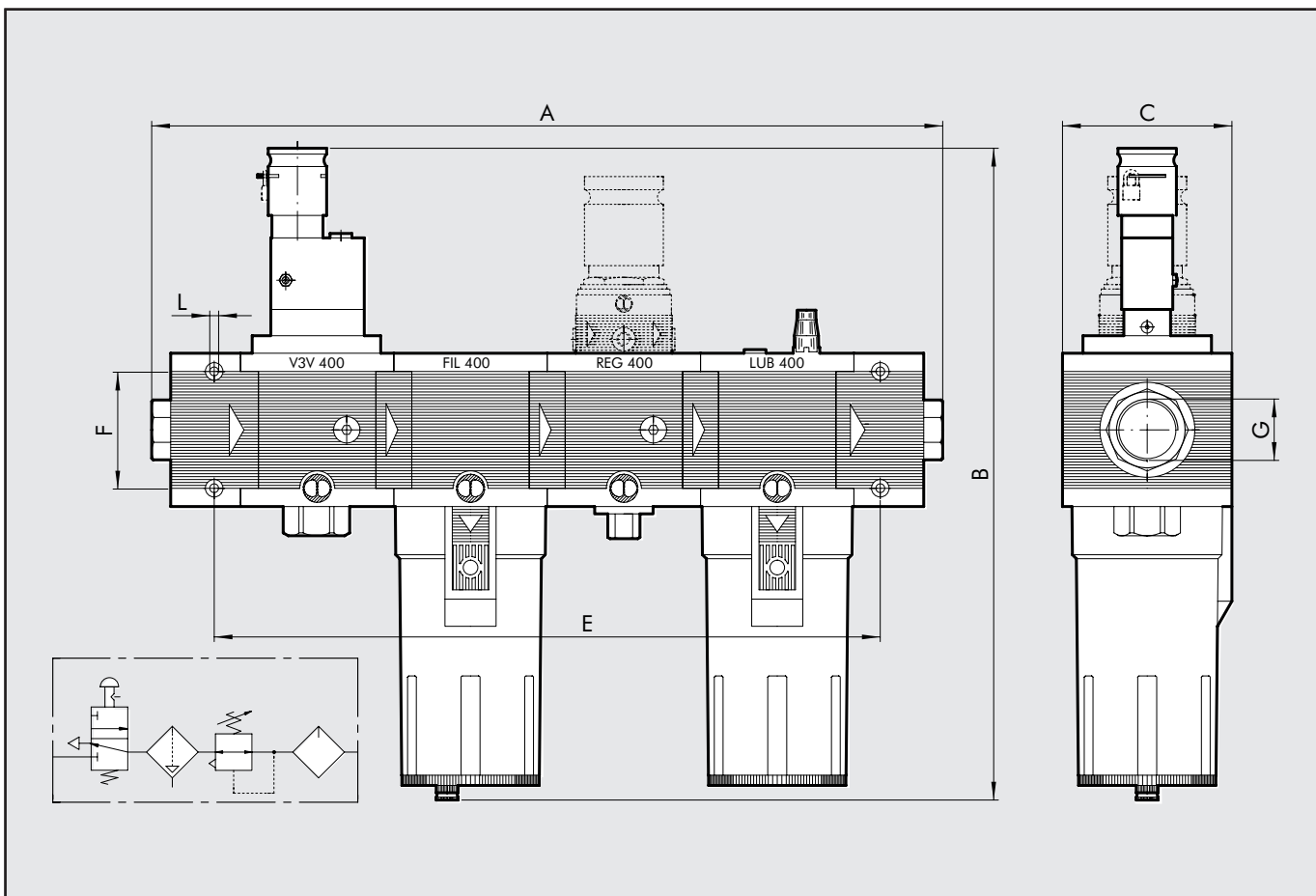


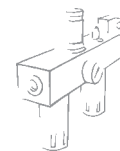
# V3V+FIL+REG+LUB Skillair® 400

| TECHNICAL DATA       |        | VFRL 400                                                                                                                                                                                            |        |        |    |
|----------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|----|
| Threaded port        | NPT    | 1"                                                                                                                                                                                                  | 1"1/4" | 1"1/2" | 2" |
| Setting range        |        | Depending on pilot regulator                                                                                                                                                                        |        |        |    |
| Degree of filtration | micron | 5µm                                                                                                                                                                                                 | 20µm   | 50µm   |    |
| Max. inlet pressure  | MPa    | 1.3                                                                                                                                                                                                 |        |        |    |
|                      | bar    | 13                                                                                                                                                                                                  |        |        |    |
|                      | psi    | 188                                                                                                                                                                                                 |        |        |    |
| Flow rate at 6 bar   |        | VFRL 400 1": 9000 NI/min = 320 scfm                                                                                                                                                                 |        |        |    |
| ΔP 0.5 bar           |        | VFRL 400 2": 14.000 NI/min = 500 scfm                                                                                                                                                               |        |        |    |
| Fluid                |        | Compressed air                                                                                                                                                                                      |        |        |    |
| Max temperature      | °F     | 50                                                                                                                                                                                                  |        |        |    |
| at 10 bar            | °C     | 122                                                                                                                                                                                                 |        |        |    |
| Weight               | pounds | 26.4                                                                                                                                                                                                |        |        |    |
| Wall fixing screws   |        | 1/4-20 unc x 4.33                                                                                                                                                                                   |        |        |    |
| Mounting             |        | Vertical                                                                                                                                                                                            |        |        |    |
| Bowl capacity        | ci     | 16.5                                                                                                                                                                                                |        |        |    |
| Notes                |        | The end plates in the 400 series have a patented system with a rotary and sliding end joint to adapt the unit perfectly to the pipe cutting distance. This unit does not include a pilot regulator. |        |        |    |



| DIMENSIONS      |  | V3V+FIL+REG+LUB 400 |            |            |               |
|-----------------|--|---------------------|------------|------------|---------------|
| THREADED PORT G |  | NPT 1"              | NPT 1"1/4" | NPT 1"1/2" | NPT 2"        |
| A               |  | 21.29 ÷ 22.48       |            |            | 23.58 ÷ 24.76 |
| B               |  | 18.14               |            |            |               |
| C               |  | 4.56                |            |            |               |
| E               |  | 18                  |            |            |               |
| F               |  | 3.14                |            |            |               |
| L               |  | 0.29                |            |            |               |





## KEY TO CODES

| VFRL<br>ELEMENT | 100<br>SIZE | 1/4<br>THREADED<br>PORT | 5µm<br>DEGREE OF<br>FILTRATION | 0÷8<br>SETTING<br>RANGE                     | RMSA<br>TYPE OF CONDEN-<br>SATE DRAIN |
|-----------------|-------------|-------------------------|--------------------------------|---------------------------------------------|---------------------------------------|
| VFRL            | 100         | 1/4                     | 5µm<br>20µm<br>50µm            | 0÷8 bar = 0÷120 psi<br>0÷12 bar = 0÷180 psi | RMSA<br>SAC                           |
|                 | 200         | 3/8                     |                                |                                             |                                       |
|                 |             | 1/4                     |                                |                                             |                                       |
|                 |             | 3/8                     |                                |                                             |                                       |
|                 |             | 1/2                     |                                |                                             |                                       |
|                 | 300         | 1/2                     |                                |                                             | RMSA<br>RA                            |
|                 |             | 3/4                     |                                |                                             |                                       |
|                 |             | 1                       |                                |                                             |                                       |
|                 | 400         | 1                       |                                |                                             |                                       |
|                 |             | 1 1/4                   |                                |                                             |                                       |
|                 |             | 1 1/2                   |                                |                                             |                                       |
|                 |             | 2                       |                                |                                             |                                       |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain for sizes 100 and 200. Operates by depression – requires variable air take-offs.  
**RA:** Automatic drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate.

## ORDERING CODES

| Code     | Description              | Code     | Description              | Code     | Description            |
|----------|--------------------------|----------|--------------------------|----------|------------------------|
| 3273007U | VFRL 100 1/4 5 08 RMSA   | 3573108U | VFRL 200 3/8 20 08 SAC   | 4673006U | VFRL 300 1 50 08 RMSA  |
| 3273008U | VFRL 100 1/4 20 08 RMSA  | 3573109U | VFRL 200 3/8 50 08 SAC   | 4673007U | VFRL 300 1 5 012 RMSA  |
| 3273009U | VFRL 100 1/4 50 08 RMSA  | 3573110U | VFRL 200 3/8 5 012 SAC   | 4673008U | VFRL 300 1 20 012 RMSA |
| 3273010U | VFRL 100 1/4 5 012 RMSA  | 3573111U | VFRL 200 3/8 20 012 SAC  | 4673009U | VFRL 300 1 50 012 RMSA |
| 3273011U | VFRL 100 1/4 20 012 RMSA | 3573112U | VFRL 200 3/8 50 012 SAC  | 4673013U | VFRL 300 1 5 08 RA     |
| 3273012U | VFRL 100 1/4 50 012 RMSA | 3673007U | VFRL 200 1/2 5 08 RMSA   | 4673014U | VFRL 300 1 20 08 RA    |
| 3273107U | VFRL 100 1/4 5 08 SAC    | 3673008U | VFRL 200 1/2 20 08 RMSA  | 4673015U | VFRL 300 1 50 08 RA    |
| 3273108U | VFRL 100 1/4 20 08 SAC   | 3673009U | VFRL 200 1/2 50 08 RMSA  | 4673016U | VFRL 300 1 5 012 RA    |
| 3273109U | VFRL 100 1/4 50 08 SAC   | 3673010U | VFRL 200 1/2 5 012 RMSA  | 4673017U | VFRL 300 1 20 012 RA   |
| 3273110U | VFRL 100 1/4 5 012 SAC   | 3673011U | VFRL 200 1/2 20 012 RMSA | 4673018U | VFRL 300 1 50 012 RA   |
| 3273111U | VFRL 100 1/4 20 012 SAC  | 3673012U | VFRL 200 1/2 50 012 RMSA | 6173001U | VFRL 400 1 5 RMSA      |
| 3273112U | VFRL 100 1/4 50 012 SAC  | 3673107U | VFRL 200 1/2 5 08 SAC    | 6173002U | VFRL 400 1 20 RMSA     |
| 3373007U | VFRL 100 3/8 5 08 RMSA   | 3673108U | VFRL 200 1/2 20 08 SAC   | 6173003U | VFRL 400 1 50 RMSA     |
| 3373008U | VFRL 100 3/8 20 08 RMSA  | 3673109U | VFRL 200 1/2 50 08 SAC   | 6173004U | VFRL 400 1 5 RA        |
| 3373009U | VFRL 100 3/8 50 08 RMSA  | 3673110U | VFRL 200 1/2 5 012 SAC   | 6173005U | VFRL 400 1 20 RA       |
| 3373010U | VFRL 100 3/8 5 012 RMSA  | 3673111U | VFRL 200 1/2 20 012 SAC  | 6173006U | VFRL 400 1 50 RA       |
| 3373011U | VFRL 100 3/8 20 012 RMSA | 3673112U | VFRL 200 1/2 50 012 SAC  | 6273001U | VFRL 400 1 1/4 5 RMSA  |
| 3373012U | VFRL 100 3/8 50 012 RMSA | 4473004U | VFRL 300 1/2 5 08 RMSA   | 6273002U | VFRL 400 1 1/4 20 RMSA |
| 3373107U | VFRL 100 3/8 5 08 SAC    | 4473005U | VFRL 300 1/2 20 08 RMSA  | 6273003U | VFRL 400 1 1/4 50 RMSA |
| 3373108U | VFRL 100 3/8 20 08 SAC   | 4473006U | VFRL 300 1/2 50 08 RMSA  | 6273004U | VFRL 400 1 1/4 5 RA    |
| 3373109U | VFRL 100 3/8 50 08 SAC   | 4473007U | VFRL 300 1/2 5 012 RMSA  | 6273005U | VFRL 400 1 1/4 20 RA   |
| 3373110U | VFRL 100 3/8 5 012 SAC   | 4473008U | VFRL 300 1/2 20 012 RMSA | 6273006U | VFRL 400 1 1/4 50 RA   |
| 3373111U | VFRL 100 3/8 20 012 SAC  | 4473009U | VFRL 300 1/2 50 012 RMSA | 6373001U | VFRL 400 1 1/2 5 RMSA  |
| 3373112U | VFRL 100 3/8 50 012 SAC  | 4473013U | VFRL 300 1/2 5 08 RA     | 6373002U | VFRL 400 1 1/2 20 RMSA |
| 3473007U | VFRL 200 1/4 5 08 RMSA   | 4473014U | VFRL 300 1/2 20 08 RA    | 6373003U | VFRL 400 1 1/2 50 RMSA |
| 3473008U | VFRL 200 1/4 20 08 RMSA  | 4473015U | VFRL 300 1/2 50 08 RA    | 6373004U | VFRL 400 1 1/2 5 RA    |
| 3473009U | VFRL 200 1/4 50 08 RMSA  | 4473016U | VFRL 300 1/2 5 012 RA    | 6373005U | VFRL 400 1 1/2 20 RA   |
| 3473010U | VFRL 200 1/4 5 012 RMSA  | 4473017U | VFRL 300 1/2 20 012 RA   | 6373006U | VFRL 400 1 1/2 50 RA   |
| 3473011U | VFRL 200 1/4 20 012 RMSA | 4473018U | VFRL 300 1/2 50 012 RA   | 6473001U | VFRL 400 2 5 RMSA      |
| 3473012U | VFRL 200 1/4 50 012 RMSA | 4573004U | VFRL 300 3/4 5 08 RMSA   | 6473002U | VFRL 400 2 20 RMSA     |
| 3473107U | VFRL 200 1/4 5 08 SAC    | 4573005U | VFRL 300 3/4 20 08 RMSA  | 6473003U | VFRL 400 2 50 RMSA     |
| 3473108U | VFRL 200 1/4 20 08 SAC   | 4573006U | VFRL 300 3/4 50 08 RMSA  | 6473004U | VFRL 400 2 5 RA        |
| 3473109U | VFRL 200 1/4 50 08 SAC   | 4573007U | VFRL 300 3/4 5 012 RMSA  | 6473005U | VFRL 400 2 20 RA       |
| 3473110U | VFRL 200 1/4 5 012 SAC   | 4573008U | VFRL 300 3/4 20 012 RMSA | 6473006U | VFRL 400 2 50 RA       |
| 3473111U | VFRL 200 1/4 20 012 SAC  | 4573009U | VFRL 300 3/4 50 012 RMSA |          |                        |
| 3473112U | VFRL 200 1/4 50 012 SAC  | 4573013U | VFRL 300 3/4 5 08 RA     |          |                        |
| 3573007U | VFRL 200 3/8 5 08 RMSA   | 4573014U | VFRL 300 3/4 20 08 RA    |          |                        |
| 3573008U | VFRL 200 3/8 20 08 RMSA  | 4573015U | VFRL 300 3/4 50 08 RA    |          |                        |
| 3573009U | VFRL 200 3/8 50 08 RMSA  | 4573016U | VFRL 300 3/4 5 012 RA    |          |                        |
| 3573010U | VFRL 200 3/8 5 012 RMSA  | 4573017U | VFRL 300 3/4 20 012 RA   |          |                        |
| 3573011U | VFRL 200 3/8 20 012 RMSA | 4573018U | VFRL 300 3/4 50 012 RA   |          |                        |
| 3573012U | VFRL 200 3/8 50 012 RMSA | 4673004U | VFRL 300 1 5 08 RMSA     |          |                        |
| 3573107U | VFRL 200 3/8 5 08 SAC    | 4673005U | VFRL 300 1 20 08 RMSA    |          |                        |

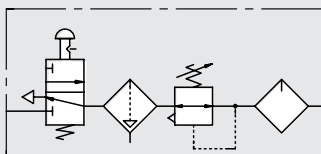
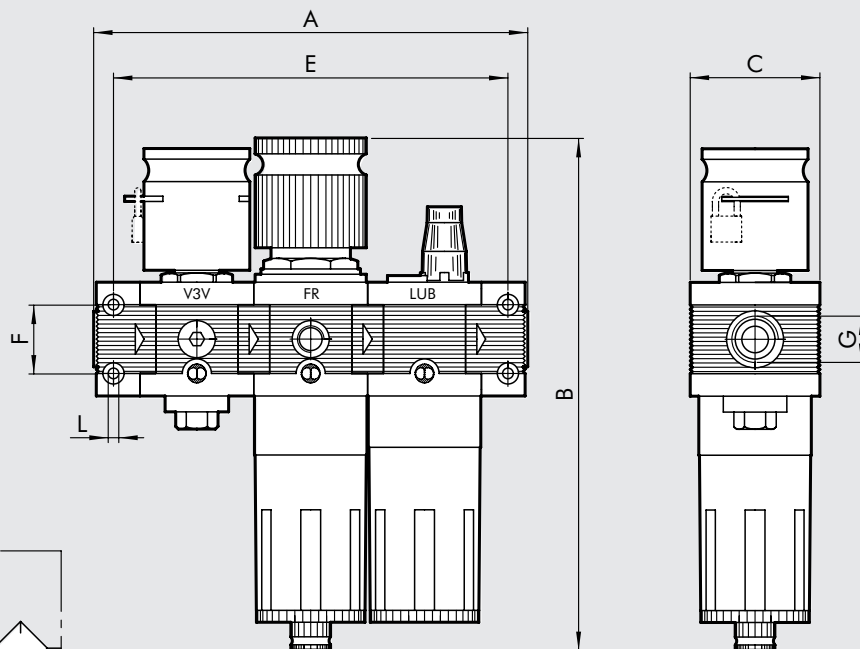
# V3V+FR+LUB

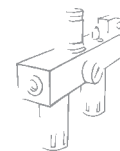
## Skillair® 100-200-300

| TECHNICAL DATA       |        | V+FR+L 100      |      | V+FR+L 200          |      | V+FR+L 300          |      |    |
|----------------------|--------|-----------------|------|---------------------|------|---------------------|------|----|
| Threaded port        | NPT    | 1/4"            | 3/8" | 1/4"                | 3/8" | 1/2"                | 3/4" | 1" |
| Setting range        | psi    | 0÷120 0÷180     |      | 0÷120 0÷180         |      | 0÷120 0÷180         |      |    |
| Degree of filtration | micron | 5µm 20µm 50µm   |      |                     |      |                     |      |    |
| Max. inlet pressure  | MPa    | 15              |      | 1.3                 |      | 1.3                 |      |    |
|                      | bar    | 15              |      | 13                  |      | 13                  |      |    |
|                      | psi    | 217             |      | 188                 |      | 188                 |      |    |
| Flow rate at 6 bar   | NI/min | 300             |      | 1200                |      | 2300                |      |    |
| ΔP 0.5 bar           |        | 11              |      | 43                  |      | 82                  |      |    |
| Flow rate at 6 bar   | NI/min | 800             |      | 2400                |      | 4000                |      |    |
| ΔP 1 bar             |        | 28              |      | 85                  |      | 142                 |      |    |
| Fluid                |        | Compressed air  |      |                     |      |                     |      |    |
| Max temperature      | °F     | 50              |      | 50                  |      | 50                  |      |    |
| at 10 bar            | °C     | 122             |      | 122                 |      | 122                 |      |    |
| Weight               | pounds | 2.2             |      | 4                   |      | 7                   |      |    |
| Wall fixing screws   |        | N. 8-32 unc x 2 |      | N. 10-24 unc x 2.36 |      | N. 10-24 unc x 2.75 |      |    |
|                      |        |                 |      |                     |      |                     |      |    |
|                      |        |                 |      |                     |      |                     |      |    |



| DIMENSIONS      | V3V+FIL+REG+LUB 100 |         | V3V+FIL+REG+LUB 200 |         |         | V3V+FIL+REG+LUB 300 |         |        |
|-----------------|---------------------|---------|---------------------|---------|---------|---------------------|---------|--------|
| THREADED PORT G | NPT 1/4             | NPT 3/8 | NPT 1/4             | NPT 3/8 | NPT 1/2 | NPT 1/2             | NPT 3/4 | NPT 1" |
| A               | 6.45                |         | 8.05                |         |         | 9.44                |         |        |
| B               | 7.83                |         | 9.64                |         |         | 10.94               |         |        |
| C               | 1.96                |         | 2.48                |         |         | 2.83                |         |        |
| E               | 5.86                |         | 7.46                |         |         | 8.74                |         |        |
| F               | 1.02                |         | 1.41                |         |         | 1.65                |         |        |
| L               | 0.17                |         | 0.21                |         |         | 0.21                |         |        |





## KEY TO CODES

| VFR+L   | 100  | 1/4           | 5µm                  | 0÷8                                         | RMSA                     | <b>RMSA:</b> Manual/semi-auto drain<br><b>SAC:</b> Automatic drain for sizes 100 and 200. Operates by depressurization – requires variable air take-offs.<br><b>RA:</b> Automatic drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate. |
|---------|------|---------------|----------------------|---------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | SETTING RANGE                               | TYPE OF CONDENSATE DRAIN |                                                                                                                                                                                                                                                                                |
| VFR+L   | 100  | 1/4           | 5µm<br>20µm<br>50µm  | 0÷8 bar = 0÷120 psi<br>0÷12 bar = 0÷180 psi | RMSA<br>SAC              |                                                                                                                                                                                                                                                                                |
|         | 200  | 3/8           |                      |                                             |                          |                                                                                                                                                                                                                                                                                |
|         |      | 1/4           |                      |                                             |                          |                                                                                                                                                                                                                                                                                |
|         | 300  | 1/2           |                      |                                             | RMSA<br>RA               |                                                                                                                                                                                                                                                                                |

## ORDERING CODES

| Code     | Description               | Code     | Description               | Code     | Description             |
|----------|---------------------------|----------|---------------------------|----------|-------------------------|
| 3272007U | VFR+L 100 1/4 5 08 RMSA   | 3572108U | VFR+L 200 3/8 20 08 SAC   | 4672006U | VFR+L 300 1 50 08 RMSA  |
| 3272008U | VFR+L 100 1/4 20 08 RMSA  | 3572109U | VFR+L 200 3/8 50 08 SAC   | 4672007U | VFR+L 300 1 5 012 RMSA  |
| 3272009U | VFR+L 100 1/4 50 08 RMSA  | 3572110U | VFR+L 200 3/8 5 012 SAC   | 4672008U | VFR+L 300 1 20 012 RMSA |
| 3272010U | VFR+L 100 1/4 5 012 RMSA  | 3572111U | VFR+L 200 3/8 20 012 SAC  | 4672009U | VFR+L 300 1 50 012 RMSA |
| 3272011U | VFR+L 100 1/4 20 012 RMSA | 3572112U | VFR+L 200 3/8 50 012 SAC  | 4672013U | VFR+L 300 1 5 08 RA     |
| 3272012U | VFR+L 100 1/4 50 012 RMSA | 3672007U | VFR+L 200 1/2 5 08 RMSA   | 4672014U | VFR+L 300 1 20 08 RA    |
| 3272107U | VFR+L 100 1/4 5 08 SAC    | 3672008U | VFR+L 200 1/2 20 08 RMSA  | 4672015U | VFR+L 300 1 50 08 RA    |
| 3272108U | VFR+L 100 1/4 20 08 SAC   | 3672009U | VFR+L 200 1/2 50 08 RMSA  | 4672016U | VFR+L 300 1 5 012 RA    |
| 3272109U | VFR+L 100 1/4 50 08 SAC   | 3672010U | VFR+L 200 1/2 5 012 RMSA  | 4672017U | VFR+L 300 1 20 012 RA   |
| 3272110U | VFR+L 100 1/4 5 012 SAC   | 3672011U | VFR+L 200 1/2 20 012 RMSA | 4672018U | VFR+L 300 1 50 012 RA   |
| 3272111U | VFR+L 100 1/4 20 012 SAC  | 3672012U | VFR+L 200 1/2 50 012 RMSA |          |                         |
| 3272112U | VFR+L 100 1/4 50 012 SAC  | 3672107U | VFR+L 200 1/2 5 08 SAC    |          |                         |
| 3372007U | VFR+L 100 3/8 5 08 RMSA   | 3672108U | VFR+L 200 1/2 20 08 SAC   |          |                         |
| 3372008U | VFR+L 100 3/8 20 08 RMSA  | 3672109U | VFR+L 200 1/2 50 08 SAC   |          |                         |
| 3372009U | VFR+L 100 3/8 50 08 RMSA  | 3672110U | VFR+L 200 1/2 5 012 SAC   |          |                         |
| 3372010U | VFR+L 100 3/8 5 012 RMSA  | 3672111U | VFR+L 200 1/2 20 012 SAC  |          |                         |
| 3372011U | VFR+L 100 3/8 20 012 RMSA | 3672112U | VFR+L 200 1/2 50 012 SAC  |          |                         |
| 3372012U | VFR+L 100 3/8 50 012 RMSA | 4472004U | VFR+L 300 1/2 5 08 RMSA   |          |                         |
| 3372107U | VFR+L 100 3/8 5 08 SAC    | 4472005U | VFR+L 300 1/2 20 08 RMSA  |          |                         |
| 3372108U | VFR+L 100 3/8 20 08 SAC   | 4472006U | VFR+L 300 1/2 50 08 RMSA  |          |                         |
| 3372109U | VFR+L 100 3/8 50 08 SAC   | 4472007U | VFR+L 300 1/2 5 012 RMSA  |          |                         |
| 3372110U | VFR+L 100 3/8 5 012 SAC   | 4472008U | VFR+L 300 1/2 20 012 RMSA |          |                         |
| 3372111U | VFR+L 100 3/8 20 012 SAC  | 4472009U | VFR+L 300 1/2 50 012 RMSA |          |                         |
| 3372112U | VFR+L 100 3/8 50 012 SAC  | 4472013U | VFR+L 300 1/2 5 08 RA     |          |                         |
| 3472007U | VFR+L 200 1/4 5 08 RMSA   | 4472014U | VFR+L 300 1/2 20 08 RA    |          |                         |
| 3472008U | VFR+L 200 1/4 20 08 RMSA  | 4472015U | VFR+L 300 1/2 50 08 RA    |          |                         |
| 3472009U | VFR+L 200 1/4 50 08 RMSA  | 4472016U | VFR+L 300 1/2 5 012 RA    |          |                         |
| 3472010U | VFR+L 200 1/4 5 012 RMSA  | 4472017U | VFR+L 300 1/2 20 012 RA   |          |                         |
| 3472011U | VFR+L 200 1/4 20 012 RMSA | 4472018U | VFR+L 300 1/2 50 012 RA   |          |                         |
| 3472012U | VFR+L 200 1/4 50 012 RMSA | 4572004U | VFR+L 300 3/4 5 08 RMSA   |          |                         |
| 3472107U | VFR+L 200 1/4 5 08 SAC    | 4572005U | VFR+L 300 3/4 20 08 RMSA  |          |                         |
| 3472108U | VFR+L 200 1/4 20 08 SAC   | 4572006U | VFR+L 300 3/4 50 08 RMSA  |          |                         |
| 3472109U | VFR+L 200 1/4 50 08 SAC   | 4572007U | VFR+L 300 3/4 5 012 RMSA  |          |                         |
| 3472110U | VFR+L 200 1/4 5 012 SAC   | 4572008U | VFR+L 300 3/4 20 012 RMSA |          |                         |
| 3472111U | VFR+L 200 1/4 20 012 SAC  | 4572009U | VFR+L 300 3/4 50 012 RMSA |          |                         |
| 3472112U | VFR+L 200 1/4 50 012 SAC  | 4572013U | VFR+L 300 3/4 5 08 RA     |          |                         |
| 3572007U | VFR+L 200 3/8 5 08 RMSA   | 4572014U | VFR+L 300 3/4 20 08 RA    |          |                         |
| 3572008U | VFR+L 200 3/8 20 08 RMSA  | 4572015U | VFR+L 300 3/4 50 08 RA    |          |                         |
| 3572009U | VFR+L 200 3/8 50 08 RMSA  | 4572016U | VFR+L 300 3/4 5 012 RA    |          |                         |
| 3572010U | VFR+L 200 3/8 5 012 RMSA  | 4572017U | VFR+L 300 3/4 20 012 RA   |          |                         |
| 3572011U | VFR+L 200 3/8 20 012 RMSA | 4572018U | VFR+L 300 3/4 50 012 RA   |          |                         |
| 3572012U | VFR+L 200 3/8 50 012 RMSA | 4672004U | VFR+L 300 1 5 08 RMSA     |          |                         |
| 3572107U | VFR+L 200 3/8 5 08 SAC    | 4672005U | VFR+L 300 1 20 08 RMSA    |          |                         |

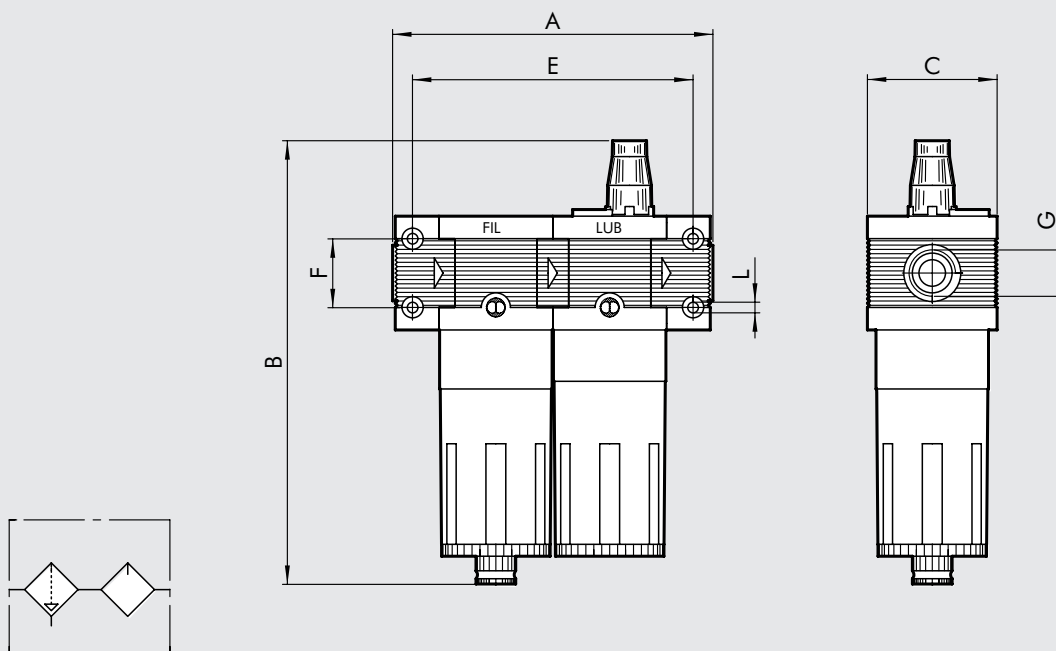


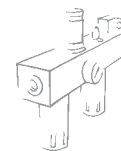
# FIL+LUB Skillair® 100-200-300

| TECHNICAL DATA       |        | F+L 100         |      | F+L 200             |      | F+L 300             |      |      |    |
|----------------------|--------|-----------------|------|---------------------|------|---------------------|------|------|----|
| Threaded port        | NPT    | 1/4"            | 3/8" | 1/4"                | 3/8" | 1/2"                | 1/2" | 3/4" | 1" |
| Degree of filtration | micron | 5µm             |      | 20µm                | 50µm |                     |      |      |    |
| Max. inlet pressure  | MPa    | 1.5             |      | 1.3                 |      | 1.3                 |      |      |    |
|                      | bar    | 15              |      | 13                  |      | 13                  |      |      |    |
|                      | psi    | 217             |      | 188                 |      | 188                 |      |      |    |
| Flow rate at 6 bar   | NI/min | 600             |      | 1800                |      | 3200                |      |      |    |
| ΔP 0.5 bar           | scfm   | 21              |      | 64                  |      | 113                 |      |      |    |
| Flow rate at 6 bar   | NI/min | 1200            |      | 3200                |      | 4500                |      |      |    |
| ΔP 1 bar             | scfm   | 42              |      | 113                 |      | 160                 |      |      |    |
| Fluid                |        | Compressed air  |      |                     |      |                     |      |      |    |
| Max temperature      | °F     | 50              |      | 50                  |      | 50                  |      |      |    |
| at 10 bar            | °C     | 122             |      | 122                 |      | 122                 |      |      |    |
| Weight               | pounds | 1.1             |      | 2.4                 |      | 4.8                 |      |      |    |
| Wall fixing screws   |        | N. 8-32 unc x 2 |      | N. 10-24 unc x 2.36 |      | N. 10-24 unc x 2.75 |      |      |    |
|                      |        |                 |      |                     |      |                     |      |      |    |
|                      |        |                 |      |                     |      |                     |      |      |    |
|                      |        |                 |      |                     |      |                     |      |      |    |
|                      |        |                 |      |                     |      |                     |      |      |    |



| DIMENSIONS      |  | FIL+LUB 100 |         | FIL+LUB 200 |         |         | FIL+LUB 300 |         |        |
|-----------------|--|-------------|---------|-------------|---------|---------|-------------|---------|--------|
| THREADED PORT G |  | NPT 1/4     | NPT 3/8 | NPT 1/4     | NPT 3/8 | NPT 1/2 | NPT 1/2     | NPT 3/4 | NPT 1" |
| A               |  | 4.76        |         | 5.86        |         | 6.88    |             | 6.96    |        |
| B               |  | 6.79        |         | 8.01        |         | 8.79    |             |         |        |
| C               |  | 1.96        |         | 2.48        |         | 2.83    |             |         |        |
| E               |  | 4.17        |         | 5.27        |         | 6.18    |             |         |        |
| F               |  | 1.02        |         | 1.41        |         | 1.65    |             |         |        |
| L               |  | 0.17        |         | 0.21        |         | 0.21    |             |         |        |





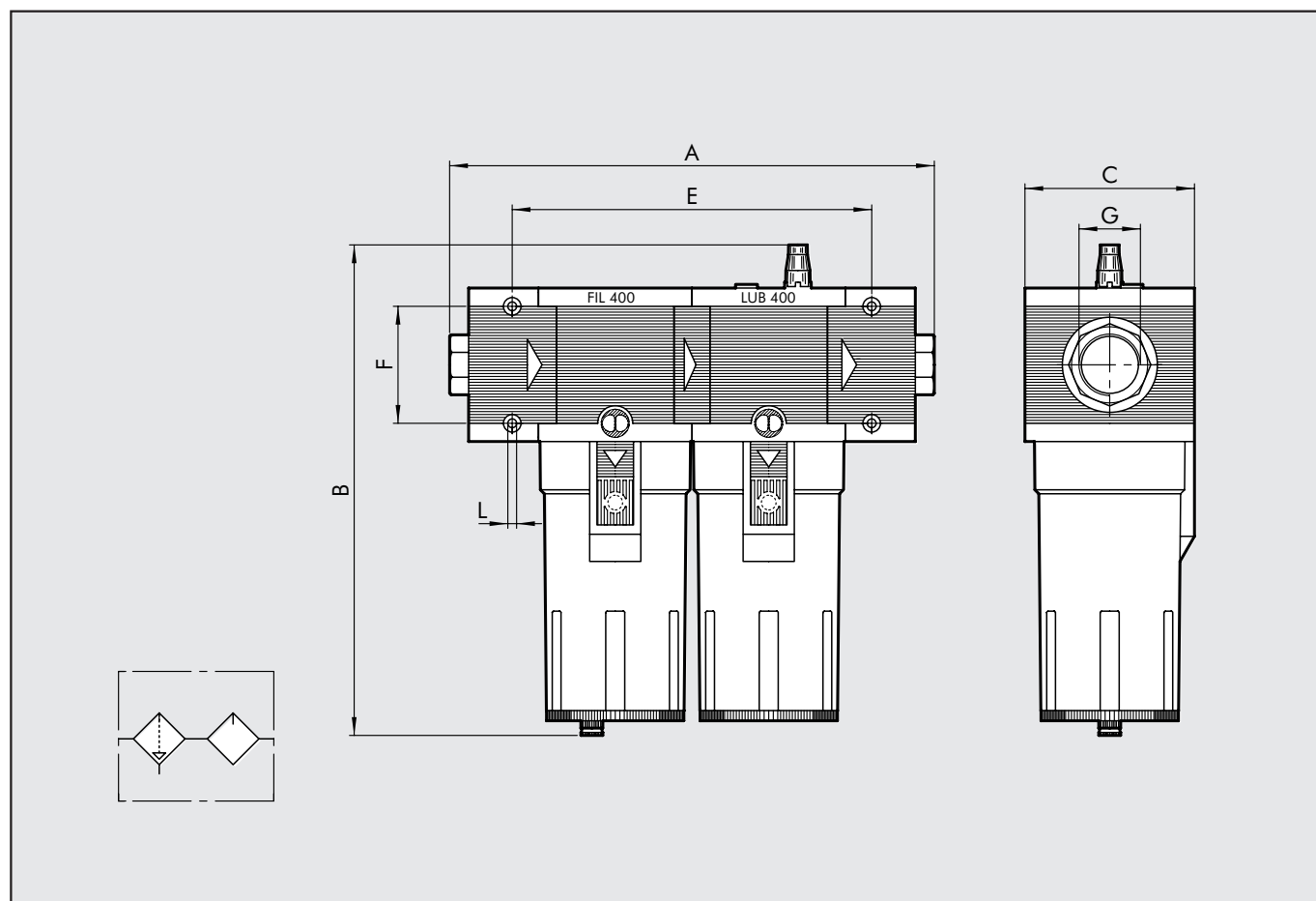
# FIL+LUB Skillair® 400

| TECHNICAL DATA       |        | F+L 400                                                                                                                                               |         |         |     |
|----------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----|
| Threaded port        | NPT    | G1"                                                                                                                                                   | G1"1/4" | G1"1/2" | G2" |
| Degree of filtration | micron | 5µm 20µm 50µm                                                                                                                                         |         |         |     |
| Max. inlet pressure  | MPa    | 1.3                                                                                                                                                   |         |         |     |
|                      | bar    | 13                                                                                                                                                    |         |         |     |
|                      | psi    | 188                                                                                                                                                   |         |         |     |
| Flow rate at 6 bar   |        | F+L 400 1": 9000 NI/min = 320 scfm                                                                                                                    |         |         |     |
| ΔP 0.5 bar           |        | F+L 400 2": 14.000 NI/min = 500 scfm                                                                                                                  |         |         |     |
| Fluid                |        | Compressed air                                                                                                                                        |         |         |     |
| Max temperature      | °F     | 50                                                                                                                                                    |         |         |     |
| at 10 bar            | °C     | 122                                                                                                                                                   |         |         |     |
| Weight               | pounds | 17.6                                                                                                                                                  |         |         |     |
| Wall fixing screws   |        | 1/4-20 unc x 4.33                                                                                                                                     |         |         |     |
| Mounting             |        | Vertical                                                                                                                                              |         |         |     |
| Bowl capacity        | ci     | 16.5                                                                                                                                                  |         |         |     |
| Notes                |        | The end plates in the 400 series have a patented system with a rotary and sliding end joint to adapt the unit perfectly to the pipe cutting distance. |         |         |     |
|                      |        |                                                                                                                                                       |         |         |     |
|                      |        |                                                                                                                                                       |         |         |     |



| DIMENSIONS      |  | V3V+FIL+REG+LUB 400 |             |            |             |
|-----------------|--|---------------------|-------------|------------|-------------|
| THREADED PORT G |  | NPT 1"              | NPT 1"1/4"  | NPT 1"1/2" | NPT 2"      |
| A               |  |                     | 12.99÷14.17 |            | 15.27÷16.45 |
| B               |  |                     |             | 13.75      |             |
| C               |  |                     |             | 4.56       |             |
| E               |  |                     |             | 9.72       |             |
| F               |  |                     |             | 3.94       |             |
| L               |  |                     |             | 0.29       |             |

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## KEY TO CODES

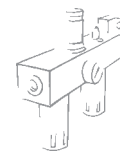
| F+L     | 100  | 1/4           | 5µm                  | RMSA                     |
|---------|------|---------------|----------------------|--------------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | TYPE OF CONDENSATE DRAIN |
| F+L     | 100  | 1/4           | 5µm<br>20µm<br>50µm  | RMSA<br>SAC              |
|         |      | 3/8           |                      |                          |
|         |      | 1/4           |                      |                          |
|         | 200  | 3/8           |                      |                          |
|         |      | 1/2           |                      |                          |
|         |      | 1/2           |                      |                          |
|         | 300  | 3/4           |                      | RMSA<br>RA               |
|         |      | 1             |                      |                          |
|         |      | 1             |                      |                          |
|         | 400  | 1 1/4         |                      |                          |
|         |      | 1 1/2         |                      |                          |
|         |      | 2             |                      |                          |
|         |      |               |                      |                          |
|         |      |               |                      |                          |
|         |      |               |                      |                          |
|         |      |               |                      |                          |

RMSA: Manual/semi-auto drain  
 SAC: Automatic drain for sizes 100 and 200. Operates by depressurization – requires variable air take-offs.  
 RA: Automatic drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate.

