

**HPM SERIES**

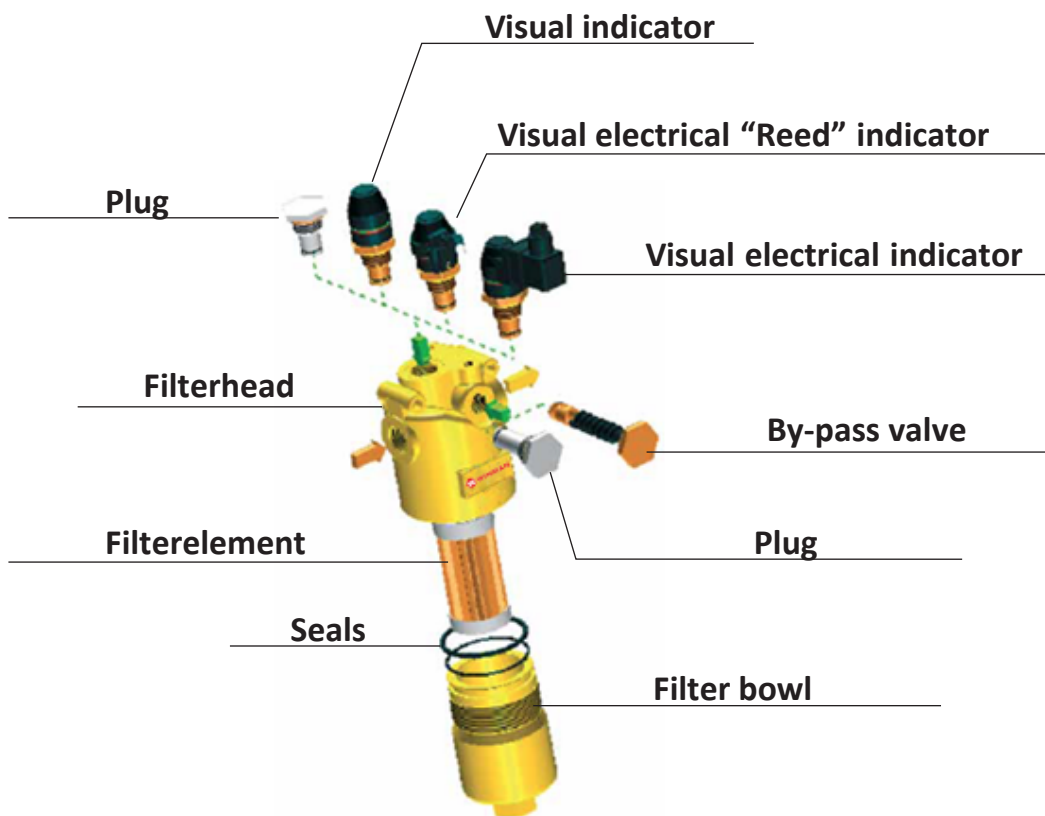
**High pressure filters**



In order to constantly improve our products quality, we take the right to make changes to the catalogues at any time without notice. Customers have the responsibility to continuously check all the information in the catalogues. This catalogue cancels and replaces the previous ones.

**HIGH PRESSURE FILTERS HMM SERIES 42.000.000 Pa (420 BAR) Tappo**

HPM is the high pressure filter up to 42.000.000 Pa (420 bar-6000 Psi); the range is composed by 3 different sizes with nominal flow rates up to 400 l/min., available with threaded or flanged connections. Filter elements are made with the most advanced materials, as a guarantee for an high filtration efficiency and a long-lasting life. HPM series modular construction allows the customer to choose the most suitable type following his needs. OMT Research & Development Department is constantly making a check about filter and elements performances.



## TECHNICAL DATA

### HMM FILTER SERIES IS SUITABLE TO THE FOLLOWING ISO STANDARDS:

- ISO 2941 - Hydraulic fluid power - Filter elements Verification of collapse / burst resistance
- ISO 2942 - Hydraulic fluid power - Filter elements Verification of fabrication integrity and determination of the first bubble point
- ISO 2943 - Hydraulic fluid power - Filter elements Verification of material compatibility with fluids
- ISO 3723 - Hydraulic fluid power - Filter elements Method for end load test
- 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 16889 - Hydraulic fluid power filters - Multi-pass method for evaluating filtration performance of a filter element

### MATERIALS (filter elements)

- Plates** Galvanized steel
- Support tube** Galvanized steel
- Support mesh** Galvanized steel with epox coating

### FILTRATION MATERIALS

Elementi filtranti Filter elements	Descrizione Description	Materiale Material	Grado di filtrazione (µm) Filtration (µm)	Rapporto β / β Ratio	
				ISO 4572 β <sub>x</sub> ≥200	ISO 16889 β <sub>x(c)</sub> ≥200
<b>F03</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	3	3	5
<b>F06</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	6	6	6
<b>F10</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	10	10	9
<b>F25</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	25	25	20
<b>T10</b>	Tela / Wire mesh	Inox (aisi 304) / Inox (aisi 304)	10	-	-
<b>T25</b>	Tela / Wire mesh	Inox (aisi 304) / Inox (aisi 304)	25	-	-
<b>C10</b>	Carta trattata / Treaded paper	Fibre di cellulosa / Cellulose fibre	10	-	-
<b>C25</b>	Carta trattata / Treaded paper	Fibre di cellulosa / Cellulose fibre	25	-	-

### FILTRATION AREA (cm<sup>2</sup>) FILTER ELEMENTS SERIES X - ΔP 2.000.000 Pa (20 bar)

Filter elements	CHP281	CHP282	CHP283	CHP421	CHP422
<b>F03 - F06 - F10 - F25</b>	325	450	870	900	1780
<b>T10 - T25</b>	325	450	870	900	1780
<b>C10 - C25</b>	325	450	870	900	1780

### FILTRATION AREA (cm<sup>2</sup>) FILTER ELEMENTS SERIES Y - ΔP 21.000.000 Pa (210 bar)

Filter elements	CHP281	CHP282	CHP283	CHP421	CHP422
<b>F03 - F06 - F10 - F25</b>	325	410	810	810	1635
<b>T10 - T25</b>	325	410	810	810	1635

## TECHNICAL DATA

### MATERIALS (housing)

<b>Head</b>	Cast iron
<b>Bowl</b>	Steel or cast iron
<b>Seals</b>	N: Buna-N
	V: Viton
<b>By-pass valve</b>	Brass
<b>Reverse flow valve</b>	Steel
<b>Indicator</b>	Brass

### WORKING CONDITIONS

<b>Filter pressure</b>	Working pressure: 42.000.000 Pa (420 bar)
	Testing pressure: 63.000.000 Pa (630 bar)
	Collapse pressure: 126.000.000 Pa (1260 bar)
<b>Operating pressure</b>	-20 a +95o c
<b>Collapse pressure</b>	X series : 2.000.000 Pa (20 bar)
	Y series : 21.000.000 (210 bar)
<b>By-pass valve setting pressure</b>	6 bar ±10% (from opening)
<b>Compatibility with hydraulic fluids ISO 2943</b>	Compatible with mineral oils such as HH, HM, HR, HV, HG according to ISO 6743/4)

### HPM series 28

Flows have been calculated just in order to obtain a pressure drop  $\Delta p \leq 120.000$  Pa (1.2 bar) With mineral oil kinematic viscosity 30 cst and 860 kg/m<sup>3</sup> density. (See remarks on page 08-09)

### THREADED CONNECTIONS

Type	A	E (depth 15mm)
	1/2" BSP	M 8
1	3/4" BSP	M 8
2	1/2" NPT	5/16" UNC
3	3/4" NPT	5/16" UNC
4	SAE8 - 3/4"-16UNF	5/16" UNC
5	SAE12 - 1 1/16"- 12UN	5/16" UNC
6	1/2" NPT	M 8
7	3/4" NPT	M 8

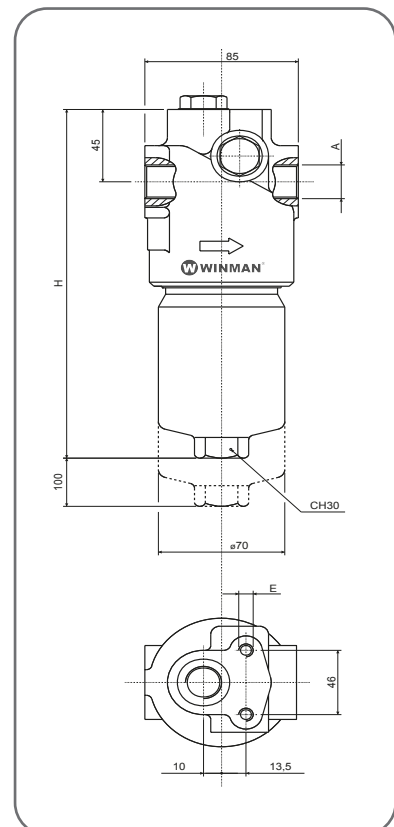
### LENGTHS

Type	H (mm)	Length OMT/Pall
1	189	HPM281..
2	219	HPM282..
3	319	HPM283..

### PORTATE CONSIGLIATE RECOMMENDED FLOWS

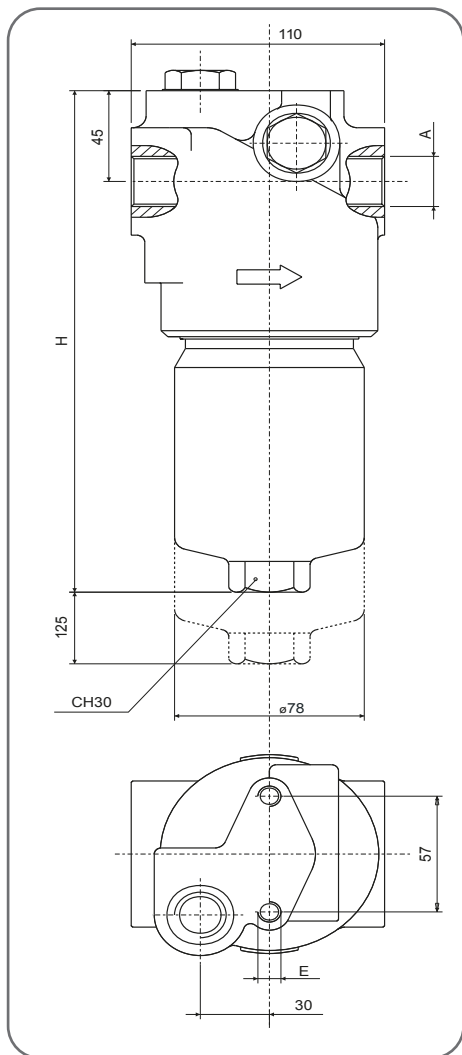
(Glass fibre elements)

