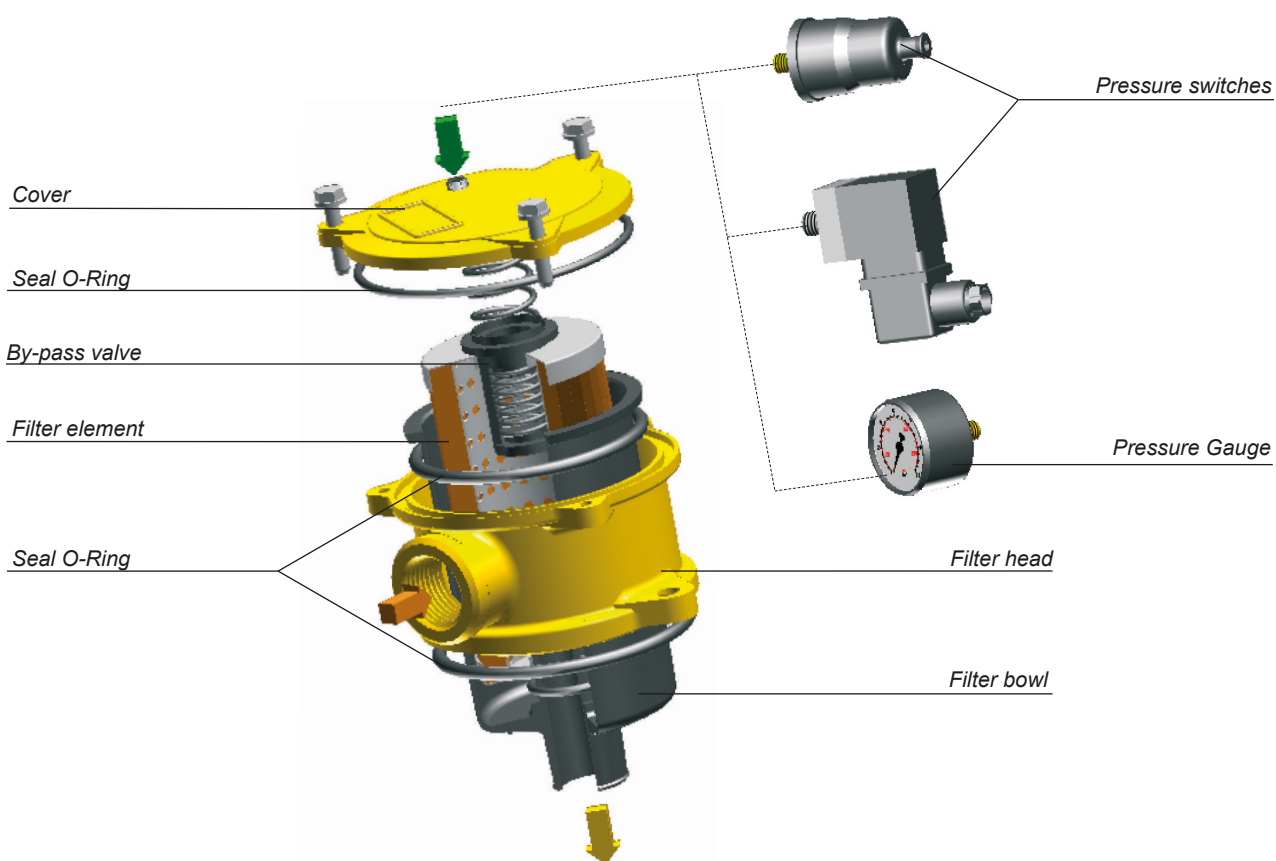


OMTF SERIES

RETURN FILTERS OMTF SERIES 300.000 Pa (3 BAR)



OMTF is the series of return lines; the range includes four different sizes with nominal flow rates up to 400L/min. Filter elements are made with the most advanced materials, as a guarantee for a high filtration efficiency and a long-lasting life. The modular construction design, peculiar to OMTF series, allows OMT customers to choose the most suitable type meeting their needs. OMT Research & Development Department, located in Calvenzano, uses modern and sophisticated test equipments and makes a continuous check about filter and filter element performances.



TECHNICAL DATA

OMTF 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 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)

End caps	Galvanized sheet iron
Support tube	Galvanized sheet iron
Support mesh	Galvanized steel with epox coating

FILTRATION MATERIALS

Filter elements	Description	Material	Filtration (µm)	β Ratio	
				ISO 4572 β _x ≥200	ISO 16889 β _{x(c)} ≥200
C10	Treated paper	Cellulose fibre	10	-	-
C25	Treated paper	Cellulose fibre	25	-	-
F03	Inorganic fibre	Glass fibre	3	3	5
F06	Inorganic fibre	Glass fibre	6	6	6
F10	Inorganic fibre	Glass fibre	10	10	9
F25	Inorganic fibre	Glass fibre	25	25	20
R60	Square mesh	Aisi 304	60	-	-
R90	Square mesh	Aisi 304	90	-	-

FILTRATION AREA (cm²) FILTER ELEMENTS SERIES X - ΔP 2.000.000 Pa (20 bar)

Filter elements	CR 091	CR 111	CR 112	CR 171	CR 221	CR 222	CR 223	CR 224
C10-C25	500	890	1380	4690	4590	6590	6590	8250
F03-F06-F10-F25	820	820	1260	3780	3280	7400	7400	9270
R60-R90	280	450	700	1860	1870	2690	2690	3370

WORKING CONDITIONS

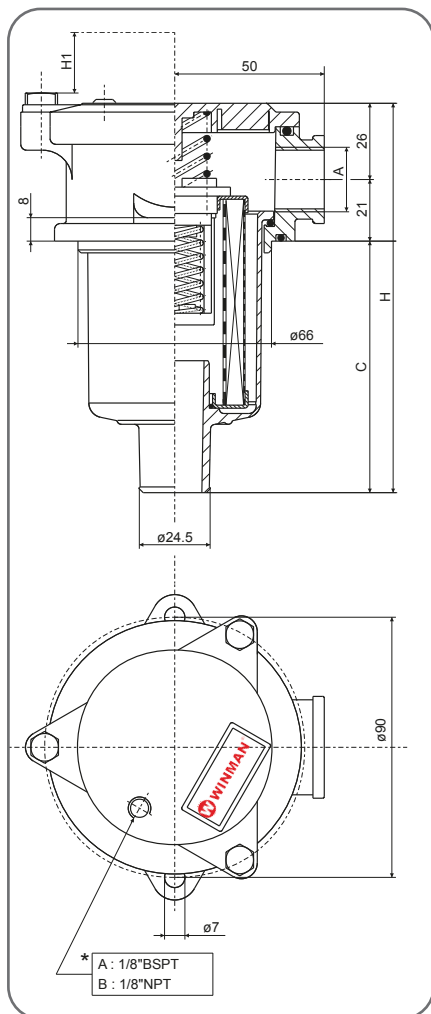
MATERIALS (housing)	Aluminium die-casting
Filter head	OMTF09-11-17: Glass reinforced nylon
Filter bowl	OMTF22: Cataphoresis treated steel

Cover	Aluminium die-casting
Seals	N: Nitrile (Buna-N)
By-pass valve	Housing (nylon)
Indicator	Brass

