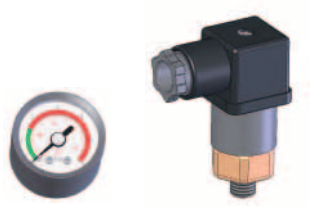
UFI FILTERS
HYDRAULIC DIVISION

TA-TB

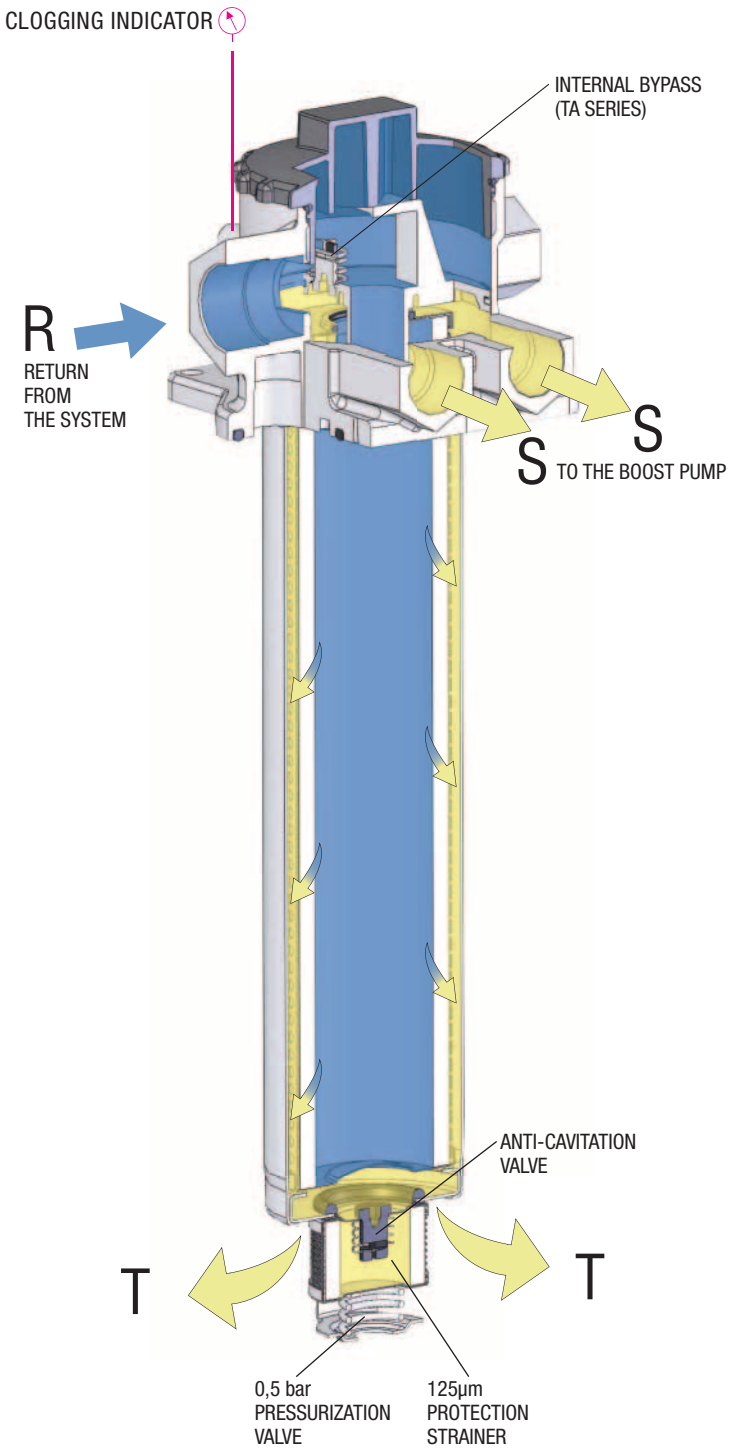
COMBINED
RETURN-SUCTION
FILTER



SERIES 30 SERIES P6

CLOGGING INDICATOR

A visual or electrical indicator is available as an option and allows to monitor the element condition. The port for the indicator is a standard feature.