HPM	Replace element	Flow (L/min) X series	Flow (L/min) Y series	Weight (Kg)
281	F03	17	15	3,8
281	F06	20	18	3,8
281	F10	35	33	3,8
281	F25	50	47	3,8
282	F03	26	22	4,2
282	F06	40	29	4,2
282	F10	55	50	4,2
282	F25	80	70	4,2
283	F03	38	32	6
283	F06	50	40	6
283	F10	70	60	6
283	F25	95	85	6



**HMM series 42**

Flows have been calculated just in order to obtain a pressure drop  $\Delta p \leq 120.000$  Pa (1.2 bar) With mineral oil kinematic viscosity 30 cst and 860 kg/m<sup>3</sup> density. (See remarks on page 09)



**THREADED CONNECTIONS**

Type	A	E (depth 15mm)
	3/4" BSP	M 10
<b>1</b>	1" BSP	M 10
<b>2</b>	3/4" NPT	3/8" UNC
<b>3</b>	1" NPT	3/8" UNC
<b>4</b>	SAE 12 - 11/16"-12UN	3/8" UNC
<b>5</b>	SAE 16 - 15/16"-12UN	3/8" UNC
<b>12</b>	11/4" BSP	M 8
<b>13</b>	3/4" BSPT	M 8
<b>14</b>	1" BSPT	M 8
<b>15</b>	11/4" BSPT	M 8
<b>16</b>	11/4" NPT	3/8" UNC

**FLANGED CONNECTIONS**

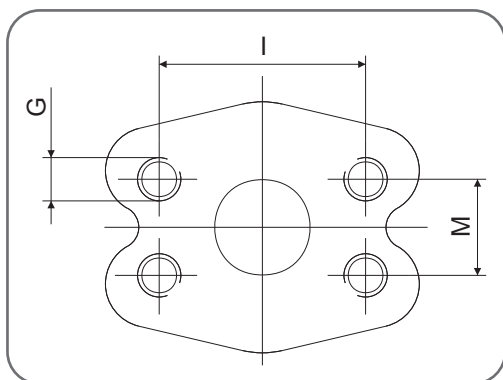
Type	Connection	I	M	G	E (depth 15mm)
6	3/4"SAE -3000 PSI/M	47.6	22.5	M 10	M 10
7	1"SAE -3000 PSI/M	52.4	26.2	M 10	M 10
8	3/4"SAE -3000 PSI/UNC	47.6	22.5	3/8" UNC	3/8" UNC
9	1"SAE -3000 PSI/UNC	52.4	26.2	3/8" UNC	3/8" UNC
10	3/4"SAE -6000 PSI/M	50.8	23.8	M 10	M 10
11	3/4"SAE -6000 PSI/UNC	50.8	23.8	3/8" UNC	3/8" UNC

**LENGTHS**

Type	H(mm)	Length OMT	Length Pall
1	277	HPM421..	HPM423..
2	390	HPM422..	HPM424..

**RECOMMENDED FLOWS**

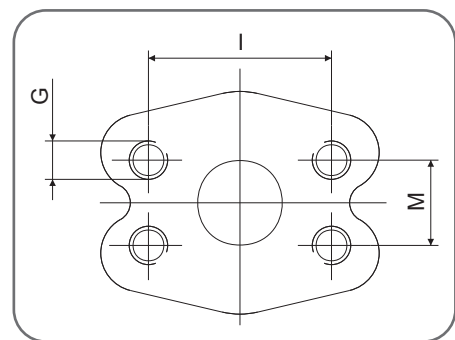
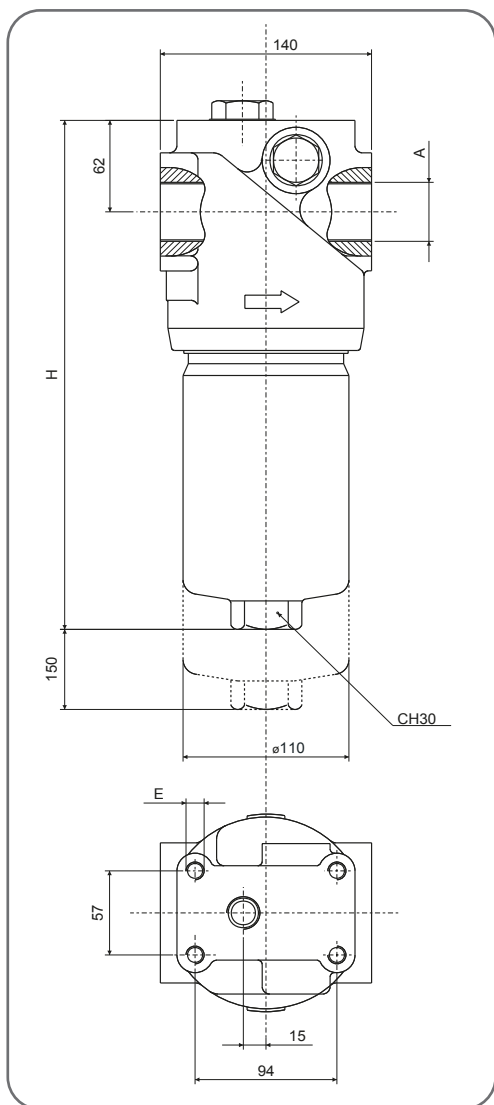
(Glass fibre elements)



HPM	Replace element	Flow(L/min) X series	Flow(L/min) Y series	Weight(Kg)
421	F03	55	38	6,8
421	F06	65	55	6,8
421	F10	80	60	6,8
421	F25	104	75	6,8
422	F03	100	80	8,9
422	F06	113	90	8,9
422	F10	135	115	8,9
422	F25	170	145	8,9

**HPM series 62**

Flows have been calculated just in order to obtain a pressure drop  $\Delta p \leq 120.000$  Pa (1.2 bar) with mineral oil kinematic viscosity 30 cSt and 860 kg/m<sup>3</sup> density. (See remarks on page 07)



**THREADED CONNECTIONS**

Type	A	E (depth 15mm)
	1" BSP	M 12
1	1 1/4" BSP	M 12
2	1 1/2" BSP	M 12
3	1" NPT	1/2" UNC
4	1 1/4" NPT	1/2" UNC
5	1 1/2" NPT	1/2" UNC
6	SAE20-15/8"-12UN	1/2" UNC
7	SAE24-17/8"-12UN	1/2" UNC
14	1" BSPT	M 12
15	1 1/4" BSPT	M 12
16	1 1/2" BSPT	M 12

**FLANGED CONNECTIONS**

Type	Connection	I	M	G	E (depth 15mm)
8	11/4"SAE -3000 PSI/M	58.7	30.2	M 10	M 12
9	11/2"SAE -3000 PSI/M	70	35.7	M 10	M 12
10	11/4"SAE -3000 PSI/UNC	58.7	30.2	7/16"UNC	1/2" UNC
11	11/2"SAE -3000 PSI/UNC	70	35.7	1/2"UNC	1/2" UNC
12	11/4"SAE -6000 PSI/UNC	66.7	31.6	M 14	M 12
13	11/4"SAE -3000 PSI/UNC	66.7	31.6	1/2"UNC	1/2" UNC

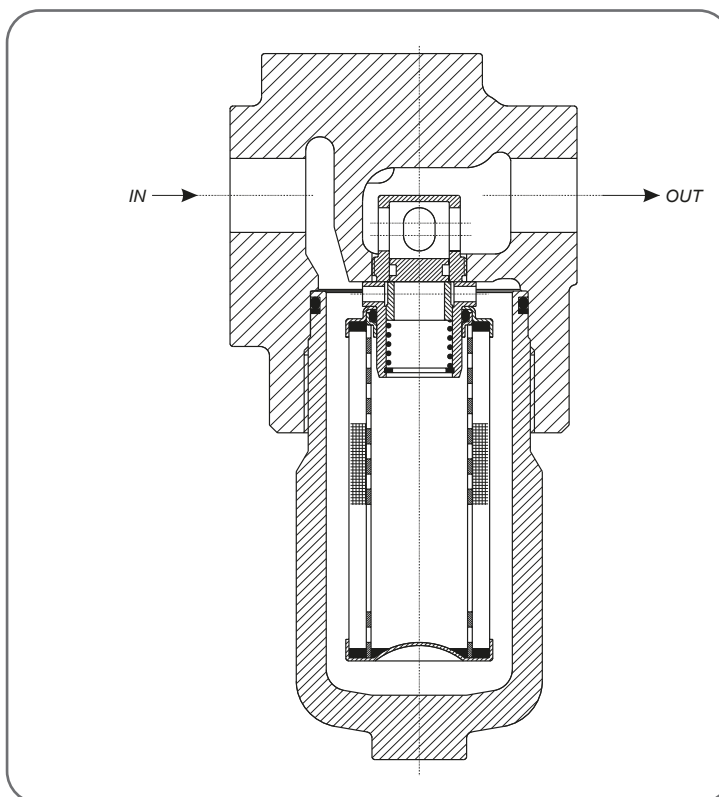
**LENGTHS**

Tipo Type	H(mm)	Lunghezza OMT Length OMT	Lunghezza Pall Length Pall
1	273	HPM621..	HPM625..
2	393	HPM622..	HPM626..
3	533	HPM623..	HPM627..
4	673	HPM624..	HPM628..

**RECOMMENDED FLOWS**

HPM	Replace element	Flow (L/min) X series	Flow (L/min) Y series	Weight (Kg)
621	F03	110	70	13
621	F06	125	80	13
621	F10	145	105	13
621	F25	190	155	13
622	F03	206	145	16,7
622	F06	250	180	16,7
622	F10	300	220	16,7
622	F25	345	245	16,7
623	F03	250	225	20,5
623	F06	290	260	20,5
623	F10	330	290	20,5
623	F25	375	365	20,5
624	F03	285	240	24
624	F06	330	265	24
624	F10	360	310	24
624	F25	410	345	24

**REVERSE FLOW VALVE**



Available for HPM models:  
421 - 422 - 621 - 622 - 623 - 624

**FILTER ELEMENTS INTERCHANGEABLE TO "PALL"**

OMT replace elements CHP Series are perfectly interchangeable with "Pall" replace elements, as indicated in the following table:

