

# VACUUM PUMP PROTECTION FILTERS

## P-VAC

### DESCRIPTION

P-VAC filters have been specifically developed for protection of vacuum pumps. These filters are optimised for high-efficient removal of solid particles and other contamination from the suction side of vacuum pumps preventing damage to the pump. For P-VAC filter series we offer two filtration stages. Rough pre-filter "VACP" removes bulk liquid and large solid particles while high efficiency microfilter VACM removes very fine impurities which may damage the pump.

### APPLICATIONS <sup>(1)</sup>

- Vacuum pumps



<sup>(1)</sup> P-VAC filter housing can be used in variety of applications. For applications not listed please contact us or your local dealer.

### TECHNICAL SPECIFICATION

|                            |                    |               |
|----------------------------|--------------------|---------------|
| Operating temperature      | 1,5 - 65 °C        | 35 - 149 °F   |
| Operating pressure         | 20 - 2000mbar(abs) | 0,29 – 29 psi |
| Initial pressure drop VACM | 30mbar             | 0,45 psi      |
| Initial pressure drop VACP | 10mbar             | 0,15 psi      |

### MATERIALS

|                       |  |
|-----------------------|--|
| Housing material      | Aluminium                                  |
| Fittings, Screws      | Brass, Brass-zinc plated, Steel            |
| Cover                 | ABS  |
| Sealing               | NBR  |
| Corrosion protection  | Electrophoretic Coating (KTL)              |
| Outside protection    | Powder paint coated (Epoxy-polyester base) |
| Lubricant             | Shell cassida grease RLS 2                 |
| Filter media          | Borosilicate micro fibres,                 |
| Drainage media        | Polyester                                  |
| Support (inner-outer) | Stainless Steel 1.4301                     |
| Bonding               | Polyurethane                               |
| Endcaps               | PA6 with 30% glass fibres                  |
| Sealing               | NBR  |

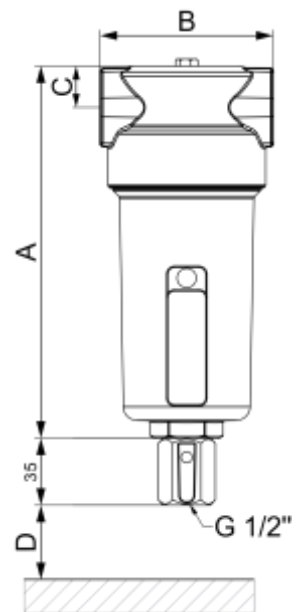
**SIZES**

| FILTER HOUSING | PIPE SIZE [inch] | FILTER ELEMENT   | Capacity <sup>(2)</sup> |        | DIMENSIONS [mm] |     |    |     | VOLUME [l] | WEIGHT [kg] |
|----------------|------------------|------------------|-------------------------|--------|-----------------|-----|----|-----|------------|-------------|
|                |                  |                  | [Nm <sup>3</sup> /h]    | [scfm] | A               | B   | C  | D   |            |             |
| P-VAC 0006     | 1/8              | 03528 VACP, VACM | 1,25                    | 0,74   | 105             | 55  | 14 | 40  | 0,08       | 0,3         |
| P-VAC 0016     | 1/4              | 05528 VACP, VACM | 2,25                    | 1,33   | 125             | 55  | 14 | 60  | 0,10       | 0,3         |
| P-VAC 0026     | 1/4              | 03844 VACP, VACM | 3,1                     | 1,8    | 145             | 73  | 18 | 40  | 0,23       | 0,5         |
| P-VAC 0036     | 3/8              | 03844 VACP, VACM | 3,75                    | 2,2    | 145             | 73  | 18 | 40  | 0,23       | 0,5         |
| P-VAC 0046     | 1/4              | 06050 VACP, VACM | 4,4                     | 2,6    | 189             | 88  | 21 | 60  | 0,45       | 0,8         |
| P-VAC 0056     | 3/8"             | 06050 VACP, VACM | 7,5                     | 4,4    | 189             | 88  | 32 | 60  | 0,45       | 0,7         |
| P-VAC 0076     | 1/2"             | 07050 VACP, VACM | 9,8                     | 5,7    | 189             | 88  | 32 | 60  | 0,45       | 0,7         |
| P-VAC 0106     | 3/4"             | 14050 VACP, VACM | 15,0                    | 8,8    | 257             | 88  | 32 | 150 | 0,64       | 0,8         |
| P-VAC 0186     | 1"               | 12075 VACP, VACM | 24,8                    | 14,6   | 261             | 125 | 37 | 160 | 1,4        | 1,9         |
| P-VAC 0306     | 1"               | 22075 VACP, VACM | 41,9                    | 24,7   | 361             | 125 | 37 | 250 | 2,0        | 2,4         |
| P-VAC 0476     | 1 1/2"           | 32075 VACP, VACM | 63,8                    | 37,6   | 461             | 125 | 37 | 350 | 2,6        | 2,6         |
| P-VAC 0706     | 1 1/2"           | 50075 VACP, VACM | 97,5                    | 57,4   | 641             | 125 | 37 | 530 | 3,6        | 3,5         |

<sup>(2)</sup>Free air capacity at atmospheric pressure.  
Standard is BSP pipe connection, other pipe connection on request.

**CORRECTION FACTORS**

- To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor C<sub>1</sub>.
- To select a filter to match system flow conditions, multiply the system flow by the correction factor C<sub>2</sub> that corresponds to vacuum in the pipe.




**OPERATING PRESSURE**

|                |      |     |      |      |      |     |     |      |     |      |      |      |
|----------------|------|-----|------|------|------|-----|-----|------|-----|------|------|------|
| [bar] absolute | 1    | 0,9 | 0,8  | 0,7  | 0,6  | 0,5 | 0,4 | 0,3  | 0,2 | 0,1  | 0,05 | 0,02 |
| [psi] absolute | 14,7 | 13  | 11,6 | 10,2 | 8,7  | 7,3 | 5,8 | 3,3  | 2,9 | 1,45 | 0,73 | 0,29 |
| C <sub>1</sub> | 1    | 0,9 | 0,8  | 0,7  | 0,6  | 0,5 | 0,4 | 0,3  | 0,2 | 0,1  | 0,05 | 0,02 |
| C <sub>2</sub> | 1    | 1,1 | 1,25 | 1,43 | 1,67 | 2   | 2,5 | 3,33 | 5   | 10   | 20   | 50   |

**MAINTENANCE**

Replace filter element at least every 12 months or follow the instructions for specific filter element. Once per year make a visual check of filter housing and make sure there is no visual damage.

**INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE**

|   |  |
|---|--|
|  | Our quality management system is certified by BUREAU VERITAS in conformity with ISO 9001:2008<br>Reg. number: SL22594Q |
|---|--|