Filter pressure	Max working pressure: 300.000 Pa (3 bar) Test pressure: 600.000 Pa (6 bar) Bursting pressure: 1.000.000 Pa (10 bar)
Working temperature	-25 to +95°C
Collapse pressure (filter element)	300.000 Pa (3 bar)
By-pass valve setting pressure	Return: 170.000 Pa ±10% (1.7 bar) (starting of opening)
Compatibility with hydraulic fluids ISO 2943	Compatible with mineral oils type (HH, HM, HR, HV, HG according to ISO 6743/4)

OMTF series 09

Flows have been calculated just in order to obtain a pressure drop $\Delta p \leq 40.000$ Pa (0.4 bar) with mineral oil kinematic viscosity 30 cSt and 860 kg/m³ density. (See remarks on page 08)



CONNECTIONS

Type	A
	1/2" BSP
1	1/2" NPT
2	SAE8 - 3/4"-16UNF

LENGTHS

Type	C	H	H1
1	85	129	110

RECOMMENDED FLOWS

OMTF	Filter element	Flow (L/min)	Weight(Kg)
091	C 10 / C 25	40	0,4
091	F03	18	0,4
091	F06	19	0,4
091	F10	27	0,4
091	F25	37	0,4
091	R60/R90	40	0,4

* Hole threading type for the indicator must be specified in the order code

OMTF series 11

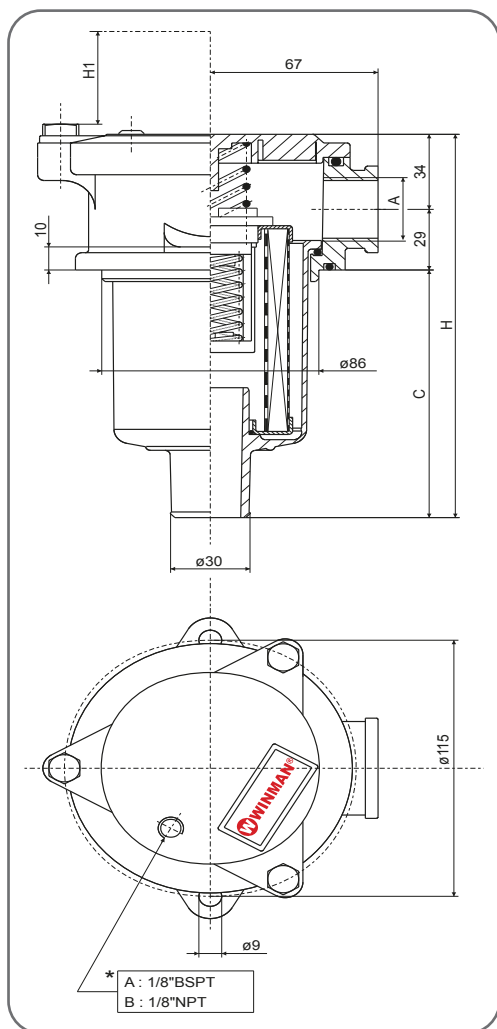
CONNECTIONS

Type	A
	1/2" BSP
1	3/4" BSP
2	1" BSP
3	1/2" NPT
4	3/4" NPT
5	1" NPT
6	SAE8 - 3/4"-16UNF
7	SAE12-11/16"-12UN
8	SAE16-15/16"-12UN

LENGTHS

Type	C	H	H1
1	92	155	130
2	150	200	175

OMTF series 11



RECOMMENDED FLOWS

OMTF	Filter element	Flow (L/min)	Weight(Kg)
111	C10/C25	81	0,715
111	F03	31	0,715
111	F06	34	0,715
111	F10	39	0,715
111	F25	58	0,715
111	R60/R90	81	0,715
112	C10/C25	100	0,770
112	F03	37	0,770
112	F06	42	0,770
112	F10	55	0,770
112	F25	92	0,770
112	R60/R90	100	0,770

* Hole threading type for the indicator must be specified in the order code

OMTF series 17

Flows have been calculated just in order to obtain a pressure drop $\Delta p \leq 40.000$ Pa (0.4 bar) with mineral oil kinematic viscosity 30 cSt and 860 kg/m³ density. (See remarks on page 10)

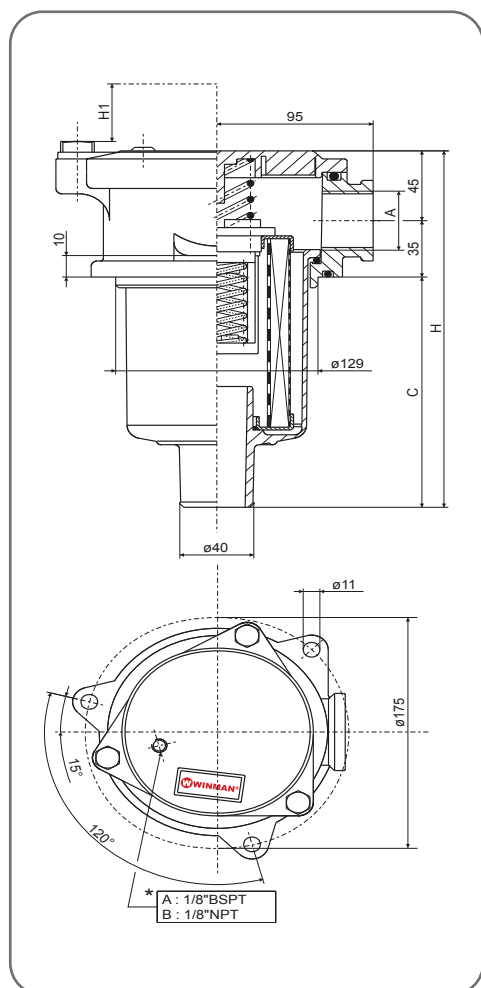
CONNECTIONS

Type	A
	1" BSP
1	1 1/4" BSP
2	1" NPT
3	1 1/4" NPT
4	SAE16 - 15/16"-12UN
5	SAE20 - 15/8"-12UN

LENGTHS

Type	C	H	H1
1	244	324	255

OMTF series 17



RECOMMENDED FLOWS

OMTF	Filter element	Flow (L/min)	Weight(Kg)
171	C10 / C25	214	1,940
111	F03	109	1,940
111	F06	124	1,940
111	F10	157	1,940
111	F25	174	1,940
111	R60/R90	214	1,940

* Hole threading type for the indicator must be specified in the order code

Flows have been calculated just in order to obtain a pressure drop $\Delta p \leq 40.000$ Pa (0.4 bar) with mineral oil kinematic viscosity 30 cSt and 860 kg/m³ density. (See remarks on page 11)