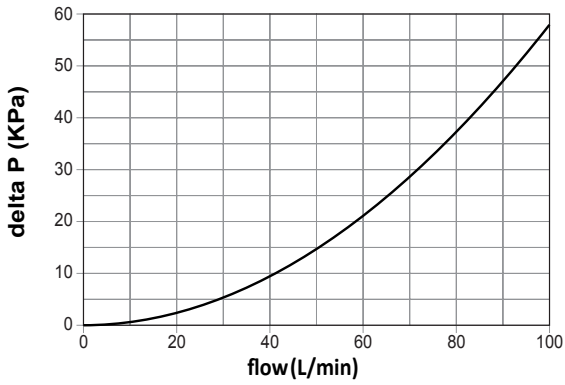
Pall part-number	OMT part-number	Pall part-number	OMT part-number	Pall part-number	OMT part-number
HC9020 FKP4H	CHP282 F03XN	HC9800 FKP8H	CHP424 F03XN	HC9600 FKP13H	CHP627 F03XN
FKN4H	F06XN	FKN8H	F06XN	FKN13H	F06XN
FKS4H	F10XN	FKS8H	F10XN	FKS13H	F10XN
FKT4H	F25XN	FKT8H	F25XN	FKT13H	F25XN
HC9020 FKP8H	CHP623 F03XN	HC9801 FDP4H	CHP422 F03XN	HC9600 FKP16H	CHP628 F03XN
FKN8H	F06XN	FDT4H	F10XN	FKN16H	F06XN
FKS8H	F10XN	HC9801 FDP8H	CHP423 F03XN	FKS16H	F10XN
FKT8H	F25XN	FDT8H	F10XN	FKT16H	F25XN
HC9021 FDP4H	CHP282 F03YN	HC9600 FKP4H	CHP625 F03XN	HC9601 FDP4H	CHP625 F03YN
FDT4H	F10YN	FKN4H	F06XN	FDT4H	F10YN
FDP8H	CHP283 F03YN	FKS4H	F10XN	HC9601 FDP8H	CHP626 F03YN
FDT8H	F10YN	FKT4H	F25XN	FDT8H	F10YN
HC9800 FKP4H	CHP423 F03XN	HC9600 FKP8H	CHP626 F03XN	HC9601 FDP13H	CHP627 F03YN
FKN4H	F06XN	FKN8H	F06XN	FDT13H	F10YN
FKS4H	F10XN	FKS8H	F10XN	HC9601 PDP16H	CHP628 F03YN
FKT4H	F25XN	FKT8H	F25XN	FDT16H	F10YN

HPM complete filters will be supplied with the replace element and special interchangeable "Pall" tang, if when ordering the OMT replace element, you indicate the size of the replace element in the complete part-number. Example: HPM 628 F03XNR Complete OMT filter series HPM62 with replace element interchangeable to "Pall HC9600FKP16H"

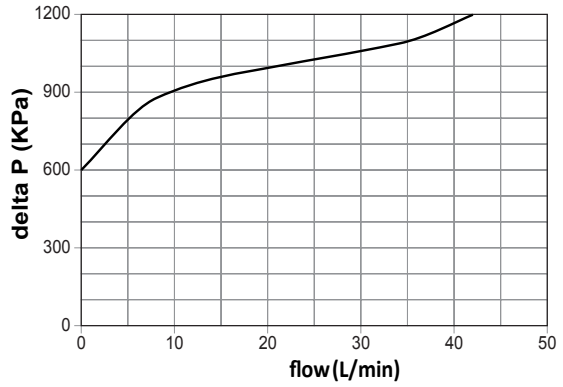
**Pressure Drops (according to ISO 3968)**

**HPM series 28**

**ΔP HOUSINGS**

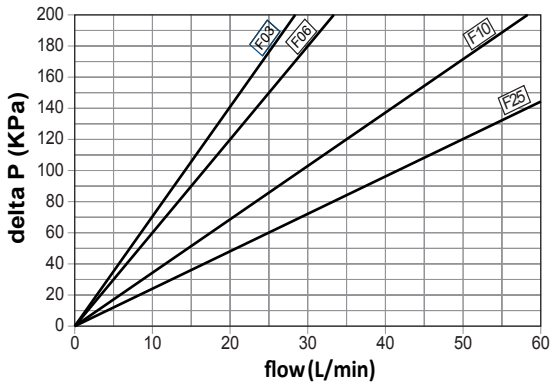


**BY-PASS**

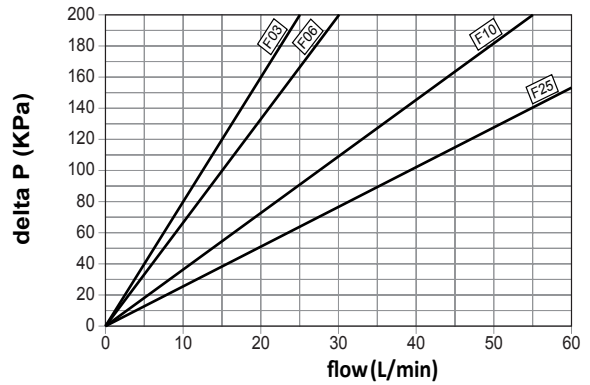


**tipo 281**

**ΔP X ELEMENTS**

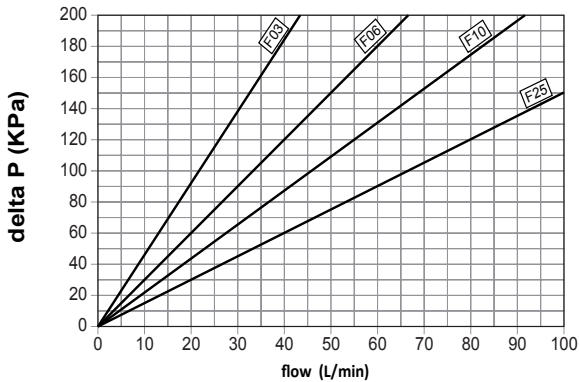


**ΔP Y ELEMENTS**

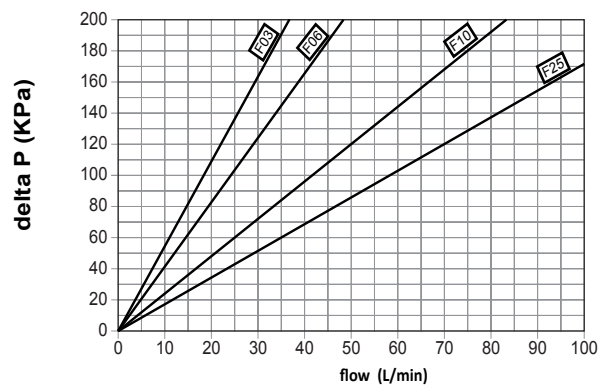


**282 series**

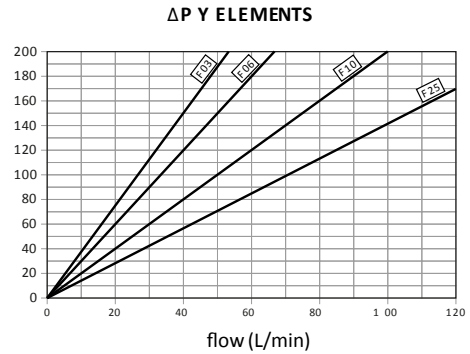
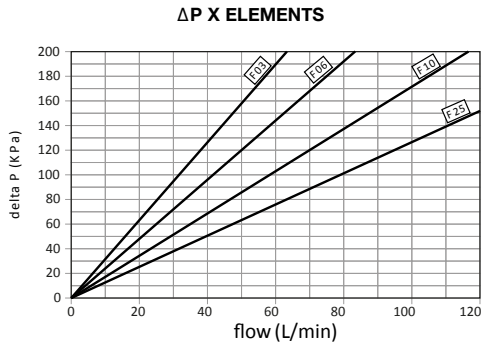
**ΔP X ELEMENTS**



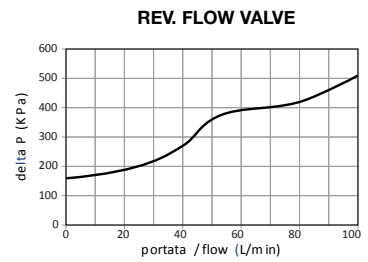
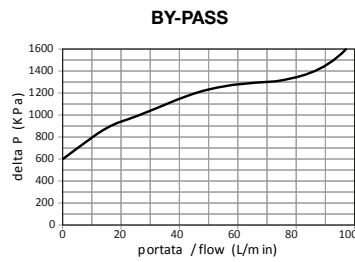
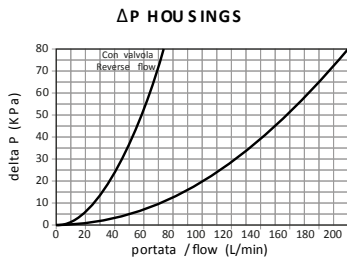
**ΔP Y ELEMENTS**



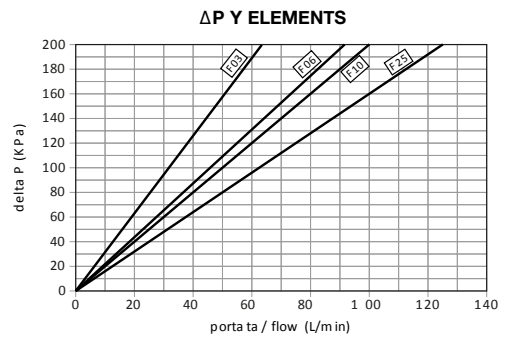
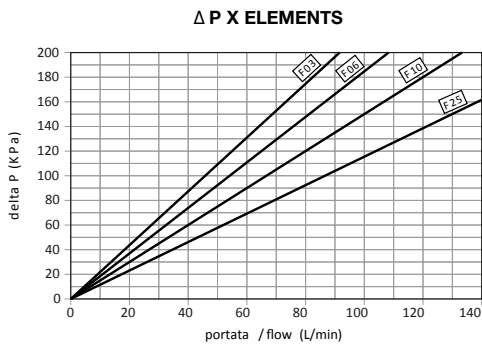
**Pressure Drops (according to ISO 3968)**



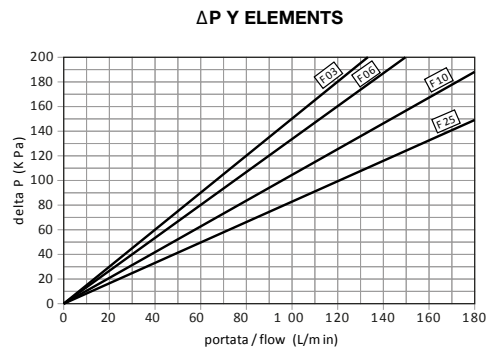
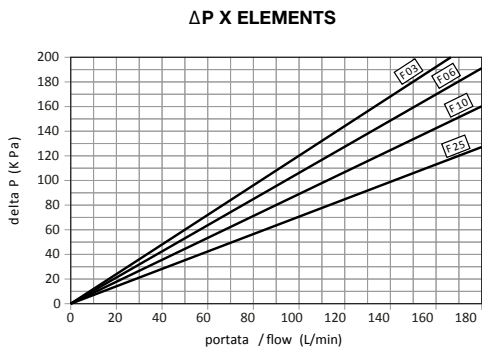
**HPM series 42**



**421 series**



**422 series**

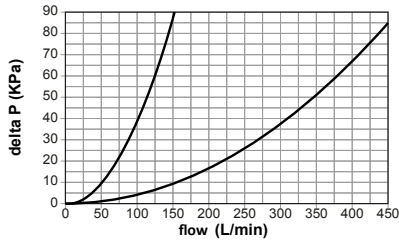




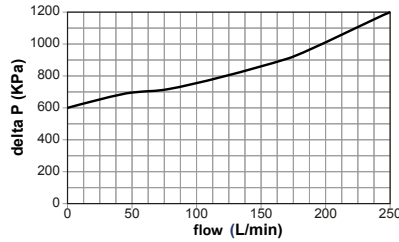
**Pressure Drops (according to ISO 3968)**