The TA-TB filters are designed to work in hydraulic systems combined with hydrostatic transmission, when the return flow is higher than the flow of the boost pump in any operating condition.

The oil from the return line of the system is filtered from the inside to the outside of the filter element and goes to the suction of the boost pump with a 0,5 bar pressurization.
The exceeding flow rate goes into the reservoir.

A flow rate 50% higher that the flow required by the boost pump is recommended in normal operating conditions.

TA have an internal bypass system.
TB have external bypass to the reservoir.

ADVANTAGES

- One filter for two functions: filtering the oil returning from the hydraulic system and feeding the boost pump with cleanest oil
- Pressurization allows absolute filtration on the suction of the boost pump
- No cavitation risk
- Filter element working from inside to outside allows retained contamination to be completely removed when replacing the element

FILTER ELEMENT

The filter element is manufactured with filter medias selected in the UFI laboratory and mechanically supported to maintain the highest performance even at high differential pressures.

COMBINED
RETURN-SUCTION
FILTER

TA & TB

MATERIALS

Head:
Aluminium alloy

Cover:
Polyammide TA-TB23
Aluminium alloy TA-TB31-32-33

Bowl:
Steel

Seals:
NBR Nitrile

Indicator housing:
Brass

PRESSURE (ISO 10771-1:2002)

Max working: 1 MPa (10 bar)

Test: 1,5 MPa (15 bar)

Bursting: 3 MPa (30 bar)

Collapse, differential
for the filter element: 1 MPa (10 bar)

BYPASS VALVE

Setting:
250 kPa (2,5 bar) ± 10%

WORKING TEMPERATURE

From -25° to + 110° C

COMPATIBILITY (ISO 2943:1999)

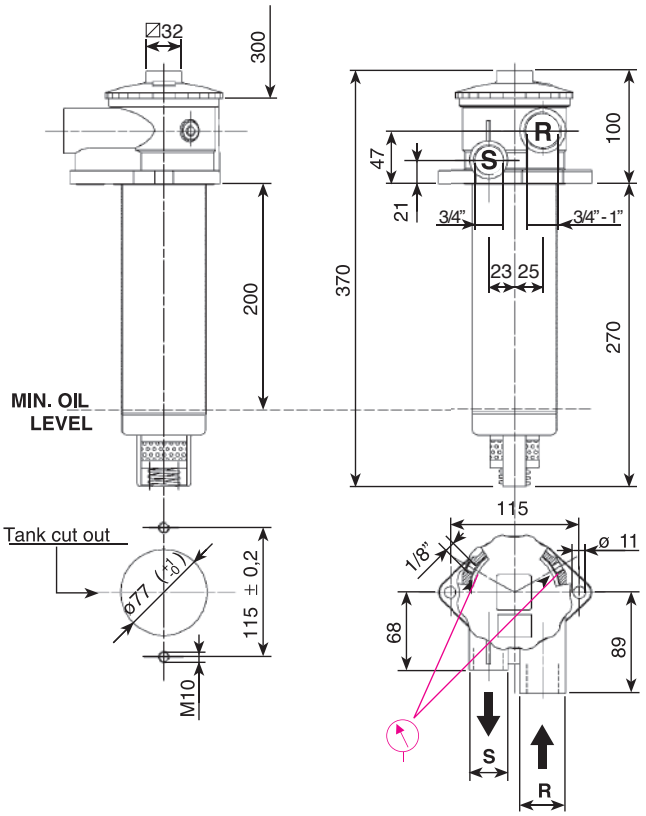
Full with fluids: HH-HL-HM-HV-HTG
(according to ISO 6743/4)
For fluids different than the above mentioned, please contact our Sales Department.