CONNECTIONS

Type	A
	11/4" BSP
1	11/2" BSP
2	2" BSP
3	11/4" NPT
4	11/2" NPT
5	2" NPT
6	SAE20 - 15/8"-12UN
7	SAE24 - 17/8"-12UN

LENGTHS

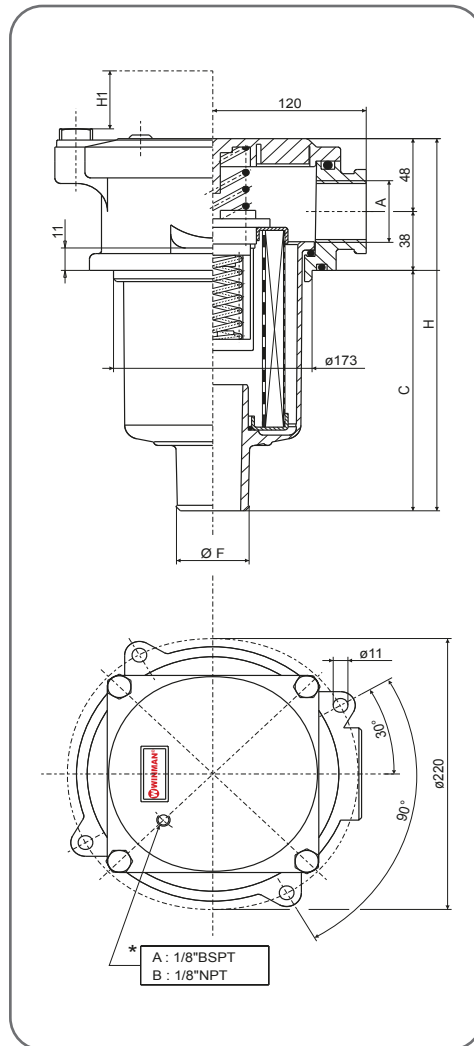
Type	C	H	H1	ØF
1	176	262	210	51
2	236	322	260	51
3	236	322	260	64
4	282	368	320	64

RECOMMENDED FLOWS

OMTF	Filter element	Flow (L/min)	Weight(Kg)
221	C10	276	3,250
221	C25	300	3,250
221	F03	120	3,250
221	F06	146	3,250
221	F10	178	3,250
221	F25	300	3,250
221	R60/R90	300	3,250
222-223	C10	300	3,800
222-223	C25	300	3,800
222-223	F06	300	3,800
222-223	F10	319	3,800
222-223	F25	350	3,800
222-223	R60/R90	350	3,800
224	C10	380	3,900
224	C25	500	3,900
224	F03	254	3,900
224	F06	295	3,900
224	F10	341	3,900
224	F25	500	3,900
224	R60/R90	500	3,900

* Hole threading type for the indicator must be specified in the order code

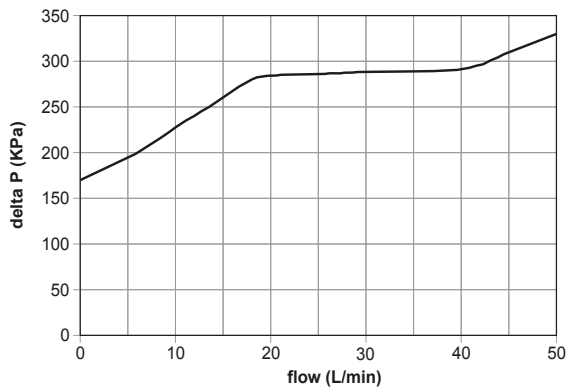
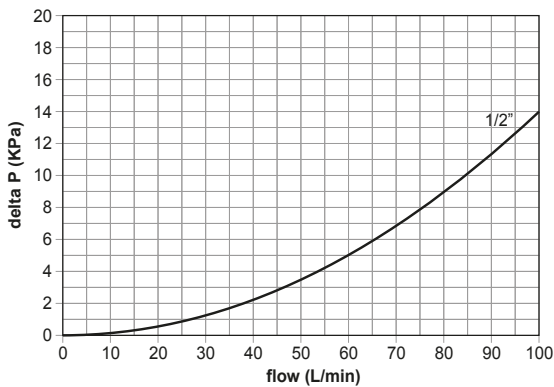
OMTF series 17



Pressure Drops (according to ISO 3968)

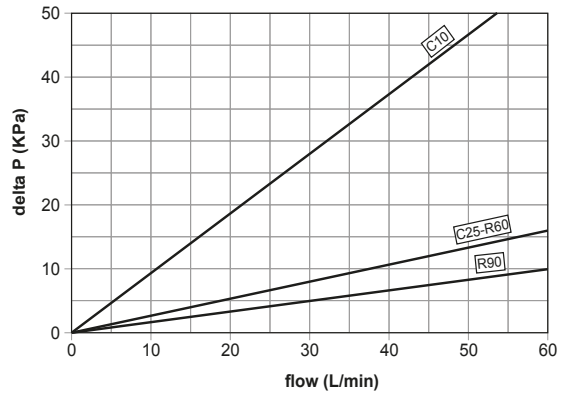
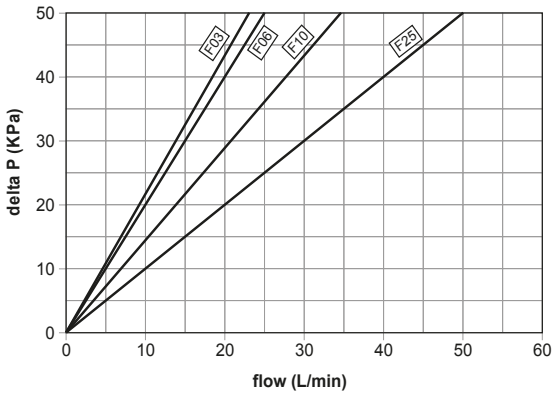
The pressure drop of the complete filter is calculated by adding the pressure drop of the housing to that of the filter element. Pressure drops in the housing The graphics refer to the use of mineral oil with a mass density of 860 Kg/m³. The pressure drop is proportional to the variations of mass density. 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 the kinematic viscosity.

OMTF series 09



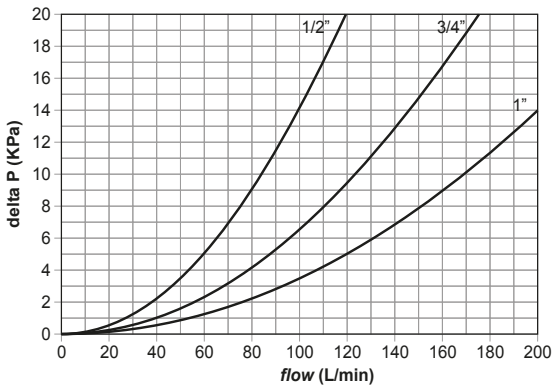
Pressure Drops (according to ISO 3968)