**HPM series 62**

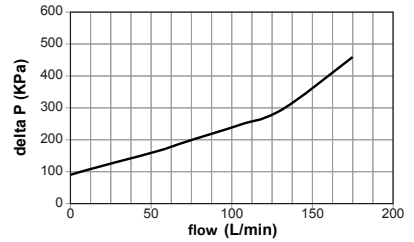
**ΔP HOUSINGS**



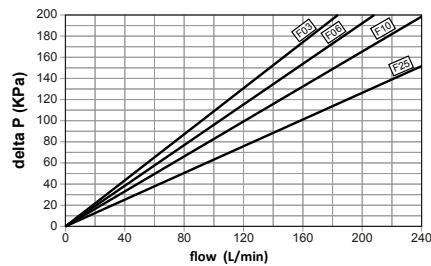
**BY-PASS**



**REV. FLOW VALVE**

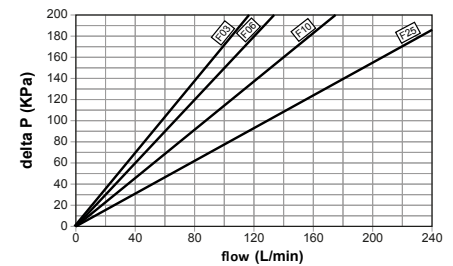


**ΔP X ELEMENTS**

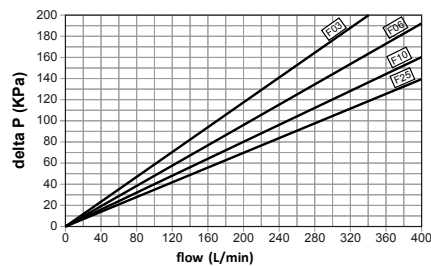


**621 series**

**ΔP Y ELEMENTS**

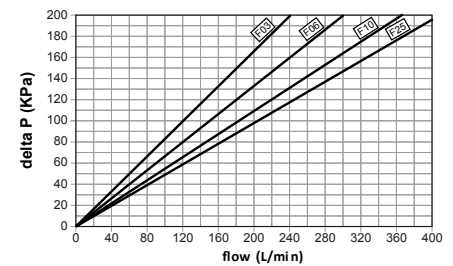


**ΔP X ELEMENTS**

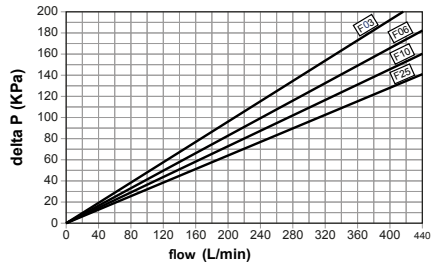


**622 series**

**ΔP Y ELEMENTS**

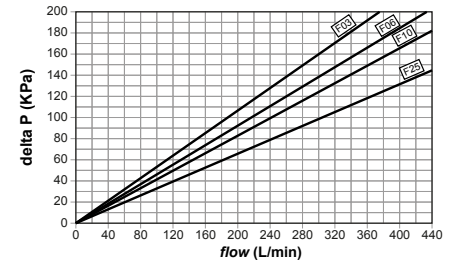


**ΔP X ELEMENTS**

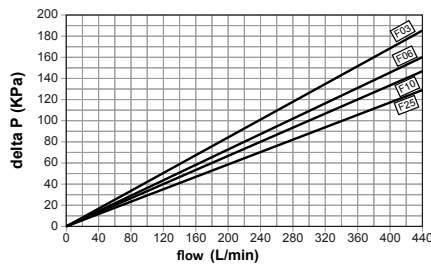


**623 series**

**ΔP Y ELEMENTS**

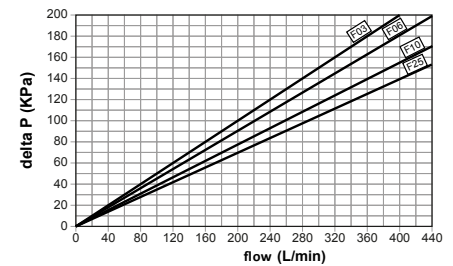


**ΔP X ELEMENTS**



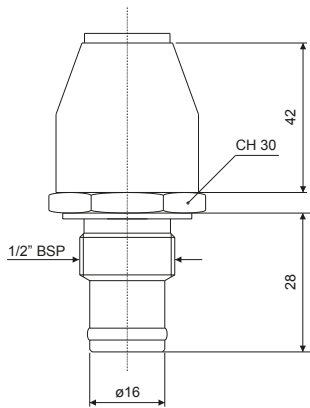
**624 series**

**ΔP Y ELEMENTS**



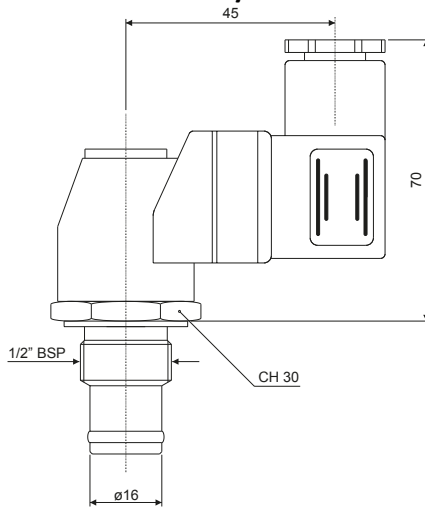
**DIFFERENTIAL INDICATORS**

**DV500/800**



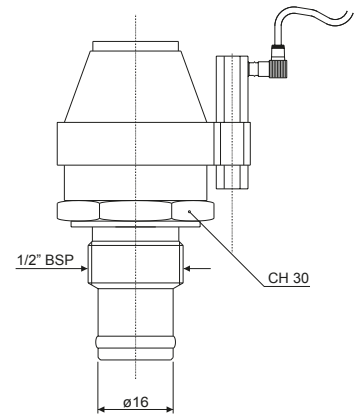
**VISUAL INDICATOR**

**DE500/800**



**ELECTRICAL VISUAL INDICATOR**

**DR500/800**



**VISUAL-ELECTRICAL INDICATOR WITH "REED" CONTACTS**

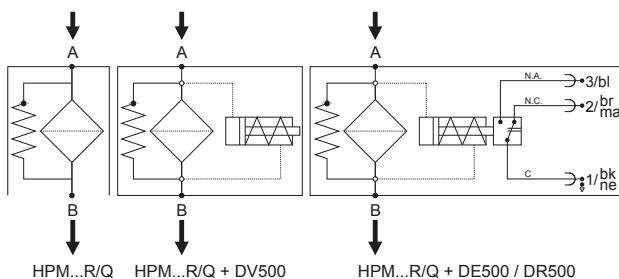
**TECHNICAL DATA**

Part number	Description	Setting	Electrical Contacts	Application
D V 500	visual	500.000Pa (5 bar)	-	Filters with By-pass and elements "X" series
D E 500	electrical		Switch	
D R 500	Visual-electrical with "reed" contacts		Switch	
D V 800	visual	800.000Pa (8 bar)	-	Filters with By-pass and elements "Y" series
D E 800	electrical		Switch	
D R 800	Visual-electrical with "reed" contacts		Switch	

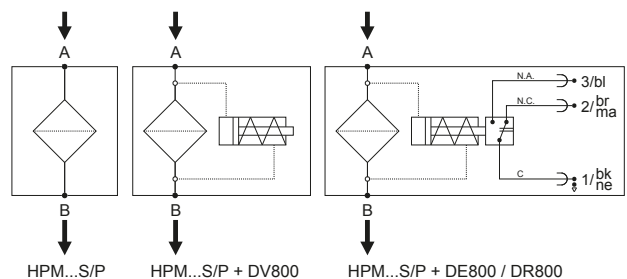
Breakdown voltage for "DR 500 and DR 800"		
Feeder voltage (V)	Power with inductive load (VA)	
A.C. 3-115	20	
D.C. 3-115	20	
Breakdown voltage for "DE 500 and DE 800"		
Feeder voltage (V)	Resistive load (A)	Inductive load (A)
A.C. 125	5	5
A.C. 250	5	5
D.C. 15	10	10
D.C. 30	5	5
D.C. 50	2	2
D.C. 125	0.5	0.06