## ORDERING CODES

| Code     | Description         | Code     | Description           |
|----------|---------------------|----------|-----------------------|
| 3285001U | F+L 100 1/4 5 RMSA  | 4685002U | F+L 300 1 20 RMSA     |
| 3285101U | F+L 100 1/4 5 SAC   | 4685003U | F+L 300 1 50 RMSA     |
| 3285002U | F+L 100 1/4 20 RMSA | 4685004U | F+L 300 1 5 RA        |
| 3285102U | F+L 100 1/4 20 SAC  | 4685005U | F+L 300 1 20 RA       |
| 3285003U | F+L 100 1/4 50 RMSA | 4685006U | F+L 300 1 50 RA       |
| 3285103U | F+L 100 1/4 50 SAC  | 6185001U | F+L 400 1 5 RMSA      |
| 3385001U | F+L 100 3/8 5 RMSA  | 6185002U | F+L 400 1 20 RMSA     |
| 3385101U | F+L 100 3/8 5 SAC   | 6185003U | F+L 400 1 50 RMSA     |
| 3385002U | F+L 100 3/8 20 RMSA | 6185004U | F+L 400 1 5 RA        |
| 3385102U | F+L 100 3/8 20 SAC  | 6185005U | F+L 400 1 20 RA       |
| 3385003U | F+L 100 3/8 50 RMSA | 6185006U | F+L 400 1 50 RA       |
| 3385103U | F+L 100 3/8 50 SAC  | 6285001U | F+L 400 1 1/4 5 RMSA  |
| 3485001U | F+L 200 1/4 5 RMSA  | 6285002U | F+L 400 1 1/4 20 RMSA |
| 3485101U | F+L 200 1/4 5 SAC   | 6285003U | F+L 400 1 1/4 50 RMSA |
| 3485002U | F+L 200 1/4 20 RMSA | 6285004U | F+L 400 1 1/4 5 RA    |
| 3485102U | F+L 200 1/4 20 SAC  | 6285005U | F+L 400 1 1/4 20 RA   |
| 3485003U | F+L 200 1/4 50 RMSA | 6285006U | F+L 400 1 1/4 50 RA   |
| 3485103U | F+L 200 1/4 50 SAC  | 6385001U | F+L 400 1 1/2 5 RMSA  |
| 3585001U | F+L 200 3/8 5 RMSA  | 6385002U | F+L 400 1 1/2 20 RMSA |
| 3585101U | F+L 200 3/8 5 SAC   | 6385003U | F+L 400 1 1/2 50 RMSA |
| 3585002U | F+L 200 3/8 20 RMSA | 6385004U | F+L 400 1 1/2 5 RA    |
| 3585102U | F+L 200 3/8 20 SAC  | 6385005U | F+L 400 1 1/2 20 RA   |
| 3585003U | F+L 200 3/8 50 RMSA | 6385006U | F+L 400 1 1/2 50 RA   |
| 3585103U | F+L 200 3/8 50 SAC  | 6485001U | F+L 400 2 5 RMSA      |
| 3685001U | F+L 200 1/2 5 RMSA  | 6485002U | F+L 400 2 20 RMSA     |
| 3685101U | F+L 200 1/2 5 SAC   | 6485003U | F+L 400 2 50 RMSA     |
| 3685002U | F+L 200 1/2 20 RMSA | 6485004U | F+L 400 2 5 RA        |
| 3685102U | F+L 200 1/2 20 SAC  | 6485005U | F+L 400 2 20 RA       |
| 3685003U | F+L 200 1/2 50 RMSA | 6485006U | F+L 400 2 50 RA       |
| 3685103U | F+L 200 1/2 50 SAC  |          |                       |
| 4485001U | F+L 300 1/2 5 RMSA  |          |                       |
| 4485002U | F+L 300 1/2 20 RMSA |          |                       |
| 4485003U | F+L 300 1/2 50 RMSA |          |                       |
| 4485004U | F+L 300 1/2 5 RA    |          |                       |
| 4485005U | F+L 300 1/2 20 RA   |          |                       |
| 4485006U | F+L 300 1/2 50 RA   |          |                       |
| 4585001U | F+L 300 3/4 5 RMSA  |          |                       |
| 4585002U | F+L 300 3/4 20 RMSA |          |                       |
| 4585003U | F+L 300 3/4 50 RMSA |          |                       |
| 4585004U | F+L 300 3/4 5 RA    |          |                       |
| 4585005U | F+L 300 3/4 20 RA   |          |                       |
| 4585006U | F+L 300 3/4 50 RA   |          |                       |
| 4685001U | F+L 300 1 5 RMSA    |          |                       |

## NOTES



# FIL+DEP Skillair® 100-200-300

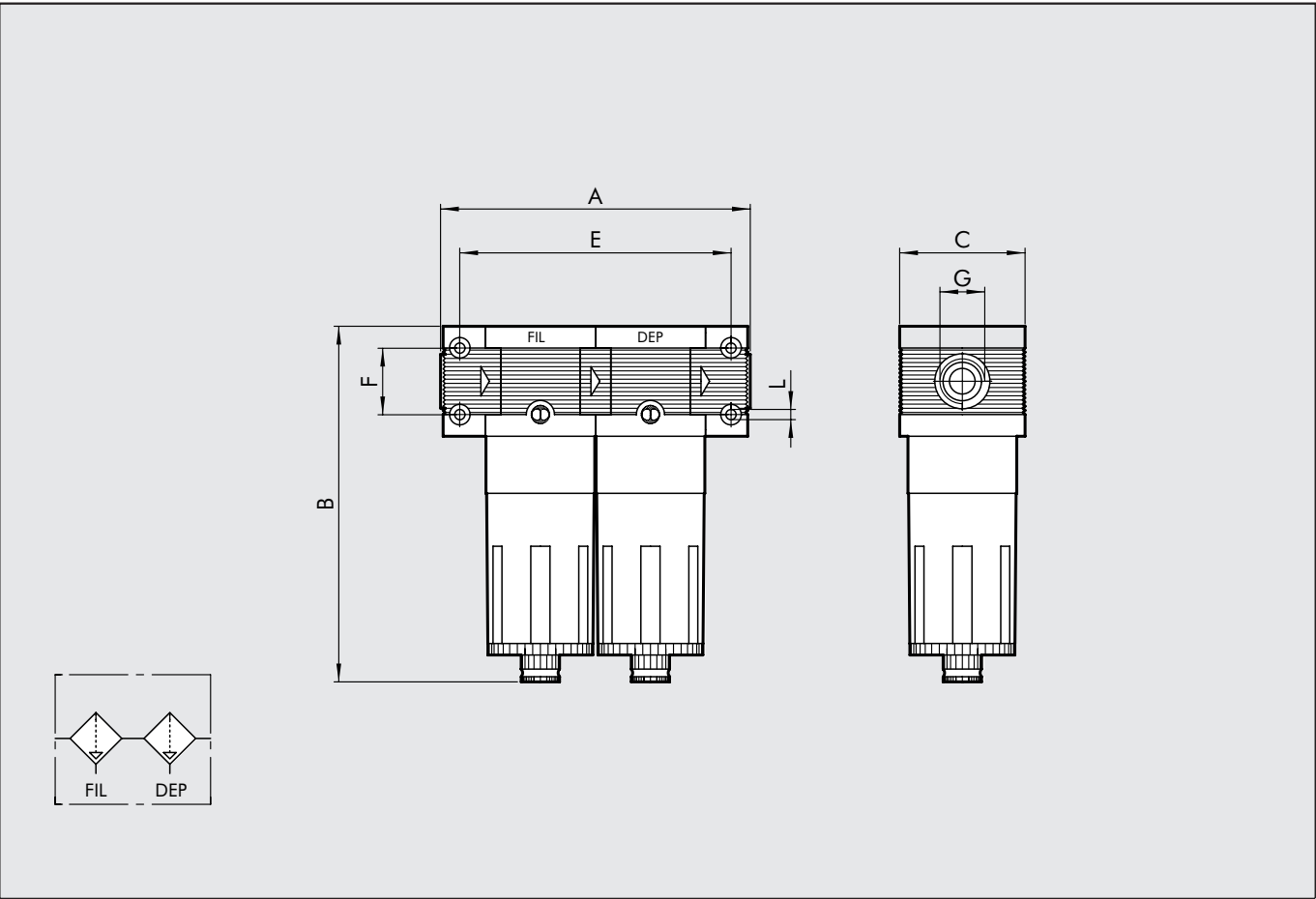
| TECHNICAL DATA       |        | F+D 100                        |      | F+D 200             |      | F+D 300             |      |    |
|----------------------|--------|--------------------------------|------|---------------------|------|---------------------|------|----|
| Threaded port        | NPT    | 1/4"                           | 3/8" | 1/4"                | 3/8" | 1/2"                | 3/4" | 1" |
| Degree of filtration | micron | Filter: 5µm - Coalescer: 0.4µm |      |                     |      |                     |      |    |
| Max. inlet pressure  | MPa    | 1.5                            |      | 1.3                 |      | 1.3                 |      |    |
|                      | bar    | 15                             |      | 13                  |      | 13                  |      |    |
|                      | psi    | 217                            |      | 188                 |      | 188                 |      |    |
| Flow rate at 6 bar   | NI/min | 600                            |      | 1200                |      | 2400                |      |    |
| ΔP 0.5 bar           | scfm   | 21                             |      | 43                  |      | 85                  |      |    |
| Flow rate at 6 bar   | NI/min | 1000                           |      | 1500                |      | 3900                |      |    |
| ΔP 1 bar             | scfm   | 35                             |      | 53                  |      | 142                 |      |    |
| Fluid                |        | Compressed air                 |      |                     |      |                     |      |    |
| Max temperature      | °F     | 50                             |      | 50                  |      | 50                  |      |    |
| at 10 bar            | °C     | 122                            |      | 122                 |      | 122                 |      |    |
| Weight               | pounds | 1.32                           |      | 2.86                |      | 4.8                 |      |    |
| Wall fixing screws   |        | N. 8-32 unc x 2                |      | N. 10-24 unc x 2.36 |      | N. 10-24 unc x 2.75 |      |    |
|                      |        |                                |      |                     |      |                     |      |    |
|                      |        |                                |      |                     |      |                     |      |    |
|                      |        |                                |      |                     |      |                     |      |    |
|                      |        |                                |      |                     |      |                     |      |    |





| DIMENSIONS      |  | FIL+DEP 100 |         | FIL+DEP 200 |         |         | FIL+DEP 300 |         |        |
|-----------------|--|-------------|---------|-------------|---------|---------|-------------|---------|--------|
| THREADED PORT G |  | NPT 1/4     | NPT 3/8 | NPT 1/4     | NPT 3/8 | NPT 1/2 | NPT 1/2     | NPT 3/4 | NPT 1" |
| A               |  | 4.26        |         |             | 5.86    |         | 6.88        |         | 6.96   |
| B               |  | 5.66        |         |             | 6.88    |         |             | 7.67    |        |
| C               |  | 1.96        |         |             | 2.48    |         |             | 2.83    |        |
| E               |  | 4.17        |         |             | 5.27    |         |             | 6.18    |        |
| F               |  | 1.02        |         |             | 1.41    |         |             | 1.65    |        |
| L               |  | 0.17        |         |             | 0.21    |         |             | 0.21    |        |

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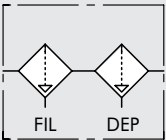
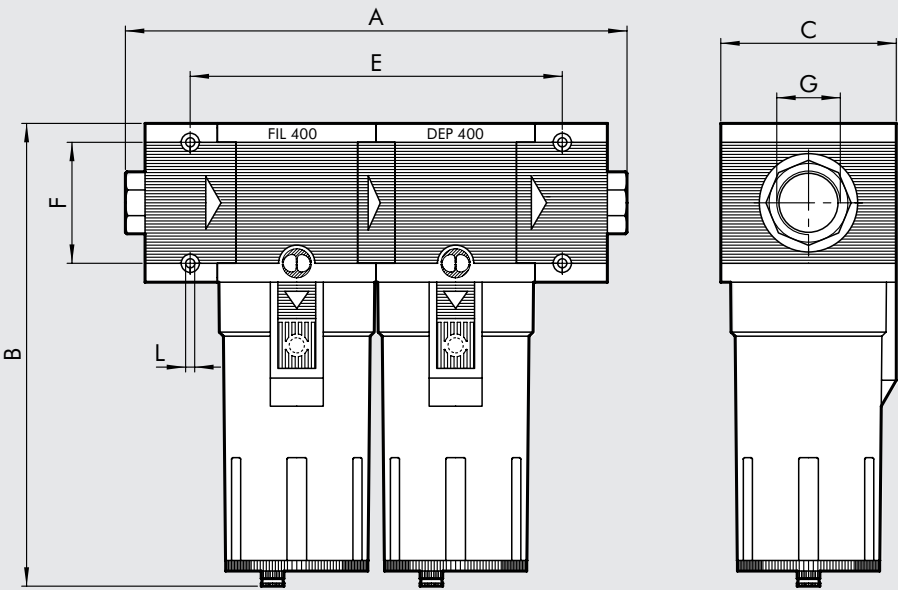


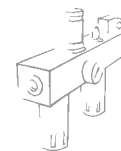
# FIL+DEP Skillair® 400

| TECHNICAL DATA       |        | VFRL 400                                                                                                                                              |         |         |     |
|----------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----|
| Threaded port        | NPT    | G1"                                                                                                                                                   | G1"1/4" | G1"1/2" | G2" |
| Degree of filtration | micron | Filter: 5µm - Coalescer: 0.4µm                                                                                                                        |         |         |     |
| Max. inlet pressure  | MPa    | 1.3                                                                                                                                                   |         |         |     |
|                      | bar    | 13                                                                                                                                                    |         |         |     |
|                      | psi    | 188                                                                                                                                                   |         |         |     |
| Flow rate at 6 bar   | NI/min | F+D 400: 7000 NI/min = 248 scfm                                                                                                                       |         |         |     |
| ΔP 0.5 bar           |        |                                                                                                                                                       |         |         |     |
| Fluid                |        | Compressed air                                                                                                                                        |         |         |     |
| Max temperature      | °F     | 50                                                                                                                                                    |         |         |     |
|                      | °C     | 122                                                                                                                                                   |         |         |     |
| Weight               | pounds | 15.4                                                                                                                                                  |         |         |     |
| Wall fixing screws   |        | 1/4-20 unc x 4.33                                                                                                                                     |         |         |     |
| Mounting             |        | Vertical                                                                                                                                              |         |         |     |
| Bowl capacity        | ci     | 16.5                                                                                                                                                  |         |         |     |
| Notes                |        | The end plates in the 400 series have a patented system with a rotary and sliding end joint to adapt the unit perfectly to the pipe cutting distance. |         |         |     |
|                      |        |                                                                                                                                                       |         |         |     |
|                      |        |                                                                                                                                                       |         |         |     |
|                      |        |                                                                                                                                                       |         |         |     |
|                      |        |                                                                                                                                                       |         |         |     |



| DIMENSIONS      |  | FIL+DEP 400 |            |            |        |
|-----------------|--|-------------|------------|------------|--------|
| THREADED PORT G |  | NPT 1"      | NPT 1"1/4" | NPT 1"1/2" | NPT 2" |
| A               |  | 12.99÷14.17 |            |            |        |
| B               |  | 12.59       |            |            |        |
| C               |  | 4.56        |            |            |        |
| E               |  | 9.72        |            |            |        |
| F               |  | 3.14        |            |            |        |
| L               |  | 0.29        |            |            |        |





## KEY TO CODES

| F+D     | 100  | 1/4           | 5µm                                                                  | RMSA                     | <b>RMSA:</b> Manual/semi-auto drain<br><b>SAC:</b> Automatic drain for sizes 100 and 200. Operates by depressurization – requires variable air take-offs.<br><b>RA:</b> Automatic drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate.<br><br><b>NB:</b> For sizes 100 and 200, the automatic drain is only present on the filter. For sizes 300 and 400, on both filter and depurator. |
|---------|------|---------------|----------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION                                                 | TYPE OF CONDENSATE DRAIN |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| F+D     | 100  | 1/4           | 5µm = 200 microinch<br>20µm = 790 microinch<br>50µm = 2000 microinch | RMSA<br>SAC              |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 3/8           |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         | 200  | 1/4           |                                                                      | RMSA<br>SAC              |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 3/8           |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 1/2           |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         | 300  | 1/2           |                                                                      | RMSA<br>RA               |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 3/4           |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 1             |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         | 400  | 1             |                                                                      | RMSA<br>RA               |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 1 1/4         |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 1 1/2         |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         |      | 2             |                                                                      |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## ORDERING CODES

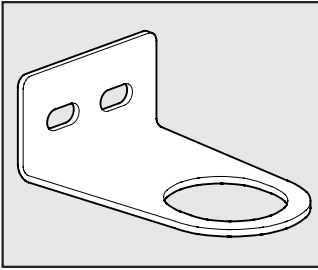
| Code     | Description               |
|----------|---------------------------|
| 3289001U | F+D 100 1/4 5 RMSA-RMSA   |
| 3289005U | F+D 100 1/4 5 SAC-RMSA    |
| 3389001U | F+D 100 3/8 5 RMSA-RMSA   |
| 3389005U | F+D 100 3/8 5 SAC-RMSA    |
| 3489001U | F+D 200 1/4 5 RMSA-RMSA   |
| 3489005U | F+D 200 1/4 5 SAC-RMSA    |
| 3589001U | F+D 200 3/8 5 RMSA-RMSA   |
| 3589005U | F+D 200 3/8 5 SAC-RMSA    |
| 3689001U | F+D 200 1/2 5 RMSA-RMSA   |
| 3689005U | F+D 200 1/2 5 SAC-RMSA    |
| 4489001U | F+D 300 1/2 5 RMSA-RMSA   |
| 4489002U | F+D 300 1/2 5 RA-RA       |
| 4589001U | F+D 300 3/4 5 RMSA-RMSA   |
| 4589002U | F+D 300 3/4 5 RA-RA       |
| 4689001U | F+D 300 1 5 RMSA-RMSA     |
| 4689002U | F+D 300 1 5 RA-RA         |
| 6189001U | F+D 400 1 5 RMSA-RMSA     |
| 6189002U | F+D 400 1 5 RA-RA         |
| 6289001U | F+D 400 1 1/4 5 RMSA-RMSA |
| 6289002U | F+D 400 1 1/4 5 RA-RA     |
| 6389001U | F+D 400 1 1/2 5 RMSA-RMSA |
| 6389002U | F+D 400 1 1/2 5 RA-RA     |
| 6489001U | F+D 400 2 5 RMSA-RMSA     |
| 6489002U | F+D 400 2 5 RA-RA         |

## NOTES

# Skillair® ACCESSORIES

## MOUNTING BRACKET FOR REG.

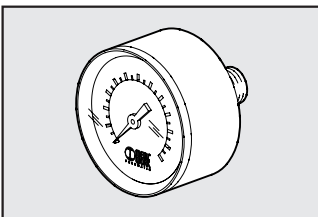
Code Description



9200701 SF100- BIT-ND1/4  
9400701 SF200-ND-3/8 1/2  
9400762 SF300

## PRESSURE GAUGES

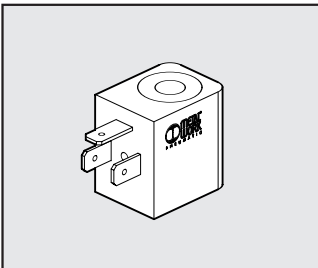
Code Description



9700101 ACC. M 40 1/8 12  
9700102 ACC. M 40 1/8 04  
9800101 ACC. M 50 1/8 12  
9800102 ACC. M 50 1/8 04  
9900101 ACC. M 63 1/4 12

## CONTROL FOR APR and V3V SOLENOID

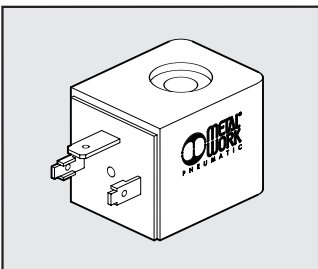
Code Description



W0215000101 COIL 2W  
383.24V CC  
W0215000111 COIL 2W  
391.24V 50/60HZ  
W0215000121 COIL 2W  
393.110V 50/60HZ  
W0215000131 COIL 2W  
394.220V 50/60HZ

## ELECTRIC CONTROL FOR V3V APR WITH CNOMO

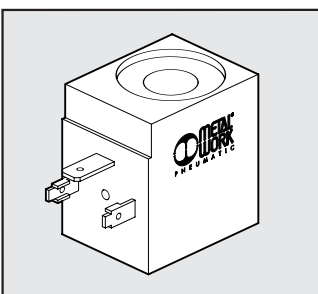
Code Description



W0210010100 COIL 30 D8  
4W-24VDC  
W0210011100 COIL 30 D8  
4VA-24VAC 50/60 HZ  
W0210012100 COIL 30 D8  
4VA-110VAC 50/60 HZ  
W0210013100 COIL 30 D8  
4VA-220VAC 50/60 HZ

## ELECTRIC CONTROL FOR CDV CDML LUBRICATOR

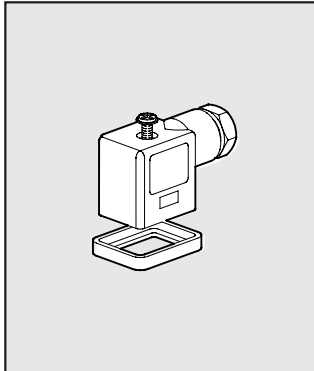
Code Description



W0216001001 COIL 24 V CC  
W0216001011 COIL 24V 50/60HZ  
W0216001021 COIL 110V 50/60HZ  
W0216001031 COIL 220V 50/60HZ

## ELECTRIC CONNECTOR FOR V3V-APR ELPN

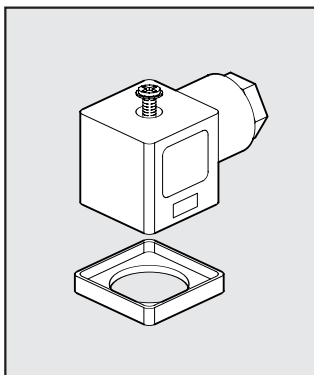
Code Description



W0970510012 ACC. CONNECTOR  
22 LED 24V  
W0970510013 ACC. CONNECTOR  
22 LED 110V  
W0970510014 ACC. CONNECTOR  
22 LED 220V  
W0970510015 ACC. CONNECTOR  
22 LED VDR 24V  
W0970510016 ACC. CONNECTOR  
22 LED VDR 110V  
W0970510017 ACC. CONNECTOR  
22 LED VDR 220V

## ELECTRIC CONNECTOR FOR V3V APR WITH CNOMO

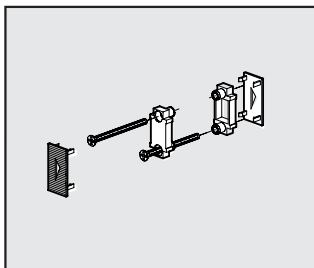
Code Description



W0970520033 ACC. CONNECTOR  
30 STD  
W0970520034 ACC. CONNECTOR  
30 LED 24V  
W0970520035 ACC. CONNECTOR  
30 LED 110V  
W0970520036 ACC. CONNECTOR  
30 LED 220V  
W0970520037 ACC. CONNECTOR  
30 LED VDR 24V  
W0970520038 ACC. CONNECTOR  
30 LED VDR 110V  
W0970520039 ACC. CONNECTOR  
30 LED VDR 220V

## CONNECTOR KIT FOR SKILLAIR CODE A

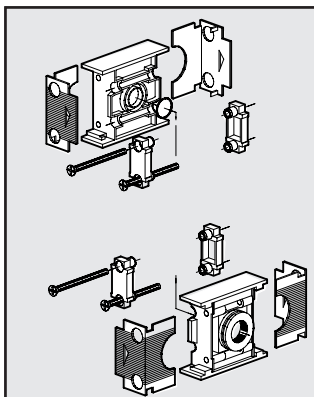
Code Description



9230301 ACC. CONNECTOR KIT 100  
9330301 ACC. CONNECTOR KIT 200  
9430301 ACC. CONNECTOR KIT 300  
9630301 ACC. CONNECTOR KIT 400

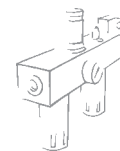
## INPUT/OUTPUT END PLATE KIT

Code Description



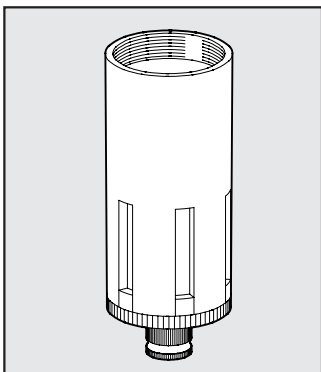
9230401U ACC. IN/OUT END PLATE KIT 100 1/4  
9330501U ACC. IN/OUT END PLATE KIT 100 3/8  
9330601U ACC. IN/OUT END PLATE KIT 200 1/4  
9330701U ACC. IN/OUT END PLATE KIT 200 3/8  
9330801U ACC. IN/OUT END PLATE KIT 200 1/2  
9430701U ACC. IN/OUT END PLATE KIT 300 1/2  
9530901U ACC. IN/OUT END PLATE KIT 300 3/4  
9531001U ACC. IN/OUT END PLATE KIT 300 1"  
9631001U ACC. IN/OUT END PLATE KIT 400 1"  
9631101U ACC. IN/OUT END PLATE KIT 400  
1"1/4"  
9631201U ACC. IN/OUT END PLATE KIT  
1"1/2"  
9631301U ACC. IN/OUT END PLATE KIT 2"

# Skillair® SPARES



## FILTER BOWL

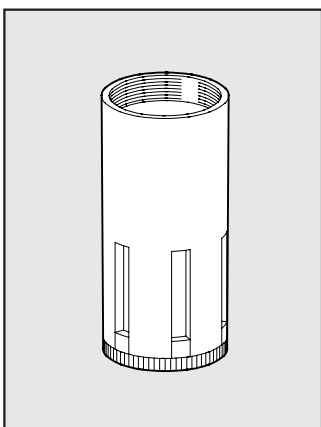
Code Description



9253301 SPARES TF 100 RMSA  
9255301 SPARES TF 100 SAC  
9353301 SPARES TF 200 1/2 RMSA  
9355301 SPARES TF 200 1/2 SAC  
9453301 SPARES TF 300 RMSA  
9453401 SPARES TF 300 RA  
9653301 SPARES TF 400 RMSA  
9653401 SPARES TF 400 RA

## LUBRICATOR BOWL

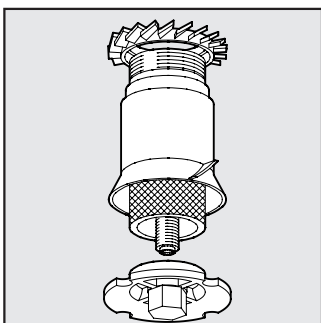
Code Description



9253501 SPARES TL 100  
9202501 SPARES TL 100 CA  
9202503 SPARES TL 100 CD  
9202502 SPARES TL 100 ML  
9353501 SPARES TL 200  
9302501 SPARES TL 200 CA  
9302503 SPARES TL 200 CD  
9302502 SPARES TL 200 ML  
9453501 SPARES TL 300  
9202401 SPARES TL 300 CA  
9202403 SPARES TL 300 CD  
9202402 SPARES TL 300 ML  
9653501 SPARES TL 400  
9653502 SPARES TL 400 CA  
9653504 SPARES TL 400 CD  
9653503 SPARES TL 400 ML

## FILTERING ELEMENTS

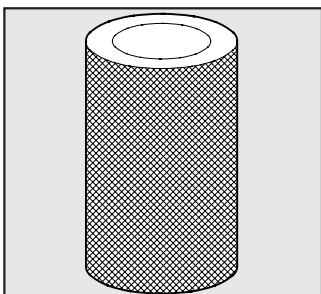
Code Description



9251705 SPARES FP 100 5  
9251706 SPARES FP 100 20  
9251707 SPARES FP 100 50  
9351705 SPARES FP 200 5  
9351706 SPARES FP 200 20  
9351707 SPARES FP 200 50  
9451705 SPARES FP 300 5  
9451706 SPARES FP 300 20  
9451707 SPARES FP 300 50  
9651705 SPARES FP 400 5  
9651706 SPARES FP 400 20  
9651707 SPARES FP 400 50

## FILTERING/PURIFICATION ELEMENTS

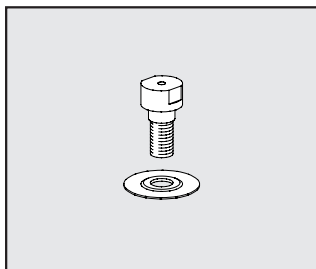
Code Description



9251711 KIT SPARES FP DEP. 100  
9351711 KIT SPARES FP DEP. 200  
9451711 KIT SPARES FP DEP. 300  
9651711 KIT SPARES FP DEP. 400

## VENTURI LUBRICATOR DIAPHRAGM

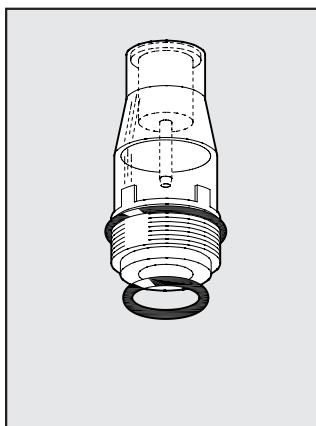
Code Description



9252001 SPARES MB 100 ND 1/4  
9352001 SPARES MB 200 N/D 3/8-1/2  
9452001 SPARES MB 300 1/2 3/4  
9652601 SPARES MB 400

## TRANSPARENT LUBRICATOR COVER

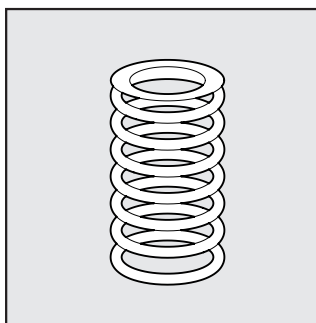
Code Description



9251302 SPARES CVL  
100-200-300-400 BIT

## SPRINGS FOR REDUCERS AND FRs

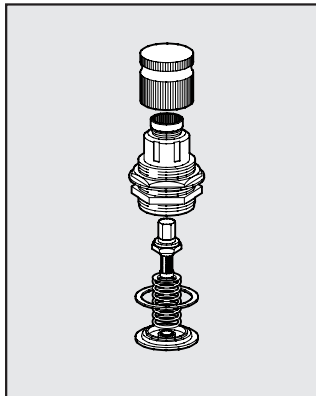
Code Description



9250605 SPARES MO 100 02  
9250606 SPARES MO 100 04  
9250607 SPARES MO 100 08  
9250608 SPARES MO 100 012  
9350605 SPARES MO 200 02  
9350606 SPARES MO 200 04  
9350607 SPARES MO 200 08  
9350608 SPARES MO 200 012  
9450605 SPARES MO 300 04  
9450606 SPARES MO 300 08  
9450607 SPARES MO 300 012

## UPPER COVER FOR REGULATOR AND FR

Code Description

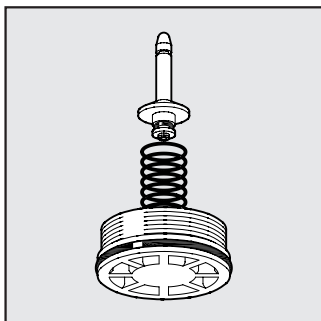


9250800U SPARES CS 100 02  
9250810U SPARES CS 100 04  
9250811U SPARES CS 100 08  
9250812U SPARES CS 100 012  
9350800U SPARES CS 200 02  
9350810U SPARES CS 200 04  
9350811U SPARES CS 200 08  
9350812U SPARES CS 200 012  
9450805U SPARES CS 300 04  
9450806U SPARES CS 300 08  
9450807U SPARES CS 300 012