CR09 1 series

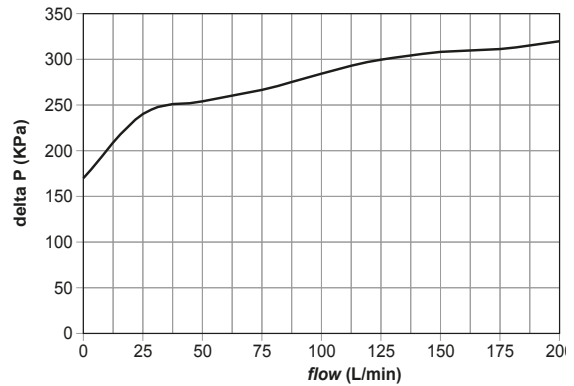


OMTF series 11

ΔP HOUSINGS

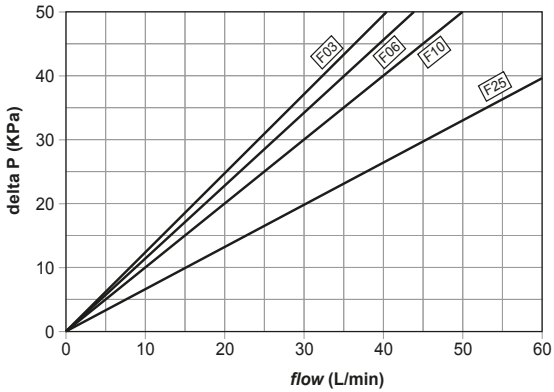


BY-PASS

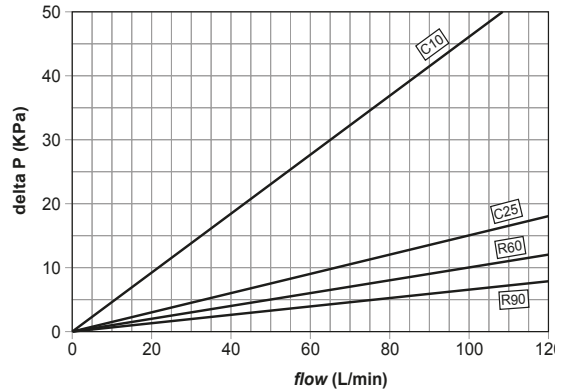


CR11 1 series

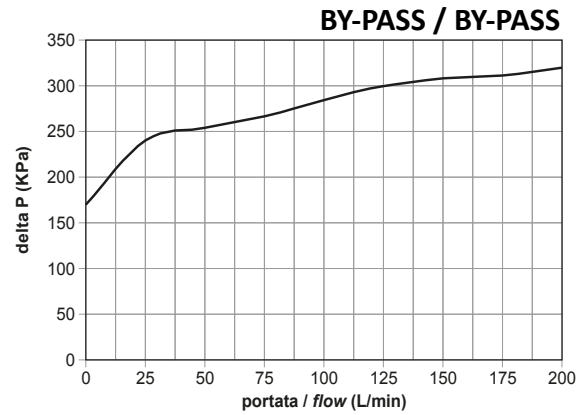
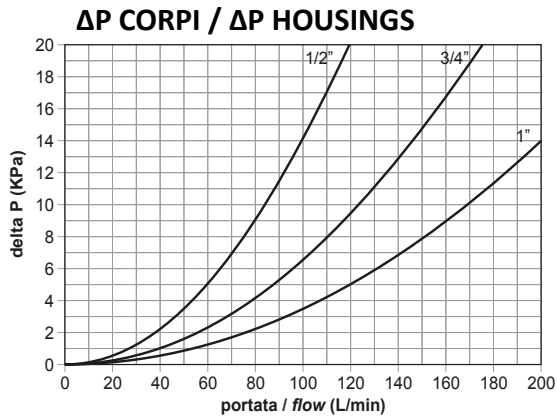
ΔP ELEMENTI



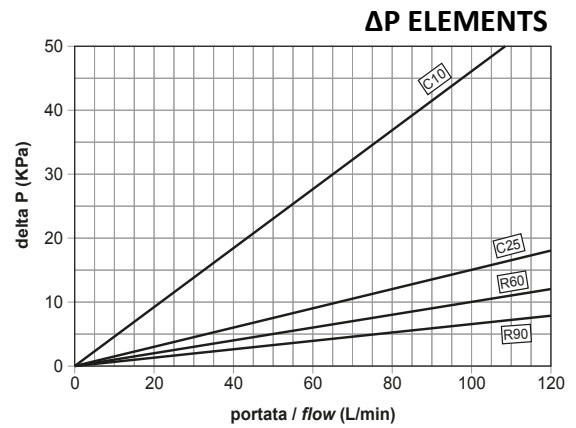
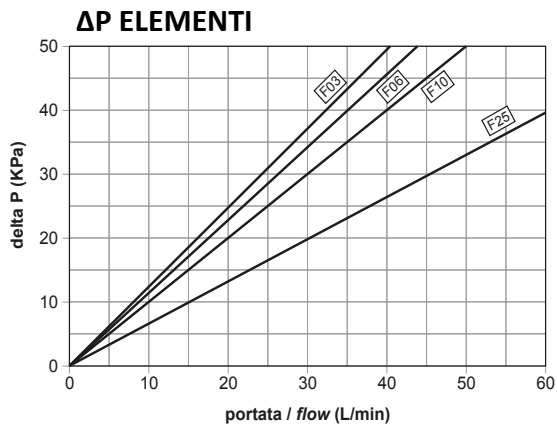
ΔP ELEMENTS



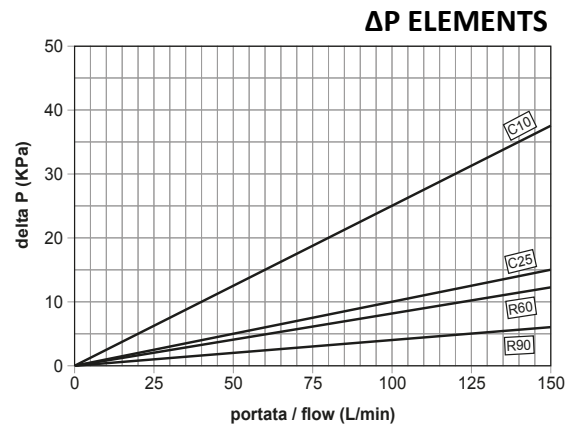
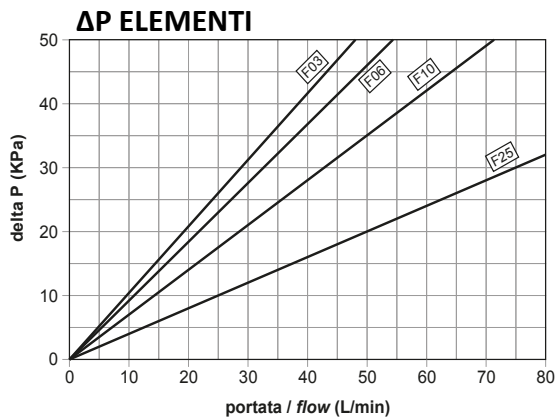
OMTF serie/series 11



tipo CR11 1 series

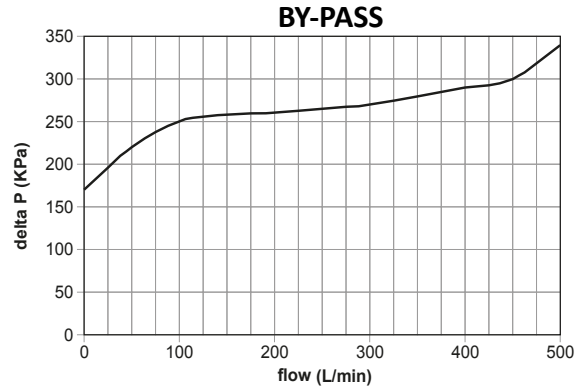
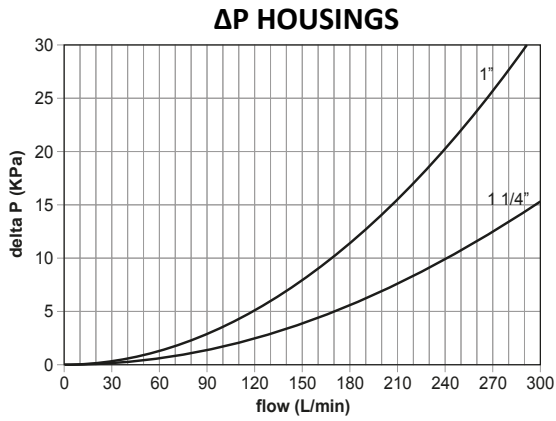