**SIMBOLOGY**

**With By-pass**

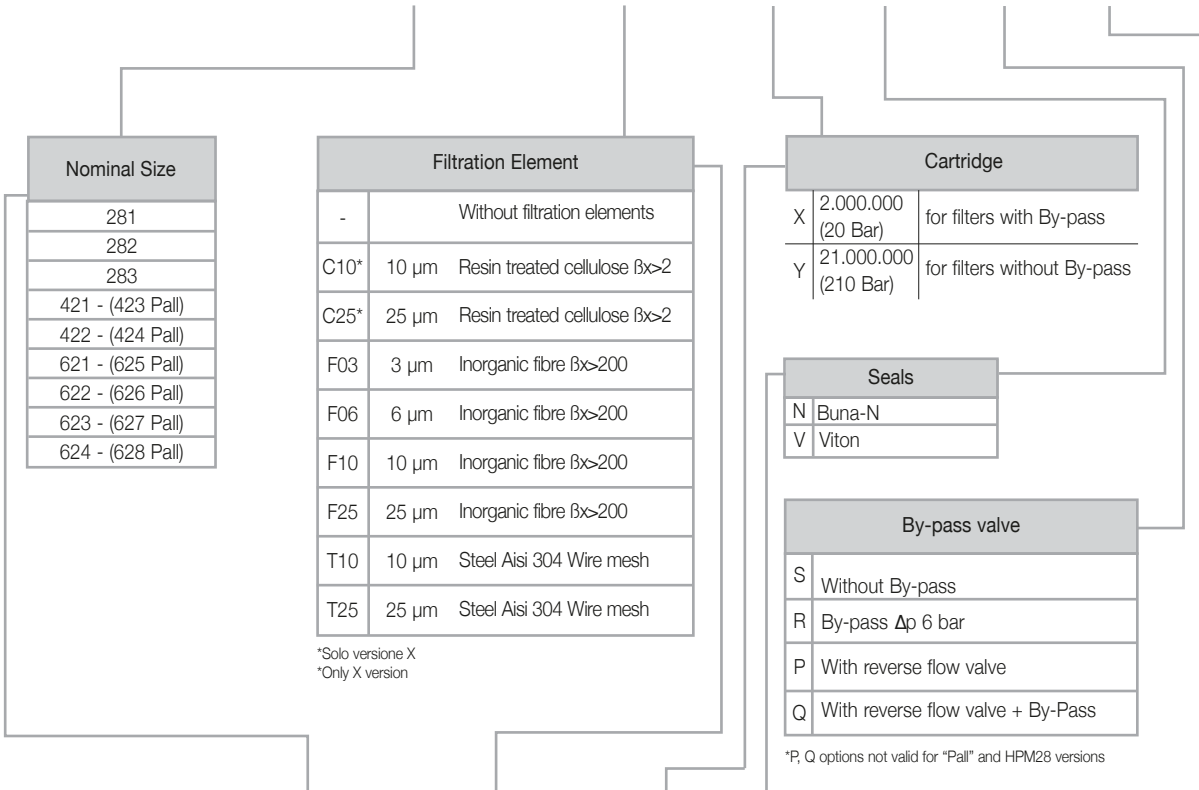


**Without By-pass**



**HOW TO ORDER THE COMPLETE FILTER**

**HPM 283 F10 X N R 2**



**CHP 421 F03 Y N**  
How to order the replacement element

**CONNECTIONS**

A	HPM28	HPM42	HPM62
-	1/2" BSP	3/4" BSP	1" BSP
1	3/4" BSP	1" BSP	1 1/4" BSP
2	1/2" NPT	3/4" NPT	1 1/2" BSP
3	3/4" NPT	1" NPT	1" NPT
4	SAE8 3/4" - 16UNF	SAE12 1 1/16" - 12UN	1 1/4" NPT
5	SAE 12	SAE16 1 5/16" - 12UN	1 1/2" NPT
6	1/2" BSPT	3/4" SAE-300PSI/M	SAE20 1 5/8" - 12UN
7	3/4" BSPT	1" SAE-3000PSI/M	SAE24 1 7/8" - 12UN
8		3/4" SAE-300PSI/UNC	1 1/4" SAE-3000PSI/M
9		1" SAE-3000PSI/UNC	1 1/2" SAE-3000PSI/M
10		3/4" SAE-6000PSI/M	1 1/4" SAE-3000PSI/UNC
11		3/4" SAE-6000PSI/UNC	1 1/2" SAE-3000PSI/UNC
12		1 1/4" BSP	1 1/4" SAE-6000PSI/M
13		3/4" BSPT	1 1/4" SAE-6000PSI/UNC
14		1" BSPT	1" BSPT
15		1 1/4" BSPT	1 1/4" BSPT
16		1 1/4" NPT	1 1/2" BSPT

\* See page 11 for information how to order clogging indicators

**HMM SERIES**

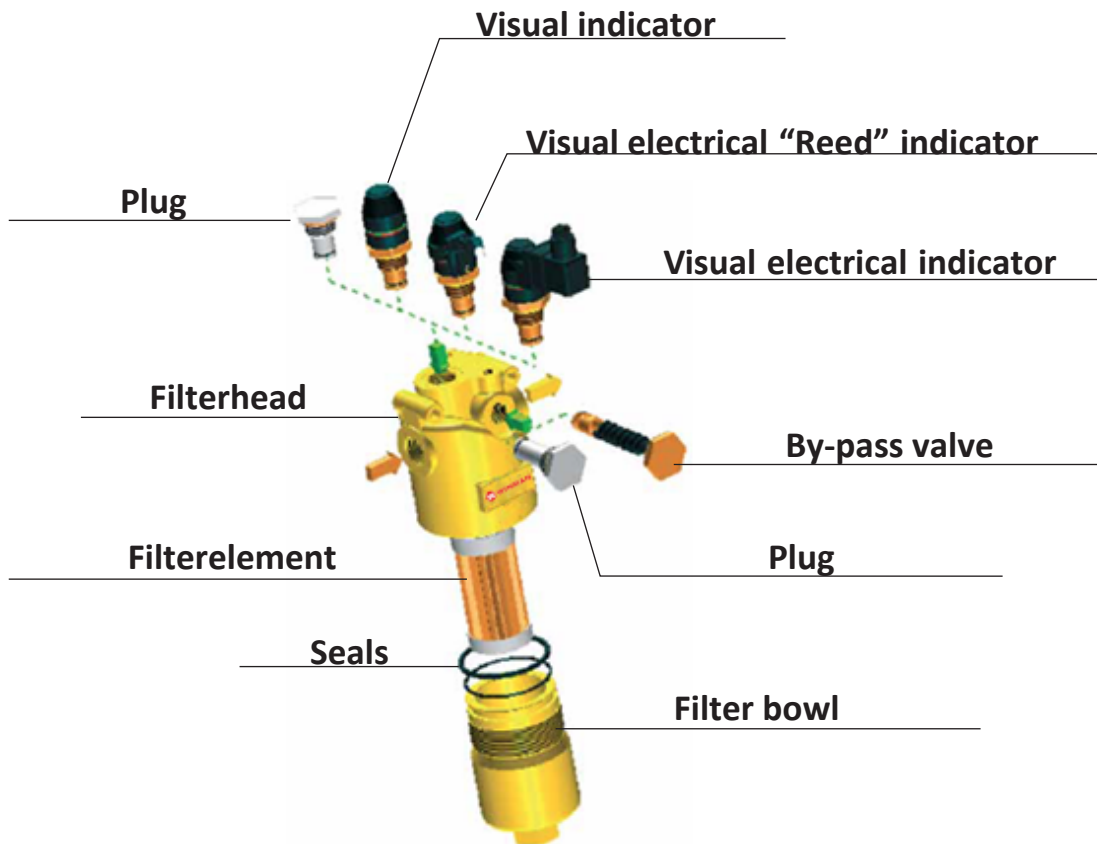
**Medium pressure filters**



In order to constantly improve our products quality, we take the right to make changes to the catalogues at any time without notice. Customers have the responsibility to continuously check all the information in the catalogues. This catalogue cancels and replaces the previous ones.

**MEDIUM PRESSURE FILTERS HMM SERIES 22.000.000 Pa (220 BAR)**

HMM is the medium pressure filter up to 22.000.000 Pa (220 bar- 3200 Psi); the range is composed of two different sizes with nominal flow rates up to 170 l/min. with threaded or flanged connections. Filter elements are made of the most advanced materials, as a guarantee for a high filtration efficiency and a long-lasting life. HMM series modular construction allows the customer to choose the most suitable type following his needs. OMT Research and Development Department is constantly checking filter and elements performances.



## TECHNICAL DATA

### HMM FILTER SERIES IS SUITABLE TO THE FOLLOWING ISO STANDARDS:

- ISO 2941 - Hydraulic fluid power - Filter elements Verification of collapse / burst resistance
- ISO 2942 - Hydraulic fluid power - Filter elements Verification of fabrication integrity and determination of the first bubble point
- ISO 2943 - Hydraulic fluid power - Filter elements Verification of material compatibility with fluids
- ISO 3723 - Hydraulic fluid power - Filter elements Method for end load test
- 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 16889 - Hydraulic fluid power filters - Multi-pass method for evaluating filtration performance of a filter element

### MATERIALS (filter elements)

**Plates** Galvanized steel

**Support tube** Galvanized steel

**Support mesh** Galvanized steel with epox coating

### FILTRATION MATERIALS

Filter elements	Description	Material	Filtration (µm)	β Ratio	
				ISO 4572 β <sub>x</sub> ≥200	ISO 16889 β <sub>x(c)</sub> ≥200
<b>F03</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	3	3	5
<b>F06</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	6	6	6
<b>F10</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	10	10	9
<b>F25</b>	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	25	25	20
<b>T10</b>	Tela / Wire mesh	Inox (aisi 304) / Inox (aisi 304)	10	-	-
<b>T25</b>	Tela / Wire mesh	Inox (aisi 304) / Inox (aisi 304)	25	-	-
<b>C10</b>	Carta trattata / Treaded paper	Fibre di cellulosa / Cellulose fibre	10	-	-
<b>C25</b>	Carta trattata / Treaded paper	Fibre di cellulosa / Cellulose fibre	25	-	-

### FILTRATION AREA (cm<sup>2</sup>) FILTER ELEMENTS

#### SERIES X - ΔP 2.000.000 Pa (20 bar)

Filter elements	CHP281	CHP282	CHP283	CHP421	CHP422
<b>F03 - F06 - F10 - F25</b>	325	450	870	900	1780
<b>T10 - T25</b>	325	450	870	900	1780
<b>C10 - C25</b>	325	450	870	900	1780

### FILTRATION AREA (cm<sup>2</sup>) FILTER ELEMENTS

#### SERIES Y - ΔP 21.000.000 Pa (210 bar)

Filter elements	CHP281	CHP282	CHP283	CHP421	CHP422
<b>F03 - F06 - F10 - F25</b>	325	410	810	810	1635
<b>T10 - T25</b>	325	410	810	810	1635

## TECHNICAL DATA

### MATERIALS (housing)

<b>Head</b>	Aluminium
<b>Bowl</b>	Steel
<b>Seals</b>	N: Nitrilic (Buna-N) V: Fluoroelastomer (Viton)
<b>By-pass valve</b>	Brass
<b>Reverse flow valve</b>	Steel
<b>Indicator</b>	Brass

### WORKING CONDITIONS

<b>Filter pressure</b>	Max working pressure: 22.000.000 Pa (220 bar) Testing pressure: 44.000.000 Pa (440 bar) Burst pressure: 66.000.000 Pa (660 bar)
<b>Operating pressure</b>	-20 a +95o c
<b>Collapse pressure (Filter Element)</b>	X series : 2.000.000 Pa (20 bar) Y series : 21.000.000 (210 bar)
<b>By-pass valve setting pressure</b>	600.000 Pa ±10% (6 bar) (from opening)
<b>Compatibility with hydraulic fluids ISO 2943</b>	Compatible with mineral oils such as HH, HM, HR, HV, HG according to ISO 6743/4)

## HMM series 28

Flows have been calculated just in order to obtain a pressure drop  $\Delta p \leq 120.000$  Pa (1.2 bar) with mineral oil kinematic viscosity 30 cSt and 860 kg/m<sup>3</sup> density. (See remarks on page 06/07)

### THREADED CONNECTIONS

Type	A	E (depth 15mm)
	1/2" BSP	M 8
1	3/4" BSP	M 8
2	1/2" NPT	5/16" UNC
3	3/4" NPT	5/16" UNC
4	SAE8 - 3/4" -16UNF	5/16" UNC
5	SAE12 - 1 1/16" - 12UN	5/16" UNC

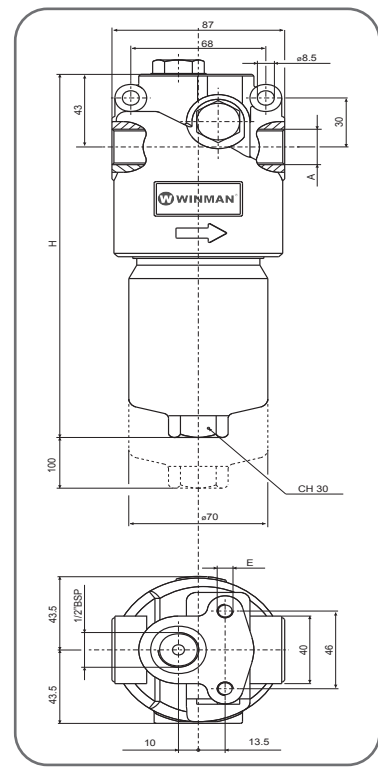
### LENGTHS

Type	H (mm)	Length OMT/Pall
1	189	HMM281..
2	219	HMM282..
3	319	HMM283..