APPLICATION EXAMPLE

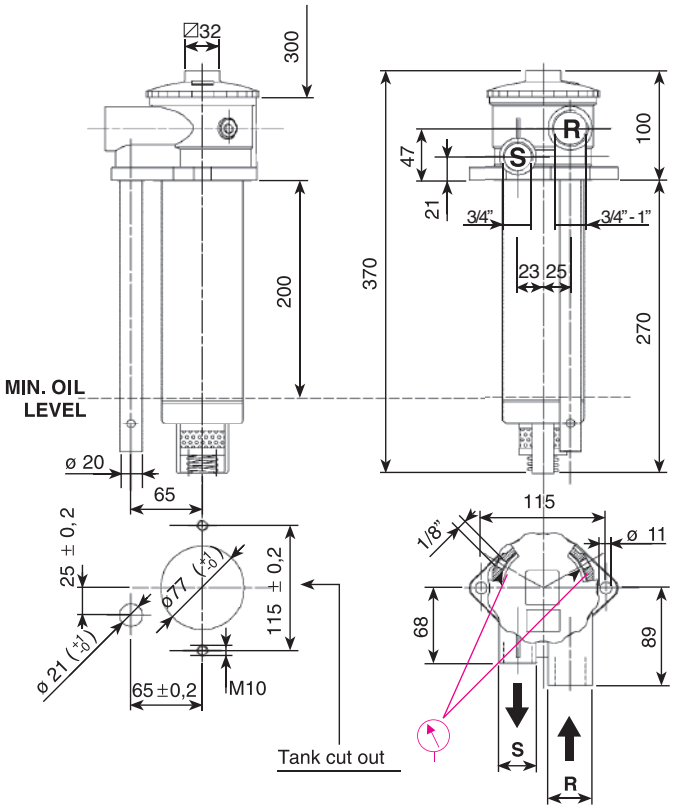
UFI FILTERS
HYDRAULIC DIVISION

INSTALLATION DRAWING

TA 23
WITH INTERNAL BYPASS



TB 23
WITH EXTERNAL BYPASS

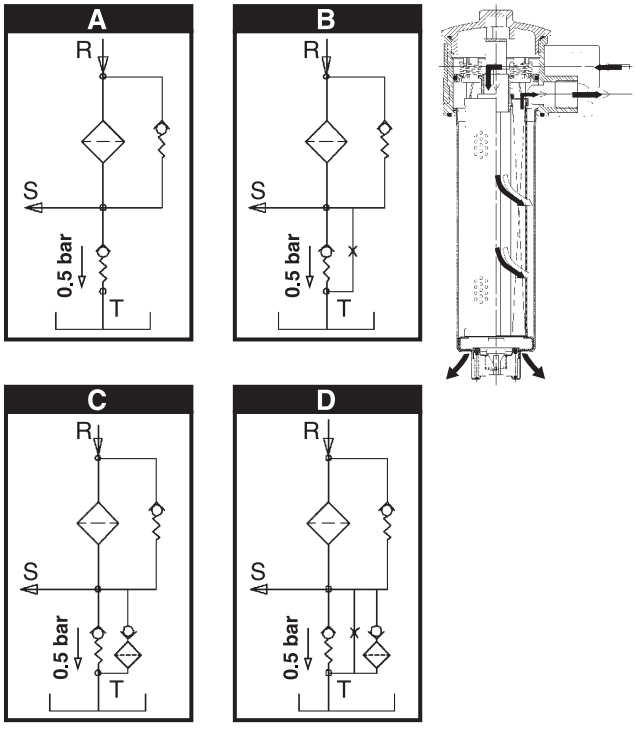


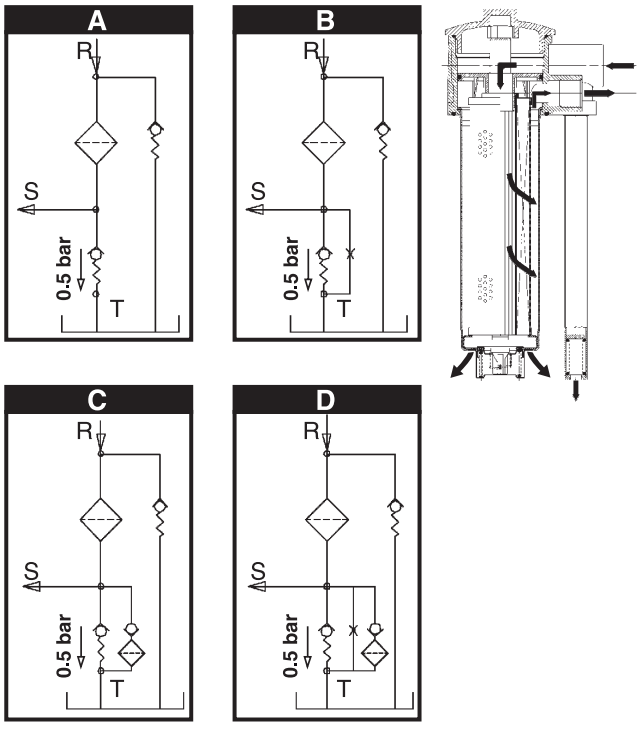
WORKING SCHEME

Options A and C
are recommended