tipo CR11 2 series

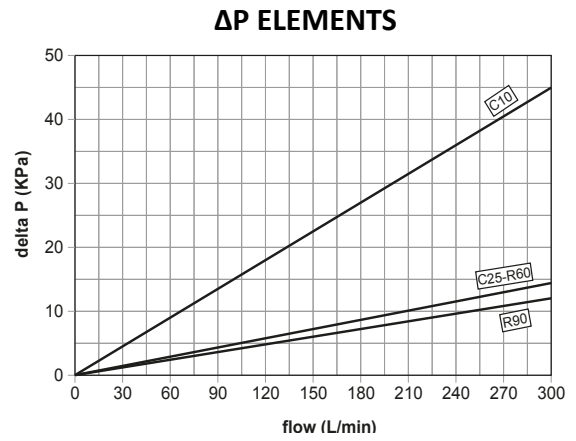
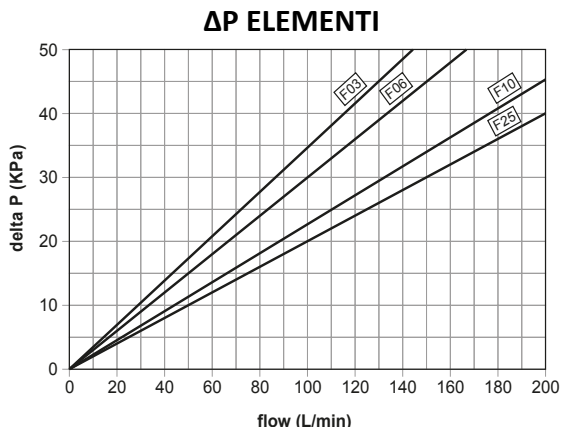


Pressure Drops (according to ISO 3968)

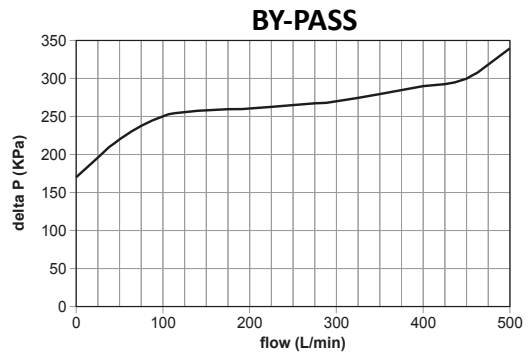
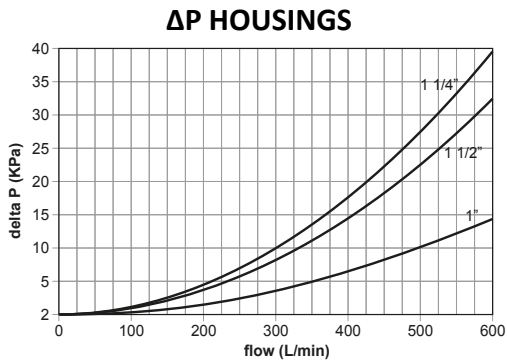
OMTF series 17