**COMPLETE POPPET FOR REGULATORS**

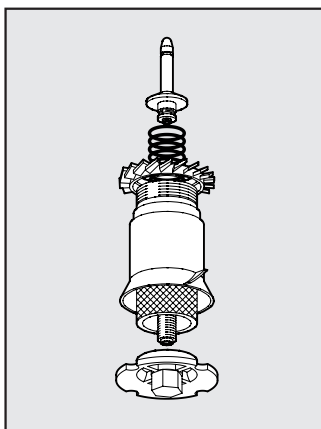
Code Description



9250704 SPARES OTR 100  
9350704 SPARES OTR 200  
9450704 SPARES OTR 300  
9650704 SPARES OTR 400

**COMPLETE POPPET FOR FR**

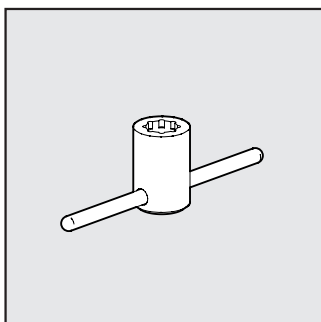
Code Description



9250902 SPARES OTFR 100 1/4 3/8 5  
9250903 SPARES OTFR 100 1/4 3/8 20  
9250904 SPARES OTFR 100 1/4 3/8 50  
9350902 SPARES OTFR 200 1/4 3/8 1/2 5  
9350903 SPARES OTFR 200 1/4 3/8 1/2 20  
9350904 SPARES OTFR 200 1/4 3/8 1/2 50  
9450902 SPARES OTFR 300 1/2 3/4 5  
9450903 SPARES OTFR 300 1/2 3/4 20  
9450904 SPARES OTFR 300 1/2 3/4 50

**UPPER COVER DISASSEMBLY WRENCH**

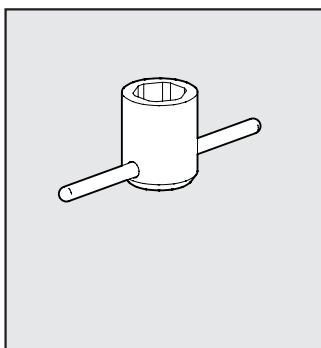
Code Description



9220701 SPARES COVER SPANNER

**REG and FR VISUAL DOME DISASSEMBLY WRENCH**

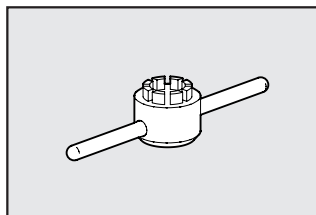
Code Description



9220401 SPARES DOME  
DIS. SPANNER 100  
9323401 SPARES DOME  
DIS. SPANNER 200  
9420401 SPARES DOME  
DIS. SPANNER 300

**POPPET DISASSEMBLY WRENCH (FOR REG.)**

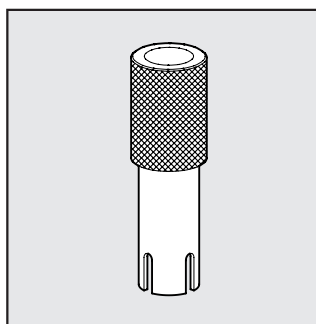
Code Description



9220501 SPARES R CAP DISASS.  
WR. 100  
9323501 SPARES R CAP DISASS.  
WR. 200  
9420501 SPARES R CAP DISASS.  
WR. 300

**POPPET DISASSEMBLY WRENCH (FOR REG.)**

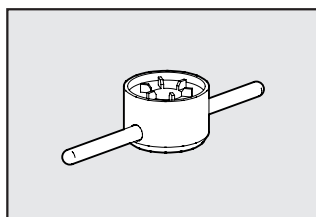
Code Description



9220801 SPARES FR CAP DISASS.  
WR. 100  
9320801 SPARES FR CAP DISASS.  
WR. 200  
9420801 SPARES FR CAP DISASS.  
WR. 300

**CAP DISASSEMBLY WRENCH**

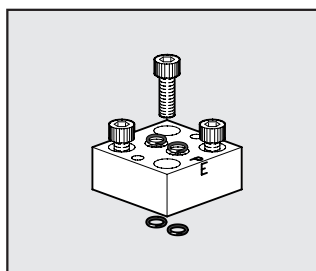
Code Description



9220601 SPARES CAP DISASS. 100  
9323601 SPARES CAP DISASS. 200  
9420601 SPARES CAP DISASS. 300

**PROVISION FOR SOLENOID CONTROL TO CNOMO FOR APR-300**

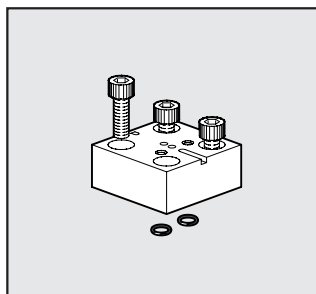
Code Description



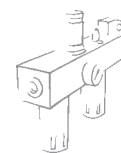
9454001 SPARES PCE TO CNOMO

**PROVISION FOR MICRO SOLENOID CONTROL FOR APR-300**

Code Description

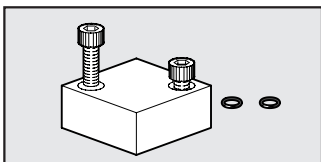


9453601 SPARES PCE MICRO



**PROVISION FOR PNEUMATIC CONTROL  
FOR APR-300 and V3V 300**

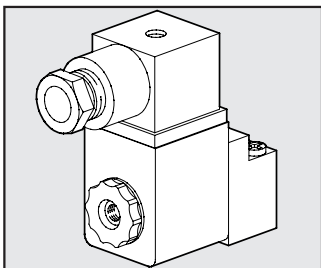
Code Description



9453701 SPARES PCP PNEUMATIC

**CNOMO SOLENOID CONTROL  
FOR APR-300 and V3V 300**

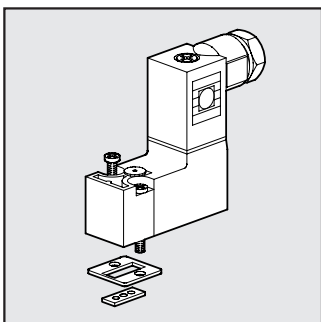
Code Description



9453901 SPARES CEC CNOMO 24CC  
9453902 SPARES CEC CNOMO 24V  
9453903 SPARES CEC CNOMO 110V  
9453904 SPARES CEC CNOMO 220V

**MICRO SOLENOID CONTROL  
FOR APR-300 and V3V 300**

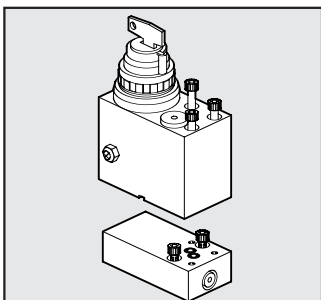
Code Description



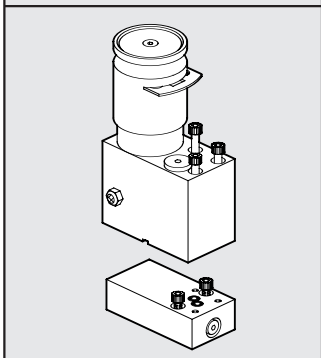
9453801 SPARES CEM MICRO 24CC  
9453802 SPARES CEM MICRO 24V  
9453803 SPARES CEM MICRO 110V  
9453804 SPARES CEM MICRO 220V

**V3V CONTROL 400**

Code Description



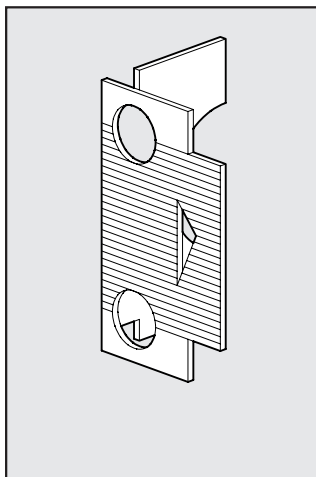
9455401 SPARES KIT C.C. 400



9455601 SPARES KIT LOCKABLE 400

**INPUT/OUTPUT COVER PLATE**

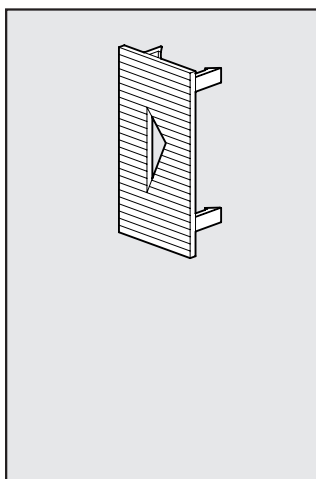
Code Description



9152103 SPARES OUTPUT  
COVER PLATE 100  
9152105 SPARES INPUT  
COVER PLATE 100  
9152115 SPARES OUTPUT  
COVER PLATE 200  
9152116 SPARES INPUT  
COVER PLATE 200  
9152104 SPARES OUTPUT  
COVER PLATE 300  
9152106 SPARES INPUT  
COVER PLATE 300  
9152118 SPARES OUTPUT  
COVER PLATE 400  
9152119 SPARES INPUT  
COVER PLATE 400

**INTERMEDIATE COVER PLATE**

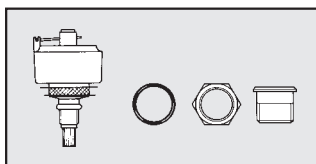
Code Description



9152107 SPARES INTERMEDIATE  
COVER PLATE 100  
9152114 SPARES INTERMEDIATE  
COVER PLATE 200  
9152108 SPARES INTERMEDIATE  
COVER PLATE 300  
9152117 SPARES INTERMEDIATE  
COVER PLATE 400

**AUTODRAIN**

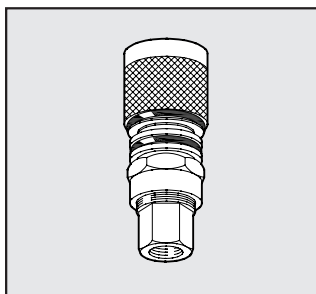
Code Description



9000802U RIC. RA 300-400

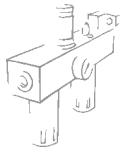
**AUTODRAIN TAP**

Code Description



9000803 RIC. SAC 100-200

# bit CONTENTS



## CHAPTER 3

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# bit

The units in the BIT range feature:

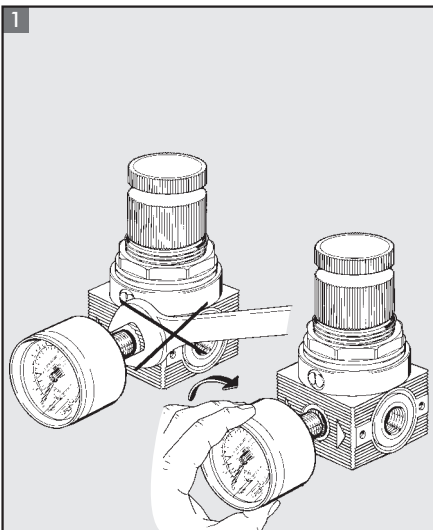
- reduced dimensions
- negligible load loss
- long life
- excellent quality-to-price ratio

Thanks to its technical features, the BIT air treatment range is particularly suitable for use near the final actuators.



| TECHNICAL DATA                                                      |        | BIT 1/8"                                                       | BIT 1/4" |
|---------------------------------------------------------------------|--------|----------------------------------------------------------------|----------|
| Threaded port                                                       | NPT    | 1/8"                                                           | 1/4"     |
| Degree of filtration                                                | micron | 5μm, 20μm, 50μm                                                |          |
| Degree of purification                                              |        | 99.97% at 0.01μm                                               |          |
| Setting range                                                       | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180                                    |          |
| Max. inlet pressure                                                 | MPa    | 1.3                                                            |          |
|                                                                     | bar    | 13                                                             |          |
|                                                                     | psi    | 188                                                            |          |
| Flow rate at 6 bar (0.6 MPa – 87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |        | 350 NI/min=12 scfm                                             |          |
| Fluid                                                               |        | Compressed air                                                 |          |
| Max temperature at 1 MPa; 10 bar; 145 psi                           | °C     | -10°+50°                                                       |          |
|                                                                     | °F     | 14°-122°                                                       |          |
| Elements                                                            |        | Filter – Regulator – Lubricator – Filter-regulator – Coalescer |          |
| Mounting                                                            |        | Units: FRL, FR+L, F+L, F+D                                     |          |
|                                                                     |        | Optional wall mount bracket                                    |          |
|                                                                     |        |                                                                |          |
|                                                                     |        |                                                                |          |

## GENERAL RULES - USE AND MAINTENANCE

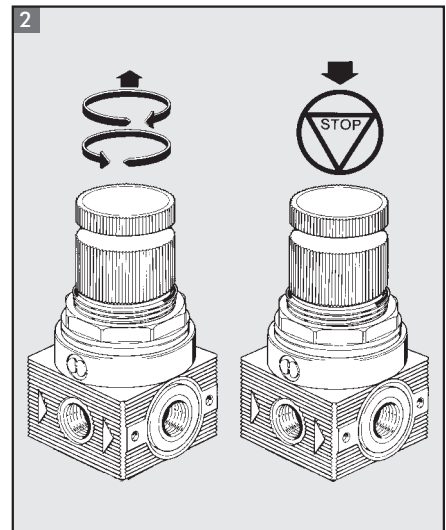


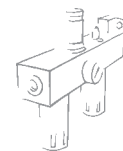
### MOUNTING THE GAUGE

**1** The gauge must be mounted by hand without using a spanner. Use fluid sealants to provide a good seal.  
N.B. Do not use Teflon.

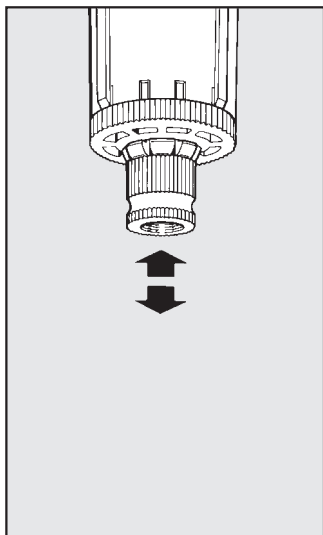
### SETTING THE PRESSURE

**2** The air pressure must always be set upwards. The knob can be locked so that the set pressure cannot be altered (see fig. 2).

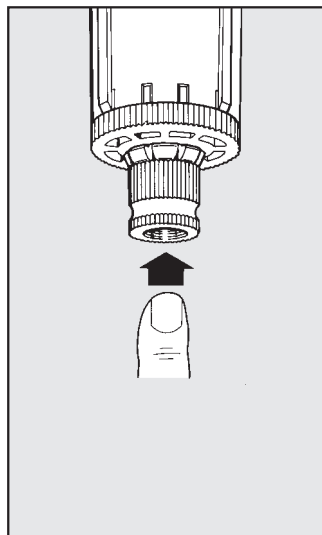




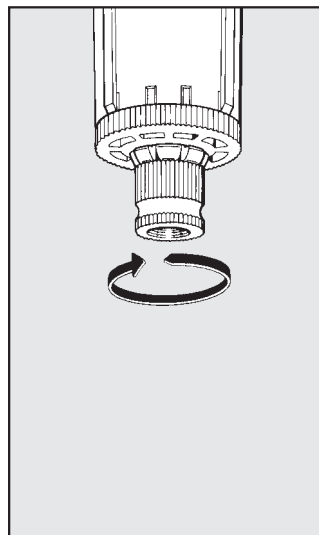
## GENERAL RULES - USE AND MAINTENANCE



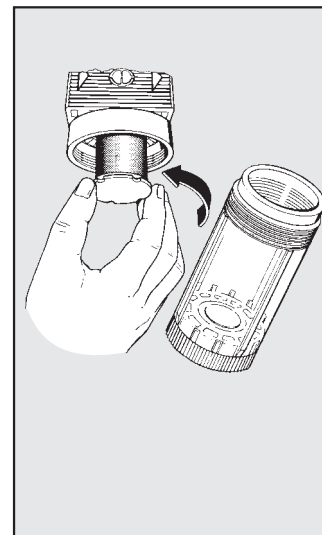
With the knob in the centre position, the drain is semi-automatic. The drain operates when the bowl is not pressurized and closes when it is.



Press the button to drain condensate when the bowl is pressurized.



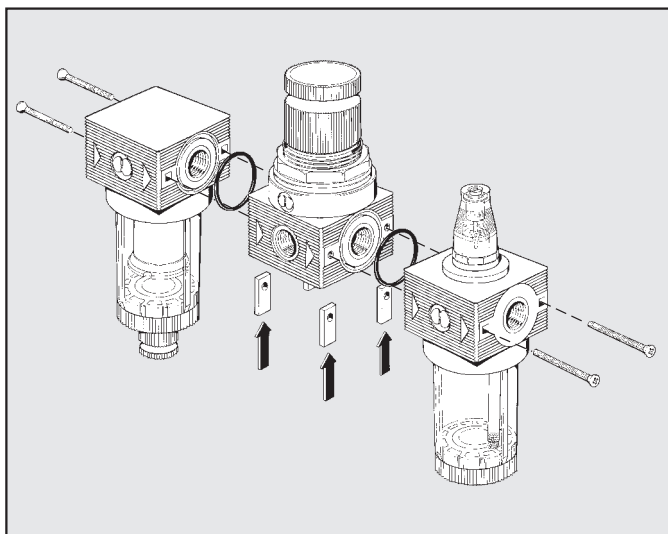
Turn the knob anticlockwise to close the valve with bowl pressurized or not pressurized.



To clean or replace the filter element unscrew the screen of the centrifuge assembly. Use a wrench to unscrew the bowl.

3

## ASSEMBLY



Use ASSEMBLY PLATES (code 9170201) to assemble the Bit elements correctly.

Assembly procedure:

- Fit the plates right into the slots under the body of the Bit element
- Check that there O-rings round the threaded outlet
- Assemble the elements, making sure that the flow run in the direction of the arrows marked on the body.

# bit FILTER

Mini-filter with different degrees of filtration and two types of drain (semi-automatic, automatic).

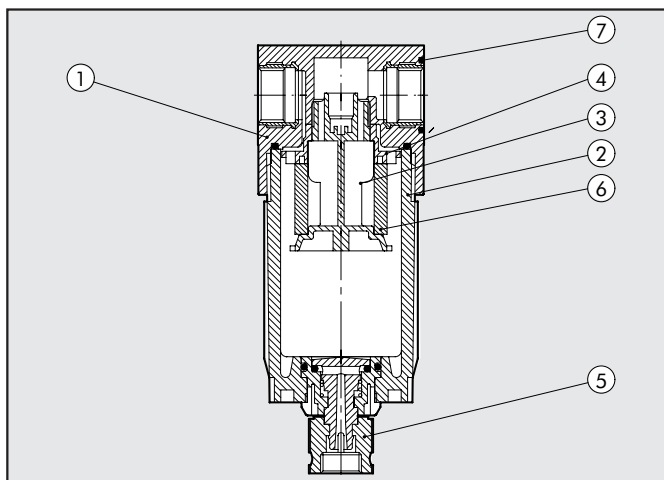
- Minimum load loss as the flow rate varies
- All-round condensate level viewing.

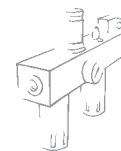


| TECHNICAL DATA                                                      |        | BIT 1/8"                                   | BIT 1/4" |
|---------------------------------------------------------------------|--------|--------------------------------------------|----------|
| Threaded port                                                       | NPT    | 1/8"                                       | 1/4"     |
| Degree of filtration                                                | micron | 5μm, 20μm, 50μm                            |          |
| Max. inlet pressure                                                 | MPa    | 1.3                                        |          |
|                                                                     | bar    | 13                                         |          |
|                                                                     | psi    | 188                                        |          |
| Flow rate at 6 bar (0.6 MPa – 87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) | NI/min | 860 NI/min=30.5 scfm                       |          |
| Flow rate at 6 bar (0.6 MPa – 87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   | NI/min | 1200 NI/min=42.5 scfm                      |          |
| Fluid                                                               |        | Compressed air                             |          |
| Max temperature at 1 MPa; 10 bar; 145 psi                           | °C     | 50                                         |          |
|                                                                     | °F     | 122                                        |          |
| Weight                                                              | pounds | 0.9                                        |          |
| Wall fixing screws                                                  |        | N. 8-32 unc                                |          |
| Mounting position                                                   |        | Vertical                                   |          |
| Condensate drain                                                    |        | Manual/Semi-auto (RMSA)<br>Automatic (SAC) |          |
| Bowl capacity                                                       | ci     | .54                                        |          |
|                                                                     |        |                                            |          |
|                                                                     |        |                                            |          |

## BIT FILTER ELEMENTS

- ① Technopolymer body with OT58 threaded element
- ② Clear technopolymer bowl
- ③ Technopolymer baffle plug
- ④ Technopolymer centrifuge
- ⑤ Condensate drain (RMSA)
- ⑥ HDPE sintered filter cartridge
- ⑦ NBR gaskets





## FLOW CHARTS

### FIL

$\Delta P = (P_m - P_v)$   
psi KPa bar

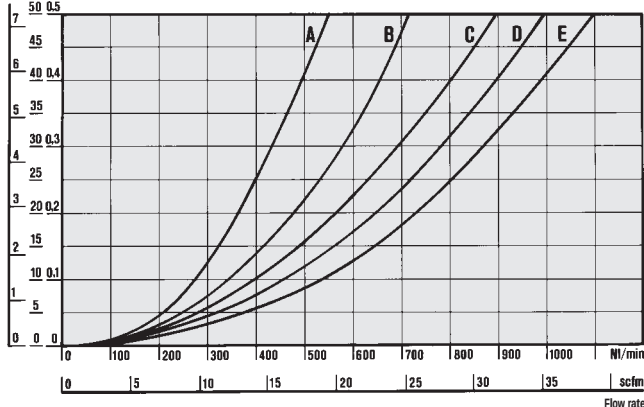
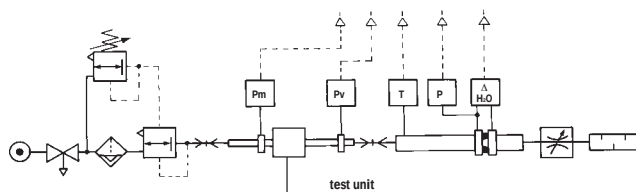


Chart referring to a filter with 1/4 ports



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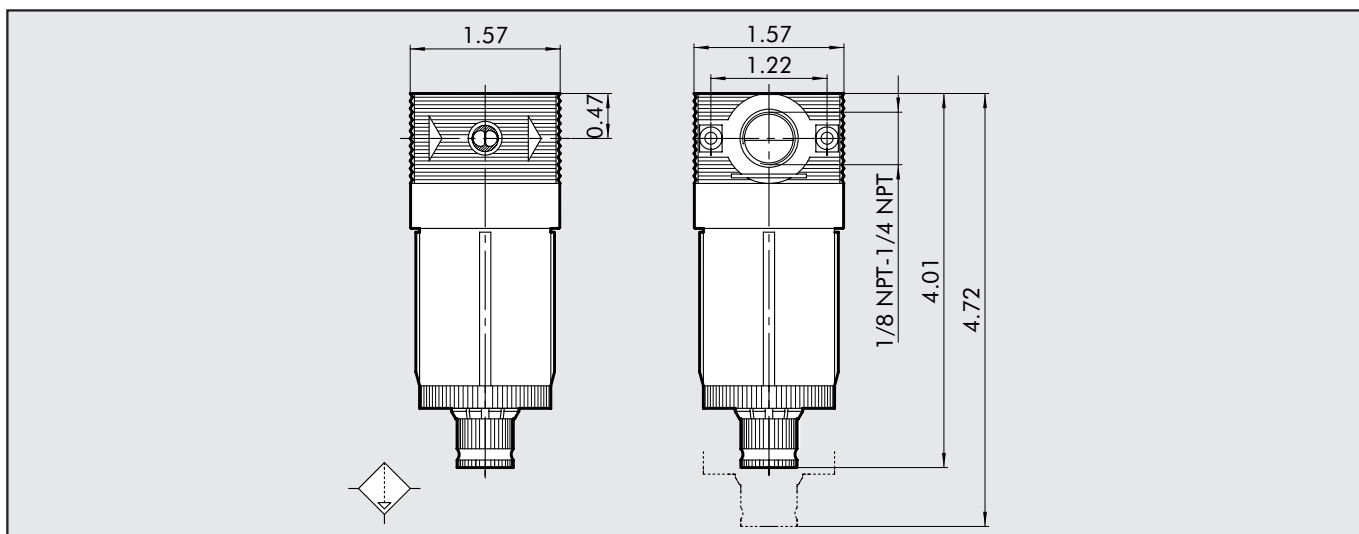


• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

A = 2 bar - 0,2 MPa - 29 psi  
B = 4 bar - 0,4 MPa - 58 psi  
C = 6 bar - 0,6 MPa - 87 psi

D = 8 bar - 0,8 MPa - 116 psi  
E = 10 bar - 1 MPa - 145 psi

## DIMENSIONS



## KEY TO CODES

| FIL     | BIT  | 1/8           | 5 μm                   | RMSA             |
|---------|------|---------------|------------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION   | CONDENSATE DRAIN |
| FIL     | BIT  | 1/8<br>1/4    | 5 μm<br>20 μm<br>50 μm | RMSA<br>SAC      |

RMSA: Semi-auto drain

SAC: Automatic drain. Operates by depressurization – requires variable air take-offs.

## ORDERING CODES

| Code     | Description         |
|----------|---------------------|
| 5101001U | FIL BIT 1/8 5 RMSA  |
| 5101004U | FIL BIT 1/8 5 SAC   |
| 5101002U | FIL BIT 1/8 20 RMSA |
| 5101005U | FIL BIT 1/8 20 SAC  |
| 5101003U | FIL BIT 1/8 50 RMSA |
| 5101006U | FIL BIT 1/8 50 SAC  |
| 5201001U | FIL BIT 1/4 5 RMSA  |
| 5201004U | FIL BIT 1/4 5 SAC   |
| 5201002U | FIL BIT 1/4 20 RMSA |
| 5201005U | FIL BIT 1/4 20 SAC  |
| 5201003U | FIL BIT 1/4 50 RMSA |
| 5201006U | FIL BIT 1/4 50 SAC  |

# bit MICRO-REGULATOR

Micro-regulator with rolling diaphragm.

- Preset pressure stability as the upstream pressure varies.
- High flow rates with reduced pressure drops
- Quick overpressure exhaust

## Versions available

Bit FC: controlled relief to allow greater accuracy in regulation by means of slight continuous air relief.

Bit for water: used to regulate the pressure in water circuits; without blowoff valve

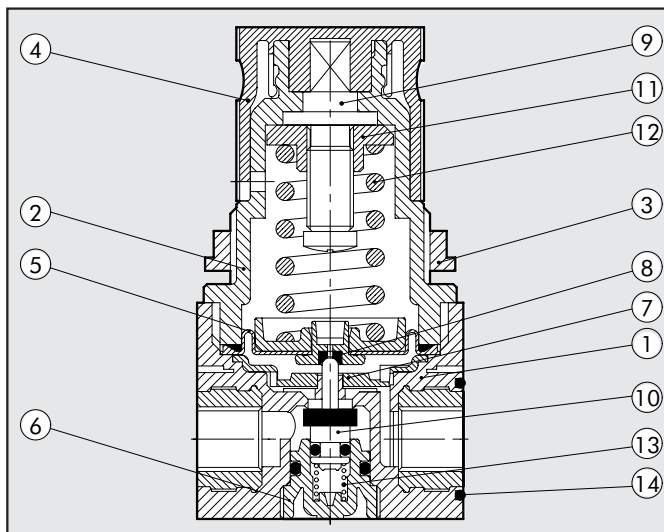
Bit SR: for use when the downstream circuit needs to be relieved quickly as the upstream pressure drops. Mount the SR regulator between the power supply valve and the point of use.



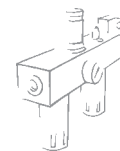
| TECHNICAL DATA                                                    |        | MR BIT 1/8"                                                                                                           | MR BIT 1/4" |
|-------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------|-------------|
| Threaded port                                                     | NPT    | 1/8"                                                                                                                  | 1/4"        |
| Setting range                                                     | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180                                                                                           |             |
| Max. inlet pressure                                               | MPa    | 1.3                                                                                                                   |             |
|                                                                   | bar    | 13                                                                                                                    |             |
|                                                                   | psi    | 188                                                                                                                   |             |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |        | 340 NI/min = 12 scfm                                                                                                  |             |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |        | 600 NI/min = 21 scfm                                                                                                  |             |
| Fluid                                                             |        | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous                         |             |
| Max temperature at 1 Mpa; 10 bar; 145 psi                         | °C     | 50                                                                                                                    |             |
|                                                                   | °F     | 122                                                                                                                   |             |
| Weight                                                            | pounds | 0.17                                                                                                                  |             |
| Wall fixing screws                                                |        | N. 8-32 unc                                                                                                           |             |
| Mounting                                                          |        | In any position                                                                                                       |             |
| Gauge port                                                        |        | G 1/8"                                                                                                                |             |
| Notes:                                                            |        | The regulator pressure must always be set upwards.                                                                    |             |
|                                                                   |        | For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value. |             |

## COMPONENTS

- ① Technopolymer body with OT58 threaded elements
- ② Technopolymer bell
- ③ Technopolymer fixing ring nut
- ④ Technopolymer knob
- ⑤ Rolling diaphragm
- ⑥ Technopolymer plug
- ⑦ Technopolymer anti-vibration screen
- ⑧ NBR relieving gasket
- ⑨ OT58 brass adjusting screws
- ⑩ OT58 valve with NBR vulcanized gasket
- ⑪ OT58 brass nut
- ⑫ Steel adjusting spring
- ⑬ Stainless steel valve compression spring
- ⑭ NBR gaskets





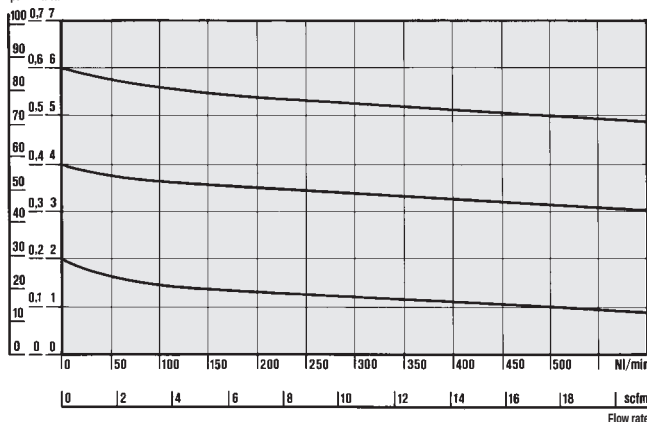


## FLOW CHARTS

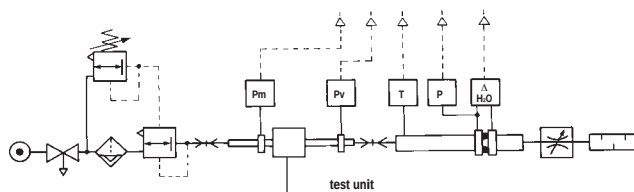
### MR

$P_m = 0,7 \text{ MPa}$ ; 7 bar; 102 psi  
Inlet pressure

psi MPa bar

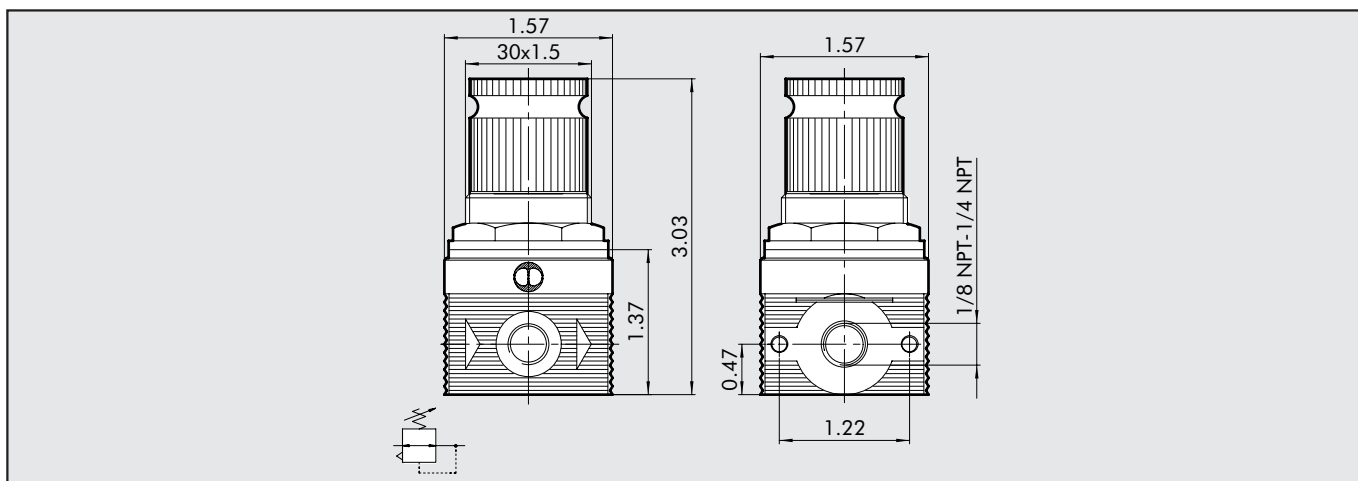


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- Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

## DIMENSIONS



## KEY TO CODES

| MR      | BIT  | FC          | 1/8           | 02            |
|---------|------|-------------|---------------|---------------|
| ELEMENT | SIZE | VERSION     | THREADED PORT | SETTING RANGE |
| MR      | BIT  | FC          | 1/8           | 02=0÷30 psi   |
|         | BIT  | SR          | 1/4           | 04=0÷60 psi   |
|         | BIT  |             |               | 08=0÷120 psi  |
| MRA     | BIT  | (for WATER) |               | 012=0÷180 psi |

FC: Controlled relief  
SR: Quickly relieved  
MRA: Without relief (for water)

## ORDERING CODES

| Code                                  | Description      | Code                             | Description       |
|---------------------------------------|------------------|----------------------------------|-------------------|
| MICROREGULATOR (MR)                   |                  | MICROREGULATOR WITH QUICK RELIEF |                   |
| 5107001U                              | MR BIT 1/8 02    | 5102001U                         | MR BIT SR 1/8 02  |
| 5107002U                              | MR BIT 1/8 04    | 5102002U                         | MR BIT SR 1/8 04  |
| 5107003U                              | MR BIT 1/8 08    | 5102003U                         | MR BIT SR 1/8 08  |
| 5107004U                              | MR BIT 1/8 012   | 5102004U                         | MR BIT SR 1/8 012 |
| 5207001U                              | MR BIT 1/4 02    | 5202001U                         | MR BIT SR 1/4 02  |
| 5207002U                              | MR BIT 1/4 04    | 5202002U                         | MR BIT SR 1/4 04  |
| 5207003U                              | MR BIT 1/4 08    | 5202003U                         | MR BIT SR 1/4 08  |
| 5207004U                              | MR BIT 1/4 012   | 5202004U                         | MR BIT SR 1/4 012 |
| MICROREGULATOR WITH CONTROLLED RELIEF |                  | WATER MICROREGULATOR             |                   |
| 5111001U                              | MR BIT FC 1/8 02 | 5108001U                         | MRA BIT 1/8 02    |
| 5111002U                              | MR BIT FC 1/8 04 | 5108002U                         | MRA BIT 1/8 04    |
| 5211001U                              | MR BIT FC 1/4 02 | 5108003U                         | MRA BIT 1/8 08    |
| 5211002U                              | MR BIT FC 1/4 04 | 5108004U                         | MRA BIT 1/8 012   |
|                                       |                  | 5208001U                         | MRA BIT 1/4 02    |
|                                       |                  | 5208002U                         | MRA BIT 1/4 04    |
|                                       |                  | 5208003U                         | MRA BIT 1/4 08    |
|                                       |                  | 5208004U                         | MRA BIT 1/4 012   |

# bit LUBRICATOR

Mini-lubricator with high lubrication stability.