for horizontal filter mounting.

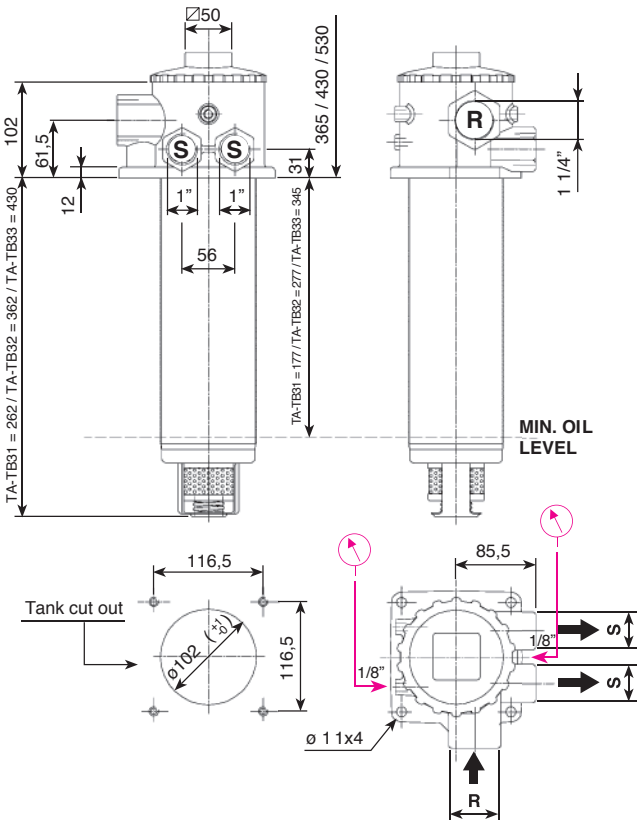
Options B and D
are recommended
for vertical filter mounting
(drain hole).

Options C and D
a 125 µm strainer protects the emergency valve in case of brief lack of oil in the suction of the boost pump (situation to be anyway avoided)