CR17 1 series

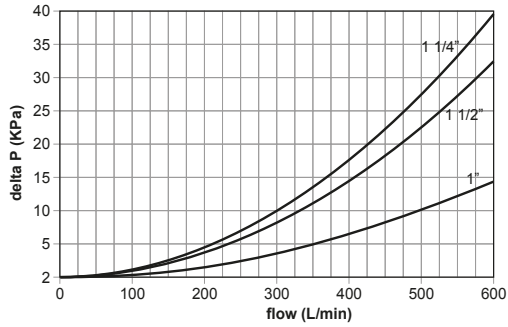


OMTF series 22

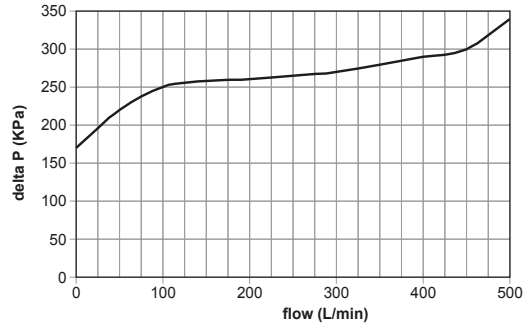


OMTF series 22

ΔP HOUSINGS

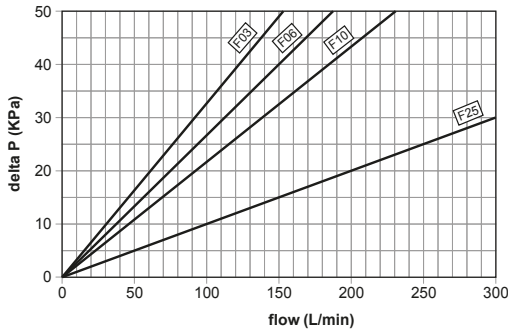


BY-PASS

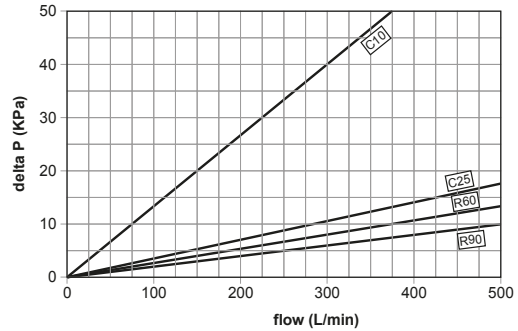


CR22 1 series

ΔP ELEMENTI

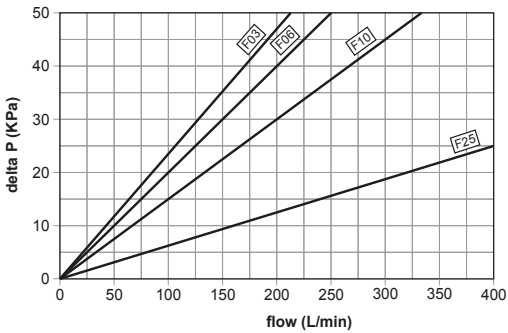


ΔP ELEMENTS

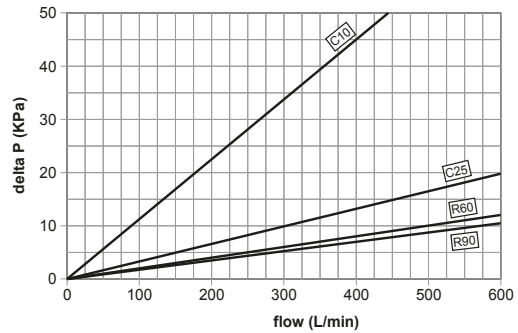


CR22 2-3 series

ΔP ELEMENTI

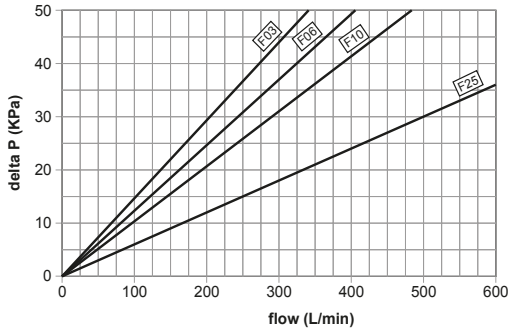


ΔP ELEMENTI

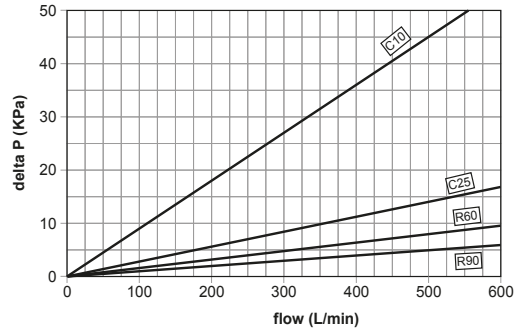


CR22 4 series

ΔP ELEMENTI

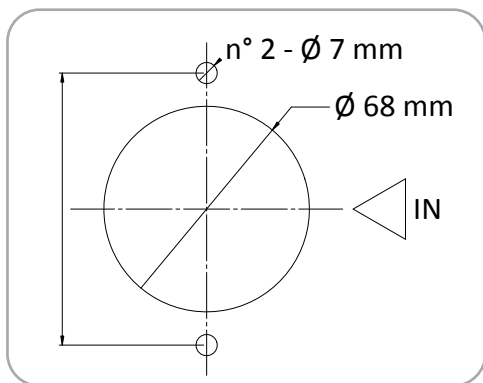


ΔP ELEMENTS

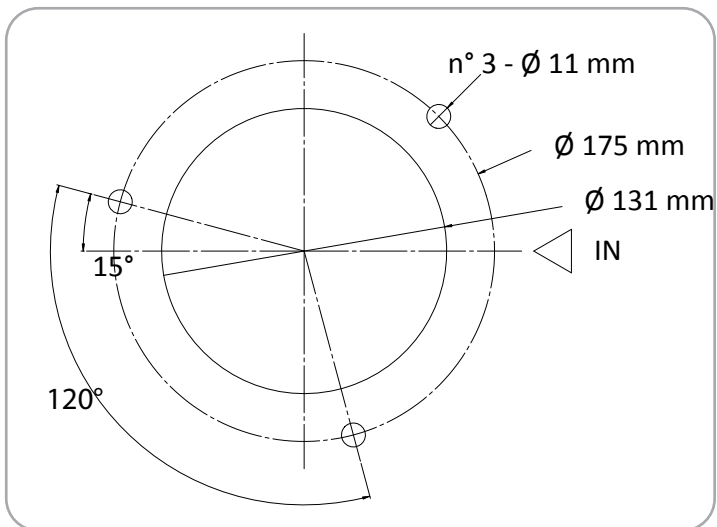


OIL TANK MACHINING

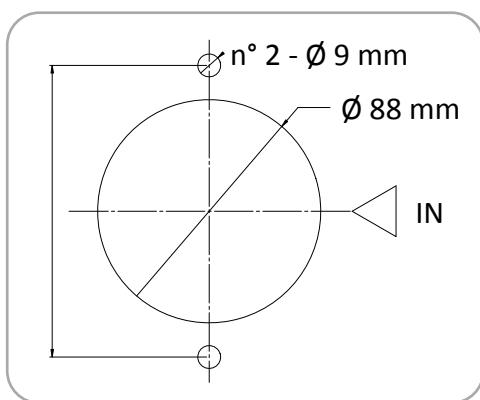
Series 09



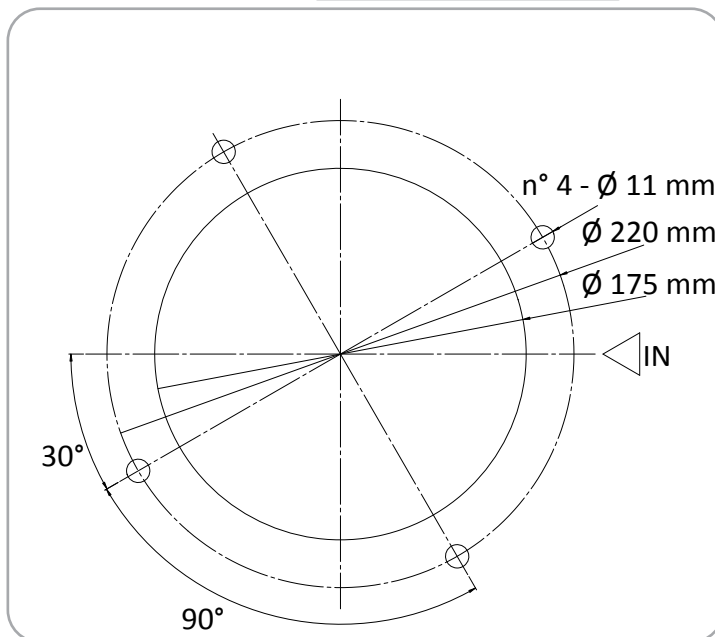
Series 17



Series 11

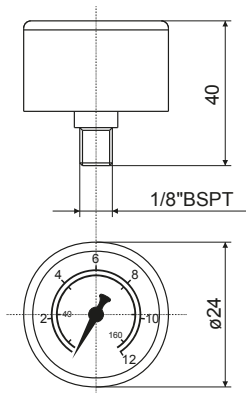


Series 22



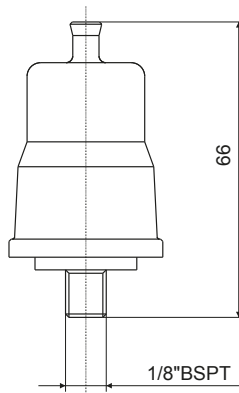
CLOGGING INDICATORS

PV1



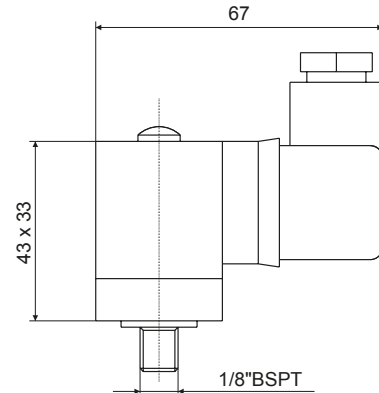
PRESSURE GAUGE

PE1 - PE2



PRESSURE SWITCH WITH CONTACTS N.O. OR N.C.