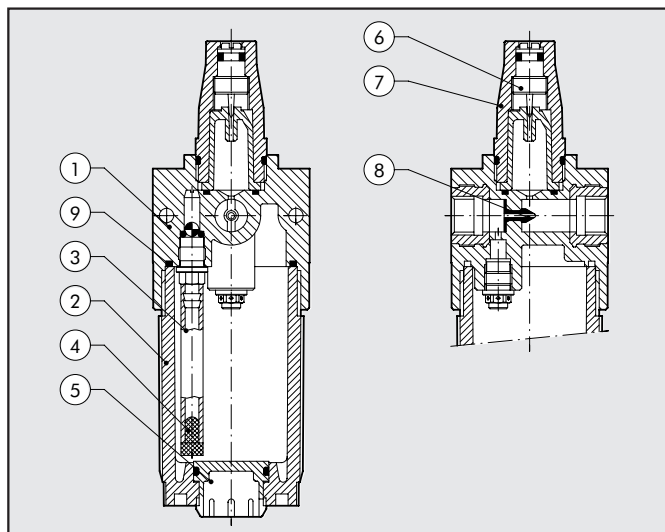
- Quantity of lubricant proportioned to air flow
- Activates at low flow rates
- Micrometric regulation of lubricant flow
- All-round oil level viewing

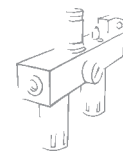


| TECHNICAL DATA                                                    |                | LUB BIT 1/8"                              | LUB BIT 1/4" |
|-------------------------------------------------------------------|----------------|-------------------------------------------|--------------|
| Threaded port                                                     | NPT            | 1/8"                                      | 1/4"         |
| Type of lubrication                                               |                | Oil mist                                  |              |
| Bowl capacity                                                     | fluid ounce oz | .90                                       |              |
| Lubricator version                                                |                | Manual filling with the bowl disassembled |              |
| Max. inlet pressure                                               | MPa            | 1.3                                       |              |
|                                                                   | bar            | 13                                        |              |
|                                                                   | psi            | 188                                       |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |                | 400 NI/min = 14 scfm                      |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |                | 710 NI/min = 25 scfm                      |              |
| Fluid                                                             |                | Filtered compressed air                   |              |
| Max temperature at 1 Mpa; 10 bar; 145 psi                         | °C             | 50                                        |              |
|                                                                   | °F             | 122                                       |              |
| Weight                                                            | pounds         | 0.9                                       |              |
| Wall fixing screws                                                |                | N. 8-32 unc                               |              |
| Mounting position                                                 |                | Vertical                                  |              |
|                                                                   |                |                                           |              |
|                                                                   |                |                                           |              |
|                                                                   |                |                                           |              |

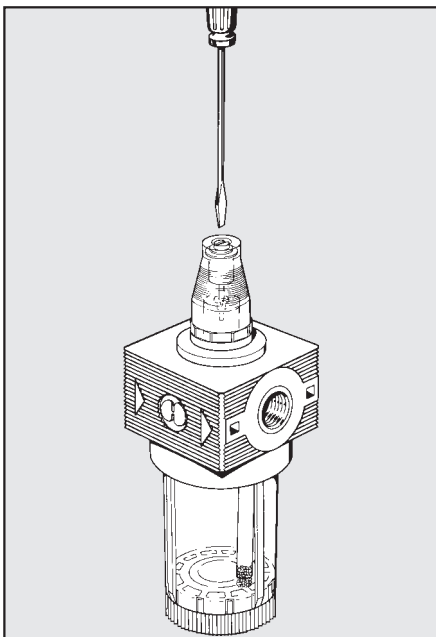
## COMPONENTS

- ① Technopolymer body with OT58 threaded elements
- ② Clear technopolymer bowl
- ③ Nylon oil suction pipe
- ④ Filter
- ⑤ Technopolymer plug
- ⑥ Oil flow adjustment regulation needle made of OT58 brass
- ⑦ Clear technopolymer cover
- ⑧ NBR Venturi diaphragm
- ⑨ NBR gaskets



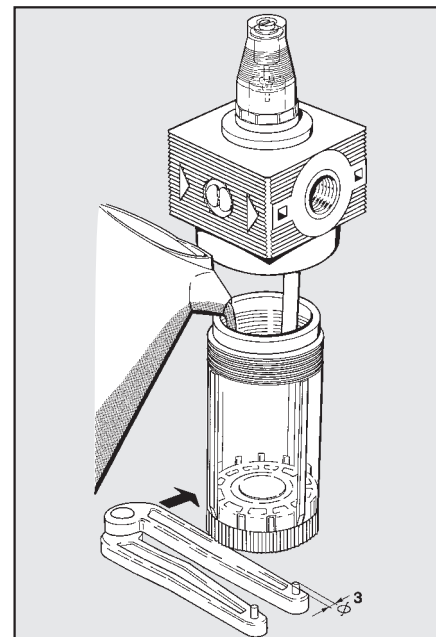


## GENERAL RULES - USE AND MAINTENANCE



REGULATING LUBRICATION

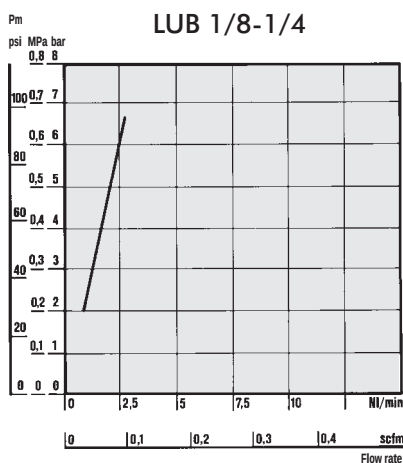
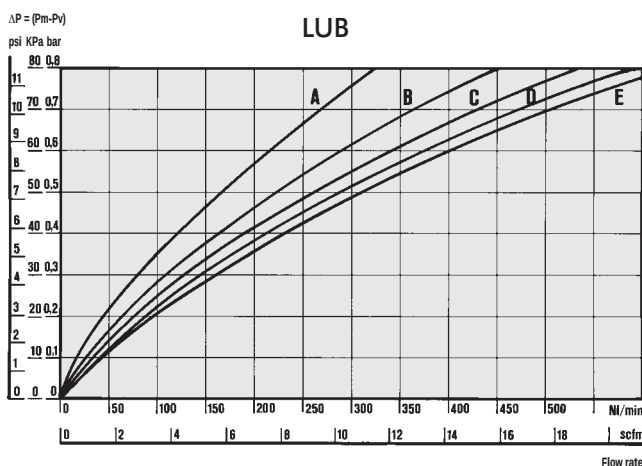
- Use a wrench to unscrew the bowl.
- Fit the lubricator as close as possible to the point of use
- Fill the bowl with oil before pressurizing the system
- Do not use cleaning oil, brake fluid or solvents in general
- For correct lubrication, set the drip rate to approximately 1 drop every 300-600 NI via the adjusting screw.
- Recommended lubricants:  
ISO and UNI FD22  
E.g. Energol HLP 22(BP) – Spinesso 22 (Esso) - Mobil DTE 22 (Mobil) – Tellus Oil 22 (Shell).



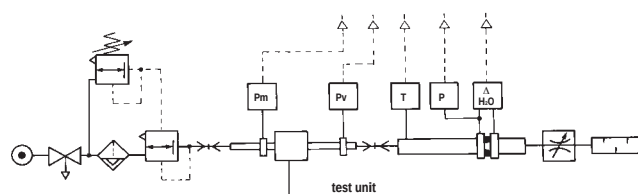
FILLING THE BOWL WITH OIL

## FLOW CHARTS

3



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• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

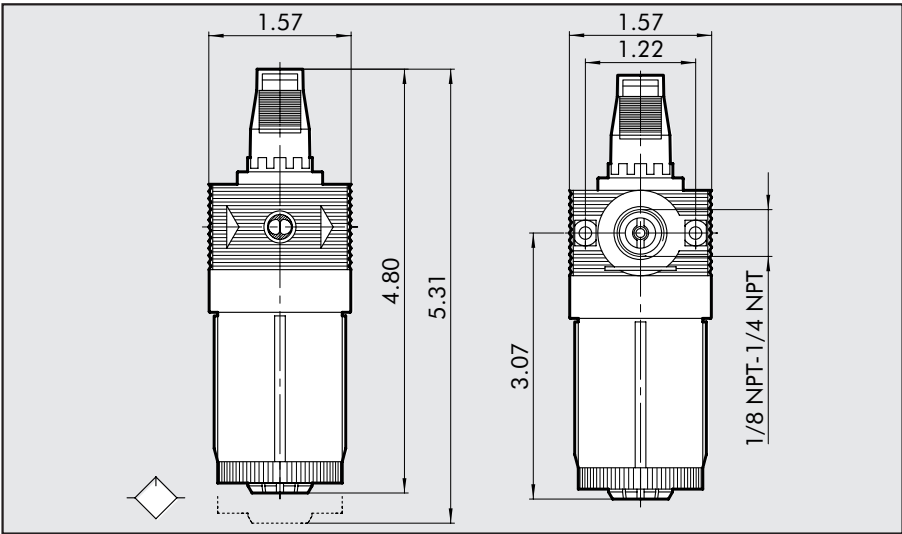
A = 2 bar - 0,2 MPa - 29 psi  
B = 4 bar - 0,4 MPa - 58 psi  
C = 6 bar - 0,6 MPa - 87 psi

D = 8 bar - 0,8 MPa - 116 psi  
E = 10 bar - 1 MPa - 145 psi

### MINIMUM OPERATION FLOW CHARTS

Minimum flow tests were performed in compliance with ISO/DP 6301/2.

## DIMENSIONS



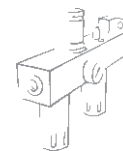
### ORDERING CODES

[illegible]

## NOTES

## NOTES

# bit FILTER REGULATOR



Filter regulator with rolling diaphragm.

- High flow rate with reduced pressure drop
- Excellent degree of condensate separation
- Semi-automatic or automatic drain
- All-round condensate level viewing

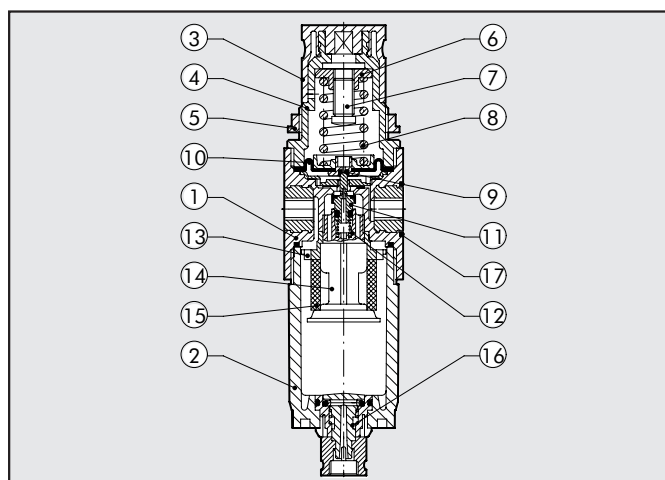


| TECHNICAL DATA                                                    |                | FR BIT 1/8"                                                                                                                                                              | FR BIT 1/4" |
|-------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Threaded port                                                     | NPT            | 1/8"                                                                                                                                                                     | 1/4"        |
| Setting range                                                     | psi            | 0÷30 - 0÷60 - 0÷120 - 0÷180                                                                                                                                              |             |
| Degree of filtration                                              | micron         | 5µm, 20µm, 50µm                                                                                                                                                          |             |
| Max. inlet pressure                                               | MPa            | 1.3                                                                                                                                                                      |             |
|                                                                   | bar            | 13                                                                                                                                                                       |             |
|                                                                   | psi            | 188                                                                                                                                                                      |             |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |                | 290 NI/min = 10 scfm                                                                                                                                                     |             |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |                | 600 NI/min = 21 scfm                                                                                                                                                     |             |
| Fluid                                                             |                | Compressed air                                                                                                                                                           |             |
| Max temperature at 1 MPa; 10 bar; 145 psi                         | °C             | 50                                                                                                                                                                       |             |
|                                                                   | °F             | 122                                                                                                                                                                      |             |
| Weight                                                            | pounds         | 0.22                                                                                                                                                                     |             |
| Wall fixing screws                                                |                | N. 8-32 unc                                                                                                                                                              |             |
| Mounting position                                                 |                | Vertical                                                                                                                                                                 |             |
| Gauge port                                                        |                | G 1/8"                                                                                                                                                                   |             |
| Bowl capacity                                                     | fluid ounce oz | .54                                                                                                                                                                      |             |
| Condensate drain                                                  |                | Manual/semi-automatic (RMSA)                                                                                                                                             |             |
|                                                                   |                | Automatic (SAC)                                                                                                                                                          |             |
| Notes:                                                            |                | The regulator pressure must always be set upwards. For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value. |             |

3

## COMPONENTS

- ① Technopolymer body with OT58 threaded elements
- ② Clear technopolymer bowl
- ③ Technopolymer knob
- ④ Technopolymer dell
- ⑤ Technopolymer fixing ring nut
- ⑥ OT58 brass nut
- ⑦ OT58 brass adjusting screw
- ⑧ Steel adjusting spring
- ⑨ NBR relieving gasket
- ⑩ Rolling diaphragm
- ⑪ OT58 valve with NBR vulcanized gasket
- ⑫ Stainless steel valve compression spring
- ⑬ Technopolymer centrifuge
- ⑭ Technopolymer baffle plug
- ⑮ Sintered HDPE filter cartridge
- ⑯ Condensate drain (RMSA)
- ⑰ NBR gaskets



## FLOW CHARTS

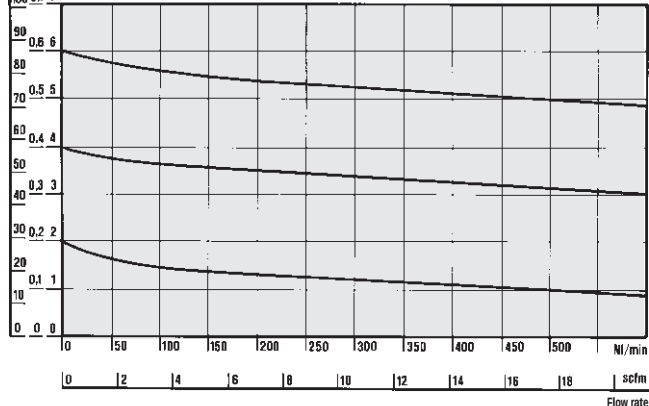
### FR

$P_m = 0,7 \text{ MPa}$ ; 7 bar; 102 psi

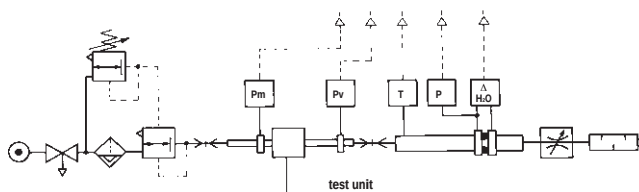
Inlet pressure

psi MPa bar

100 0.7 7

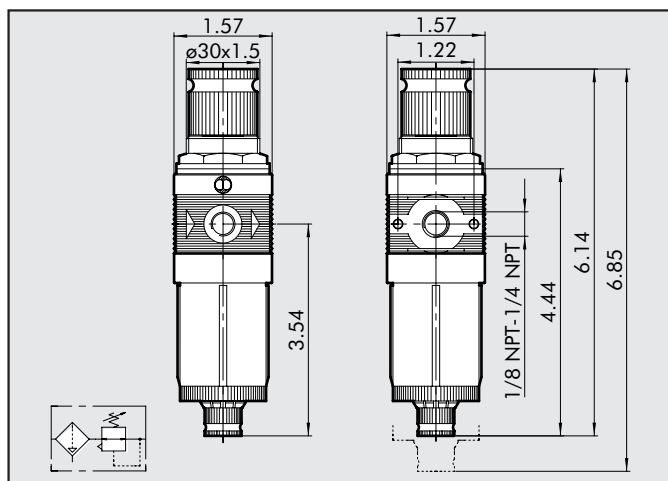


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of Mechanics  
Turin Polytechnic



- Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

## DIMENSIONS



## KEY TO CODES

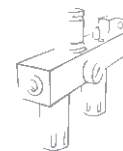
| FR      | BIT  | 1/8           | 5µm                  | 02                                                                  | RMSA             |
|---------|------|---------------|----------------------|---------------------------------------------------------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | SETTING RANGE                                                       | CONDENSATE DRAIN |
| FR      | BIT  | 1/8<br>1/4    | 5µm<br>20µm<br>50µm  | 02 = 0÷30 psi<br>04 = 0÷60 psi<br>08 = 0÷120 psi<br>012 = 0÷180 psi | RMSA<br>SAC      |

RMSA: Semi-auto drain

SAC: Automatic drain. Operates by depressurization – requires variable air take-offs.

## ORDERING CODES

| Code     | Description           | Code     | Description            | Code     | Description            |
|----------|-----------------------|----------|------------------------|----------|------------------------|
| 5105001U | FR BIT 1/8 5 02 RMSA  | 5105022U | FR BIT 1/8 5 012 SAC   | 5205008U | FR BIT 1/4 20 08 RMSA  |
| 5105013U | FR BIT 1/8 5 02 SAC   | 5105011U | FR BIT 1/8 20 012 RMSA | 5205020U | FR BIT 1/4 20 08 SAC   |
| 5105002U | FR BIT 1/8 20 02 RMSA | 5105023U | FR BIT 1/8 20 012 SAC  | 5205009U | FR BIT 1/4 50 08 RMSA  |
| 5105014U | FR BIT 1/8 20 02 SAC  | 5105012U | FR BIT 1/8 50 012 RMSA | 5205021U | FR BIT 1/4 50 08 SAC   |
| 5105003U | FR BIT 1/8 50 02 RMSA | 5105024U | FR BIT 1/8 50 012 SAC  | 5205010U | FR BIT 1/4 5 012 RMSA  |
| 5105015U | FR BIT 1/8 50 02 SAC  | 5205001U | FR BIT 1/4 5 02 RMSA   | 5205022U | FR BIT 1/4 5 012 SAC   |
| 5105004U | FR BIT 1/8 5 04 RMSA  | 5205013U | FR BIT 1/4 5 02 SAC    | 5205011U | FR BIT 1/4 20 012 RMSA |
| 5105016U | FR BIT 1/8 5 04 SAC   | 5205002U | FR BIT 1/4 20 02 RMSA  | 5205023U | FR BIT 1/4 20 012 SAC  |
| 5105005U | FR BIT 1/8 20 04 RMSA | 5205014U | FR BIT 1/4 20 02 SAC   | 5205012U | FR BIT 1/4 50 012 RMSA |
| 5105017U | FR BIT 1/8 20 04 SAC  | 5205003U | FR BIT 1/4 50 02 RMSA  | 5205024U | FR BIT 1/4 50 012 SAC  |
| 5105006U | FR BIT 1/8 50 04 RMSA | 5205015U | FR BIT 1/4 50 02 SAC   |          |                        |
| 5105018U | FR BIT 1/8 50 04 SAC  | 5205004U | FR BIT 1/4 5 04 RMSA   |          |                        |
| 5105007U | FR BIT 1/8 5 08 RMSA  | 5205016U | FR BIT 1/4 5 04 SAC    |          |                        |
| 5105019U | FR BIT 1/8 5 08 SAC   | 5205005U | FR BIT 1/4 20 04 RMSA  |          |                        |
| 5105008U | FR BIT 1/8 20 08 RMSA | 5205017U | FR BIT 1/4 20 04 SAC   |          |                        |
| 5105020U | FR BIT 1/8 20 08 SAC  | 5205006U | FR BIT 1/4 50 04 RMSA  |          |                        |
| 5105009U | FR BIT 1/8 50 08 RMSA | 5205018U | FR BIT 1/4 50 04 SAC   |          |                        |
| 5105021U | FR BIT 1/8 50 08 SAC  | 5205007U | FR BIT 1/4 5 08 RMSA   |          |                        |
| 5105010U | FR BIT 1/8 5 012 RMSA | 5205019U | FR BIT 1/4 5 08 SAC    |          |                        |



# bit COALESCER

Coalescing mini-depurator

- Space saving
- Minimum load loss as the flow rate varies
- All-round condensate level viewing

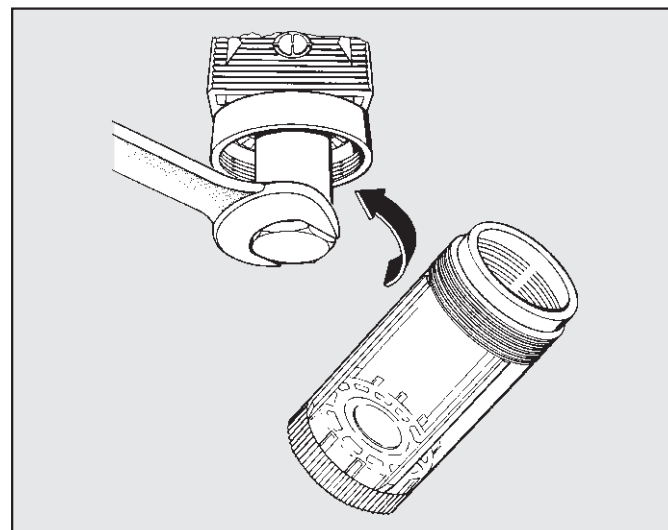


| TECHNICAL DATA                                                    |                | DEP BIT 1/8"                                                                            | DEP BIT 1/4" |
|-------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------|--------------|
| Threaded port                                                     | NPT            | 1/8"                                                                                    | 1/4"         |
| Degree of filtration                                              | micron         | 99.97% 0.4 microinch                                                                    |              |
| Max. inlet pressure                                               | MPa            | 1.3                                                                                     |              |
|                                                                   | bar            | 13                                                                                      |              |
|                                                                   | psi            | 188                                                                                     |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |                | 700 NI/min = 25 scfm                                                                    |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |                | 1000 NI/min = 35.5 scfm                                                                 |              |
| Suggested flow at 6 bar                                           |                | 200 NI/min = 7 scfm                                                                     |              |
| Fluid                                                             |                | Filtered 5µm compressed air                                                             |              |
| Max temperature at 1 MPa; 10 bar; 145 psi                         | °C             | 50                                                                                      |              |
|                                                                   | °F             | 122                                                                                     |              |
| Weight                                                            | pounds         | 1.43                                                                                    |              |
| Wall fixing screws                                                |                | N. 8-32 unc                                                                             |              |
| Mounting position                                                 |                | Vertical                                                                                |              |
| Condensate drain                                                  |                | Manual/semi-automatic (RMSA)                                                            |              |
| Bowl capacity                                                     | fluid ounce oz | .54                                                                                     |              |
| Notes:                                                            |                | A It is advisable to mount a 5m filter upstream the coalescer acting as a rough filter. |              |

3

## USE AND MAINTENANCE

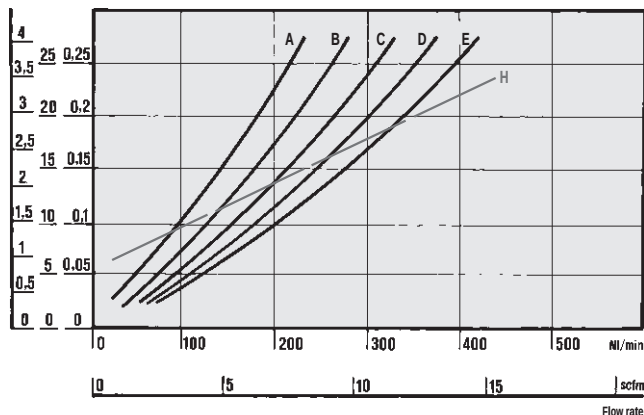
When replacing the coalescing cartridge, unscrew the bowl and then unscrew the screen of the cartridge assembly. Then replace the cartridge. Use a wrench to unscrew the bowl.



## FLOW CHARTS

### DEP

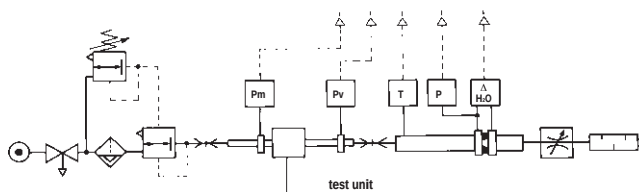
$\Delta P = (P_m - P_v)$   
psi KPa bar



H = Maximum recommended flow for optimal operation



Department  
of Mechanics  
Turin Polytechnic

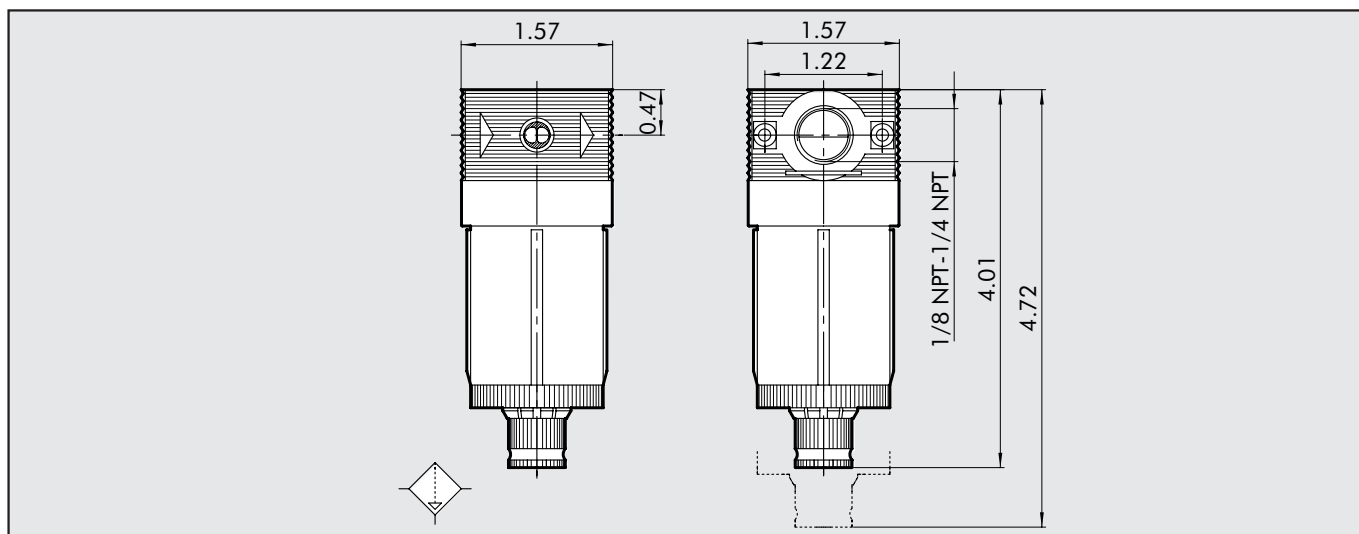


• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

A = 2 bar - 0,2 MPa - 29 psi  
B = 4 bar - 0,4 MPa - 58 psi  
C = 6 bar - 0,6 MPa - 87 psi

D = 8 bar - 0,8 MPa - 116 psi  
E = 10 bar - 1 MPa - 145 psi

## DIMENSIONS



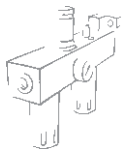
## ORDERING CODES

| Code    | Description |
|---------|-------------|
| 5112001 | DEP BIT 1/8 |
| 5212001 | DEP BIT 1/4 |

## NOTES



# bit TAKE-OFF

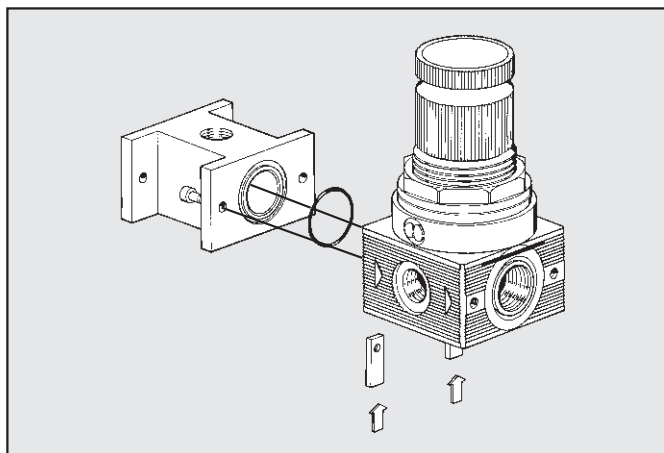


- The air take-off takes air from the SKILLAIR® FRL unit irrespective of the assembly position.
- It is necessary when air needs to be taken from the FRL unit at any stage of the treatment (normal, filtered, regulated, lubricated, etc.).

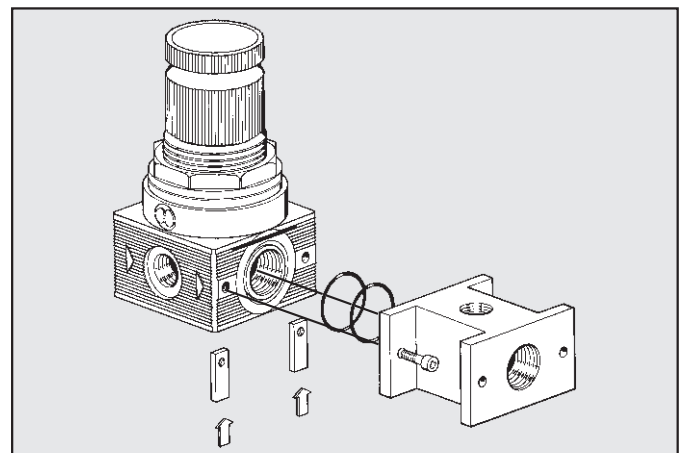
| TECHNICAL DATA                                              |     | PA  |
|-------------------------------------------------------------|-----|-----|
| Maximum operating pressure                                  | MPa | 1.3 |
|                                                             | bar | 13  |
|                                                             | psi | 188 |
| Maximum working temperature at<br>at 1 MPa; 10 bar; 145 psi | °C  | 50  |
|                                                             | °F  | 122 |



## CONNECTION DIAGRAMS AND APPLICATION

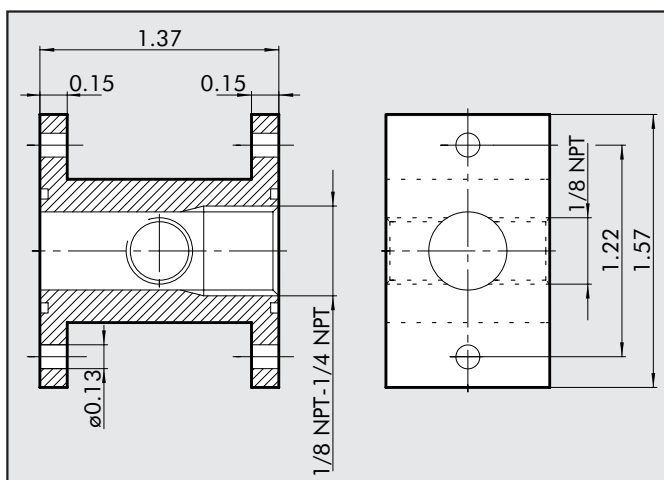


Mounting the air take-off at the inlet: only use two screws and the O-rings supplied in the PA kit.



Mounting the air take-off at the outlet: only use two screws and the O-rings supplied in the PA kit. Seal is provided by the contact between O-rings.

## DIMENSIONS



## ORDERING CODES

| Code     | Description      |
|----------|------------------|
| 9100401U | PA 1/8 - 1/4 BIT |

# FIL+REG+LUB bit

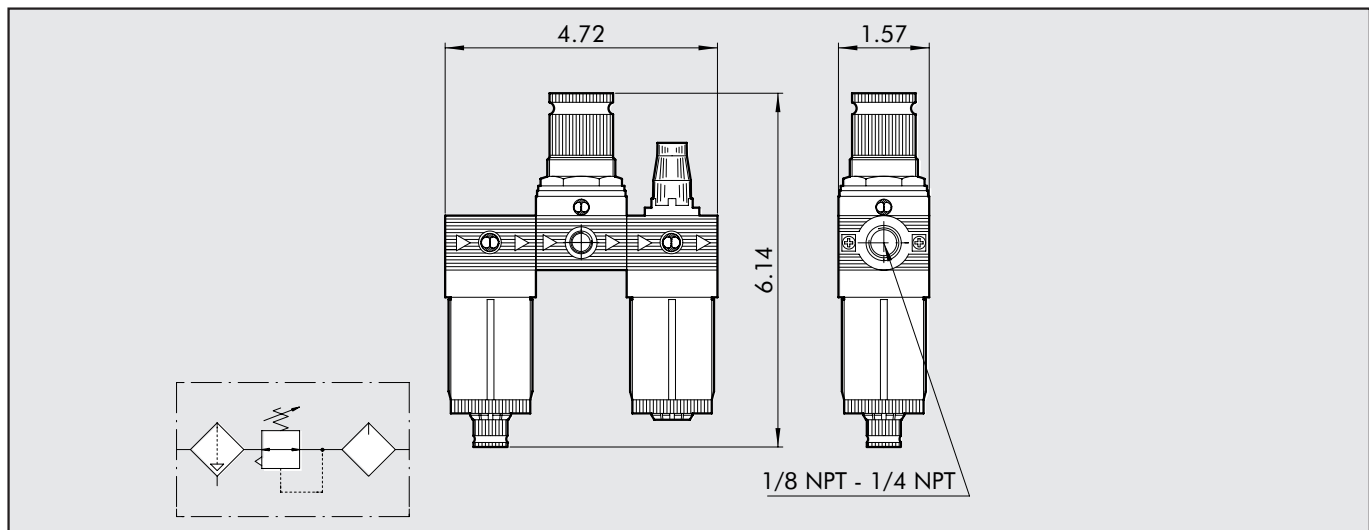
Complete mini-FRL unit with rolling diaphragm.

- High flow rates with reduced pressure drop
- Excellent degree of condensate separation
- Quantity of lubricant proportioned to air flow
- Activates at low flow rates



| TECHNICAL DATA                                                    |        | F+R+L BIT 1/8"                             | F+R+L BIT 1/4" |
|-------------------------------------------------------------------|--------|--------------------------------------------|----------------|
| Threaded port                                                     | NPT    | 1/8"                                       | 1/4"           |
| Setting range                                                     | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180                |                |
| Degree of filtration                                              | micron | 5µm, 20µm, 50µm                            |                |
| Type of lubrication                                               |        | Oil mist                                   |                |
| Max. inlet pressure                                               | MPa    | 1.3                                        |                |
|                                                                   | bar    | 13                                         |                |
|                                                                   | psi    | 188                                        |                |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |        | 150 NI/min = 5.3 scfm                      |                |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |        | 280 NI/min = 10 scfm                       |                |
| Fluid                                                             |        | Compressed air                             |                |
| Max temperature at 1 MPa; 10 bar; 145 psi                         | °C     | 50                                         |                |
|                                                                   | °F     | 122                                        |                |
| Weight                                                            | ounce  | 5.64                                       |                |
| Wall fixing screws                                                |        | N. 8-32 unc                                |                |
| Mounting position                                                 |        | Verticale                                  |                |
| Gauge port                                                        |        | G1/8"                                      |                |
| Notes                                                             |        | See chapters regarding individual elements |                |

## DIMENSIONS





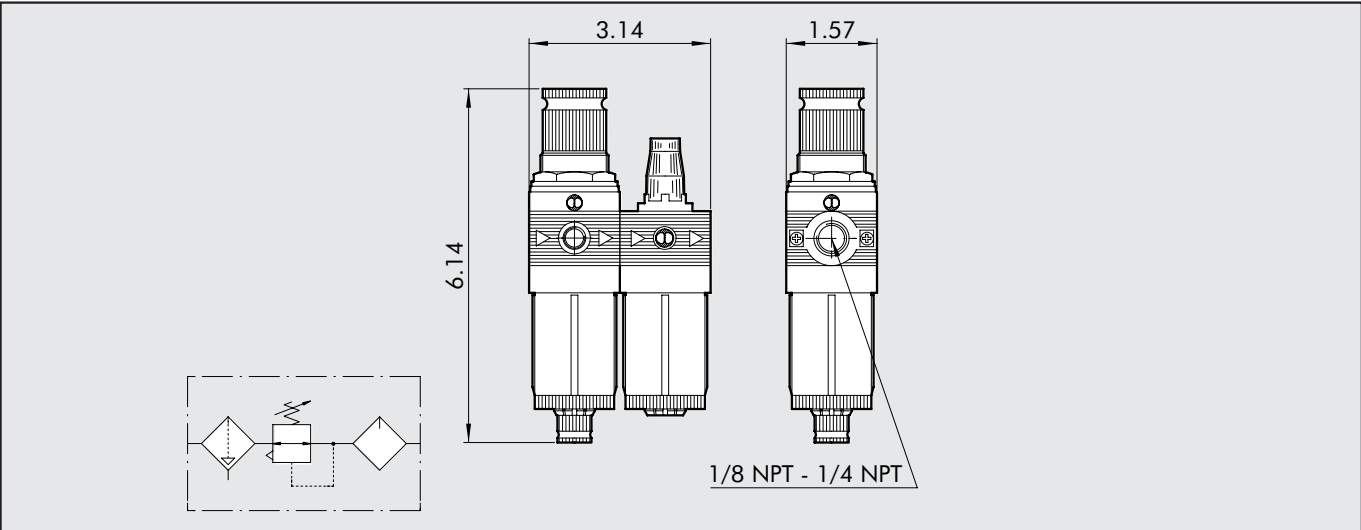
# FR+LUB bit

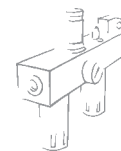
- Compact FR+L unit with rolling diaphragm.
- High flow rates with reduced pressure drop
  - Excellent degree of condensate separation
  - Quantity of lubricant proportioned to air flow
  - Activates at low flow rates



| TECHNICAL DATA                                                    |        | FR+L BIT 1/8"                              | FR+L BIT 1/4" |
|-------------------------------------------------------------------|--------|--------------------------------------------|---------------|
| Threaded port                                                     | NPT    | 1/8"                                       | 1/4"          |
| Setting range                                                     | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180                |               |
| Degree of filtration                                              | micron | 5µm, 20µm, 50µm                            |               |
| Type of lubrication                                               |        | Oil mist                                   |               |
| Max. inlet pressure                                               | MPa    | 1.3                                        |               |
|                                                                   | bar    | 13                                         |               |
|                                                                   | psi    | 188                                        |               |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 0.5 bar (0.05 MPa – 7 psi) |        | 140 NI/min = 5 scfm                        |               |
| Flow rate at 6 bar (0.6 MPa-87 psi) ΔP 1 bar (0.1 MPa – 14 psi)   |        | 260 NI/min = 9.2 scfm                      |               |
| Fluid                                                             |        | Compressed air                             |               |
| Max temperature at 1 MPa; 10 bar; 145 psi                         | °C     | 50                                         |               |
|                                                                   | °F     | 122                                        |               |
| Weight                                                            | ounce  | 6.00                                       |               |
| Wall fixing screws                                                |        | N. 8-32 unc                                |               |
| Mounting position                                                 |        | Vertical                                   |               |
| Gauge port                                                        |        | G 1/8"                                     |               |
| Notes                                                             |        | See chapters regarding individual elements |               |

## DIMENSIONS





## KEY TO CODES

| FR+L    | BIT  | 1/8           | 5µm                  | 02                                                                | RMSA             |
|---------|------|---------------|----------------------|-------------------------------------------------------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | SETTING RANGE                                                     | CONDENSATE DRAIN |
| FR+L    | BIT  | 1/8<br>1/4    | 5µm<br>20µm<br>50µm  | 02 = 0÷30 psi<br>04 = 0÷30 psi<br>08 = 0÷30 psi<br>012 = 0÷30 psi | RMSA<br>SAC      |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain. Operates by depressurization – requires variable air take-offs.