### RECOMMENDED FLOWS

(Glass fibre elements)

HMM	Replace element	Flow (L/min) X series	Flow (L/min) Y series	Weight (Kg)
281	F03	17	15	2,65
281	F06	20	18	2,65
281	F10	35	33	2,65
281	F25	50	47	2,65
282	F03	26	22	3,2
282	F06	40	29	3,2
282	F10	55	50	3,2
282	F25	80	70	3,2
283	F03	38	32	4,7
283	F06	50	40	4,7
283	F10	70	60	4,7
283	F25	95	85	4,7

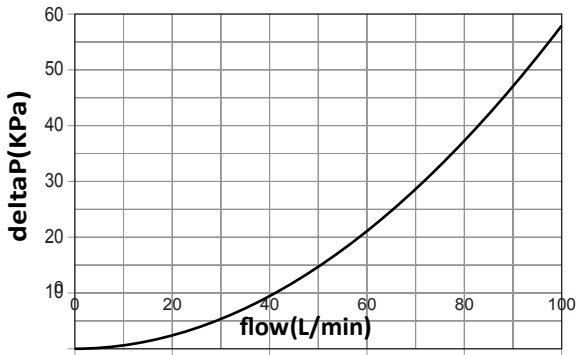


**Pressure Drops (according to ISO 3968)**

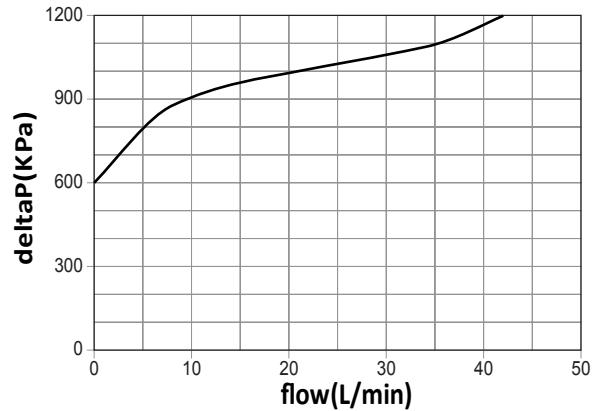
The pressure drop of the complete filter is calculated by adding the pressure drop of the housing to that of the filter element. Pressure drops in the housings. The graphics refer to use of mineral oil with a mass density of 860 Kg/m. The pressure drop is proportional to the variations of mass density. Pressure drops in the filter elements. The graphics refer to mineral oil with a kinematic viscosity of 30 cSt. The variation of the pressure drop is proportional to viscosity.

**HMM series28**

**ΔPHOUSINGS**

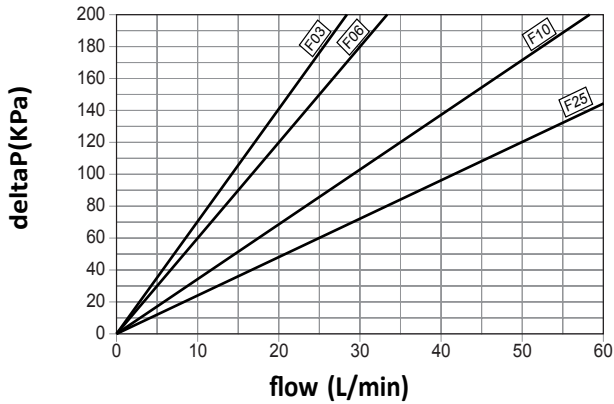


**BY-PASS**

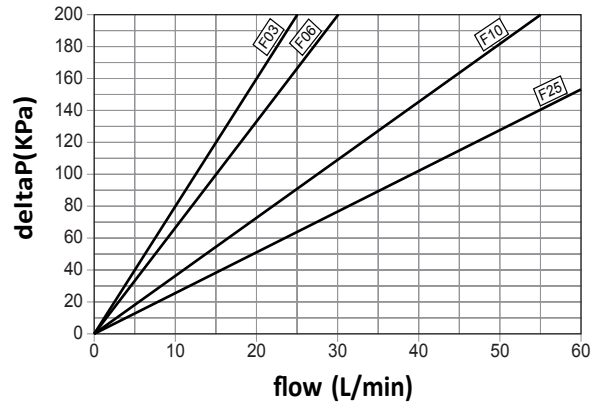


**ΔP X ELEMENTS**

**281 series**

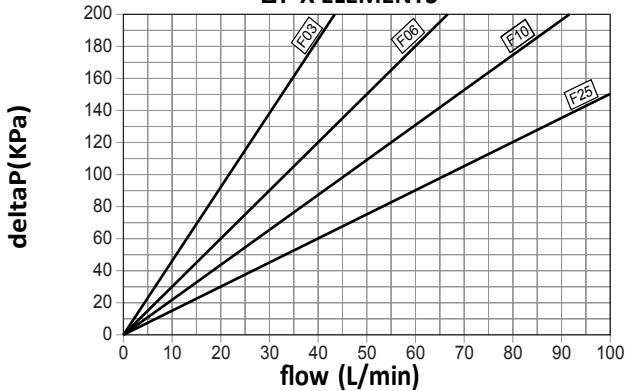


**ΔP Y ELEMENTS**

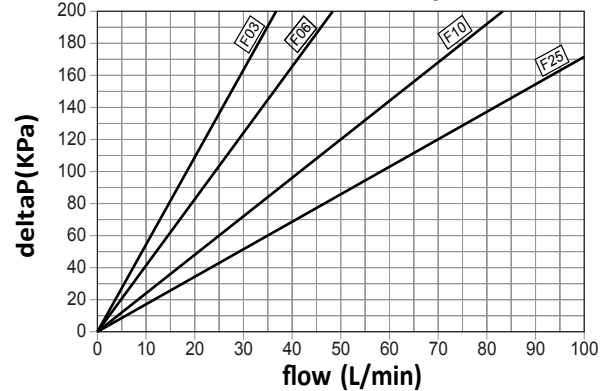


**282 series**

**ΔP X ELEMENTS**

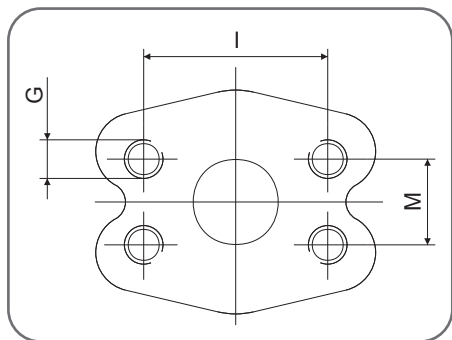
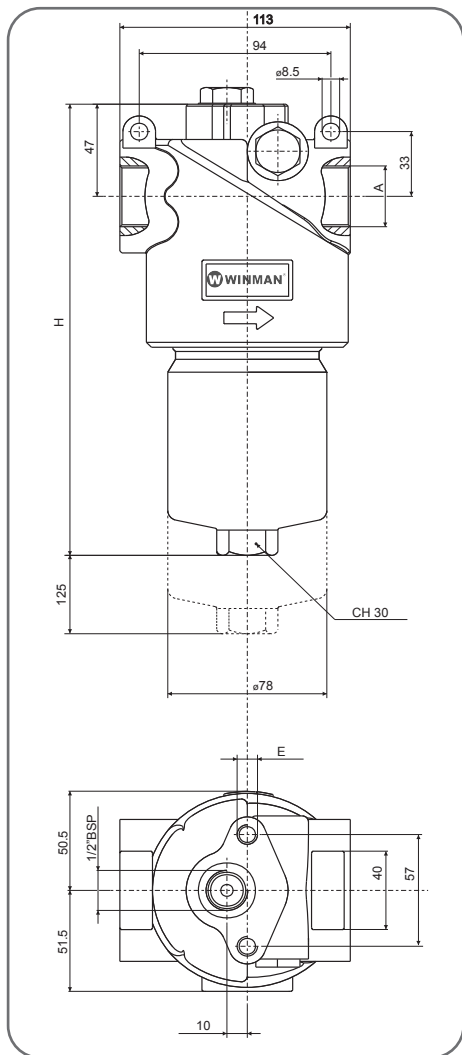


**ΔP X ELEMENTS**



**HMM series 42**

Flows have been calculated just in order to obtain a pressure drop  $\Delta p \leq 120.000$  Pa (1.2 bar) with mineral oil kinematic viscosity 30 cSt and 860 kg/m<sup>3</sup> density. (See remarks on page 07)



**THREADED CONNECTIONS**

Type	A	E (depth 15mm)
	3/4" BSP	M 10
1	1" BSP	M 10
2	3/4" NPT	3/8" UNC
3	1" NPT	3/8" UNC
4	SAE12 - 11/16"-12UN	3/8" UNC
5	SAE16 - 15/16"-12UN	3/8" UNC

**FLANGED CONNECTIONS**

Tipo / Type	Attacco-Connection	I	M	G	E (depth 15mm)
6	3/4"SAE -3000 PSI/M	47.6	22.5	M 10	M 10
7	1"SAE -3000 PSI/M	52.4	26.2	M 10	M 10
8	3/4"SAE -3000 PSI/UNC	47.6	22.5	3/8" UNC	3/8" UNC
9	1"SAE -3000 PSI/UNC	52.4	26.2	3/8" UNC	3/8" UNC

**LENGTHS**

Tipo / Type	H(mm)	Lunghezza
1	277	HMM421..
2	390	HMM422..