PE3



PRESSURE SWITCH WITH CHANGEOVER CONTACTS

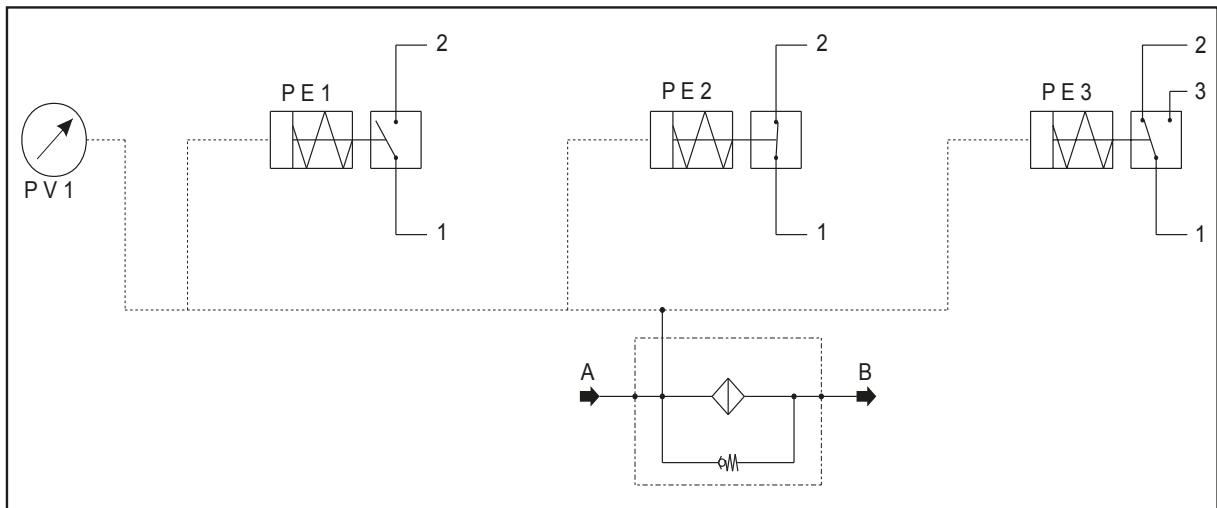
TECHNICAL DATA

Part number	Description	Setting	Electrical Contacts	Type
PV1	visivo visual	0-12 bar	-	Puntuale On the spot
PE1	elettrico electrical	1,3 bar	N.A. / N.O.	
PE2			N.C.	
PE3			Scambio Changeover	

ELECTRICAL DATA

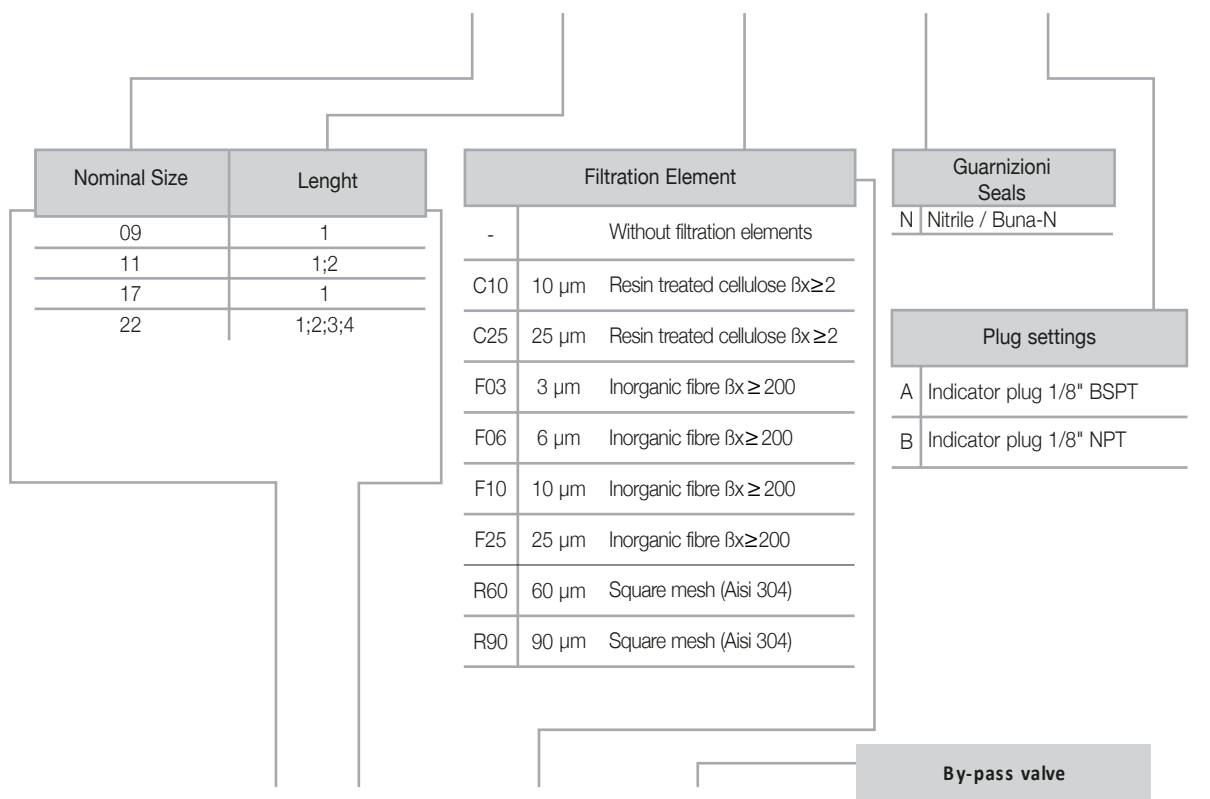
Part number	Max feeder voltage (V)	Resistive load (A)	Inductive load (A)	Protection (complete)
PE1	C.A. 48	0,5	0,2	IP 54
PE2	C.A. 48	0,5	0,2	IP 54
PE3	C.A. 250	3	2	IP 65 DIN40050

SIMBOLOGY



HOW TO ORDER THE COMPLETE FILTER

OMTF 11 2 F03 N A 2



CR 11 2 F03 R

How to order the replacement element

By-pass valve
R | By-pass Δp 1,7 bar

A	OMTF09	OMTF11	OMTF17	OMTF22
-	1/2" BSP	1/2" BSP	1" BSP	1 1/4" BSP
1	1/2" NPT	3/4" BSP	1 1/4" BSP	1 1/2" BSP
2	SAE8 3/4" - 16UNF	1" BSP	1" NPT	2" BSP
3		1/2" NPT	1 1/4" NPT	1 1/4" NPT
4		3/4" NPT	SAE16 1 5/16" - 12UN	1 1/2" NPT
5		1" NPT	SAE20 1 5/8" - 12UN	2" NPT
6		SAE8 3/4" - 16UNF		SAE20 1 5/8" - 12UN
7		SAE12 1 1/16" - 12UN		SAE24 1 7/8" - 12UN
8		SAE16 1 5/16" - 12UN		

* See page 13 for information how to order clogging indicators

OMT reserves the right to stop manufacturing any model, to modify technical specifications or drawings whenever necessary, without previous notice and without incurring obligations of any kind. This catalogue cancels and replaces the previous ones.