## ORDERING CODES

| Code     | Description              | Code     | Description              |
|----------|--------------------------|----------|--------------------------|
| 5106001U | FR+L BIT 1/8 5 02 RMSA   | 5206001U | FR+L BIT 1/4 5 02 RMSA   |
| 5106013U | FR+L BIT 1/8 5 02 SAC    | 5206013U | FR+L BIT 1/4 5 02 SAC    |
| 5106004U | FR+L BIT 1/8 5 04 RMSA   | 5206004U | FR+L BIT 1/4 5 04 RMSA   |
| 5106016U | FR+L BIT 1/8 5 04 SAC    | 5206016U | FR+L BIT 1/4 5 04 SAC    |
| 5106007U | FR+L BIT 1/8 5 08 RMSA   | 5206007U | FR+L BIT 1/4 5 08 RMSA   |
| 5106019U | FR+L BIT 1/8 5 08 SAC    | 5206019U | FR+L BIT 1/4 5 08 SAC    |
| 5106010U | FR+L BIT 1/8 5 012 RMSA  | 5206010U | FR+L BIT 1/4 5 012 RMSA  |
| 5106022U | FR+L BIT 1/8 5 012 SAC   | 5206022U | FR+L BIT 1/4 5 012 SAC   |
| 5106002U | FR+L BIT 1/8 20 02 RMSA  | 5206002U | FR+L BIT 1/4 20 02 RMSA  |
| 5106014U | FR+L BIT 1/8 20 02 SAC   | 5206014U | FR+L BIT 1/4 20 02 SAC   |
| 5106005U | FR+L BIT 1/8 20 04 RMSA  | 5206005U | FR+L BIT 1/4 20 04 RMSA  |
| 5106017U | FR+L BIT 1/8 20 04 SAC   | 5206017U | FR+L BIT 1/4 20 04 SAC   |
| 5106008U | FR+L BIT 1/8 20 08 RMSA  | 5206008U | FR+L BIT 1/4 20 08 RMSA  |
| 5106020U | FR+L BIT 1/8 20 08 SAC   | 5206020U | FR+L BIT 1/4 20 08 SAC   |
| 5106011U | FR+L BIT 1/8 20 012 RMSA | 5206011U | FR+L BIT 1/4 20 012 RMSA |
| 5106023U | FR+L BIT 1/8 20 012 SAC  | 5206023U | FR+L BIT 1/4 20 012 SAC  |
| 5106003U | FR+L BIT 1/8 50 02 RMSA  | 5206003U | FR+L BIT 1/4 50 02 RMSA  |
| 5106015U | FR+L BIT 1/8 50 02 SAC   | 5206015U | FR+L BIT 1/4 50 02 SAC   |
| 5106006U | FR+L BIT 1/8 50 04 RMSA  | 5206006U | FR+L BIT 1/4 50 04 RMSA  |
| 5106018U | FR+L BIT 1/8 50 04 SAC   | 5206018U | FR+L BIT 1/4 50 04 SAC   |
| 5106009U | FR+L BIT 1/8 50 08 RMSA  | 5206009U | FR+L BIT 1/4 50 08 RMSA  |
| 5106021U | FR+L BIT 1/8 50 08 SAC   | 5206021U | FR+L BIT 1/4 50 08 SAC   |
| 5106012U | FR+L BIT 1/8 50 012 RMSA | 5206012U | FR+L BIT 1/4 50 012 RMSA |
| 5106024U | FR+L BIT 1/8 50 012 SAC  | 5206024U | FR+L BIT 1/4 50 012 SAC  |

## NOTES

# FIL+DEP bit

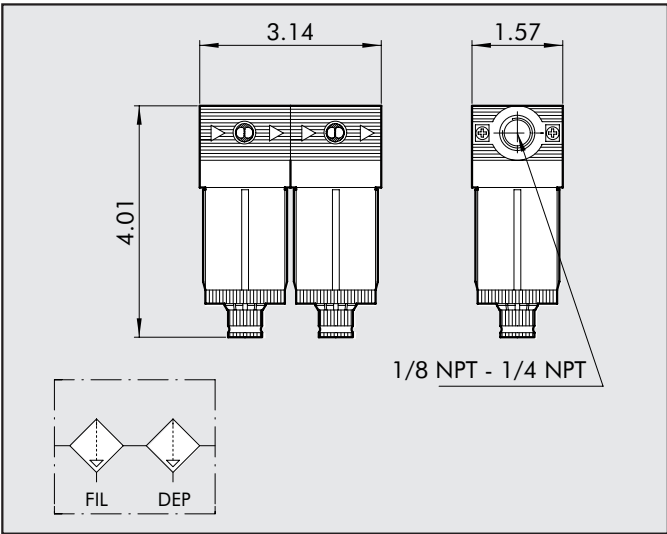
Compact filter + coalescer unit for fine filtering followed by purification by coalescence.

- All-round condensate level viewing
- Condensate drainage - manual/semi-auto (RMSA) or automatic (SAC) on the filter
- 5 mm filter element.



| TECHNICAL DATA                      |        | F+D BIT 1/8"                                | F+D BIT 1/4" |
|-------------------------------------|--------|---------------------------------------------|--------------|
| Threaded port                       | NPT    | 1/8"                                        | 1/4"         |
| Degree of purification              | micron | 99.97% coalescer at 0.4                     |              |
| Max. inlet pressure                 | MPa    | 1.3                                         |              |
|                                     | bar    | 13                                          |              |
|                                     | psi    | 188                                         |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min | 500                                         |              |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm   | 18                                          |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min | 750                                         |              |
| ΔP 1 bar (0.1 MPa – 14 psi)         | scfm   | 27                                          |              |
| Fluid                               |        | Compressed air                              |              |
| Max temperature                     | °C     | 50                                          |              |
| at 1 MPa; 10 bar; 145 psi           | °F     | 122                                         |              |
| Weight                              | ounce  | 3.88                                        |              |
| Wall fixing screws                  |        | N. 8-32 UNC                                 |              |
| Mounting position                   |        | Vertical                                    |              |
| Condensate drain                    |        | Manual – Semi-auto (RMSA) - Automatic (SAC) |              |
| Notes                               |        | See chapters regarding individual elements  |              |
|                                     |        |                                             |              |
|                                     |        |                                             |              |

## DIMENSIONS



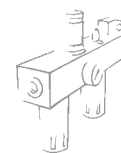
## KEY TO CODES

| F+D     | BIT  | 1/4           | 5µm                  | RMSA             |
|---------|------|---------------|----------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | CONDENSATE DRAIN |
| F+D     | BIT  | 1/8<br>1/4    | 5µm                  | RMSA<br>SAC      |

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain. Operates by depressurization – requires variable air take-offs.

## ORDERING CODES

| Code     | Description             |
|----------|-------------------------|
| 5114001U | F+D BIT 1/8 5 RMSA-RMSA |
| 5114002U | F+D BIT 1/8 5 SAC-RMSA  |
| 5214001U | F+D BIT 1/4 5 RMSA-RMSA |
| 5214002U | F+D BIT 1/4 5 SAC-RMSA  |
|          |                         |
|          |                         |
|          |                         |
|          |                         |
|          |                         |
|          |                         |
|          |                         |
|          |                         |



# FIL+LUB bit

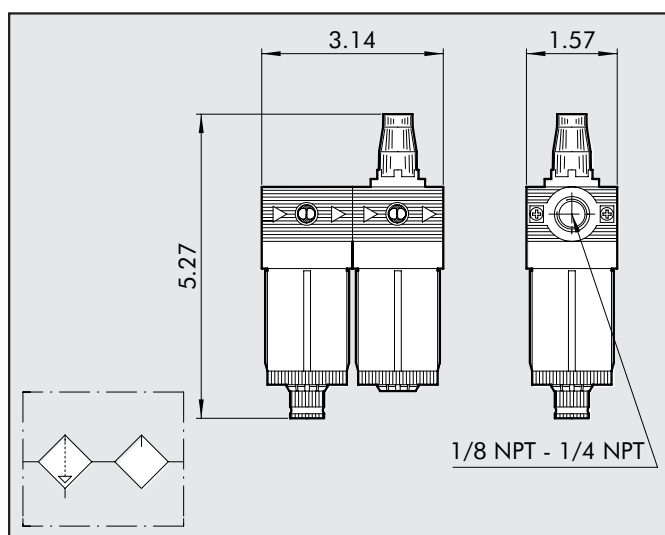
Compact filter + lubricator unit with different degrees of filtration and high lubrication stability.

- Excellent degree of condensate separation
- Semi-automatic and automatic condensate drainage
- Lubrication activates at low flow rates
- All-round oil and condensate level viewing



| TECHNICAL DATA                      |        | F+L BIT 1/8"                               | F+L BIT 1/4" |
|-------------------------------------|--------|--------------------------------------------|--------------|
| Threaded port                       |        | 1/8"                                       | 1/4"         |
| Max. inlet pressure                 | MPa    | 1.3                                        |              |
|                                     | bar    | 13                                         |              |
|                                     | psi    | 188                                        |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min | 300                                        |              |
| ΔP 0.5 bar (0.05 MPa – 7 psi)       | scfm   | 10.6                                       |              |
| Flow rate at 6 bar (0.6 MPa-87 psi) | NI/min | 600                                        |              |
| ΔP 1 bar (0.1 MPa – 14 psi)         | scfm   | 21.2                                       |              |
| Fluid                               |        | Compressed air                             |              |
| Max temperature                     | °C     | 50                                         |              |
| at 1 MPa; 10 bar; 145 psi           | °F     | 122                                        |              |
| Weight                              | ounce  | 3.18                                       |              |
| Wall fixing screws                  |        | M 8-32 UNC                                 |              |
| Mounting position                   |        | Vertical                                   |              |
| Notes                               |        | See chapters Bit Filter and Bit Lubricator |              |
|                                     |        |                                            |              |
|                                     |        |                                            |              |
|                                     |        |                                            |              |

## DIMENSIONS



3

## KEY TO CODES

| F+L     | BIT  | 1/8           | 5μm                  | RMSA             |
|---------|------|---------------|----------------------|------------------|
| ELEMENT | SIZE | THREADED PORT | DEGREE OF FILTRATION | CONDENSATE DRAIN |
| F+L     | BIT  | 1/8<br>1/4    | 5μm<br>20μm<br>50μm  | RMSA<br>SAC      |

## ORDERING CODES

| Code     | Description         |
|----------|---------------------|
| 5113001U | F+L BIT 1/8 5 RMSA  |
| 5113004U | F+L BIT 1/8 5 SAC   |
| 5113002U | F+L BIT 1/8 20 RMSA |
| 5113005U | F+L BIT 1/8 20 SAC  |
| 5113003U | F+L BIT 1/8 50 RMSA |
| 5113006U | F+L BIT 1/8 50 SAC  |
| 5213001U | F+L BIT 1/4 5 RMSA  |
| 5213004U | F+L BIT 1/4 5 SAC   |
| 5213002U | F+L BIT 1/4 20 RMSA |
| 5213005U | F+L BIT 1/4 20 SAC  |
| 5213003U | F+L BIT 1/4 50 RMSA |
| 5213006U | F+L BIT 1/4 50 SAC  |

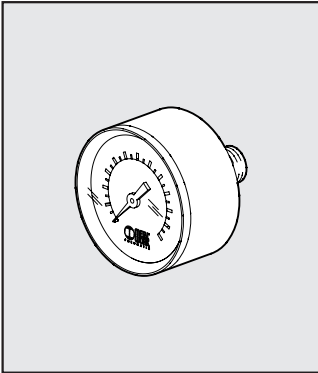
RMSA: Manual/semi-auto drain

SAC: Automatic drain. Operates by depressurization – requires variable air take-offs.

# bit ACCESSORIES

## PRESSURE GAUGE

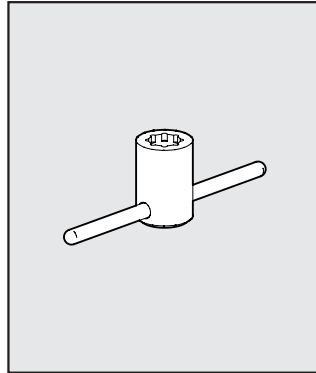
Code Description



9700102 ACC.M 40 1/8 04  
9700101 ACC.M 40 1/8 12

## DOMES DISASSEMBLY WRENCH

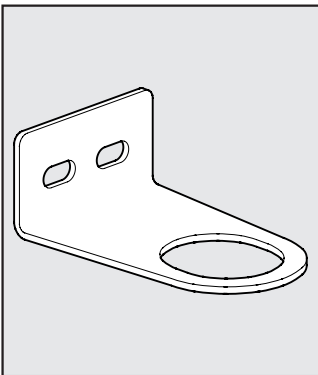
Code Description



9220701 ACC CS CVL  
100-200-300-400 BIT

## R/FR MOUNTING BRACKET

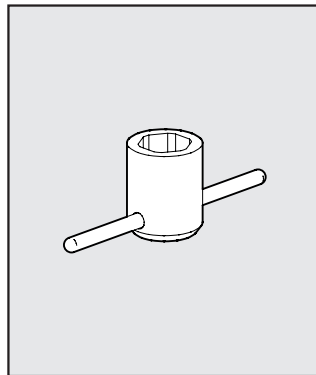
Code Description



9200701 ACC. SF100 - BIT - ND 1/4

## COVER DISASSEMBLY WRENCH

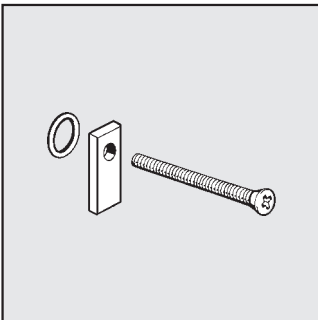
Code Description



9170401 ACC CS CS BIT

## ASSEMBLY PLATE (PAIR)

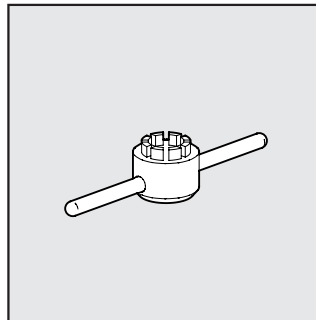
Code Description



9170201 ACC PA 1/8 - 1/4 BIT

## REDUCER PLUG DISASSEMBLY WRENCH

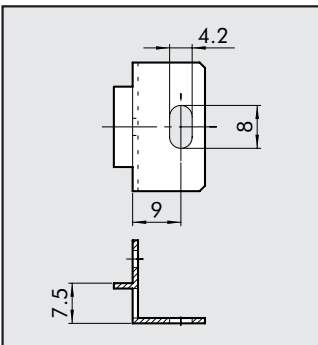
Code Description



9170501 ACC CS OTR BIT

## WALL MOUNTING BRACKET (PAIR)

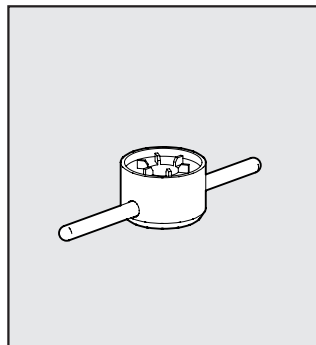
Code Description



9170301 ACC SF 1/8 - 1/4 BIT

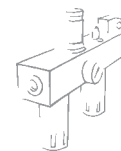
## BOWL DISASSEMBLY WRENCH

Code Description



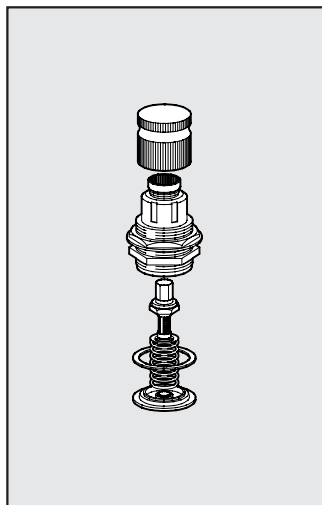
9170601 ACC CS TF - TL BIT





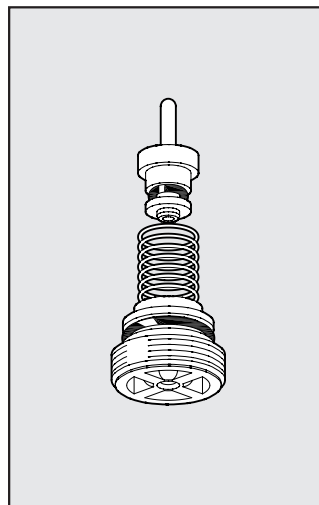
# bit SPARE PARTS

| UPPER COVER FOR MR | Code | Description |
|--------------------|------|-------------|
|--------------------|------|-------------|



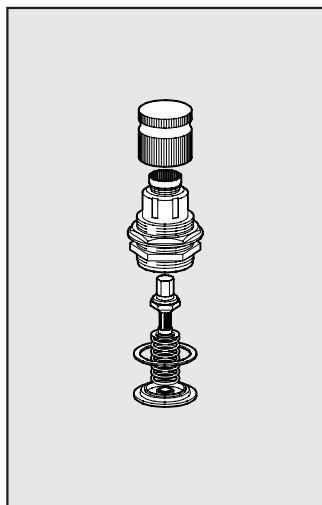
9250805U SPARES CS 1/8 1/4 BIT 02  
9250806U SPARES CS 1/8 1/4 BIT 04  
9250807U SPARES CS 1/8 1/4 BIT 08  
9250808U SPARES CS 1/8 1/4 BIT 012

| COMPLETE POPPET FOR MR AND MRA | Code | Description |
|--------------------------------|------|-------------|
|--------------------------------|------|-------------|



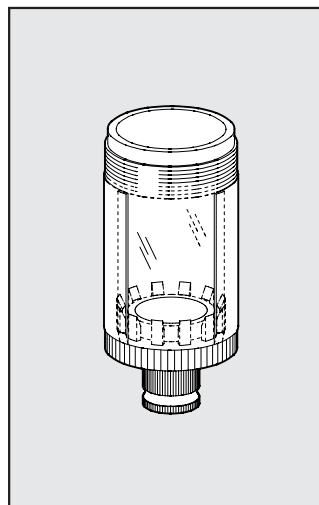
9250705 SPARES POPPET FOR MR-MRA  
9250706 SPARES POPPET FOR MR-SR  
(RAPID DRAIN)

| UPPER COVER FOR MR FC | Code | Description |
|-----------------------|------|-------------|
|-----------------------|------|-------------|



9250817U SPARES CS FC 1/8 1/4 BIT 02  
9250818U SPARES CS FC 1/8 1/4 BIT 04

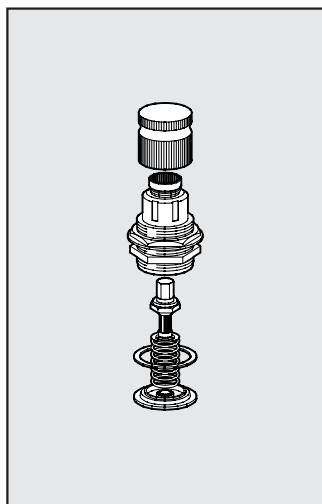
| FILTER AND FILTER-REGULATOR BOWL | Code | Description |
|----------------------------------|------|-------------|
|----------------------------------|------|-------------|



9255001 SPARES TF 1/8 1/4 BIT RMSA  
9255101 SPARES TF 1/8 1/4 BIT SAC

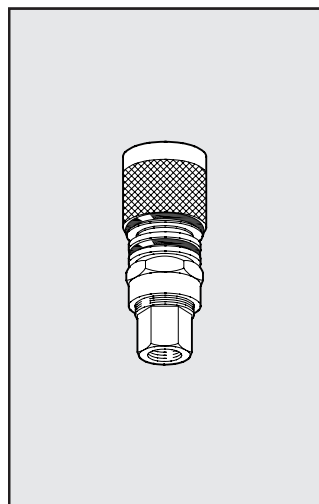
3

| UPPER COVER FOR MRA | Code | Description |
|---------------------|------|-------------|
|---------------------|------|-------------|



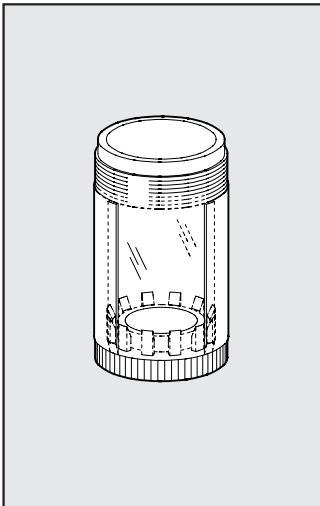
9250809U CSA 1/8 - 1/4 BIT 02  
9250814U CSA 1/8 - 1/4 BIT 04  
9250815U CSA 1/8 - 1/4 BIT 08  
9250816U CSA 1/8 - 1/4 BIT 012

| AUTOMATIC DRAIN | Code | Description |
|-----------------|------|-------------|
|-----------------|------|-------------|



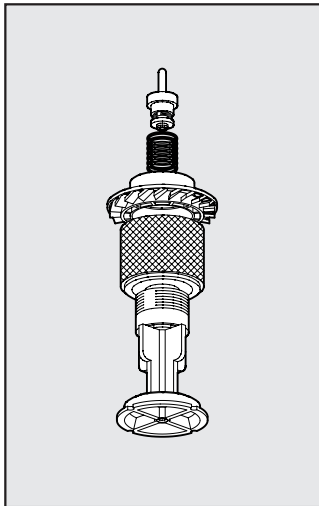
9000803U SPARES SAC BIT

| LUBRICATOR BOWL | Code | Description |
|-----------------|------|-------------|
|-----------------|------|-------------|



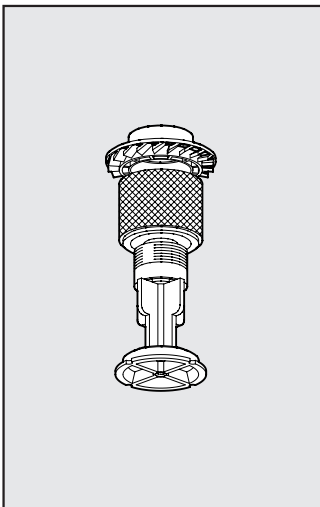
|         |                       |
|---------|-----------------------|
| 9251402 | SPARES TL 1/8 1/4 BIT |
|         |                       |
|         |                       |
|         |                       |
|         |                       |
|         |                       |
|         |                       |
|         |                       |
|         |                       |
|         |                       |
|         |                       |

| COMPLETE POPPET FOR FR | Code | Description |
|------------------------|------|-------------|
|------------------------|------|-------------|



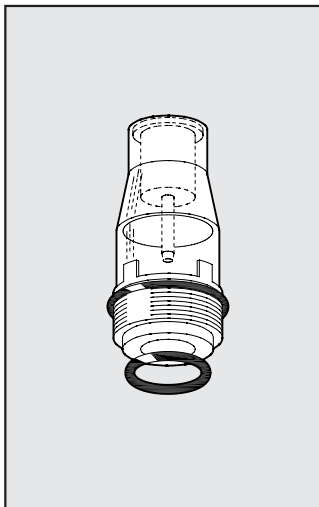
|         |                            |
|---------|----------------------------|
| 9250905 | SPARES OTFR 1/8 1/4 BIT 5  |
| 9250906 | SPARES OTFR 1/8 1/4 BIT 20 |
| 9250907 | SPARES OTFR 1/8 1/4 BIT 50 |
|         |                            |
|         |                            |
|         |                            |
|         |                            |
|         |                            |
|         |                            |
|         |                            |
|         |                            |
|         |                            |

| FILTER ELEMENT | Code | Description |
|----------------|------|-------------|
|----------------|------|-------------|



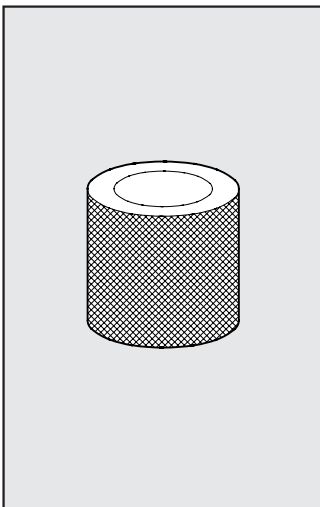
|         |                          |
|---------|--------------------------|
| 9251708 | SPARES FP 1/8-1/4 BIT 5  |
| 9251709 | SPARES FP 1/8-1/4 BIT 20 |
| 9251710 | SPARES FP 1/8-1/4 BIT 50 |
|         |                          |
|         |                          |
|         |                          |
|         |                          |
|         |                          |
|         |                          |
|         |                          |
|         |                          |
|         |                          |

| TRANSPARENT LUBRICATOR COVER | Code | Description |
|------------------------------|------|-------------|
|------------------------------|------|-------------|



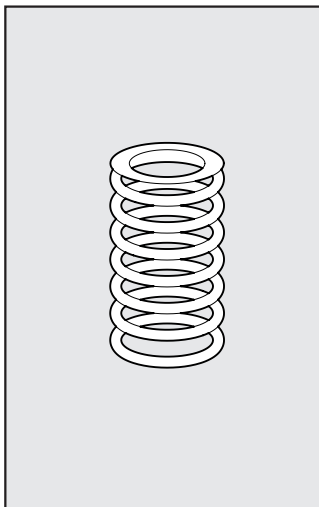
|         |                                   |
|---------|-----------------------------------|
| 9251302 | SPARES CVL<br>100-200-300-400 BIT |
|         |                                   |
|         |                                   |
|         |                                   |
|         |                                   |
|         |                                   |
|         |                                   |
|         |                                   |
|         |                                   |
|         |                                   |
|         |                                   |

| DEPURATOR FILTER ELEMENT | Code | Description |
|--------------------------|------|-------------|
|--------------------------|------|-------------|



|         |                                |
|---------|--------------------------------|
| 9251712 | SPARES KIT FP DEP. 1/8 1/4 BIT |
|         |                                |
|         |                                |
|         |                                |
|         |                                |
|         |                                |
|         |                                |
|         |                                |
|         |                                |
|         |                                |
|         |                                |

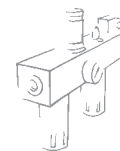
| SPRING FOR MR AND FR | Code | Description |
|----------------------|------|-------------|
|----------------------|------|-------------|



|         |                   |
|---------|-------------------|
| 9250610 | SPARES MO 02 BIT  |
| 9250611 | SPARES MO 04 BIT  |
| 9250612 | SPARES MO 08 BIT  |
| 9250613 | SPARES MO 012 BIT |
|         |                   |
|         |                   |
|         |                   |
|         |                   |
|         |                   |
|         |                   |
|         |                   |
|         |                   |
|         |                   |
|         |                   |

# Newdeal CONTENTS

## CHAPTER 3



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|                            |            |

# Newdeal

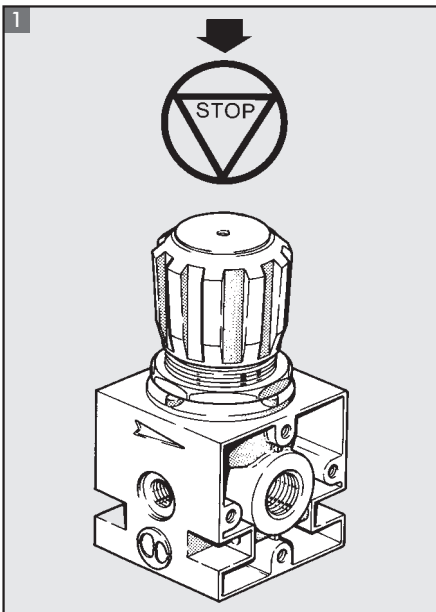
Newdeal is the forerunner of all air treatment units by Metal Work.

The entire range is top quality, heavy-duty and reliable. These units are designed for use at high pressures\* and in applications where the temperature and quality of the ambient area are critical.

\*For further details, refer to the Specification for the item in question.

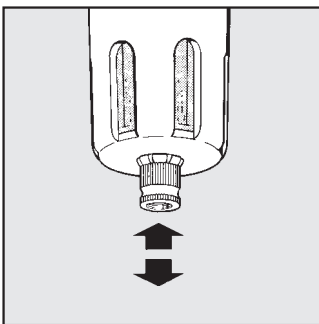
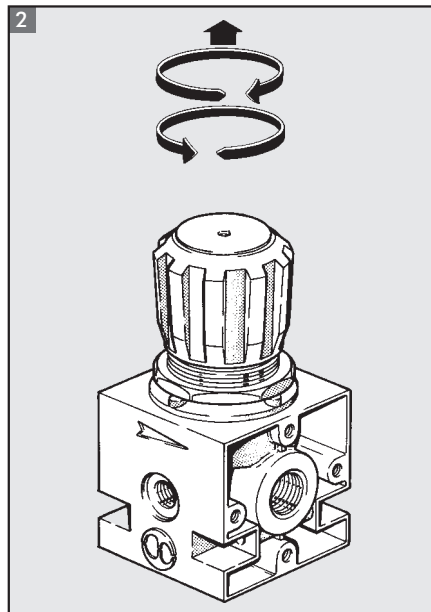


## GENERAL RULES - USE AND MAINTENANCE

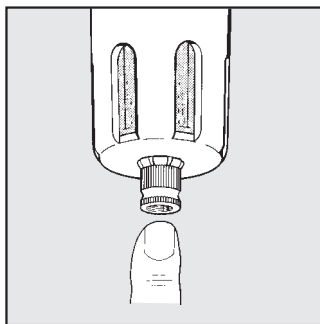


**1** The knob can be locked so that the set pressure cannot be altered.

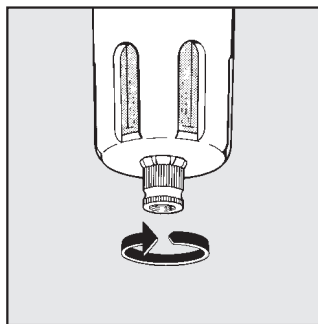
**2** The air pressure must always be set upwards.



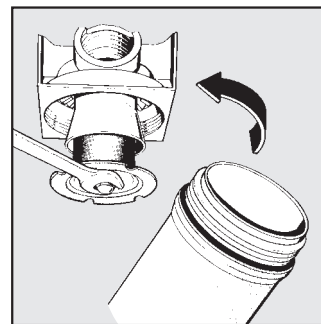
With the knob in the centre position, the drain is semi-automatic. The drain operates when the bowl is not pressurized and closes when it is.



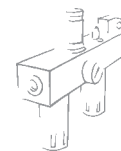
Press the button to drain condensate when the bowl is pressurized.



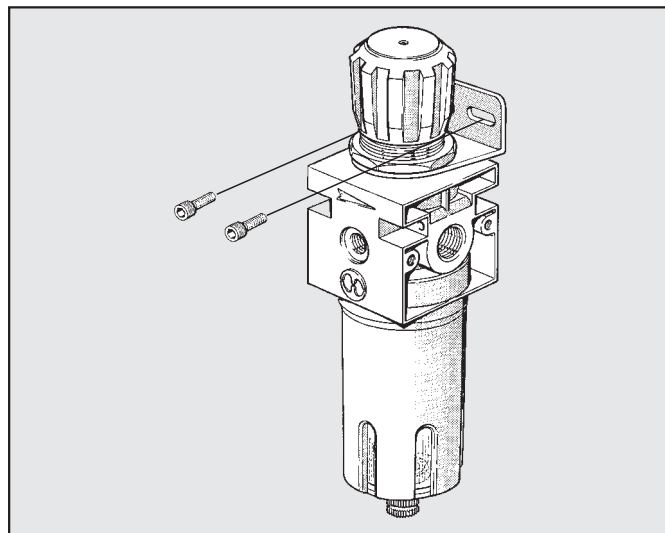
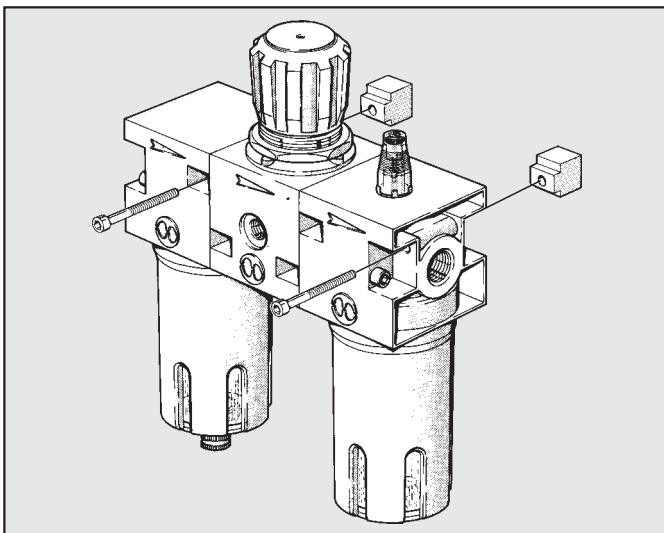
Turn the knob counter clockwise to close the valve with bowl pressurized or not pressurized.