**RECOMMENDED FLOWS**  
(Glassfibreelements)

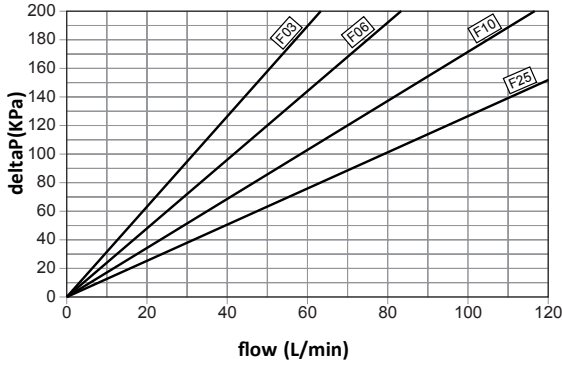
HMM	Replace	Flow(L/min) Xseries	Flow(L/min) Yseries	Weight(Kg)
421	F03	55	38	3,9
421	F06	65	55	3,9
421	F10	80	60	3,9
421	F25	104	75	3,9
422	F03	100	80	5,6
422	F06	113	90	5,6
422	F10	135	115	5,6
422	F25	170	145	5,6



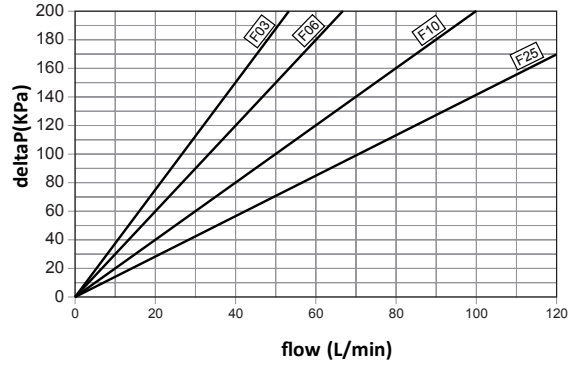
**Pressure Drops (according to ISO 3968)**

**283 series**

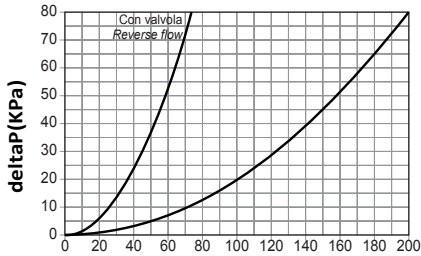
**Δ P X ELEMENTS**



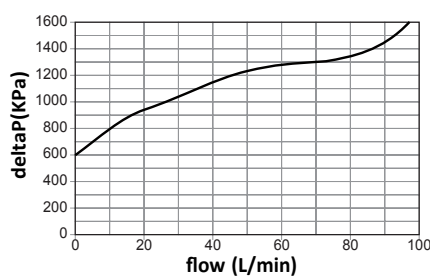
**Δ P X ELEMENTS**



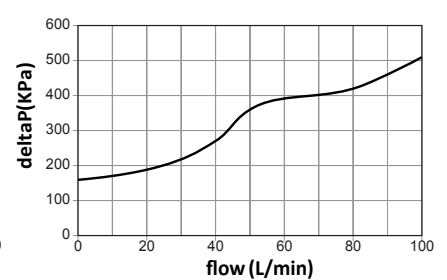
**Δ P HOUSINGS**



**BY-PASS**

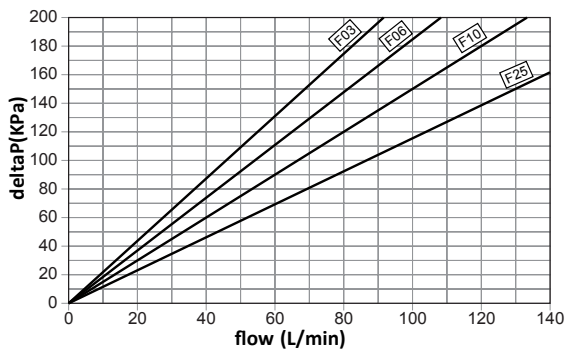


**REV. FLOW VALVE**



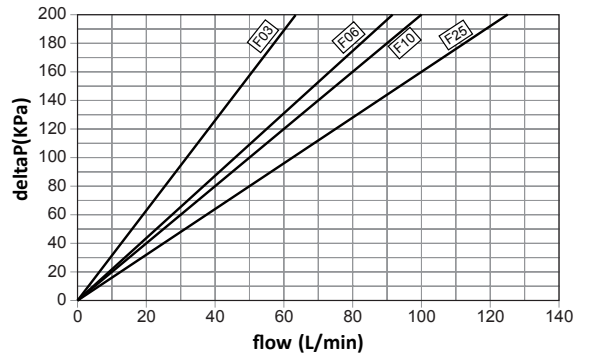
**HMM series 42**

**Δ P X ELEMENTS**

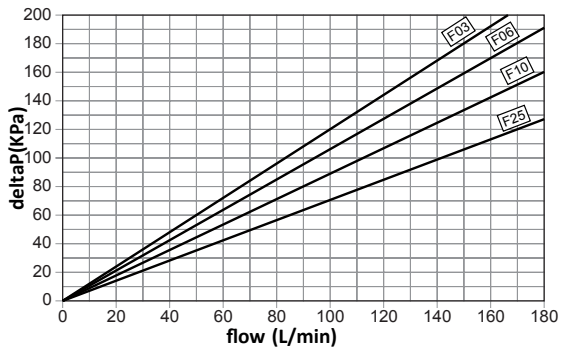


**421 series**

**Δ P Y ELEMENTS**

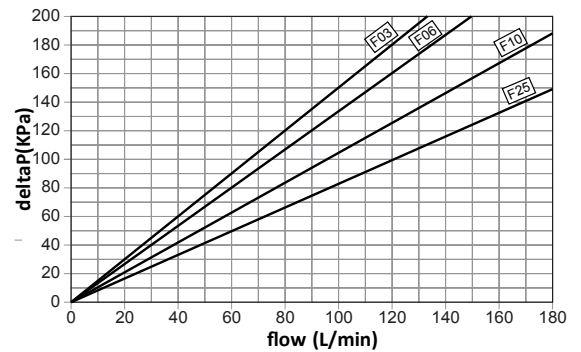


**Δ P X ELEMENTS**



**422 series**

**Δ P Y ELEMENTS**

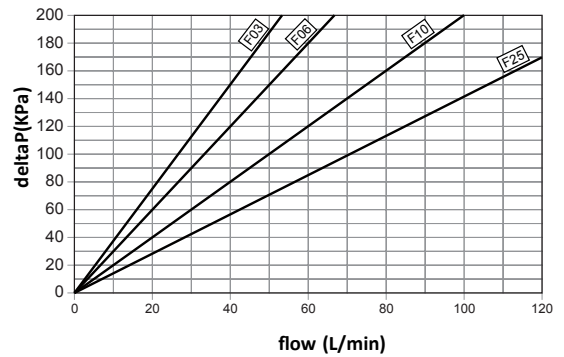
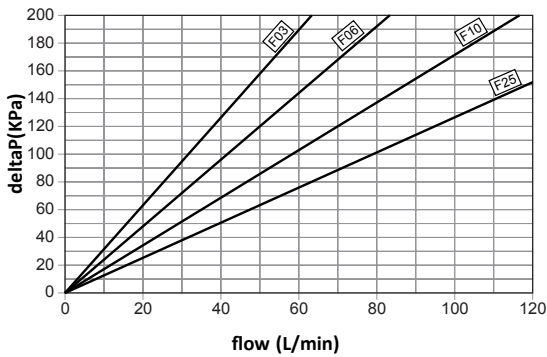


**Pressure Drops (according to ISO 3968)**

**ΔP X ELEMENTS**

**283 series**

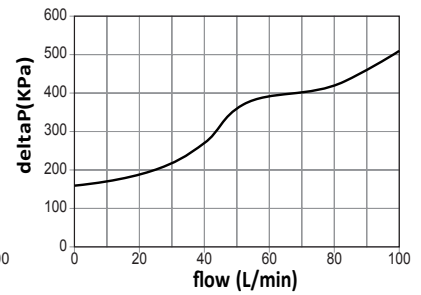
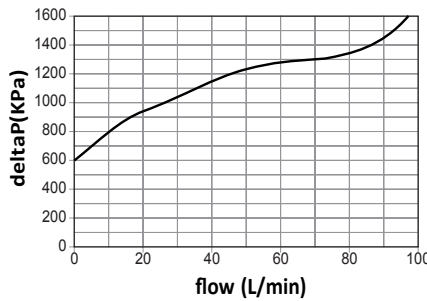
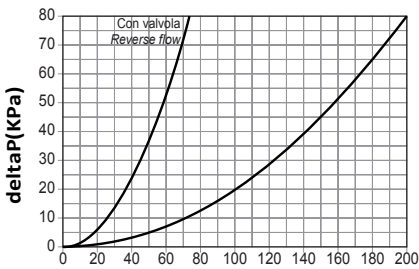
**ΔP Y ELEMENTS**



**ΔP HOUSINGS**

**BY-PASS**

**REV. FLOW VALVE**

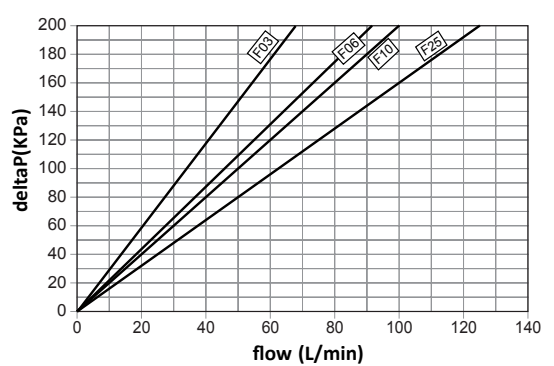
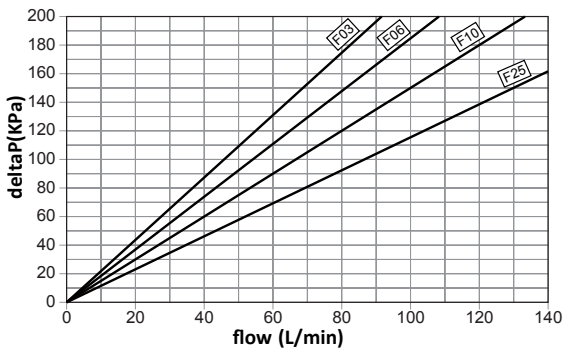


**HMM series 42**

**ΔP X ELEMENTS**

**421 series**

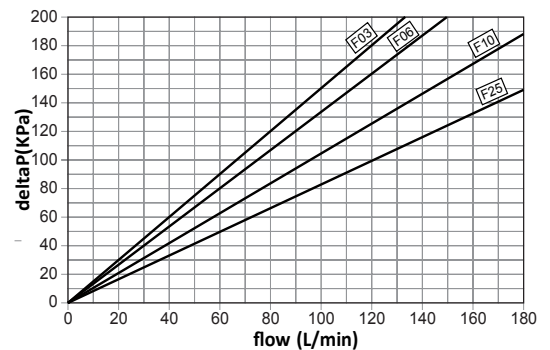
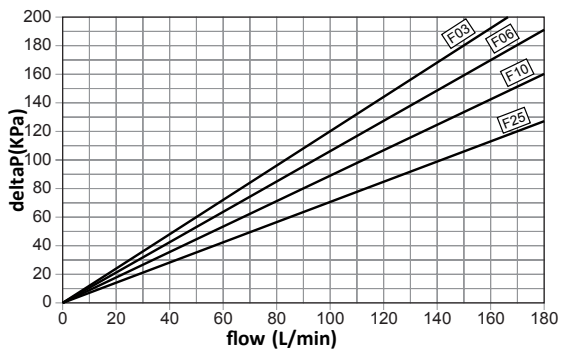
**ΔP Y ELEMENTS**