TABLES OLD PART NUMBER-NEW PART NUMBER
FILTRATION ELEMENTS

Old codes	New codes
CR40A	CR091C10R
CR40B	CR091C25R
CR40C	CR091R60R
CR40E	CR091R90R
CR40G	CR091F10R
CR40H	CR091F25R

Old codes	New codes
CR65A	CR111C10R
CR65B	CR111C25R
CR65C	CR111R60R
CR65E	CR111R90R
CR65G	CR111F10R
CR65H	CR111F25R

Old codes	New codes
CR100A	CR112C10R
CR100B	CR112C25R
CR100C	CR112R60R
CR100E	CR112R90R
CR100G	CR112F10R
CR100H	CR112F25R

Old codes	New codes
CR200A	CR171C10R
CR200B	CR171C25R
CR200C	CR171R60R
CR200E	CR171R90R
CR200G	CR171F10R
CR200H	CR171F25R

Old codes	New codes
CR280A	CR221C10R
CR280B	CR221C25R
CR280C	CR221R60R
CR280E	CR221R90R
CR280G	CR221F10R
CR280H	CR221F25R

Old codes	New codes
CR300A	CR222C10R
CR300B	CR222C25R
CR300C	CR222R60R
CR300E	CR222R90R
CR300G	CR222F10R
CR300H	CR222F25R

Old codes	New codes
CR350A	CR224C10R
CR350B	CR224C25R
CR350C	CR224R60R
CR350E	CR224R90R
CR350G	CR224F10R
CR350H	CR224F25R

COMPLETE FILTER

Old codes	New codes
OMTF40AN	OMTF091C10NA
OMTF40AN-N	OMTF091C10NB1
OMTF40BN	OMTF091C25NA
OMTF40BN-N	OMTF091C25NB1
OMTF40CN	OMTF091R60NA
OMTF40CN-N	OMTF091R60NB1
OMTF40EN	OMTF091R90NA
OMTF40EN-N	OMTF091R90NB1
OMTF40GN	OMTF091F10NA
OMTF40GN-N	OMTF091F10NB1
OMTF40HN	OMTF091F25NA
OMTF40HN-N	OMTF091F25NB1

Old codes	New codes
OMTF65AN	OMTF111C10NA
OMTF65AN-N	OMTF111C10NB3
OMTF65BN	OMTF111C25NA
OMTF65BN-N	OMTF111C25NB3
OMTF65CN	OMTF111R60NA
OMTF65CN-N	OMTF111R60NB3
OMTF65EN	OMTF111R90NA
OMTF65EN-N	OMTF111R90NB3
OMTF65GN	OMTF111F10NA
OMTF65GN-N	OMTF111F10NB3
OMTF65HN	OMTF111F25NA
OMTF65HN-N	OMTF111F25NB3

Old codes	New codes
OMTF75AN	OMTF111C10NA1
OMTF75AN-N	OMTF111C10NB4
OMTF75BN	OMTF111C25NA1
OMTF75BN-N	OMTF111C25NB4
OMTF75CN	OMTF111R60NA1
OMTF75CN-N	OMTF111R60NB4
OMTF75EN	OMTF111R90NA1
OMTF75EN-N	OMTF111R90NB4
OMTF75GN	OMTF111F10NA1
OMTF75GN-N	OMTF111F10NB4
OMTF75HN	OMTF111F25NA1
OMTF75HN-N	OMTF111F25NB4

FILTRATION ELEMENTS

Old codes	New codes
OMTF85AN	OMTF112C10NA1
OMTF85AN-N	OMTF112C10NB4
OMTF85BN	OMTF112C25NA1
OMTF85BN-N	OMTF112C25NB4
OMTF85CN	OMTF112R60NA1
OMTF85CN-N	OMTF112R60NB4
OMTF85EN	OMTF112R90NA1
OMTF85EN-N	OMTF112R90NB4
OMTF85GN	OMTF112F10NA1
OMTF85GN-N	OMTF112F10NB4
OMTF85HN	OMTF112F25NA1
OMTF85HN-N	OMTF112F25NB4

Old codes	New codes
OMTF100AN	OMTF112C10NA2
OMTF100AN-N	OMTF112C10NB5
OMTF100BN	OMTF112C25NA2
OMTF100BN-N	OMTF112C25NB5
OMTF100CN	OMTF112R60NA2
OMTF100CN-N	OMTF112R60NB5
OMTF100EN	OMTF112R90NA2
OMTF100EN-N	OMTF112R90NB5
OMTF100GN	OMTF112F10NA2
OMTF100GN-N	OMTF112F10NB5
OMTF100HN	OMTF112F25NA2
OMTF100HN-N	OMTF112F25NB5

Old codes	New codes
OMTF150AN	OMTF171C10NA
OMTF150AN-N	OMTF171C10NB2
OMTF150BN	OMTF171C25NA
OMTF150BN-N	OMTF171C25NB2
OMTF150CN	OMTF171R60NA
OMTF150CN-N	OMTF171R60NB2
OMTF150EN	OMTF171R90NA
OMTF150EN-N	OMTF171R90NB2
OMTF150GN	OMTF171F10NA
OMTF150GN-N	OMTF171F10NB2
OMTF150HN	OMTF171F25NA
OMTF150HN-N	OMTF171F25NB2

Old codes	New codes
OMTF200AN	OMTF171C10NA1
OMTF200AN-N	OMTF171C10NB3
OMTF200BN	OMTF171C25NA1
OMTF200BN-N	OMTF171C25NB3
OMTF200CN	OMTF171R60NA1
OMTF200CN-N	OMTF171R60NB3
OMTF200EN	OMTF171R90NA1
OMTF200EN-N	OMTF171R90NB3
OMTF200GN	OMTF171F10NA1
OMTF200GN-N	OMTF171F10NB3
OMTF200HN	OMTF171F25NA1
OMTF200HN-N	OMTF171F25NB3

Old codes	New codes
OMTF280AN	OMTF221C10NA
OMTF280AN-N	OMTF221C10NB3
OMTF280BN	OMTF221C25NA
OMTF280BN-N	OMTF221C25NB3
OMTF280CN	OMTF221R60NA
OMTF280CN-N	OMTF221R60NB3
OMTF280EN	OMTF221R90NA
OMTF280EN-N	OMTF221R90NB3
OMTF280GN	OMTF221F10NA
OMTF280GN-N	OMTF221F10NB3
OMTF280HN	OMTF221F25NA
OMTF280HN-N	OMTF221F25NB3

Old codes	New codes
OMTF300AN	OMTF222C10NA1
OMTF300AN-N	OMTF222C10NB4
OMTF300BN	OMTF222C25NA1
OMTF300BN-N	OMTF222C25NB4
OMTF300CN	OMTF222R60NA1
OMTF300CN-N	OMTF222R60NB4
OMTF300EN	OMTF222R90NA1
OMTF300EN-N	OMTF222R90NB4
OMTF300GN	OMTF222F10NA1
OMTF300GN-N	OMTF222F10NB4
OMTF300HN	OMTF222F25NA1
OMTF300HN-N	OMTF222F25NB4

Old codes	New codes
OMTF350AN	OMTF224C10NA2
OMTF350AN-N	OMTF224C10NB5
OMTF350BN	OMTF224C25NA2
OMTF350BN-N	OMTF224C25NB5
OMTF350CN	OMTF224R60NA2
OMTF350CN-N	OMTF224R60NB5
OMTF350EN	OMTF224R90NA2
OMTF350EN-N	OMTF224R90NB5
OMTF350GN	OMTF224F10NA2
OMTF350GN-N	OMTF224F10NB5
OMTF350HN	OMTF224F25NA2
OMTF350HN-N	OMTF224F25NB5