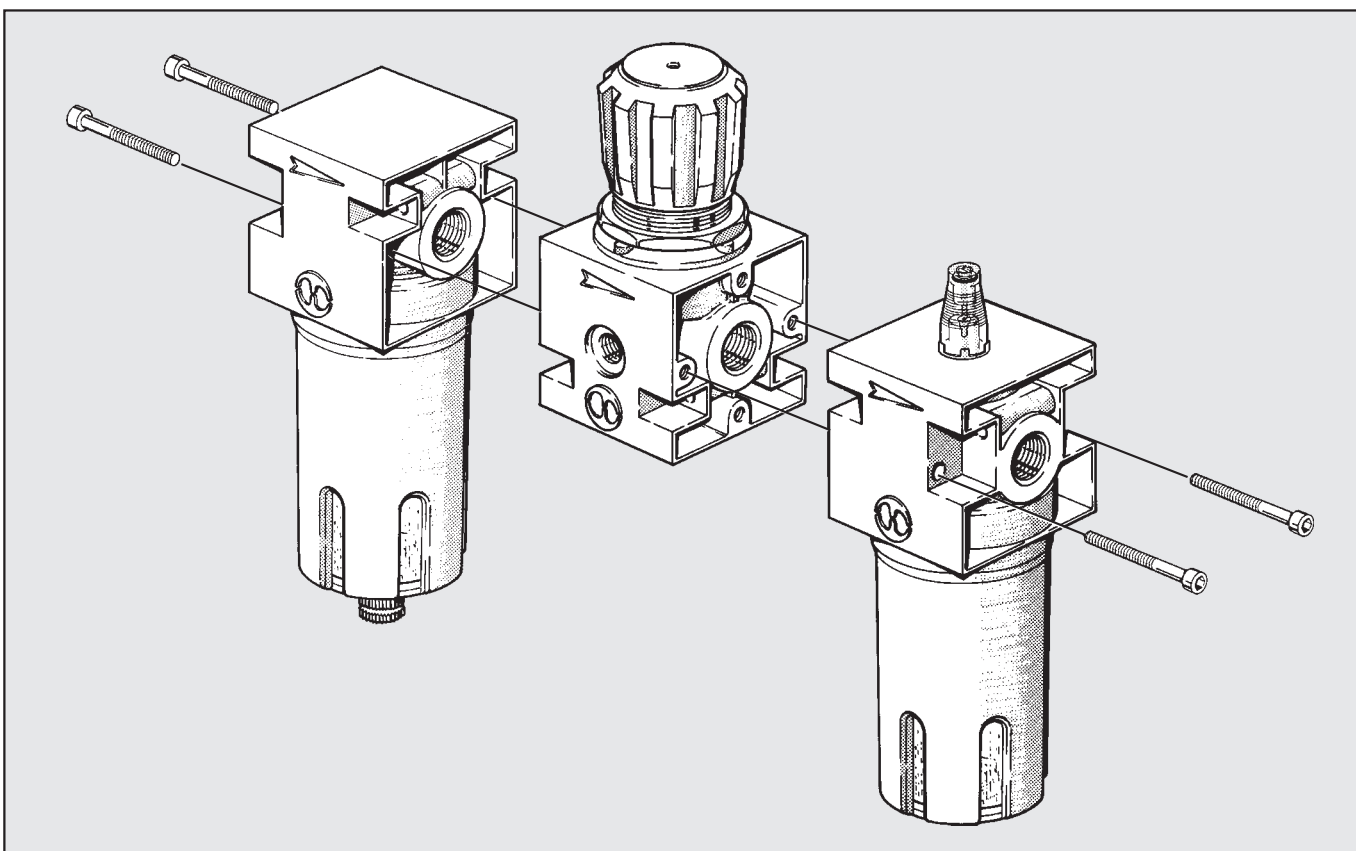
To clean or replace the filter element unscrew the screen of the centrifuge assembly. Use a wrench to unscrew the bowl.



## WALL MOUNTING

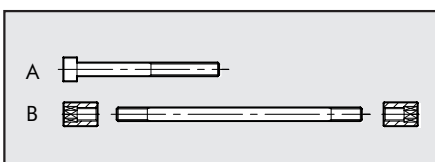


## ASSEMBLY DIAGRAM



3

## ASSEMBLY TIE RODS



| Elements that can be assembled | 1/4  |         |              | 3/8-1/2 |         |               | 3/4-1 |         |            |
|--------------------------------|------|---------|--------------|---------|---------|---------------|-------|---------|------------|
|                                | Type | Code    | Ref.         | Type    | Code    | Ref.          | Type  | Code    | Ref.       |
| F/L+R/FR                       | A    | 9250001 | CVA 1/4 4x40 | A       | 9450001 | CVA 1/2 5x55  | A     | 9650001 | CVA 1 6x70 |
| V3V+R/FR                       | A    | 9250001 | CVA 1/4 4x40 | A       | 9450002 | CVA 1/2 5x60  | -     | -       | -          |
| V3V+F/L+R/FR                   | A    | 9250002 | CVA 1/4 4x82 | A       | 9450003 | CVA 1/2 5x120 | -     | -       | -          |
| F/L/D+F/L/D                    | B    | 9200901 | F+LT 1/4     | B       | 9400901 | F+LT 3/8-1/2  | B     | 9600901 | F+LT 3/4-1 |
|                                |      |         |              |         |         |               |       |         |            |
|                                |      |         |              |         |         |               |       |         |            |

# Newdeal FILTER

Filter with different impurity filtration degrees.

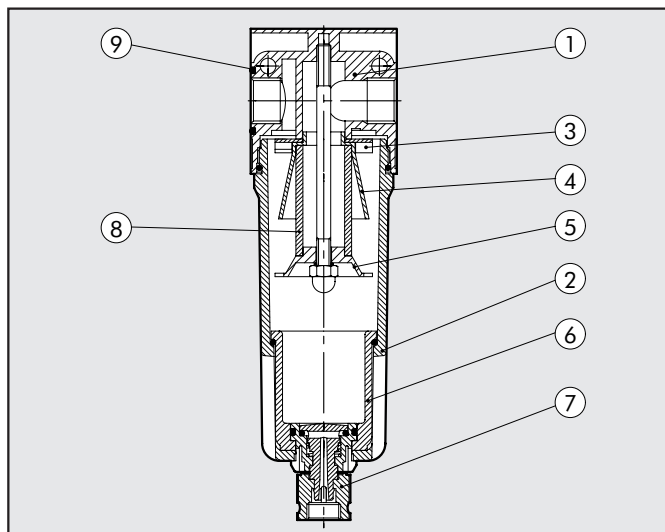
- Metal bowl with external viewing
- Semi-automatic and condensate drainage

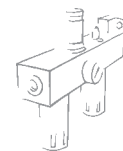


| TECHNICAL DATA                            |                | FIL. ND 1/4"                   | FIL. ND 3/8"       | FIL. ND 1/2"      | FIL. ND 3/4" | FIL. ND 1" |
|-------------------------------------------|----------------|--------------------------------|--------------------|-------------------|--------------|------------|
| Threaded port                             | NPT            | 1/4"                           | 3/8"               | 1/2"              | 3/4"         | 1"         |
| Degree of filtration                      | micron         | 5μm, 20μm, 50μm                |                    |                   |              |            |
| Max. inlet pressure                       | MPa            | 1.8                            |                    |                   |              |            |
|                                           | bar            | 18                             |                    |                   |              |            |
|                                           | psi            | 261                            |                    |                   |              |            |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min         | 1300                           | 3100               | 9100              |              |            |
| ΔP 0.5 bar (0.05 MPa – 7 psi)             | scfm           | 46                             | 110                | 324               |              |            |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min         | 1720                           | 4100               | 11000             |              |            |
| ΔP 1 bar (0.1 MPa – 14 psi)               | scfm           | 61                             | 146                | 391               |              |            |
| Fluid                                     |                | Compressed air                 |                    |                   |              |            |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C             | 50°                            |                    |                   |              |            |
|                                           | °F             | 122°                           |                    |                   |              |            |
| Weight                                    | pounds         | 0.9                            | 2                  | 4.2               |              |            |
| Wall fixing screws                        |                | N. 8-32 unc x 1.57             | N. 8-32 unc x 2.16 | 1/4-20 unc x 2.95 |              |            |
| Mounting position                         |                | Vertical                       |                    |                   |              |            |
| Drain                                     |                | Manual - Semi-auto - Automatic |                    |                   |              |            |
| Bowl capacity                             | fluid ounce oz | .34                            | 1.52               | 5.75              |              |            |

## COMPONENTS

- ① Zamak body
- ② Aluminium bowl
- ③ Technopolymer centrifuge
- ④ Technopolymer baffle plug
- ⑤ Technopolymer screen
- ⑥ Clear technopolymer bowl
- ⑦ Drain (RMSA)
- ⑧ Sintered bronze filter cartridge
- ⑨ NBR gaskets

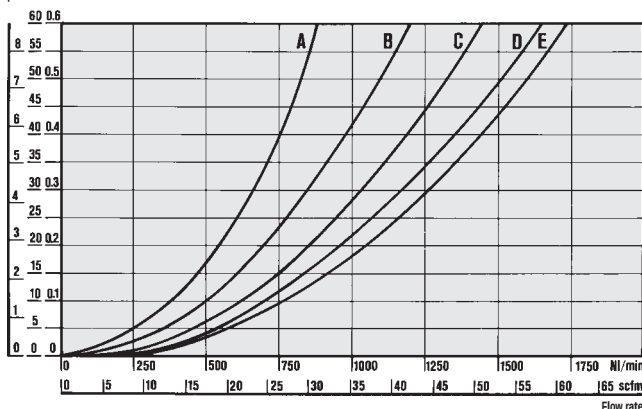




## FLOW CHARTS

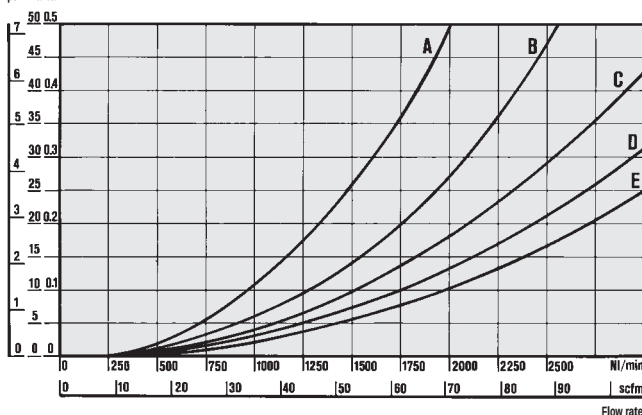
### FIL 1/4

$\Delta P = (P_m - P_v)$   
psi KPa bar

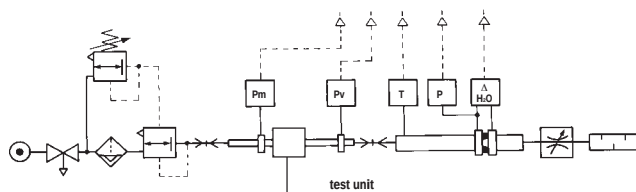


### FIL 3/8 - 1/2

$\Delta P = (P_m - P_v)$   
psi KPa bar



Department  
of Mechanics  
Turin Polytechnic



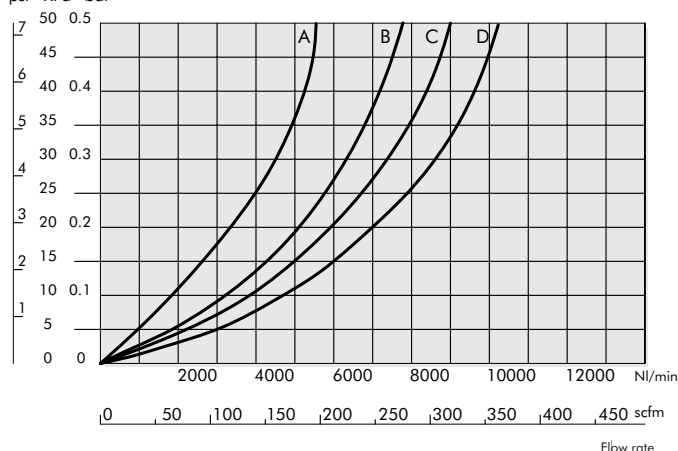
• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

(A) = 2 bar - 0,2 MPa - 29 psi (D) = 8 bar - 0,8 MPa - 116 psi  
(B) = 4 bar - 0,4 MPa - 58 psi (E) = 10 bar - 1 MPa - 145 psi  
(C) = 6 bar - 0,6 MPa - 87 psi

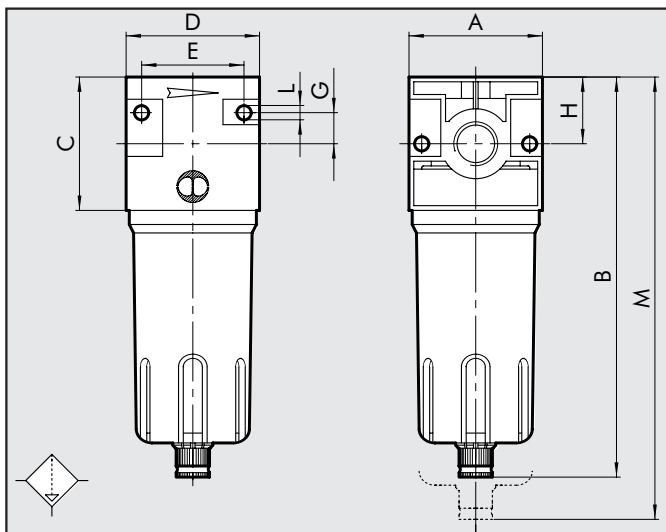
### FIL 3/4 - 1"

$\Delta P = (P_m - P_v)$

psi KPa bar



## DIMENSIONS



|   | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 3/4 | NPT 1" |
|---|---------|---------|---------|---------|--------|
| A | 1.65    | 2.36    |         | 3.14    |        |
| B | 5.59    | 7.08    |         | 9.25    |        |
| C | 1.65    | 2.36    |         | 3.14    |        |
| D | 1.65    | 2.36    |         | 3.14    |        |
| E | 1.25    | 1.81    |         | 2.59    |        |
| G | 0.39    | 0.55    |         | 0.86    |        |
| H | 0.82    | 1.18    |         | 1.57    |        |
| L | 0.17    | 0.17    |         | 0.29    |        |
| M | 7.28    | 9.05    |         | 12.79   |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |

## KEY TO CODES

| FIL     | 1/4               | 4µm                  | RMSA                     | RMSA: Manual/semi-auto drain<br>SAC: Automatic drain. Operates by depressurization – requires variable air take-offs.<br><br>RA: Automatic drain. Float-type operation irrespective of the pressure and flow rate. |
|---------|-------------------|----------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELEMENT | THREADED PORT     | DEGREE OF FILTRATION | TYPE OF CONDENSATE DRAIN |                                                                                                                                                                                                                    |
| FIL     | 1/4<br>3/8<br>1/2 | 4µm<br>20µm<br>50µm  | RMSA<br>SAC              |                                                                                                                                                                                                                    |
|         | 3/4<br>1          |                      | RMSA<br>RA               |                                                                                                                                                                                                                    |

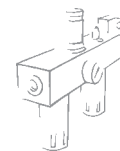
## ORDERING CODES

| Code     | Description         |
|----------|---------------------|
| 1221005U | FIL 1/4 4 RMSA TMV  |
| 1221013U | FIL 1/4 4 SAC TMV   |
| 1221006U | FIL 1/4 20 RMSA TMV |
| 1221014U | FIL 1/4 20 SAC TMV  |
| 1221008U | FIL 1/4 50 RMSA TMV |
| 1221016U | FIL 1/4 50 SAC TMV  |
| 1321005U | FIL 3/8 4 RMSA TMV  |
| 1321013U | FIL 3/8 4 SAC TMV   |
| 1321006U | FIL 3/8 20 RMSA TMV |
| 1321014U | FIL 3/8 20 SAC TMV  |
| 1321008U | FIL 3/8 50 RMSA TMV |
| 1321016U | FIL 3/8 50 SAC TMV  |
| 1421005U | FIL 1/2 4 RMSA TMV  |
| 1421013U | FIL 1/2 4 SAC TMV   |
| 1421006U | FIL 1/2 20 RMSA TMV |
| 1421014U | FIL 1/2 20 SAC TMV  |
| 1421008U | FIL 1/2 50 RMSA TMV |
| 1421016U | FIL 1/2 50 SAC TMV  |
| 1521005U | FIL 3/4 4 RMSA TMV  |
| 1521009U | FIL 3/4 4 RA TMV    |
| 1521006U | FIL 3/4 20 RMSA TMV |
| 1521010U | FIL 3/4 20 RA TMV   |
| 1521008U | FIL 3/4 50 RMSA TMV |
| 1521012U | FIL 3/4 50 RA TMV   |
| 1621005U | FIL 1 4 RMSA TMV    |
| 1621009U | FIL 1 4 RA TMV      |
| 1621006U | FIL 1 20 RMSA TMV   |
| 1621010U | FIL 1 20 RA TMV     |
| 1621008U | FIL 1 50 RMSA TMV   |
| 1621012U | FIL 1 50 RA TMV     |

## NOTES



# Newdeal REGULATOR



Highly reliable, heavy-duty piston-operated regulator.

- Stability of the set pressure as the upstream pressure varies
- Standard overpressure blowoff valve
- Can be fixed to the wall using the holes in the sides of the body.

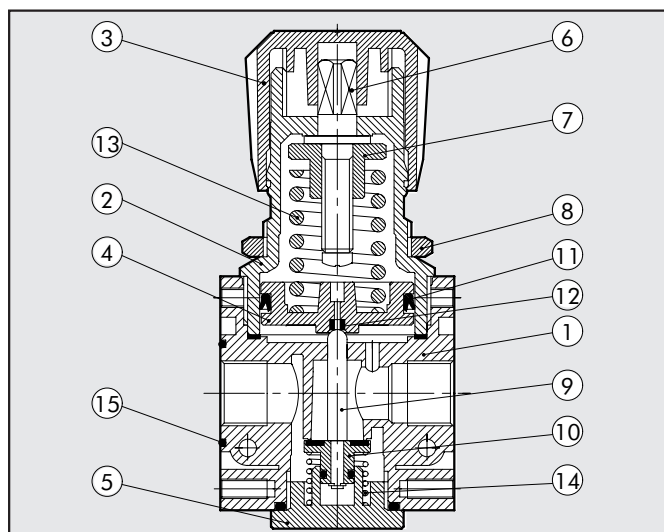


| TECHNICAL DATA                            |        | REG. ND 1/4"                                                                                                                                                                                                   | REG. ND 3/8"       | REG. ND 1/2"    | REG. ND 3/4" | REG. ND 1" |
|-------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|--------------|------------|
| Threaded port                             | NPT    | 1/4"                                                                                                                                                                                                           | 3/8"               | 1/2"            | 3/4"         | 1"         |
| Setting range                             | bar    | 0÷30 - 0÷60 - 0÷120 - 0÷180                                                                                                                                                                                    |                    |                 |              |            |
| Max. inlet pressure                       | MPa    | 1.8                                                                                                                                                                                                            |                    |                 |              |            |
|                                           | bar    | 18                                                                                                                                                                                                             |                    |                 |              |            |
|                                           | psi    | 261                                                                                                                                                                                                            |                    |                 |              |            |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min | 200                                                                                                                                                                                                            | 1100               | 2500            | 4500         |            |
| ΔP 0.5 bar (0.05 MPa – 7 psi)             | scfm   | 7                                                                                                                                                                                                              | 39                 | 89              | 160          |            |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min | 650                                                                                                                                                                                                            | 2500               | 4500            |              |            |
| ΔP 1 bar (0.1 MPa – 14 psi)               | scfm   | 23                                                                                                                                                                                                             | 89                 |                 |              |            |
| Fluid                                     |        | Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous                                                                                                                  |                    |                 |              |            |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C     | 50°                                                                                                                                                                                                            |                    |                 |              |            |
|                                           | °F     | 122°                                                                                                                                                                                                           |                    |                 |              |            |
| Weight                                    | pounds | 0.7                                                                                                                                                                                                            | 1.8                | 4.8             |              |            |
| Wall fixing screws                        |        | N. 8-32 unc x 1.57                                                                                                                                                                                             | N. 8-32 unc x 2.16 | 1/4-20 unc 2.95 |              |            |
| Mounting                                  |        | In any position                                                                                                                                                                                                |                    |                 |              |            |
| Gauge port                                |        | G 1/8"                                                                                                                                                                                                         | G 1/8"             | G 1/4"          |              |            |
| Notes:                                    |        | The regulator pressure must always be set upwards. For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value. Do not take off air from gauge ports. |                    |                 |              |            |

3

## COMPONENTS

- ① Zamak body
- ② Technopolymer bell
- ③ Technopolymer knob
- ④ Technopolymer piston rod
- ⑤ Technopolymer plug
- ⑥ OT58 brass adjusting screw
- ⑦ OT58 brass nut
- ⑧ Brass securing ring nut for 3/8"-1/2" and 3/4"-1" in technopolymer for 1/4"
- ⑨ OT brass rod
- ⑩ Valve with NBR vulcanized gasket
- ⑪ NBR lip seal
- ⑫ NBR relieving seal
- ⑬ Steel adjusting spring
- ⑭ Steel valve compression spring
- ⑮ NBR gaskets

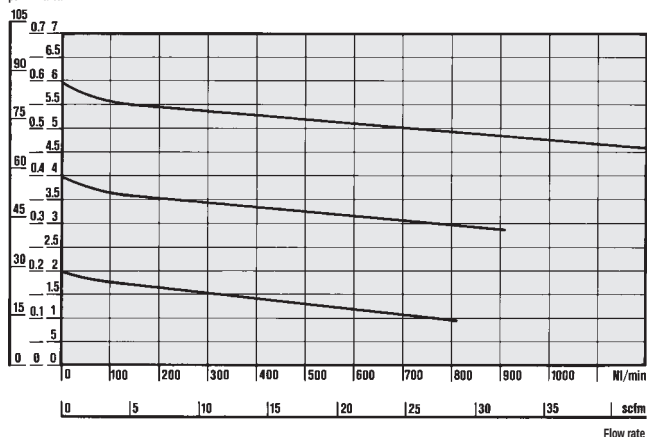


## FLOW CHARTS

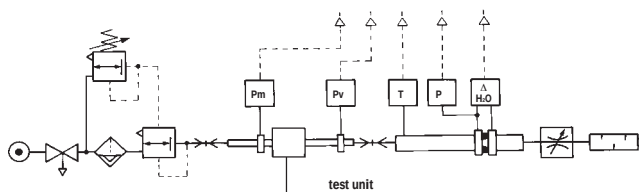
### REG 1/4

P<sub>m</sub> = 0,7 MPa; 7 bar; 102 psi  
Inlet pressure

psi MPa bar



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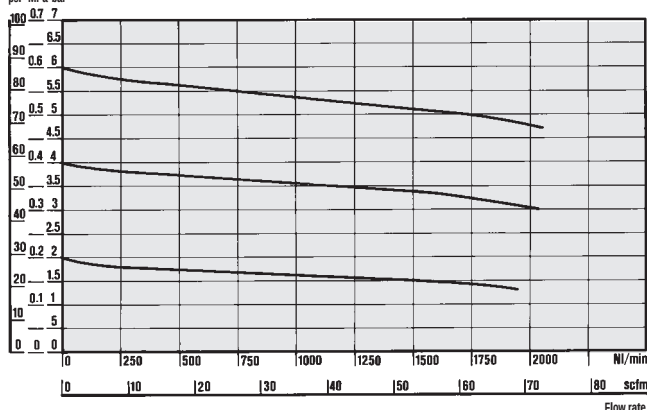


- Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

### REG 3/8 - 1/2

P<sub>m</sub> = 0,7 MPa; 7 bar; 102 psi  
Inlet pressure

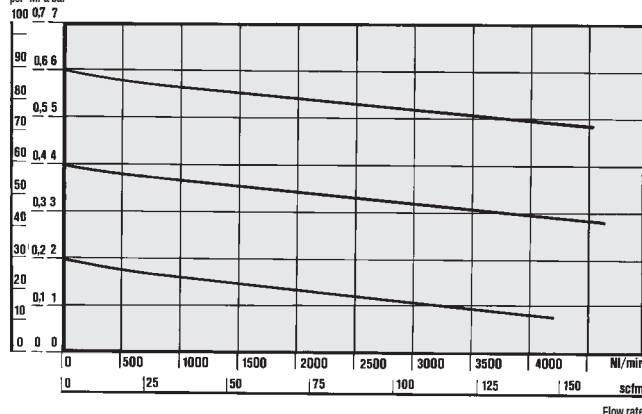
psi MPa bar



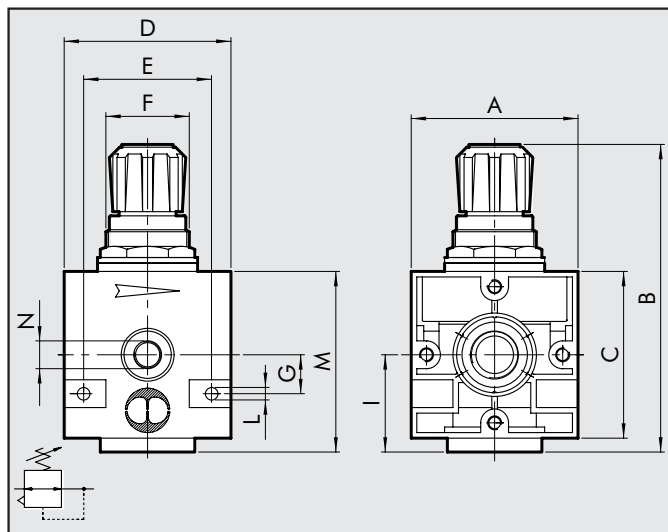
### REG 3/4 - 1"

P<sub>m</sub> = 0,7 MPa; 7 bar; 102 psi  
Inlet pressure

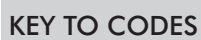
psi MPa bar



## DIMENSIONS



|   | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 3/4 | NPT 1" |
|---|---------|---------|---------|---------|--------|
| A | 1.65    | 2.36    |         | 3.14    |        |
| B | 3.70    | 5.11    |         | 7.24    |        |
| C | 1.65    | 2.36    |         | 3.14    |        |
| D | 1.65    | 2.36    |         | 3.14    |        |
| E | 1.25    | 1.81    |         | 2.59    |        |
| F | 30x1.5  | 38x2    |         | 55x2    |        |
| G | 0.39    | 0.55    |         | 0.86    |        |
| I | 0.98    | 1.37    |         | 1.85    |        |
| L | 0.17    | 0.17    |         | 0.29    |        |
| M | 1.92    | 2.75    |         | 3.70    |        |
| N | 1/8 NPT | 1/8 NPT |         | 1/4 NPT |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |
|   |         |         |         |         |        |



## ORDERING CODES

## NOTES

## NOTES

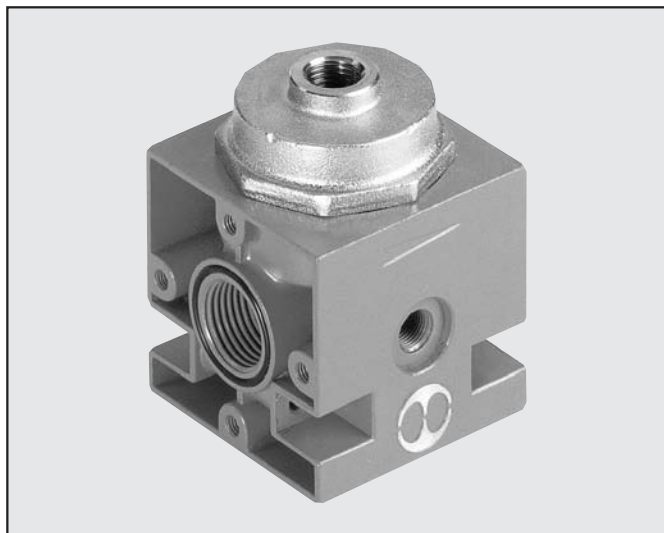
3

# New deal

## PILOT-ASSISTED REGULATOR

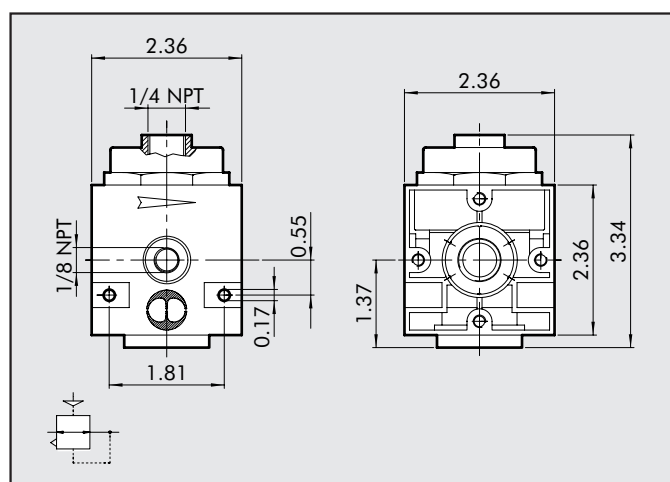
Remote pilot-assisted piston regulator for heavy-duty use.

- Stability of the set pressure as the upstream pressure varies;
- Can be fixed to the wall using the holes in the sides of the body.



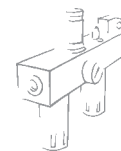
| TECHNICAL DATA                            |        | REG. PIL. 3/8" 1/2"                                                                              |
|-------------------------------------------|--------|--------------------------------------------------------------------------------------------------|
| Threaded port                             | NPT    | 3/8"-1/2"                                                                                        |
| Setting range                             | bar    | Depending on pilot                                                                               |
| Max. inlet pressure                       | MPa    | 1.8                                                                                              |
|                                           | bar    | 18                                                                                               |
|                                           | psi    | 261                                                                                              |
| Flow rate at 6 bar (0,6 MPa ÷ 87 psi)     | NI/min | 3500                                                                                             |
| ΔP 0,5 bar (0,05 MPa ÷ 7 psi)             | scfm   | 124                                                                                              |
| Flow rate at 6 bar (0,6 MPa ÷ 87 psi)     | NI/min | 4500                                                                                             |
| ΔP 1 bar (0,1 MPa ÷ 14 psi)               | scfm   | 160                                                                                              |
| Fluid                                     |        | Filtered, lubricated or unlubricated compressed air.<br>Lubrication, if used, must be continuous |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C     | 50                                                                                               |
|                                           | °F     | 122                                                                                              |
| Weight                                    | pounds | 1.76                                                                                             |
| Wall fixing screws                        |        | N. 8-32 unc x 2.16                                                                               |
| Mounting                                  |        | In any position                                                                                  |
| Gauge port                                |        | NPT 1/8"                                                                                         |
| Notes:                                    |        | The regulator pressure must always be set upwards.<br>Overpressure relieving from the pilot.     |

### DIMENSIONS



### ORDERING CODES

| Code     | Description                     |
|----------|---------------------------------|
| 1302004U | RP 3/8 PILOT-ASSISTED REGULATOR |
| 1402004U | RP 1/2 PILOT-ASSISTED REGULATOR |



# Newdeal FILTER REGULATOR

Highly reliable piston-operated filter regulator.

- Stability of the set pressure as the upstream pressure varies
- Standard overpressure relief valve
- Can be fixed to the wall using the holes in the sides of the body
- Metal bowl with external viewing
- Manual/semi-auto or automatic condensate drainage

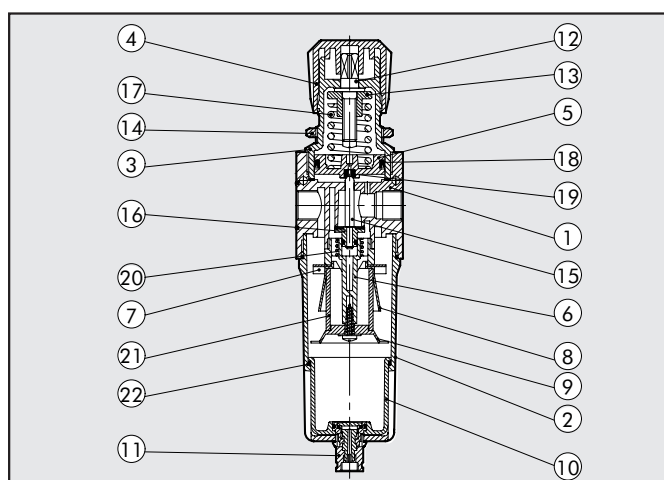


| TECHNICAL DATA                            |                | FR ND 1/4                                          | FR ND 3/8"         | FR ND 1/2" |
|-------------------------------------------|----------------|----------------------------------------------------|--------------------|------------|
| Threaded port                             | NPT            | 1/4"                                               | 3/8"               | 1/2"       |
| Setting range                             | psi bar        | 0÷30 - 0÷60 - 0÷120 - 0÷180                        |                    |            |
| Degree of filtration                      | micron         | 5µm, 20µm, 50µm                                    |                    |            |
| Max. inlet pressure                       | MPa            | 1.8                                                |                    |            |
|                                           | bar            | 18                                                 |                    |            |
|                                           | psi            | 261                                                |                    |            |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | Nl/min         | 260                                                | 1000               |            |
| ΔP 0,5 bar (0,05 MPa÷7 psi)               | scfm           | 9.2                                                | 35.5               |            |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | Nl/min         | 700                                                | 2500               |            |
| ΔP 1 bar (0,1 MPa÷14 psi)                 | scfm           | 25                                                 | 88.5               |            |
| Fluid                                     |                | Compressed air                                     |                    |            |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C             | 50°                                                |                    |            |
|                                           | °F             | 122°                                               |                    |            |
| Weight                                    | pounds         | 1.1                                                | 2.20               |            |
| Wall fixing screws                        |                | N. 8-32 unc x 1.57                                 | N. 8-32 unc x 2.16 |            |
| Mounting position                         |                | Vertical                                           |                    |            |
| Gauge port                                |                | NPT 1/8"                                           | NPT 1/8"           |            |
| Bowl capacity                             | fluid ounce oz | .34                                                | 1.52               |            |
| Condensate drain                          |                | Manual – Semi-automatic - Automatic                |                    |            |
| Notes:                                    |                | The regulator pressure must always be set upwards. |                    |            |

3

## COMPONENTS

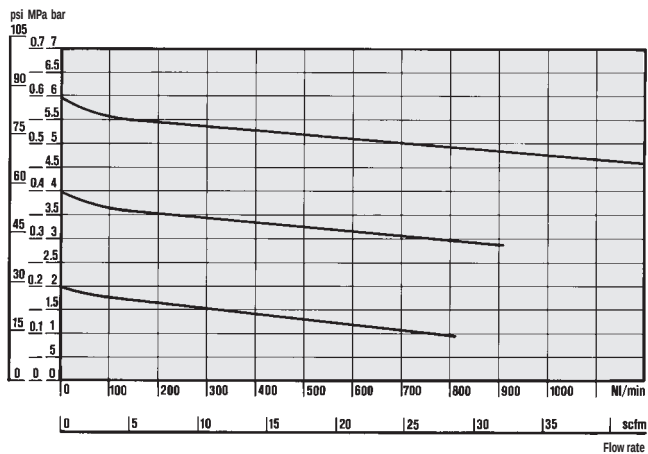
- |                                                                              |                                    |
|------------------------------------------------------------------------------|------------------------------------|
| ① Zamak body                                                                 | ⑮ OT58 brass rod                   |
| ② Aluminium bowl                                                             | ⑯ Valve with NBR vulcanized gasket |
| ③ Technopolymer bell                                                         | ⑰ Steel adjusting spring           |
| ④ Technopolymer knob                                                         | ⑱ NBR lip seal                     |
| ⑤ Technopolymer piston rod                                                   | ⑲ NBR relieving seal               |
| ⑥ Technopolymer plug                                                         | ⑳ Steel valve compression spring   |
| ⑦ Technopolymer centrifuge                                                   | ㉑ Sintered bronze filter cartridge |
| ⑧ Technopolymer baffle plug                                                  | ㉒ NBR gaskets                      |
| ⑨ Technopolymer screen                                                       |                                    |
| ⑩ Technopolymer bowl                                                         |                                    |
| ⑪ Drain (RMSA)                                                               |                                    |
| ⑫ OT 58 adjustind screw                                                      |                                    |
| ⑬ OT 58 brass nut                                                            |                                    |
| ⑭ OT 58 brass securing ring nut for 3/8-1/2 e 3/4-1 in technopolymer for 1/4 |                                    |



## FLOW CHARTS

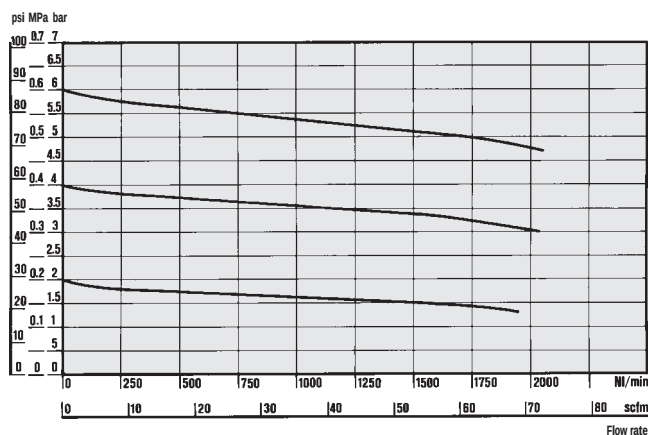
### FR 1/4

$P_{in} = 0,7 \text{ MPa}$ ; 7 bar; 102 psi  
Inlet pressure

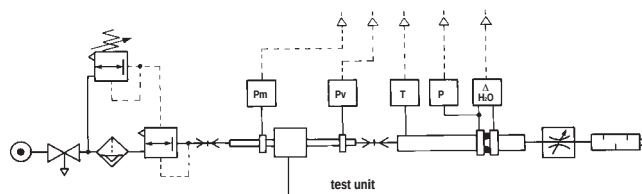


### FR 3/8 - 1/2

$P_{in} = 0,7 \text{ MPa}$ ; 7 bar; 102 psi  
Inlet pressure

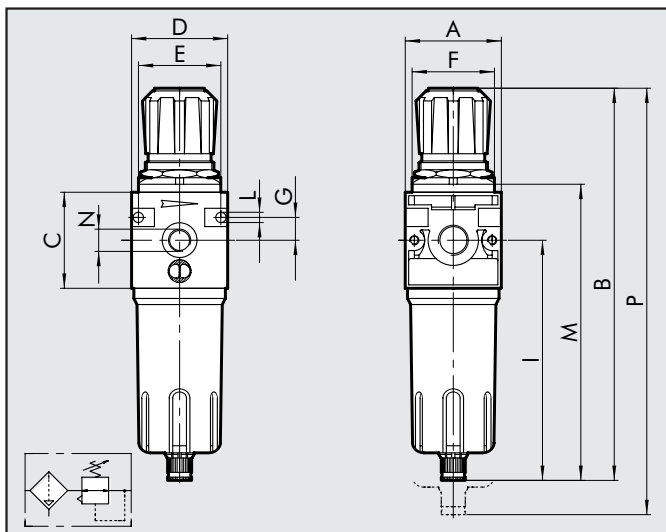


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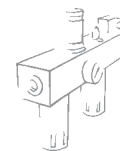


- Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

## DIMENSIONS



|   | NPT 1/4 | NPT 3/8 | NPT 1/2 |
|---|---------|---------|---------|
| A | 1.65    | 2.36    |         |
| B | 7.48    | 9.64    |         |
| C | 1.65    | 2.36    |         |
| D | 1.65    | 2.39    |         |
| E | 1.41    | 2.04    |         |
| F | 30x1.5  | 38x2    |         |
| G | 0.39    | 0.55    |         |
| I | 4.76    | 5.90    |         |
| L | 0.17    | 0.17    |         |
| M | 5.70    | 7.28    |         |
| N | 1/8 NPT | 1/8 NPT |         |
| P | 9.17    | 11.6    |         |
|   |         |         |         |
|   |         |         |         |
|   |         |         |         |
|   |         |         |         |



## KEY TO CODES

| FR<br>ELEMENT | 1/4<br>THREADED<br>PORT | 4µm<br>DEGREE OF<br>FILTRATION | 02<br>SETTING<br>RANGE                                              | RMSA<br>CONDENSATE<br>DRAIN |
|---------------|-------------------------|--------------------------------|---------------------------------------------------------------------|-----------------------------|
| FR            | 1/4<br>3/8<br>1/2       | 4µm<br>20µm<br>50µm            | 02 = 0÷30 psi<br>04 = 0÷60 psi<br>08 = 0÷120 psi<br>012 = 0÷180 psi | RMSA<br>SAC                 |

RMSA: Manual/semi-auto drain.  
SAC: Automatic drain. Operates by depres-  
surization - requires variable air take-  
offs.