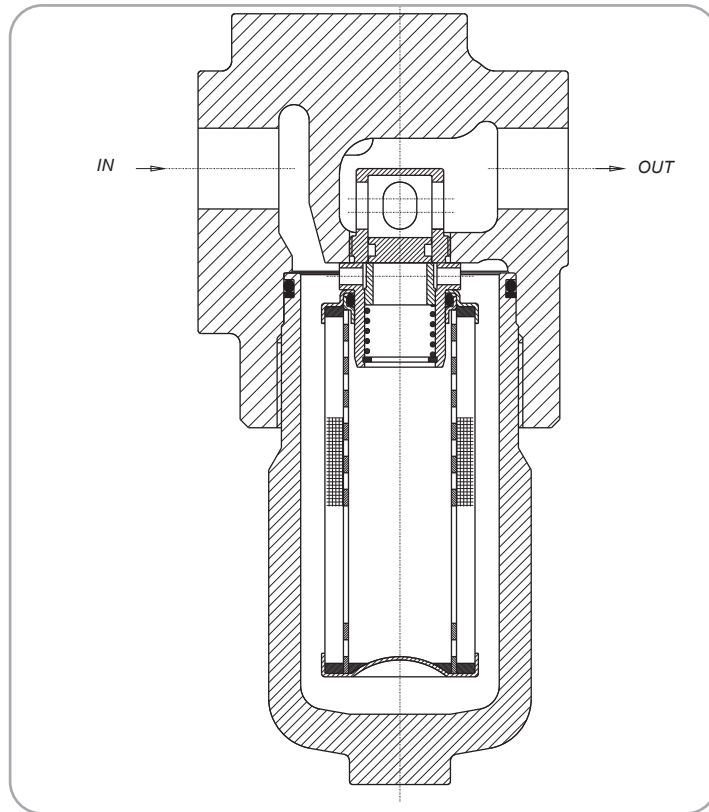
**ΔP X ELEMENTS**

**422 series**

**ΔP Y ELEMENTS**



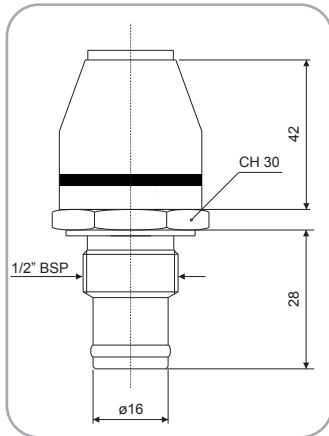
**REVERSE FLOW VALVE**



Available for HMM models: 421 - 422

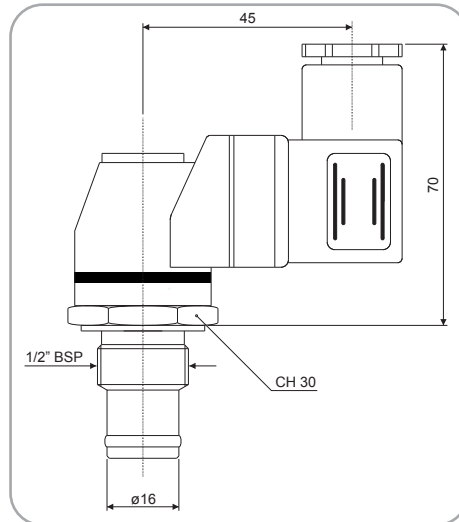
**DIFFERENTIAL INDICATORS**

**DV500/800**



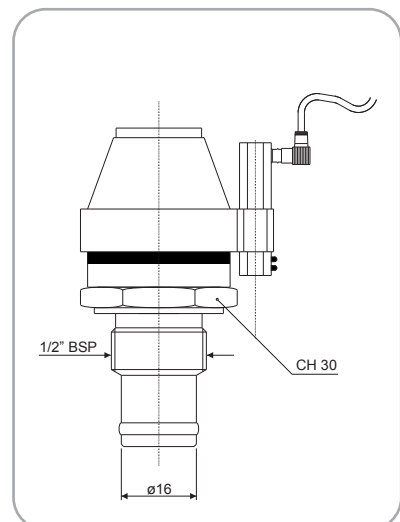
**VISUAL INDICATOR**

**DE500/800**



**ELECTRICAL VISUAL INDICATOR**

**DR500/800**



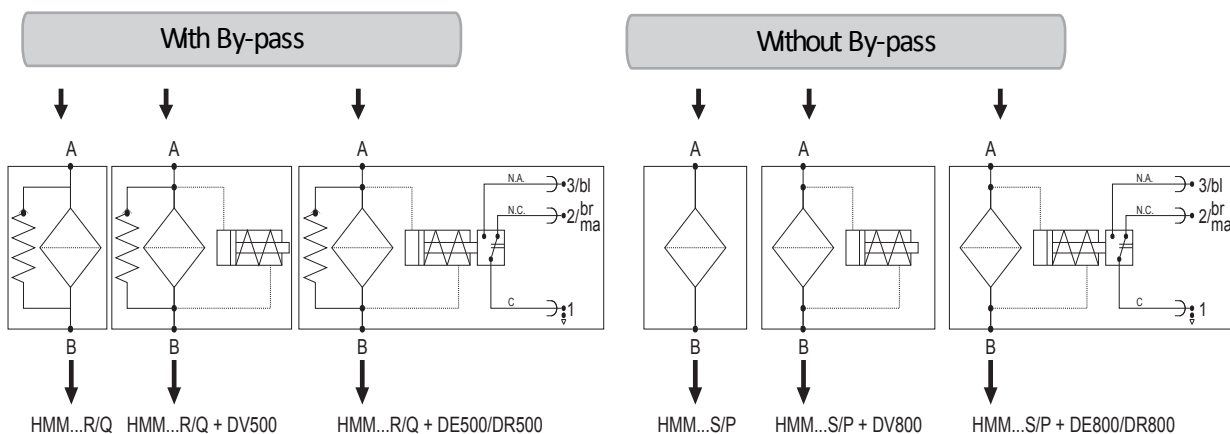
**VISUAL-ELECTRICAL INDICATOR WITH "REED" CONTACTS**

**TECHNICAL DATA**

Part number	Description	Setting	Electrical Contacts	Application
D V 500	visual	500.000Pa (5 bar)	-	Filters with By-pass and elements "X" series
D E 500	electrical		Switch	
D R 500	Visual-electrical with "reed" contacts			
D V 800	visual	800.000Pa (8 bar)	-	Filters with By-pass and elements "Y" series
D E 800	electrical		Switch	
D R 800	Visual-electrical with "reed" contacts			

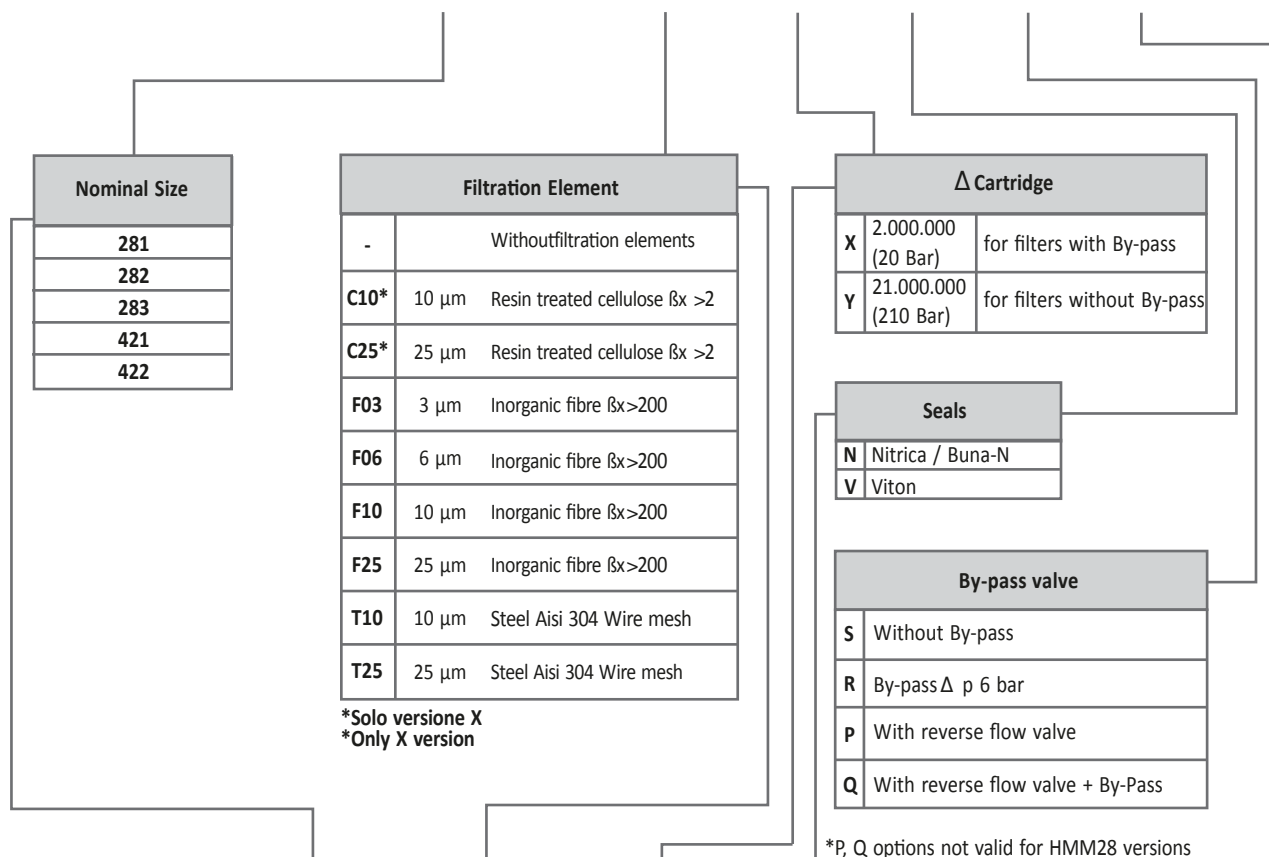
Breakdown voltage for "DR 500 and DR 800"		
Tensione di alimen. (V) Feeder voltage (V)	Potenza con carico induttivo (VA) Power with inductive load (VA)	
A.C. 3-115	20	
D.C. 3-115	20	
Breakdown voltage for "DE 500 and DE 800"		
Feeder voltage (V)	Resistive load (A)	Inductive load (A)
A.C. 125	5	5
A.C. 250	5	5
D.C. 15	10	10
D.C. 30	5	5
D.C. 50	2	2
D.C. 125	0.5	0.06

**SIMBOLOGY**



**HOW TO ORDER THE COMPLETE FILTER**

**HMM 281 T25 Y N S 3**



**CHP 421 F03 Y N**

How to order the replacement element

**CONNECTIONS**

A	HMM 28	HMM 42
-	1/2" BSP	3/4" BSP
1	3/4" BSP	1" BSP
2	1/2" NPT	3/4" NPT
3	3/4" NPT	1" NPT
4	SAE83/4"-16UNF	SAE1211/16"-12UN
5	SAE1211/16"-12UN	SAE1615/16"-12UN
6		3/4" SAE-3000PSI/M
7		1" SAE-3000PSI/M
8		3/4" SAE-3000PSI/UNC
9		1" SAE-3000PSI/UNC

\*P, Q options not valid for HMM28 versions