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Low Pressure Filter Dual Head

Nominal pressure 10 bar (140 psi), up to nominal size 315

PI-ME37-15-1-SMC-DUAL

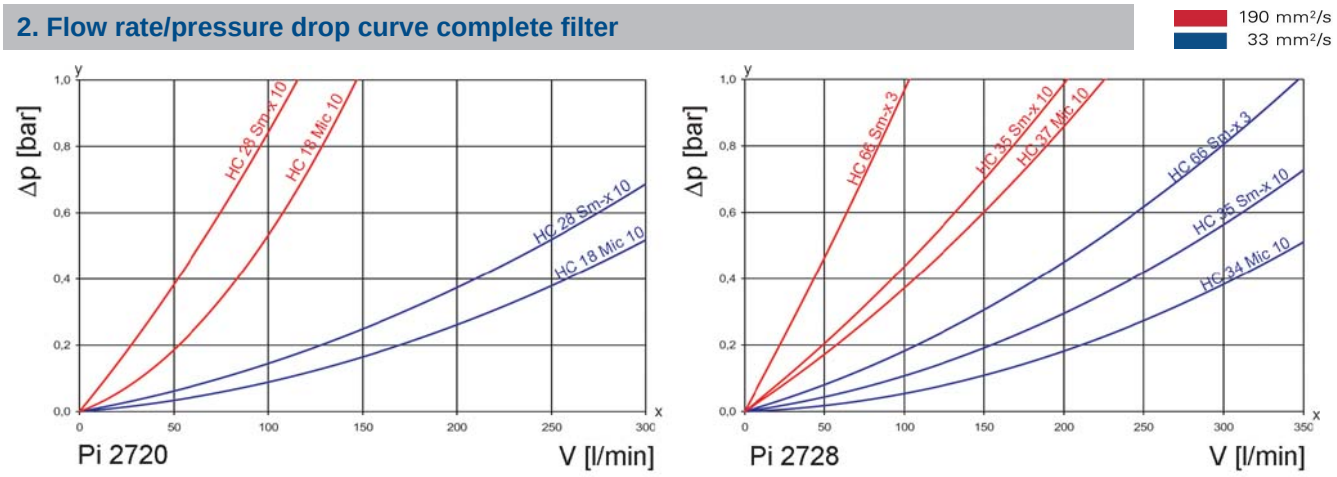
1. Features

Pi 270

High performance filters for modern hydraulic systems

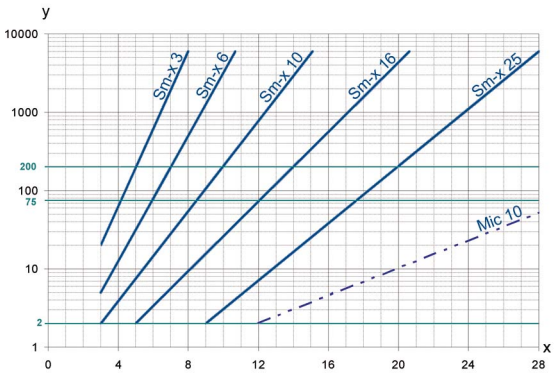
- Provided for pipe installation
- Modular system
- Compact design
- Minimal pressure drop through optimal flow design
- Visual/electrical/electronic maintenance indicator
- Threaded connections
- Quality filters, easy to service
- Equipped with highly efficient Mic or Sm-x filter elements
- Beta rated elements according to ISO 16889 multipass test
- Elements with high differential pressure stability and dirt holding capacity
- Worldwide distribution

2. Flow rate/pressure drop curve complete filter



y = differential pressure Δp [bar]
x = flow rate V [l/min]

3. Separation grade characteristics



y = beta-value
x = particle size [µm]

determined by multipass tests (ISO 16889)
calibration according to ISO 11171 (NIST)

4. Filter performance data

tested according to ISO 16889 (multipass test)
Sm-x elements with max. Δ p 5 bar

Sm-x	3	$\beta_{5(C)}$	≥ 200
Sm-x	10	$\beta_{10(C)}$	≥ 200

values guaranteed up to 5 bar differential pressure

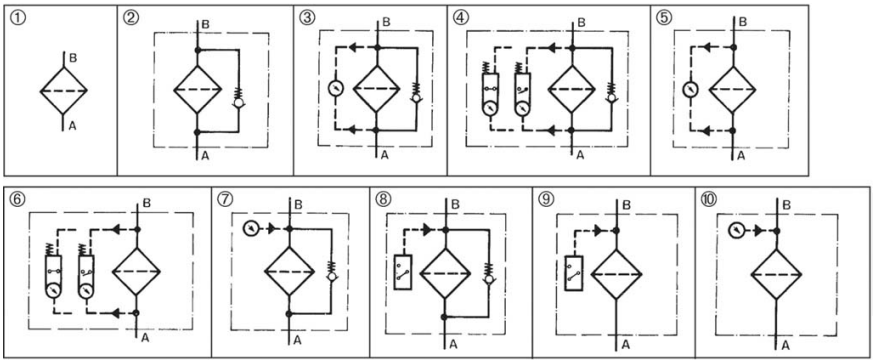
Subject to technical alteration without prior notice.