## ORDERING CODES

Code Description

1225029U FR 1/4 4 08 RMSA TMV  
1225509U FR 1/4 4 08 SAC TMV  
1225053U FR 1/4 4 012 RMSA TMV  
1225513U FR 1/4 4 012 SAC TMV  
1225030U FR 1/4 20 08 RMSA TMV  
1225510U FR 1/4 20 08 SAC TMV  
1225054U FR 1/4 20 012 RMSA TMV  
1225514U FR 1/4 20 012 SAC TMV  
1225032U FR 1/4 50 08 RMSA TMV  
1225511U FR 1/4 50 08 SAC TMV  
1225056U FR 1/4 50 012 RMSA TMV  
1225516U FR 1/4 50 012 SAC TMV  
1325029U FR 3/8 4 08 RMSA TMV  
1325509U FR 3/8 4 08 SAC TMV  
1325053U FR 3/8 4 012 RMSA TMV  
1325513U FR 3/8 4 012 SAC TMV  
1325030U FR 3/8 20 08 RMSA TMV  
1325510U FR 3/8 20 08 SAC TMV  
1325054U FR 3/8 20 012 RMSA TMV  
1325514U FR 3/8 20 012 SAC TMV  
1325032U FR 3/8 50 08 RMSA TMV  
1325512U FR 3/8 50 08 SAC TMV  
1325056U FR 3/8 50 012 RMSA TMV  
1325516U FR 3/8 50 012 SAC TMV  
1425029U FR 1/2 4 08 RMSA TMV  
1425509U FR 1/2 4 08 SAC TMV  
1425053U FR 1/2 4 012 RMSA TMV  
1425513U FR 1/2 4 012 SAC TMV  
1425030U FR 1/2 20 08 RMSA TMV  
1425510U FR 1/2 20 08 SAC TMV  
1425054U FR 1/2 20 012 RMSA TMV  
1425514U FR 1/2 20 012 SAC TMV  
1425032U FR 1/2 50 08 RMSA TMV  
1425512U FR 1/2 50 08 SAC TMV  
1425056U FR 1/2 50 012 RMSA TMV  
1425516U FR 1/2 50 012 SAC TMV

## NOTES

# Newdeal LUBRICATOR

Lubricator with high lubrication stability.

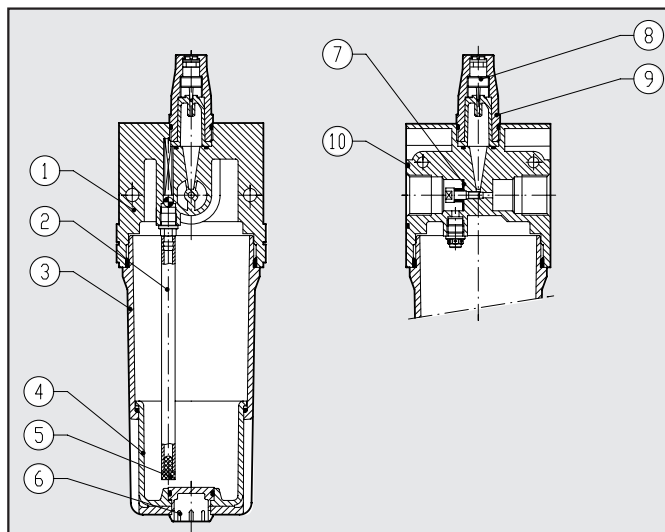
- Quantity of lubricant proportioned to air flow
- Micrometric regulation of lubricant flow
- Activates at low flow rates
- All-round oil level viewing



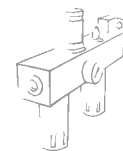
| TECHNICAL DATA                            |                | LUB ND 1/4"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LUB ND 3/8"        | LUB ND 1/2"       | LUB ND 3/4" | LUB ND 1" |
|-------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------|-------------|-----------|
| Threaded port                             | NPT            | 1/4"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3/8"               | 1/2"              | 3/4"        | 1"        |
| Type of lubrication                       |                | mist                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                   |             |           |
| Bowl capacity                             | fluid ounce oz | 3.05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 9.15               | 23.18             |             |           |
| Max. inlet pressure                       |                | 1.8 MPa - 18 bar - 261 psi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                   |             |           |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | NI/min         | 700                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3000               | 12800             |             |           |
| ΔP 0,5 bar (0,05 MPa÷7 psi)               | scfm           | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 107                | 452               |             |           |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | NI/min         | 1100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4300               | 16000             |             |           |
| ΔP 1 bar (0,1 MPa÷14 psi)                 | scfm           | 39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 153                | 565               |             |           |
| Fluid                                     |                | Filtered compressed air                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                   |             |           |
| Max temperature at 1 MPa; 10 bar; 145 psi |                | 50°C - 122°F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                   |             |           |
| Weight                                    | pounds         | 0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2.2                | 2.2               |             |           |
| Wall fixing screws                        |                | N. 8-32 unc x 1.57                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N. 8-32 unc x 2.16 | 1/4-20 unc x 2.95 |             |           |
| Mounting position                         |                | Vertical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                   |             |           |
| Notes:                                    |                | <ul style="list-style-type: none"> <li>• Use the screw provided to set the drip rate to drop every 300-600 NI.</li> <li>• Fit the lubricator as close as possible to the point of use</li> <li>• Fill the bowl with oil before pressurizing the system</li> <li>• Do not use cleaning oil, brake fluid or solvents in general</li> <li>• Recommended lubricants:<br/>ISO and UNI FD22 - E.g. Energol HLP 22 (BP) - Spinesso 22 (Esso) - Mobil DTE 22 (Mobil) - Tellus Oil 22 (Shell)</li> <li>• Automatic filling lubricator and minimum level lubricator.</li> </ul> |                    |                   |             |           |

## COMPONENTS:

- ① Zamak body
- ② Nylon oil suction pipe
- ③ Aluminium bowl
- ④ Clear technopolymer bowl
- ⑤ Filter
- ⑥ Technopolymer plug
- ⑦ Venturi NBR diaphragm
- ⑧ OT 58 brass oil flow regulation needle
- ⑨ Clear technopolymer cover
- ⑩ NBR gaskets



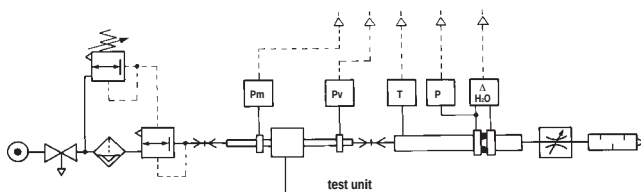




## FLOW CHARTS



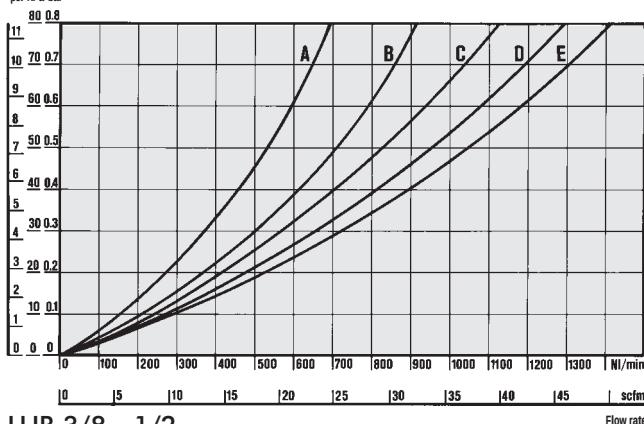
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of Mechanics  
Turin Polytechnic



### LUB 1/4

$$\Delta P = (P_m - P_v)$$

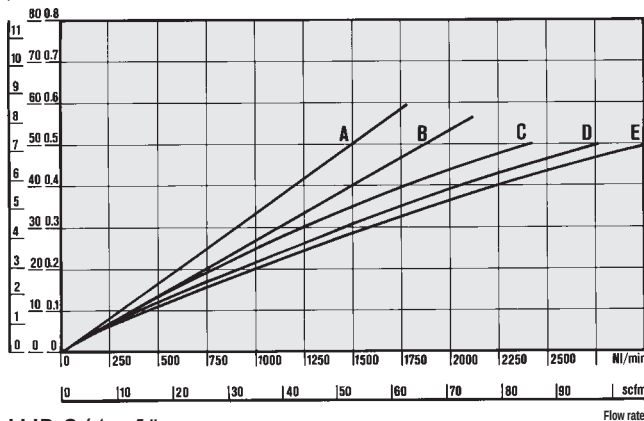
psi KPa bar



### LUB 3/8 - 1/2

$$\Delta P = (P_m - P_v)$$

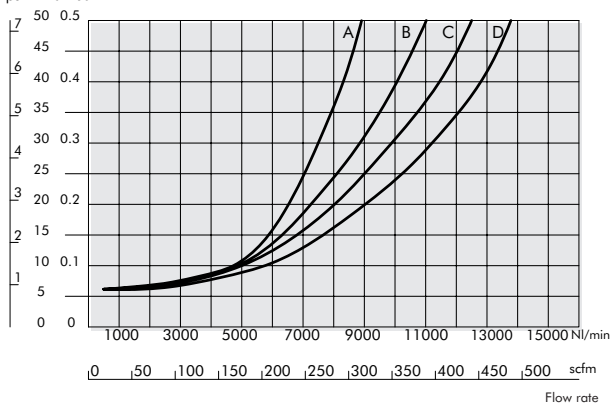
psi KPa bar



### LUB 3/4 - 1"

$$\Delta P = (P_m - P_v)$$

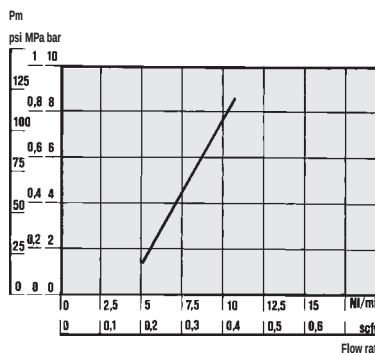
psi KPa bar



• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

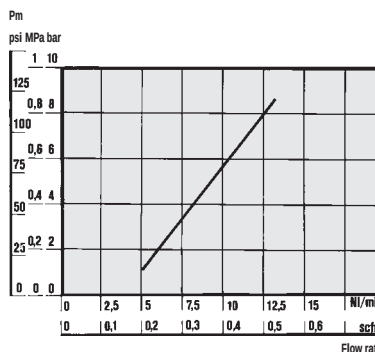
(A) = 2 bar - 0,2 MPa - 29 psi  
(B) = 4 bar - 0,4 MPa - 58 psi  
(C) = 6 bar - 0,6 MPa - 87 psi

(D) = 8 bar - 0,8 MPa - 116 psi  
(E) = 10 bar - 1 MPa - 145 psi



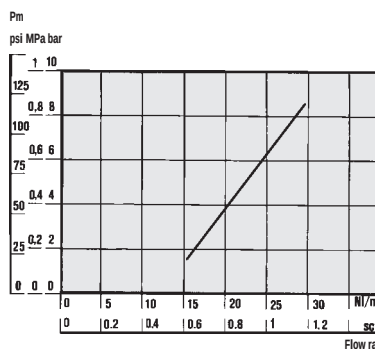
### • MINIMUM ACTIVATION FLOW CHARTS

The minimum activation flow charts were carried out in compliance with ISO/DP 6301/2



### • MINIMUM ACTIVATION FLOW CHARTS

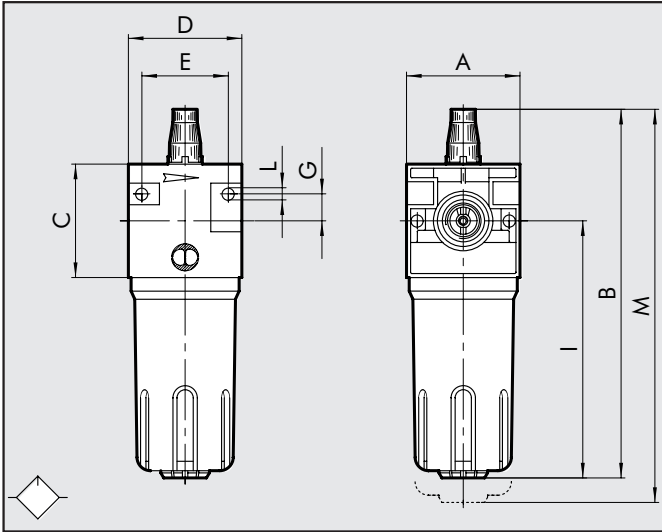
The minimum activation flow charts were carried out in compliance with ISO/DP 6301/2



### • MINIMUM ACTIVATION FLOW CHARTS

The minimum activation flow charts were carried out in compliance with ISO/DP 6301/2

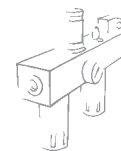
|            |         |         |         |         |        |
|------------|---------|---------|---------|---------|--------|
| DIMENSIONS | NPT 1/4 | NPT 3/8 | NPT 1/2 | NPT 3/4 | NPT 1" |
|------------|---------|---------|---------|---------|--------|

[illegible]

## ORDERING CODES

| Code     | Description   |
|----------|---------------|
| 1223001U | LUB 1/4 N TMV |
| 1323001U | LUB 3/8 N TMV |
| 1423001U | LUB 1/2 N TMV |
| 1523001U | LUB 3/4 N TMV |
| 1623001U | LUB 1 N TMV   |

## NOTES



# Newdeal COALESCER

- Oil-proof coalescer with coalescing cartridge
- Metal bowl with external viewing
  - Manual/semi-auto or automatic condensate drain

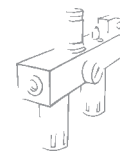


| TECHNICAL DATA                            |                | DEP ND 3/8"                                                                           | DEP ND 1/2" |
|-------------------------------------------|----------------|---------------------------------------------------------------------------------------|-------------|
| Threaded port                             | NPT            | 3/8"                                                                                  | 1/2"        |
| Degree of depuration                      |                | 99,97% at 0.01 micron                                                                 |             |
| Max. inlet pressure                       |                | 1.8 MPa - 18 bar - 261 psi                                                            |             |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | NI/min         | 1000                                                                                  |             |
| ΔP 0,5 bar (0,05 MPa÷7 psi)               | scfm           | 36                                                                                    |             |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | NI/min         | 1600                                                                                  |             |
| ΔP 1 bar (0,1 MPa÷14 psi)                 | scfm           | 57                                                                                    |             |
| Recommended flow rate at 6 bar            |                | 230 NI/min (8 scfm)                                                                   |             |
| Fluid                                     |                | Filtered 4μm compressed air                                                           |             |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C             | 50°                                                                                   |             |
|                                           | °F             | 122°                                                                                  |             |
| Weight                                    | pounds         | 2                                                                                     |             |
| Wall fixing screws                        |                | N. 8-32 unc x 2.16                                                                    |             |
| Mounting position                         |                | Vertical                                                                              |             |
| Condensate drain                          |                | Manual/semi-automatic (RMSA) - Automatic (RA)                                         |             |
| Bowl capacity                             | fluid ounce oz | 1.52                                                                                  |             |
| Notes:                                    |                | It is advisable to mount a 4μ filter upstream the depurator acting as a rough filter. |             |

| DIMENSIONS |   | NPT 3/8 | NPT 1/2 |
|------------|---|---------|---------|
|            | A | 2.36    |         |
|            | B | 7.08    |         |
|            | C | 2.36    |         |
|            | D | 2.36    |         |
|            | E | 1.81    |         |
|            | G | 0.55    |         |
|            | H | 1.18    |         |
|            | L | 0.17    |         |
|            | M | 9.05    |         |
|            |   |         |         |
|            |   |         |         |
|            |   |         |         |
|            |   |         |         |
|            |   |         |         |
|            |   |         |         |



# New deal CIRCUIT SHUT-OFF VALVE



Manually-operated circuit shut-off valve.

- Poppet seat system to ensure high flow rate
- Quick-actuation knob
- Possible triple locking
- The valve is actuated by pressing the actuation disk until it clicks. Press the knob downwards to relieve pressure. In this position you can extract the shim and fit a lock to avoid accidental operation.

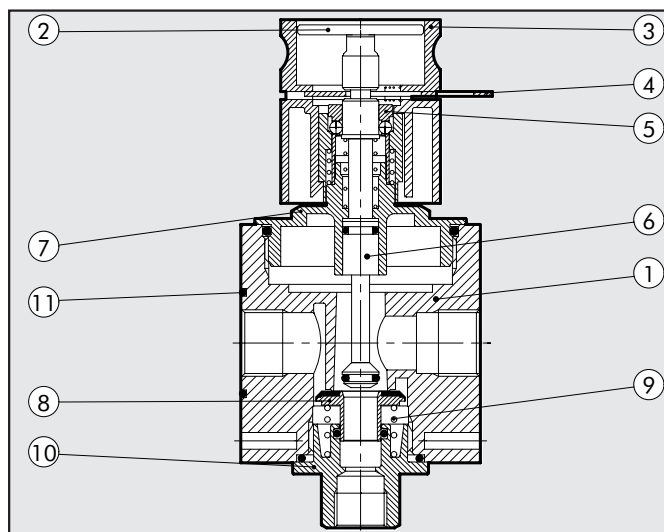


| TECHNICAL DATA                                     |        | V3V ND 1/4"                                          | V3V ND 3/8"-1/2"   |
|----------------------------------------------------|--------|------------------------------------------------------|--------------------|
| Threaded port                                      | NPT    | 1/4"                                                 | 3/8" - 1/2"        |
| Max. inlet pressure                                | MPa    | 1.8                                                  |                    |
|                                                    | bar    | 18                                                   |                    |
|                                                    | psi    | 261                                                  |                    |
| Flow rate at 6 bar (0.6 MPa-87 psi)                | Nl/min | 1100                                                 | 2200               |
| ΔP 0.5 bar (0.05 MPa – 7 psi)                      | scfm   | 38.8                                                 | 78                 |
| Flow rate at 6 bar (0.6 MPa-87 psi)                | Nl/min | 1500                                                 | 2900               |
| ΔP 1 bar (0.1 MPa – 14 psi)                        | scfm   | 53                                                   | 103                |
| Flow rate on relieving at 6 bar (0.6 MPa – 87 psi) |        | 1600                                                 | 2900               |
| with direct relieving into the atmosphere          |        | 56.5                                                 | 103                |
| Fluid                                              |        | Filtered, lubricated or unlubricated compressed air. |                    |
|                                                    |        | Lubrication, if used, must be continuous             |                    |
| Max temperature at 1 MPa; 10 bar; 145 psi          | °C     | 50                                                   |                    |
|                                                    | °F     | 122                                                  |                    |
| Weight                                             | pounds | 0.77                                                 | 1.76               |
| Wall fixing screws                                 |        | N. 8-32 unc x 1.57                                   | N. 8-32 unc x 2.16 |
| Mounting                                           |        | In any position                                      |                    |
| Type of control                                    |        | Manual                                               |                    |

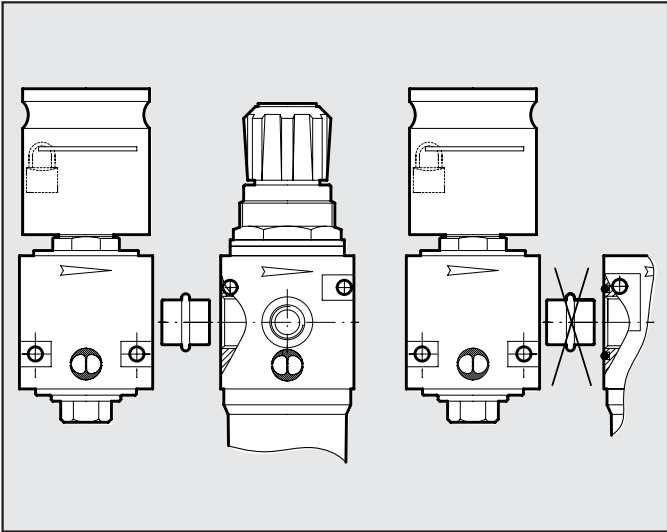
3

## COMPONENTS

- ① Zamak body
- ② Actuation disk
- ③ Technopolymer knob
- ④ Stainless steel safety shim
- ⑤ Clutching unit
- ⑥ OT brass rod
- ⑦ Upper OT 58 brass plug
- ⑧ V3V valve with NBR vulcanized gasket
- ⑨ Stainless steel valve compression spring
- ⑩ Lower OT58 brass plug
- ⑪ NBR gaskets

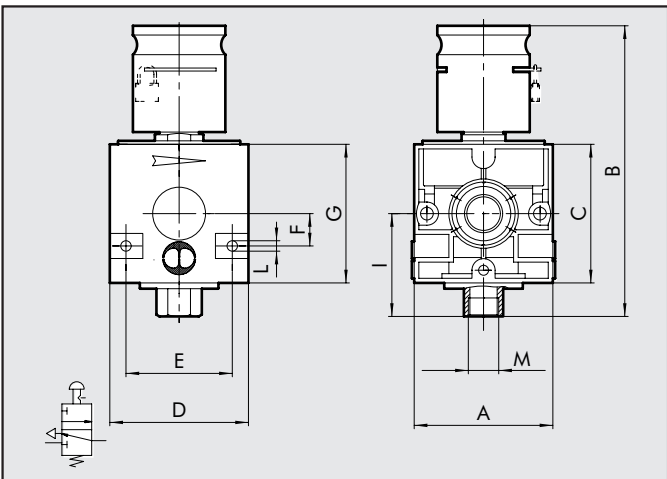


## ASSEMBLY DIAGRAM



Adaptor V3V + FR 1 1/2" - code 9401002

## DIMENSIONS



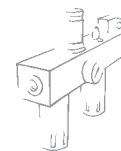
|   | NPT 1/4 | NPT 3/8 | NPT 1/2 |
|---|---------|---------|---------|
| A | 1.65    |         | 2.36    |
| B | 4.13    |         | 4.96    |
| C | 1.65    |         | 2.36    |
| D | 1.65    |         | 2.36    |
| E | 1.25    |         | 1.81    |
| F | 0.39    |         | 0.55    |
| G | 1.65    |         | 2.36    |
| I | 1.25    |         | 1.69    |
| L | 0.17    |         | 1.69    |
| M | 1/8 NPT |         | 1/4 NPT |
|   |         |         |         |
|   |         |         |         |
|   |         |         |         |
|   |         |         |         |
|   |         |         |         |

## ORDERING CODES

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## NOTES

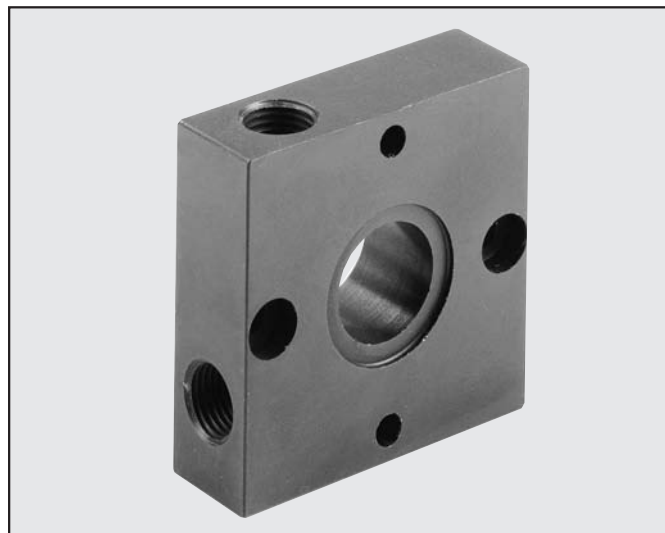
## NOTES



# Newdeal AIR TAKE-OFF

The air take-off has the job to take off the air from the Newdeal FRL unit irrespective of the position where it is assembled.

It is required whenever you need to take off air from the FRL unit at different stages of the treatment (normal, filtered, filtered regulated, lubricated, etc.)



| TECHNICAL DATA              |     | PA ND 1/4 | PA ND 3/8"-1/2" | PA ND 3/4"-1" |
|-----------------------------|-----|-----------|-----------------|---------------|
| Threaded port               | NPT | 1/8"      | 1/4"            | 1/2"          |
| Maximum working temperature | °C  | 50        | 50              | 50            |
| at 1 Mpa; 10 bar; 145 psi   | °F  | 122       | 122             | 122           |
| Maximum admissible pressure | MPa | 1.8       | 1.8             | 1.8           |
|                             | bar | 18        | 18              | 18            |
|                             | psi | 261       | 261             | 261           |
|                             |     |           |                 |               |
|                             |     |           |                 |               |
|                             |     |           |                 |               |
|                             |     |           |                 |               |
|                             |     |           |                 |               |
|                             |     |           |                 |               |
|                             |     |           |                 |               |
|                             |     |           |                 |               |

3

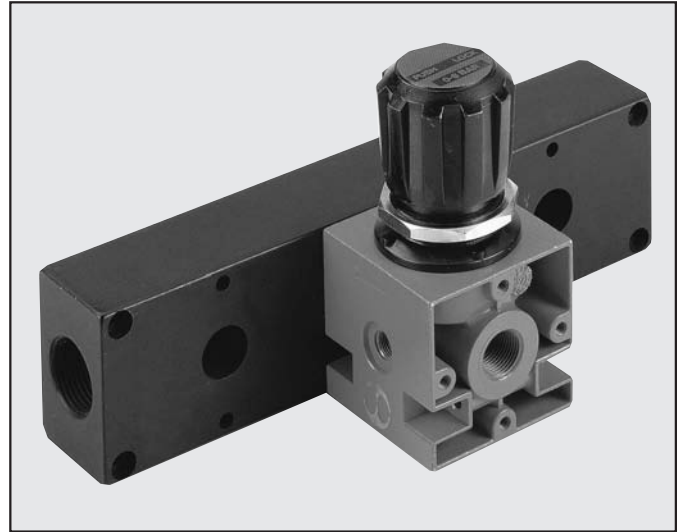
| DIMENSIONS |               | NPT 1/4 | NPT 3/8-1/2 | NPT 3/4-1" |
|------------|---------------|---------|-------------|------------|
|            | A             | 1.65    | 2.36        | 3.14       |
|            | B             | 1.65    | 2.36        | 3.14       |
|            | C             | 0.59    | 0.78        | 1.18       |
|            | D             | 1.33    | 1.92        | 2.51       |
|            | E             | 1.33    | 1.92        | 2.51       |
|            | F             | 0.33    | 0.55        | 0.62       |
|            | G             | 0.33    | 0.55        | 0.62       |
|            | H (n° 2 pos.) | 1/8 NPT | 1/4 NPT     | 1/2 NPT    |
|            | L             | 0.17    | 0.21        | 0.29       |
|            |               |         |             |            |

## ORDERING CODES

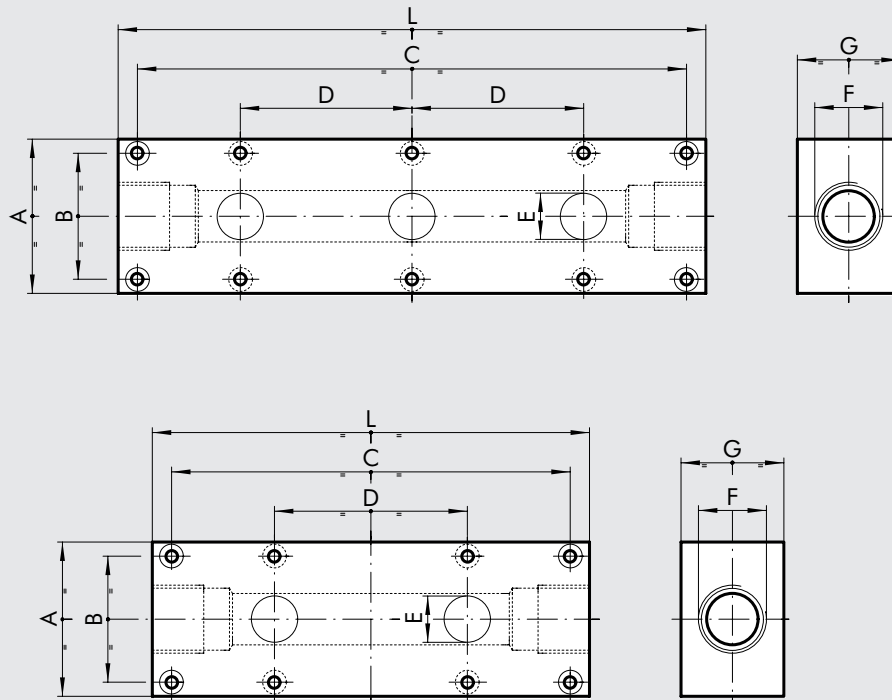
| Code     | Description         |
|----------|---------------------|
| 9200401U | ACC.PA 1/4 TAKE-OFF |
| 9400401U | ACC.PA 1/2 TAKE-OFF |
| 9600401U | ACC.PA 3/4 TAKE-OFF |

# Newdeal SUB-BASE

With the Newdeal sub-base, more than one regulator can be mounted in parallel using a single pressure supply source.



## DIMENSIONS



|   | ND 1/4      |             | ND 3/8-1/2  |             | ND 3/4-1    |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
|   | 2 positions | 3 positions | 2 positions | 3 positions | 2 positions | 3 positions |
| A | 1.96        | 1.96        | 2.36        | 2.36        | 3.14        | 3.14        |
| B | 1.33        | 1.33        | 1.92        | 1.92        | 2.51        | 2.51        |
| C | 4.44        | 6.49        | 6.10        | 9.05        | 7.48        | 11.02       |
| D | 2.04        | 2.04        | 2.95        | 2.95        | 3.54        | 3.54        |
| E | 1/4 NPT     | 1/4 NPT     | 0.70        | 0.70        | 1.22        | 1.22        |
| F | 1/2 NPT     | 1/2 NPT     | 3/4 NPT     | 3/4 NPT     | 1" 1/4 NPT  | 1" 1/4 NPT  |
| G | 1.18        | 1.18        | 1.57        | 1.57        | 1.96        | 1.96        |
| L | 5.03        | 7.08        | 9.64        | 9.64        | 8.26        | 11.81       |

## ORDERING CODES

| Code     | Description                |
|----------|----------------------------|
| 9200201U | ACC.SB 1/4 SUB-BASE 2 POS. |
| 9400201U | ACC.SB 1/2 SUB-BASE 2 POS  |
| 9600201U | ACC.SB 3/4 SUB-BASE 2 POS  |
| 9200301U | ACC.SB 1/4 SUB-BASE 3 POS  |
| 9400301U | ACC.SB 1/2 SUB-BASE 3 POS  |
| 9600301U | ACC.SB 3/4 SUB-BASE 3 POS  |



- All-round condensate level viewing
- Automatic drain from inside the bowl
- Axial coupling



## DIMENSIONS



## NOTES

# FIL+REG+LUB New deal

- Stability of the set pressure as the upstream pressure varies
- Metal bowl with external sight glass
- Semi-automatic and automatic condensate drain
- Lubrication proportional to flow rate
- Micrometric lubrication regulation
- Activation guaranteed with low flow rates



| TECHNICAL DATA                            |        | FRL ND 1/4"                 | FRL ND 3/8"        | FRL ND 1/2" | FRL ND 3/4"       | FRL ND 1" |
|-------------------------------------------|--------|-----------------------------|--------------------|-------------|-------------------|-----------|
| Threaded port                             | NPT    | 1/4"                        | 3/8"               | 1/2"        | 3/4"              | 1"        |
| Setting range                             | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180 |                    |             |                   |           |
| Degree of filtration                      | micron | 5µm, 20µm, 50µm             |                    |             |                   |           |
| Max. inlet pressure                       | MPa    | 1.8                         |                    |             |                   |           |
|                                           | bar    | 18                          |                    |             |                   |           |
|                                           | psi    | 261                         |                    |             |                   |           |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min | 140                         | 1300               |             | 1900              | 2000      |
| ΔP 0.5 bar (0.05 MPa – 7 psi)             | scfm   | 5                           | 46                 |             | 68                | 71        |
| Flow rate at 6 bar (0.6 MPa-87 psi)       | NI/min | 400                         | 2000               |             | 3600              | 3700      |
| ΔP 1 bar (0.1 MPa – 14 psi)               | scfm   | 14.2                        | 71                 |             | 128               | 132       |
| Fluid                                     |        | Compressed air              |                    |             |                   |           |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C     | 50°                         |                    |             |                   |           |
|                                           | °F     | 122°                        |                    |             |                   |           |
| Weight                                    | pounds | 2.2                         | 5.5                |             | 12.76             |           |
| Wall fixing screws                        |        | N. 8-32 unc x 1.57          | N. 8-32 unc x 2.16 |             | 1/4-20 unc x 2.95 |           |
|                                           |        |                             |                    |             |                   |           |
|                                           |        |                             |                    |             |                   |           |
|                                           |        |                             |                    |             |                   |           |

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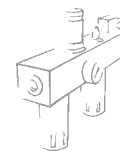
- Heavy duty and reliable piston-operated FR+L unit.
- Stability of the set pressure as the upstream pressure varies
- Metal bowl with external sight glass
- Semi-automatic and automatic condensate drain
- Quantity of lubricant proportioned to air flow
- Micrometric lubrication regulation
- Activation guaranteed with low flow rates



| TECHNICAL DATA                            |        | FR+L ND 1/4"                | FR+L ND 3/8"       | FR+L ND 1/2" |
|-------------------------------------------|--------|-----------------------------|--------------------|--------------|
| Threaded port                             | NPT    | 1/4"                        | 3/8"               | 1/2"         |
| Setting range                             | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180 |                    |              |
| Degree of filtration                      | micron | 5µm, 20µm, 50µm             |                    |              |
| Max. inlet pressure                       | MPa    | 1.8                         |                    |              |
|                                           | bar    | 18                          |                    |              |
|                                           | psi    | 261                         |                    |              |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | NI/min | 150                         | 1300               |              |
| ΔP 0,5 bar (0,05 MPa÷ 7 psi)              | scfm   | 5.3                         | 46                 |              |
| Flow rate at 6 bar (0,6 MPa÷87 psi)       | NI/min | 500                         | 2200               |              |
| ΔP 1 bar (0,1 MPa÷14 psi)                 | scfm   | 18                          | 78                 |              |
| Fluid                                     |        | Compressed air              |                    |              |
| Max temperature at 1 MPa; 10 bar; 145 psi | °C     | 50                          |                    |              |
|                                           | °F     | 122                         |                    |              |
| Weight                                    | pounds | 2                           | 4.4                |              |
| Wall fixing screws                        |        | N. 8-32 unc x 1.57          | N. 8-32 unc x 2.16 |              |
|                                           |        |                             |                    |              |
|                                           |        |                             |                    |              |

| DIMENSIONS |  | NPT 1/4" | NPT 3/8" | NPT 1/2" |
|------------|--|----------|----------|----------|
| A          |  | 1.65     | 2.36     |          |
| B          |  | 7.48     | 9.64     |          |
| D          |  | 3.30     | 4.72     |          |
| E          |  | 2.99     | 4.29     |          |
| G          |  | 0.39     | 0.55     |          |
| L          |  | 0.17     | 0.17     |          |

The technical drawing shows a 24VDC solenoid valve. The front view (left) shows two solenoid coils with dimensions A (coil height), B (total height), D (coil diameter), E (coil width), G (coil thickness), and L (coil length). The side view (right) shows the valve body with dimension F (valve body width). A schematic diagram (bottom left) shows the valve's internal flow path with two solenoid coils and a check valve.



## KEY TO CODES

| FR+L    | 1/4           | 4μm                                                                  | 08                                | RMSA                             | <b>RMSA:</b> Manual/semi-auto drain<br><b>SAC:</b> Automatic drain. Operates by depressurization - requires variable air take-offs.<br><b>RA:</b> Automatic drain. Float-type operation irrespective of the pressure and flow rate. |
|---------|---------------|----------------------------------------------------------------------|-----------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELEMENT | THREADED PORT | DEGREE OF FILTERING                                                  | SETTING RANGE                     | CONDENSATE DRAIN                 |                                                                                                                                                                                                                                     |
| FR+L    | 1/4           | 4μm = 160 microinch<br>20μm = 790 microinch<br>50μm = 2000 microinch | 08 = 0÷120 psi<br>012 = 0÷180 psi | RMSA<br>SAC<br>RMSA<br>SAC<br>RA |                                                                                                                                                                                                                                     |
|         | 3/8<br>1/2    |                                                                      |                                   |                                  |                                                                                                                                                                                                                                     |

## ORDERING CODES

| Code     | Description                |
|----------|----------------------------|
| 1226029U | FR+L 1/4 4 08 RMSA N TMV   |
| 1226409U | FR+L 1/4 4 08 SAC N TMV    |
| 1226053U | FR+L 1/4 4 012 RMSA N TMV  |
| 1226413U | FR+L 1/4 4 012 SAC N TMV   |
| 1226030U | FR+L 1/4 20 08 RMSA N TMV  |
| 1226410U | FR+L 1/4 20 08 SAC N TMV   |
| 1226054U | FR+L 1/4 20 012 RMSA N TMV |
| 1226414U | FR+L 1/4 20 012 SAC N TMV  |
| 1226032U | FR+L 1/4 50 08 RMSA N TMV  |
| 1226412U | FR+L 1/4 50 08 SAC N TMV   |
| 1226056U | FR+L 1/4 50 012 RMSA N TMV |
| 1226416U | FR+L 1/4 50 012 SAC N TMV  |
| 1326029U | FR+L 3/8 4 08 RMSA N TMV   |
| 1326409U | FR+L 3/8 4 08 SAC N TMV    |
| 1326053U | FR+L 3/8 4 012 RMSA N TMV  |
| 1326413U | FR+L 3/8 4 012 SAC N TMV   |
| 1326030U | FR+L 3/8 20 08 RMSA N TMV  |
| 1326034U | FR+L 3/8 20 08 RA N TMV    |
| 1326410U | FR+L 3/8 20 08 SAC N TMV   |
| 1326054U | FR+L 3/8 20 012 RMSA N TMV |
| 1326058U | FR+L 3/8 20 012 RA N TMV   |
| 1326414U | FR+L 3/8 20 012 SAC N TMV  |
| 1326032U | FR+L 3/8 50 08 RMSA N TMV  |
| 1326412U | FR+L 3/8 50 08 SAC N TMV   |
| 1326056U | FR+L 3/8 50 012 RMSA N TMV |
| 1326416U | FR+L 3/8 50 012 SAC N TMV  |
| 1426029U | FR+L 1/2 4 08 RMSA N TMV   |
| 1426409U | FR+L 1/2 4 08 SAC N TMV    |
| 1426053U | FR+L 1/2 4 012 RMSA N TMV  |
| 1426413U | FR+L 1/2 4 012 SAC N TMV   |
| 1426030U | FR+L 1/2 20 08 RMSA N TMV  |
| 1426034U | FR+L 1/2 20 08 RA N TMV    |
| 1426410U | FR+L 1/2 20 08 SAC N TMV   |
| 1426054U | FR+L 1/2 20 012 RMSA N TMV |
| 1426058U | FR+L 1/2 20 012 RA N TMV   |
| 1426414U | FR+L 1/2 20 012 SAC N TMV  |
| 1426032U | FR+L 1/2 50 08 RMSA N TMV  |
| 1426412U | FR+L 1/2 50 08 SAC N TMV   |
| 1426056U | FR+L 1/2 50 012 RMSA N TMV |
| 1426416U | FR+L 1/2 50 012 SAC N TMV  |

## NOTES

# New deal

## V3V+FIL+REG+LUB UNITS

Highly reliable heavy-duty piston-operated FRFL unit.

- Stability of the set pressure as the upstream pressure varies
- Metal bowl with external sight glass
- Semi-automatic and automatic condensate drain
- Quantity of lubricant proportionate to the air flow
- Micrometric lubrication regulation
- Activation guaranteed at low air flows
- Quick filling and drainage of the downstream circuit with the V3V element



| TECHNICAL DATA                             |        | VFRL ND 1/4"                | VFRL ND 3/8"       | VFRL ND 1/2" |
|--------------------------------------------|--------|-----------------------------|--------------------|--------------|
| Threaded port                              | NPT    | G 1/4"                      | G 3/8"             | G 1/2"       |
| Setting range                              | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180 |                    |              |
| Degree of filtration                       | micron | 5µm, 20µm, 50µm             |                    |              |
| Max. inlet pressure                        | MPa    | 1.8                         |                    |              |
|                                            | bar    | 18                          |                    |              |
|                                            | psi    | 261                         |                    |              |
| Flow rate at 6 bar (0,6 MPa÷87 psi)        | NI/min | 130                         | 800                |              |
| ΔP 0,5 bar (0,05 MPa÷ 7 psi)               | scfm   | 4.6                         | 28                 |              |
| Flow rate at 6 bar (0,6 MPa÷87 psi)        | NI/min | 390                         | 1700               |              |
| ΔP 1 bar (0,1 MPa÷14 psi)                  | scfm   | 14                          | 60                 |              |
| Fluid                                      |        | Compressed air              |                    |              |
| Max. temperature at 1 MPa; 10 bar; 145 psi | °C     | 50                          |                    |              |
|                                            | °F     | 122                         |                    |              |
| Weight                                     | pounds | 3.3                         | 7.26               |              |
| Wall fixing screws                         |        | N. 8-32 unc x 1.57          | N. 8-32 unc x 2.16 |              |
|                                            |        |                             |                    |              |
|                                            |        |                             |                    |              |
|                                            |        |                             |                    |              |

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# New deal

## V3V+FR+LUB UNITS

Highly reliable heavy-duty piston-operated VRF+L

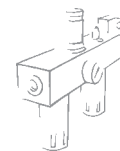
- Stability of the set pressure depending on the upstream pressure
- Metal bowl with external sight glass
- Semi-automatic and automatic condensate drain
- Quantity of lubricant proportionate to the air flow
- Micrometric lubrication regulation
- Activation guaranteed at low air flows
- Quick filling and drainage of the downstream circuit with the V3V element



| TECHNICAL DATA                             |        | VFR+L ND 1/4"               | VFR+L ND 3/8"      | VFR+L ND 1/2" |
|--------------------------------------------|--------|-----------------------------|--------------------|---------------|
| Threaded port                              | NPT    | 1/4"                        | 3/8"               | 1/2"          |
| Setting range                              | psi    | 0÷30 - 0÷60 - 0÷120 - 0÷180 |                    |               |
| Degree of filtration                       | micron | 5µm, 20µm, 50µm             |                    |               |
| Max. inlet pressure                        | MPa    | 1.8                         |                    |               |
|                                            | bar    | 18                          |                    |               |
|                                            | psi    | 261                         |                    |               |
| Flow rate at 6 bar (0,6 MPa÷87 psi)        | NI/min | 140                         | 1000               |               |
| ΔP 0,5 bar (0,05 MPa÷7 psi)                | scfm   | 5                           | 35.5               |               |
| Flow rate at 6 bar (0,6 MPa÷87 psi)        | NI/min | 480                         | 1900               |               |
| ΔP 1 bar (0,1 MPa÷14 psi)                  | scfm   | 17                          | 67.5               |               |
| Fluid                                      |        | Compressed air              |                    |               |
| Max. temperature at 1 MPa; 10 bar; 145 psi | °C     | 50                          |                    |               |
|                                            | °F     | 122                         |                    |               |
| Weight                                     | pounds | 2.42                        | 3.96               |               |
| Wall fixing screws                         |        | N. 8-32 unc x 1.57          | N. 8-32 unc x 2.16 |               |
|                                            |        |                             |                    |               |
|                                            |        |                             |                    |               |

| DIMENSIONS |   | NPT 1/4" | NPT 3/8" | NPT 1/2" |
|------------|---|----------|----------|----------|
|            | A | 1.65     | 2.36     |          |
|            | B | 7.48     | 9.64     |          |
|            | D | 4.96     | 7.08     |          |
|            | E | 4.56     | 6.53     |          |
|            | G | 0.78     | 1.10     |          |
|            | L | 0.17     | 0.17     |          |
|            |   |          |          |          |





## KEY TO CODES

| VFR+L   | 1/4           | 4µm                                                                  | 08                                | RMSA                             | <b>RMSA:</b> Manual/semi-auto drain<br><b>SAC:</b> Automatic drain. Operates by depressurization – requires variable air take-offs.<br><b>RA:</b> Automatic drain. Float-type operation irrespective of the pressure and flow rate. |
|---------|---------------|----------------------------------------------------------------------|-----------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELEMENT | THREADED PORT | DEGREE OF FILTERING                                                  | SETTING RANGE                     | CONDENSATE DRAIN                 |                                                                                                                                                                                                                                     |
| VFR+L   | 1/4           | 4µm = 160 microinch<br>20µm = 790 microinch<br>50µm = 2000 microinch | 08 = 0÷120 psi<br>012 = 0÷180 psi | RMSA<br>SAC<br>RMSA<br>SAC<br>RA |                                                                                                                                                                                                                                     |
|         | 3/8           |                                                                      |                                   |                                  |                                                                                                                                                                                                                                     |
|         | 1/2           |                                                                      |                                   |                                  |                                                                                                                                                                                                                                     |

## ORDERING CODES

| Code     | Description                 |
|----------|-----------------------------|
| 1272029U | VFR+L 1/4 4 RMSA 08 N TMV   |
| 1272509U | VFR+L 1/4 4 SAC 08 N TMV    |
| 1272053U | VFR+L 1/4 4 RMSA 012 N TMV  |
| 1272513U | VFR+L 1/4 4 SAC 012 N TMV   |
| 1272030U | VFR+L 1/4 20 RMSA 08 N TMV  |
| 1272510U | VFR+L 1/4 20 SAC 08 N TMV   |
| 1272054U | VFR+L 1/4 20 RMSA 012 N TMV |
| 1272514U | VFR+L 1/4 20 SAC 012 N TMV  |
| 1272032U | VFR+L 1/4 50 RMSA 08 N TMV  |
| 1272512U | VFR+L 1/4 50 SAC 08 N TMV   |
| 1272056U | VFR+L 1/4 50 RMSA 012 N TMV |
| 1272516U | VFR+L 1/4 50 SAC 012 N TMV  |
| 1372029U | VFR+L 3/8 4 RMSA 08 N TMV   |
| 1372509U | VFR+L 3/8 4 SAC 08 N TMV    |
| 1372053U | VFR+L 3/8 4 RMSA 012 N TMV  |
| 1372513U | VFR+L 3/8 4 SAC 012 N TMV   |
| 1372030U | VFR+L 3/8 20 RMSA 08 N TMV  |
| 1372034U | VFR+L 3/8 20 RA 08 N TMV    |
| 1372510U | VFR+L 3/8 20 SAC 08 N TMV   |
| 1372054U | VFR+L 3/8 20 RMSA 012 N TMV |
| 1372060U | VFR+L 3/8 20 RA 012 N TMV   |
| 1372514U | VFR+L 3/8 20 SAC 012 N TMV  |
| 1372032U | VFR+L 3/8 50 RMSA 08 N TMV  |
| 1372512U | VFR+L 3/8 50 SAC 08 N TMV   |
| 1372056U | VFR+L 3/8 50 RMSA 012 N TMV |
| 1372516U | VFR+L 3/8 50 SAC 012 N TMV  |
| 1472029U | VFR+L 1/2 4 RMSA 08 N TMV   |
| 1472509U | VFR+L 1/2 4 SAC 08 N TMV    |
| 1472053U | VFR+L 1/2 4 RMSA 012 N TMV  |
| 1472513U | VFR+L 1/2 4 SAC 012 N TMV   |
| 1472030U | VFR+L 1/2 20 RMSA 08 N TMV  |
| 1472034U | VFR+L 1/2 20 RA 08 N TMV    |
| 1472510U | VFR+L 1/2 20 SAC 08 N TMV   |
| 1472054U | VFR+L 1/2 20 RMSA 012 N TMV |
| 1472060U | VFR+L 1/2 20 RA 012 N TMV   |
| 1472514U | VFR+L 1/2 20 SAC 012 N TMV  |
| 1472032U | VFR+L 1/2 50 RMSA 08 N TMV  |
| 1472512U | VFR+L 1/2 50 SAC 08 N TMV   |
| 1472056U | VFR+L 1/2 50 RMSA 012 N TMV |
| 1472516U | VFR+L 1/2 50 SAC 012 N TMV  |

## NOTES

## New deal FIL+LUB UNITS

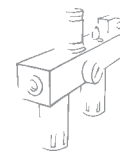
Filter+lubricator unit offering various degrees of filtration and high lubrication stability.

- Metal bowl with external sight glass
- Semi-automatic and automatic condensate drain
- Micrometric lubrication regulation
- Activation guaranteed at low air flows



| TECHNICAL DATA                             |        | F+L ND 1/4"        | F+L ND 3/8"        | F+L ND 1/2" | F+L ND 3/4"       | F+L ND 1" |
|--------------------------------------------|--------|--------------------|--------------------|-------------|-------------------|-----------|
| Threaded port                              | NPT    | 1/4"               | 3/8"               | 1/2"        | 3/4"              | 1"        |
| Lubrication                                |        | mist               |                    |             |                   |           |
| Degree of filtration                       | micron | 5µm, 20µm, 50µm    |                    |             |                   |           |
| Max. inlet pressure                        | MPa    | 1.8                |                    |             |                   |           |
|                                            | bar    | 18                 |                    |             |                   |           |
|                                            | psi    | 261                |                    |             |                   |           |
| Flow rate at 6 bar (0,6 MPa÷87 psi)        | NI/min | 600                | 2500               |             | 8000              |           |
| ΔP 0,5 bar (0,05 MPa÷7 psi)                | scfm   | 21                 | 89                 |             | 282               |           |
| Flow rate at 6 bar (0,6 MPa÷87 psi)        | NI/min | 1000               | 3500               |             | 9500              |           |
| ΔP 1 bar (0,1 MPa÷14 psi)                  | scfm   | 35.5               | 124                |             | 355               |           |
| Fluid                                      |        | Compressed air     |                    |             |                   |           |
| Max. temperature at 1 MPa; 10 bar; 145 psi | °C     | 50°                |                    |             |                   |           |
|                                            | °F     | 122°               |                    |             |                   |           |
| Weight                                     | pounds | 1.76               | 3.96               |             | 8.14              |           |
| Wall fixing screws                         |        | N. 8-32 unc x 1.57 | N. 8-32 unc x 2.16 |             | 1/4-20 unc x 2.95 |           |
|                                            |        |                    |                    |             |                   |           |
|                                            |        |                    |                    |             |                   |           |

[illegible]



## KEY TO CODES

| F+L     | 1/4           | 4 $\mu$ m                                                                              | RMSA             | RMSA: Manual/semi-auto drain<br>SAC: Automatic drain. Operates by depressurization – requires variable air take-offs.<br><br>RA: Automatic drain. Float-type operation irrespective of the pressure and flow rate. |
|---------|---------------|----------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELEMENT | THREADED PORT | DEGREE OF FILTERING                                                                    | CONDENSATE DRAIN |                                                                                                                                                                                                                    |
| F+L     | 1/4           | 4 $\mu$ m = 160 microinch<br>20 $\mu$ m = 790 microinch<br>50 $\mu$ m = 2000 microinch | RMSA             |                                                                                                                                                                                                                    |
|         | 3/8           |                                                                                        | SAC              |                                                                                                                                                                                                                    |
|         | 1/2           |                                                                                        | RMSA             |                                                                                                                                                                                                                    |
|         | 3/4           |                                                                                        | SAC              |                                                                                                                                                                                                                    |
|         | 1             |                                                                                        | RA               |                                                                                                                                                                                                                    |
|         |               |                                                                                        | RA               |                                                                                                                                                                                                                    |

## ORDERING CODES

| Code     | Description           |
|----------|-----------------------|
| 1233005U | F+L 1/4 4 RMSA N TMV  |
| 1233213U | F+L 1/4 4 SAC N TMV   |
| 1233006U | F+L 1/4 20 RMSA N TMV |
| 1233214U | F+L 1/4 20 SAC N TMV  |
| 1233008U | F+L 1/4 50 RMSA N TMV |
| 1233215U | F+L 1/4 50 SAC N TMV  |
| 1333005U | F+L 3/8 4 RMSA N TMV  |
| 1333009U | F+L 3/8 4 RA N TMV    |
| 1333213U | F+L 3/8 4 SAC N TMV   |
| 1333006U | F+L 3/8 20 RMSA N TMV |
| 1333010U | F+L 3/8 20 RA N TMV   |
| 1333214U | F+L 3/8 20 SAC N TMV  |
| 1333008U | F+L 3/8 50 RMSA N TMV |
| 1333012U | F+L 3/8 50 RA N TMV   |
| 1333215U | F+L 3/8 50 SAC N TMV  |
| 1433005U | F+L 1/2 4 RMSA N TMV  |
| 1433009U | F+L 1/2 4 RA N TMV    |
| 1433213U | F+L 1/2 4 SAC N TMV   |
| 1433006U | F+L 1/2 20 RMSA N TMV |
| 1433010U | F+L 1/2 20 RA N TMV   |
| 1433214U | F+L 1/2 20 SAC N TMV  |
| 1433008U | F+L 1/2 50 RMSA N TMV |
| 1433012U | F+L 1/2 50 RA N TMV   |
| 1433215U | F+L 1/2 50 SAC N TMV  |
| 1533005U | F+L 3/4 4 RMSA N TMV  |
| 1533009U | F+L 3/4 4 RA N TMV    |
| 1533006U | F+L 3/4 20 RMSA N TMV |
| 1533010U | F+L 3/4 20 RA N TMV   |
| 1533008U | F+L 3/4 50 RMSA N TMV |
| 1533012U | F+L 3/4 50 RA N TMV   |
| 1633005U | F+L 1 4 RMSA N TMV    |
| 1633009U | F+L 1 4 RA N TMV      |
| 1633006U | F+L 1 20 RMSA N TMV   |
| 1633010U | F+L 1 20 RA N TMV     |
| 1633008U | F+L 1 50 RMSA N TMV   |
| 1633012U | F+L 1 50 RA N TMV     |

## NOTES

# Newdeal FIL+DEP UNITS

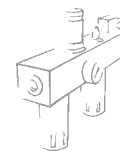
Filter+coalescer unit for fine filtering followed by purification by coalescence

- Metal bowl with external sight glass
- Semi-automatic condensate drain



| TECHNICAL DATA                             |        | F+D ND 3/8"        | F+D ND -1/2" |
|--------------------------------------------|--------|--------------------|--------------|
| Threaded port                              | NPT    | 3/8"               | 1/2"         |
| Degree of filtration                       | micron | 4µm                |              |
| Degree of purification                     |        | 99.97% 0.01 micron |              |
| Max. inlet pressure                        | MPa    | 1.8                |              |
|                                            | bar    | 18                 |              |
|                                            | psi    | 261                |              |
| Flow rate at 6 bar (0.6 MPa-87 psi)        | NI/min | 1000               |              |
| ΔP 0.5 bar (0.05 MPa – 7 psi)              | scfm   | 36                 |              |
| Flow rate at 6 bar (0.6 MPa-87 psi)        | NI/min | 1600               |              |
| ΔP 1 bar (0.1 MPa – 14 psi)                | scfm   | 57                 |              |
| Fluid                                      |        | Compressed air     |              |
| Max. temperature at 1 MPa; 10 bar; 145 psi | °C     | 50                 |              |
|                                            | °F     | 122                |              |
| Weight                                     | pounds | 3.96               |              |
| Wall fixing screws                         |        | N. 8-32 unc x 2.16 |              |
|                                            |        |                    |              |
|                                            |        |                    |              |

| DIMENSIONS |   | NPT 3/8" | NPT 1/2" |
|------------|---|----------|----------|
|            | A | 2.36     |          |
|            | B | 7.08     |          |
|            | D | 4.72     |          |
|            | E | 4.17     |          |
|            | G | 0.55     |          |
|            | L | 0.17     |          |
|            |   |          |          |
|            |   |          |          |
|            |   |          |          |
|            |   |          |          |



## ORDERING CODES

| F+D<br>ELEMENT | 3/8<br>THREADED<br>PORT | 4µm<br>DEGREE OF<br>FILTRATION | RMSA<br>CONDENSATE<br>DRAIN | RMSA<br>CONDENSATE<br>DRAIN | RMSA: Manual/semi-auto drain<br>SAC: Automatic drain. Operates by depres-<br>surization – requires variable air take-<br>offs.<br>RA: Automatic drain. Float-type operation<br>irrespective of the pressure and flow<br>rate. |
|----------------|-------------------------|--------------------------------|-----------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| F+D            | 3/8<br>1/2              | 4µm = 160 microinch            | RMSA<br>SAC<br>RA           | RMSA<br>RA                  |                                                                                                                                                                                                                               |

## ORDERING CODES

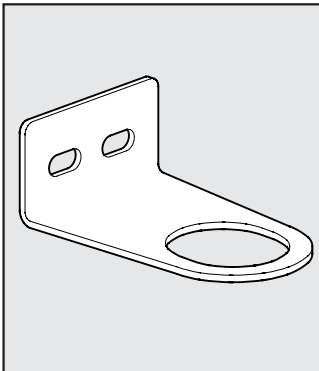
| Code     | Description             |
|----------|-------------------------|
| 1327004U | F+D 3/8 4 RMSA-RMSA TMV |
| 1327007U | F+D 3/8 4 RA-RA TMV     |
| 1327104U | F+D 3/8 4 SAC-RMSA TMV  |
| 1427004U | F+D 1/2 4 RMSA-RMSA TMV |
| 1427007U | F+D 1/2 4 RA-RA TMV     |
| 1427104U | F+D 1/2 4 SAC-RMSA TMV  |

## NOTES

# Newdeal ACCESSORIES

## MOUNTING BRACKET FOR REG.

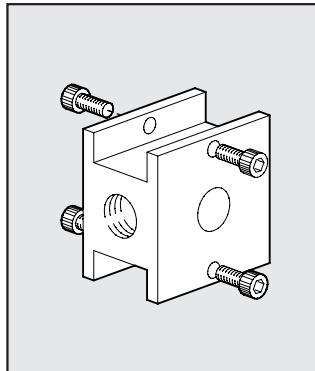
Code Description



9200701 ACC.SF 1/4  
9400701 ACC.SF 1/2

## REGULATOR CONNECTION BLOCK

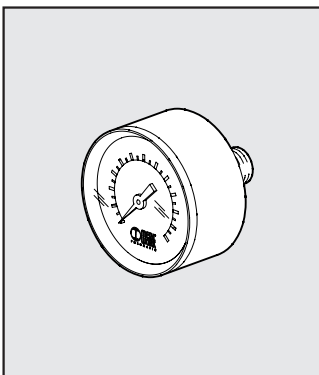
Code Description



9200501U ACC.BC 1/4 BLOCK  
9400501U ACC.BC 1/2 BLOCK  
9600501U ACC.BC 3/4 BLOCK

## PRESSURE GAUGE

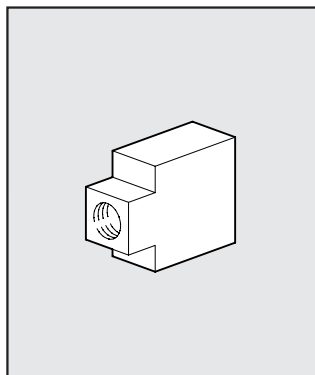
Code Description



9700102 ACC.M 40 1/8 04  
9700101 ACC.M 40 1/8 12  
9800102 ACC.M 50 1/8 04  
9800101 ACC.M 50 1/8 12  
9900101 ACC.M 63 1/4 12

## SPACERS FOR FRL WALL MOUNTING

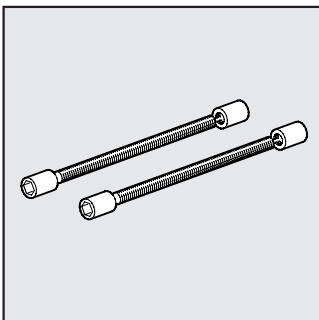
Code Description



9200601 ACC.DF 1/4 SPACER  
9400601 ACC.DF 1/2 SPACER  
9600601 ACC.DF 3/4 SPACER

## TIE RODS

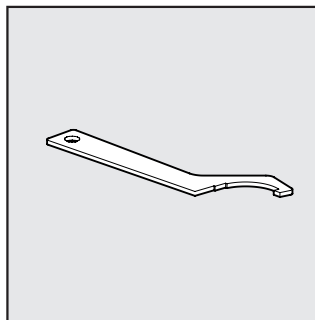
Code Description



9200901 ACC.T 1/4 F+L TIE RODS  
9400901 ACC.T 1/2 F+L TIE RODS  
9600901 ACC.T 3/4 F+L TIE RODS

## DISASSEMBLY TOOL FOR BOWL

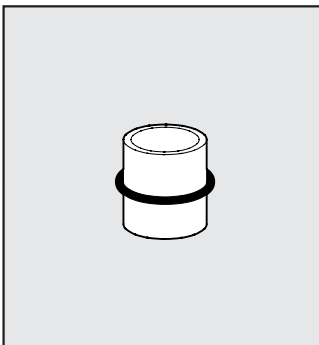
Code Description



9601501 ACC. DISASSEMBLOY KEY

## ADAPTER FOR V3V

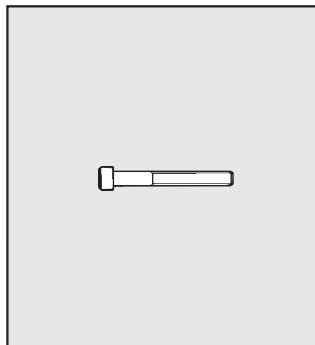
Code Description



9201001 ACC. ADAPT. X V3V+FR 1/4  
9401001 ACC. ADAPT. X V3V+FR 3/8  
9401002 ACC. ADAPT. X V3V+FR 1/2

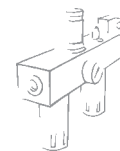
## ASSEMBLY SCREWS (2 PIECES)

Code Description

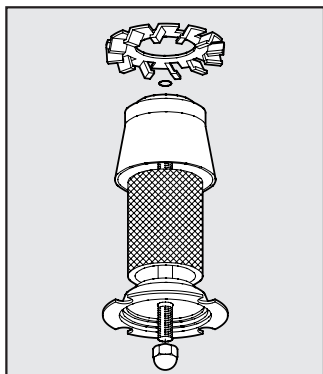


9250001 ACC.CVA 1/4 SCREW M4x40  
9250002 ACC.CVA 1/4 SCREW M4x82  
V3V+F+R  
9450001 ACC.CVA 1/2 SCREW M5x55  
9450002 ACC.CVA 3/8 1/2 SCREW  
M5x60 V3V+R  
9450003 ACC.CVA 3/8 1/2 SCREW  
M5x120 V3V+F+R  
9650001 ACC.CVA 3/4 SCREW M6x70

# Newdeal SPARE PARTS

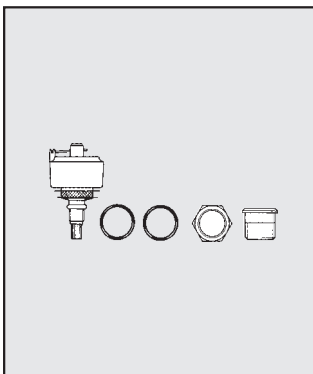


## F and FR FILTERING ELEMENT



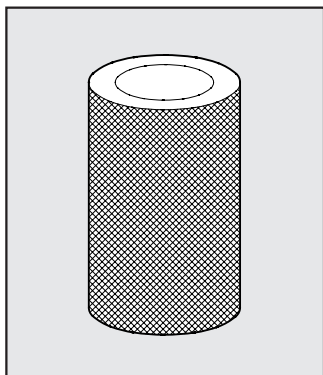
9450103 SPARES FP 1/2 4  
9450102 SPARES FP 1/2 20  
9450101 SPARES FP 1/2 50  
9250103 SPARES FP 1/4 4  
9250102 SPARES FP 1/4 20  
9250101 SPARES FP 1/4 50  
9650103 SPARES FP 3/4 4  
9650102 SPARES FP 3/4 20  
9650101 SPARES FP 3/4 50

## RA AUTOMATIC DRAIN



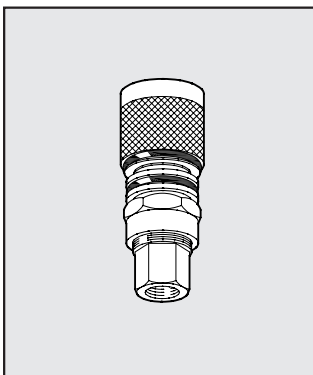
9000801U SPARES RA 3/8 1/2 3/4 1"

## FILTERING ELEMENT FOR DEPURATOR



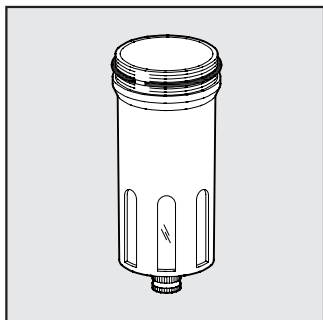
9450105 SPARES KIT FP DEP. 3/8

## SAC AUTOMATIC DRAIN



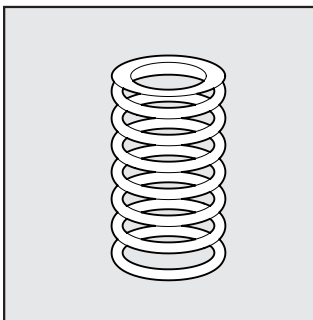
9000803 SAC 1/4" 3/8" 1/2"

## METAL FILTER BOWL



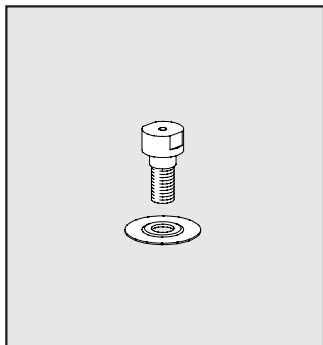
9450301 SPARES TMVF 1/2 RMSA  
9455201 SPARES TMVF 1/2 SAC  
9250301 SPARES TMVF 1/4 RMSA  
9255201 SPARES TMVF 1/4 SAC  
9650301 SPARES TMVF 3/4 1 RMSA

## SPRINGS FOR REGULATORS AND FR



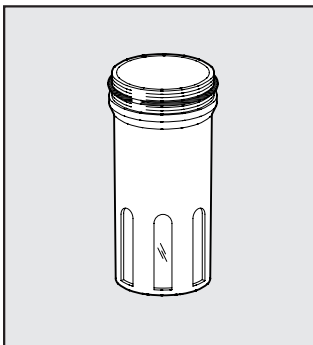
9250601 SPARES MO 02 1/4  
9250602 SPARES MO 04 1/4  
9250603 SPARES MO 08 1/4  
9250604 SPARES MO 12 1/4  
9450601 SPARES MO 04 1/2  
9450602 SPARES MO 08 1/2  
9450603 SPARES MO 12 1/2  
9650601 SPARES MO 04 3/4  
9650602 SPARES MO 08 3/4  
9650603 SPARES MO 12 3/4

## VENTURI LUBRICATOR DIAPHRAGM



9252001 SPARES MB 100 1/4  
9352001 SPARES MB 200 1/4 3/8 1/2

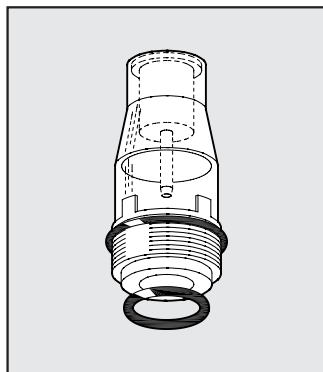
## METAL LUBRICATOR BOWL



9251201 SPARES TMVL 1/4  
9451201 SPARES TMVL 1/2  
9651201 SPARES TMVL 3/4

### TRANSPARENT LUBRICATOR COVER

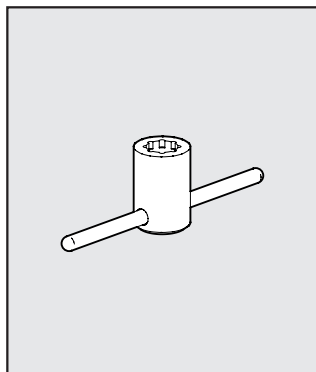
Code Description



9251302 SPARES CVL  
100-200-300-400 BIT

### DOME DISASSEMBLY SPANNER

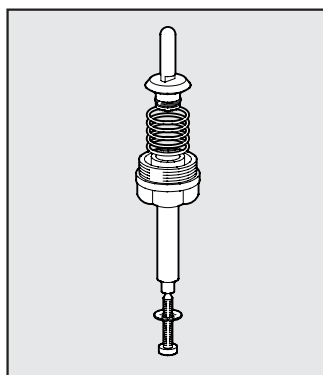
Code Description



9220701 ACC COVER LUB SPANNER

### COMPLETE POPPET FOR FR

Code Description

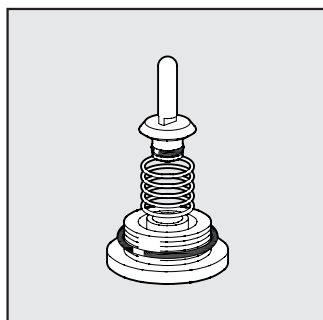


9250901 SPARES OTR 1/4  
9450901 SPARES OTR 1/2

### NOTES

### COMPLETE POPPER FOR REGULATOR

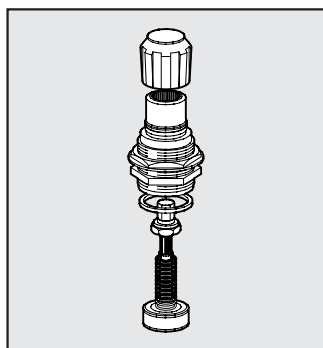
Code Description



9250701 SPARES OTR 1/4  
9450701 SPARES OTR 1/2 REG  
9650701 SPARES OTR 3/4 OTTURATORE

### UPPER COVER FOR REGULATOR AND FR

Code Description



9250801U SPARES CS 1/4 02  
9250802U SPARES CS 1/4 04  
9250803U SPARES CS 1/4 08  
9250804U SPARES CS 1/4 012  
9450801U SPARES CS 1/2 04  
9450802U SPARES CS 1/2 08  
9450803U SPARES CS 1/2 12  
9650801U SPARES CS 3/4 04  
9650802U SPARES CS 3/4 08  
9650803U SPARES CS 3/4 12