5. Quality assurance

MAHLE filters and filter elements are produced according to the following international standards:

Norm	Designation
DIN ISO 2941	Hydraulic fluid power filter elements; verification of collapse/burst resistance
DIN ISO 2942	Hydraulic fluid power filter elements; verification of fabrication integrity
DIN ISO 2943	Hydraulic fluid power filter elements; verification of material compatibility with fluids
DIN ISO 3723	Hydraulic fluid power filter elements; method for end load test
DIN ISO 3724	Hydraulic fluid power filter elements;verification of flow fatigue characteristics
ISO 3968	Hydraulic fluid power filters; evaluation of pressure drop versus flow characteristics
ISO 10771.1	Fatigue pressure testing of metal containing envelopes in hydraulic fluid applications
ISO 16889	Hydraulic fluid power filters-multipass method for evaluation filtration performance of a filter element

6. Symbols



8. Technical specifications

Design:	in-line filter
Nominal pressure:	10 bar (140 psi)
Test pressure:	13 bar (180 psi)
Temperature range:	-10 °C to +120 °C
	(other temperature ranges on request)
Bypass setting:	
Pressure side:	Δ p 3.5 bar ± 10 %
Suction side:	Δ p 0.25 bar ± 10 %
Filter head material:	GAL
Spin-on cartridge material:	St
Sealing material:	NBR/AL
Maintenance indicator setting:	Δ p 2.2 bar ± 10 %
Indicating range vacuum gauge:	-1 bar to +1.5 bar
Pressure setting vacuum switch:	200 mbar
Type of protection (suction side):	IP 54
Electrical data of maintenance indicator:	
Maximum voltage:	250 V AC/200 V DC
Maximum current:	1 A
Contact load:	70 W
Type of protection:	IP 65 in inserted and secured status
Contact:	normally open/closed
Cable connection:	M20x1.5

The switching function can be changed by turning the electric upper part by 180 ° (normally closed contact or normally open contact). The state on delivery is a normally closed contact. By inductivity in the direct current circuit the use of suitable protection circuit should be considered. Further maintenance indicator details and designs are available in the maintenance indicator data sheet.

We draw attention to the fact that all values indicated are average values which do not always occur in specific cases of application. Our products are continually being further developed. Values, dimensions and weights can change as a result of this. Our specialized department will be pleased to offer you advice.

We recommend you to contact us concerning applications of our filters in areas governed by the EU Directive 94/9 EC (ATEX 95). The standard version can be used for liquids based on mineral oil (corresponding to the fluids in Group 2 of Directive 97/23 EC Article 9). If you consider to use other fluids please contact us for additional support.

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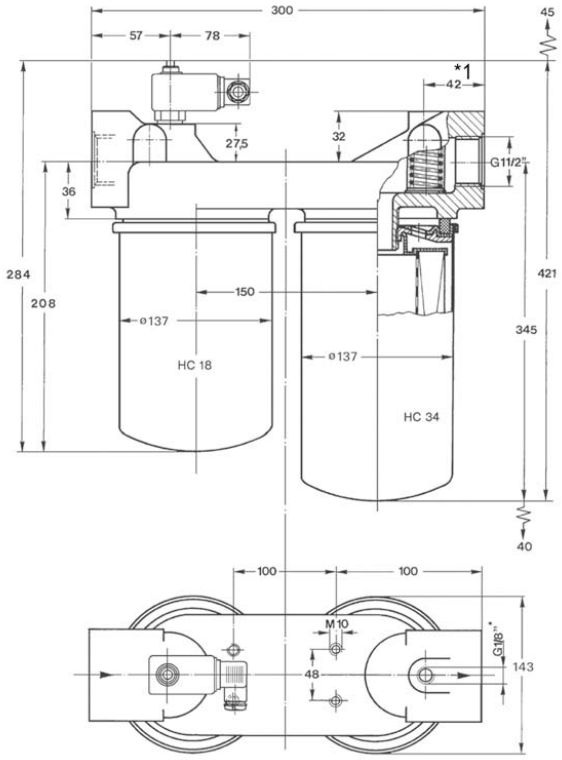

*1 only existing at suction side design

9. Installation, operating and maintenance instructions

9.1 Filter installation

When installing the filter make sure that sufficient space is available to remove spin-on cardrige. Filter should be installed with the spin-on cartridge pointing downwards. The maintenance indicator must be visible.

9.2 Connecting the electrical maintenance indicator

The electrical indicator is connected via a 2-pole appliance plug according to DIN EN 175301-803 with poles marked 1 and 2.
The electrical section can be inverted to change from normally open position to normally closed position or vice versa.

9.3 When should the filter element be replaced?

1 . Filters equipped with visual and electrical maintenance indicator:
   During cold starts, the indicator may give a warning signal. Press the red button of the visual indicator once again only after operating temperature has been reached. If the red button immediately pops up again and/or the electrical signal has not switched off after reaching operating temperature, the filter element must be replaced after the end of the shift.
2 . Filters without maintenance indicator:
   The filter element should be replaced after the trial run or flushing of the system. Afterwards follow instructions of the manufacturer.
3 . Please always ensure that you have original MAHLE spare spin-on cartridges in stock.

9.4 Spin-on cartrige replacement

1 . Stop system and relieve filter from pressure.
2 . Unscrew the spin-on cartridge by using a filter wrench by turning counter-clockwise.
3 . Make sure that the order number on the spin-on cartridge corresponds to the order number of the filter plate.
4 . Oil the seal of the spin-on cartridge.
5 . Spin-on cartridge must be installed according to the printed instructions.