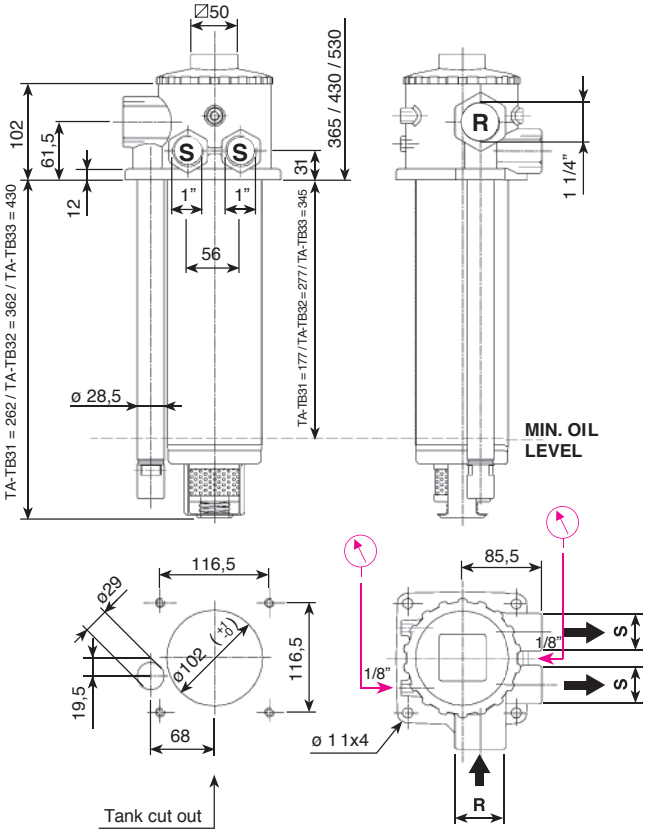




TA 31-32-33
WITH INTERNAL BYPASS



TB 31-32-33
WITH EXTERNAL BYPASS



WORKING SCHEME

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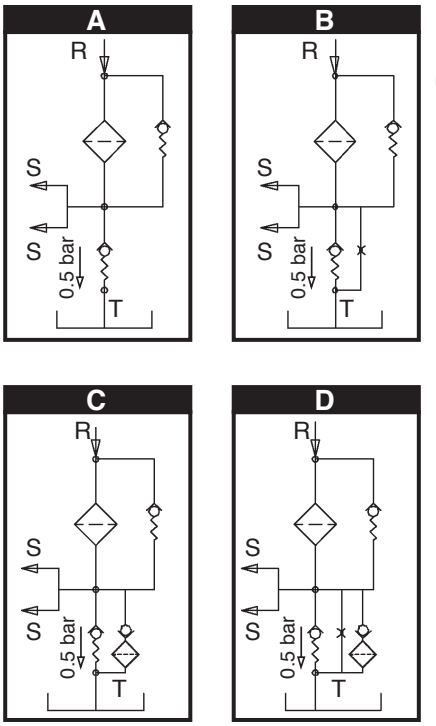
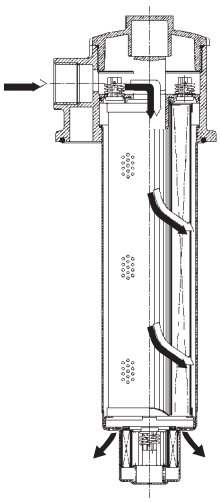
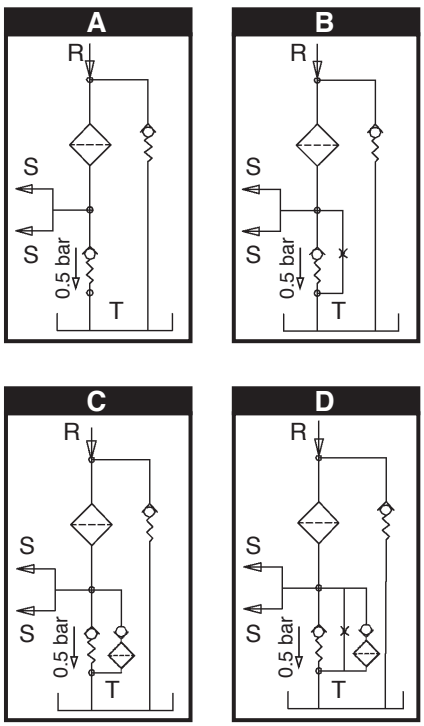
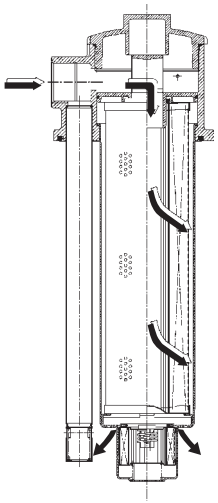
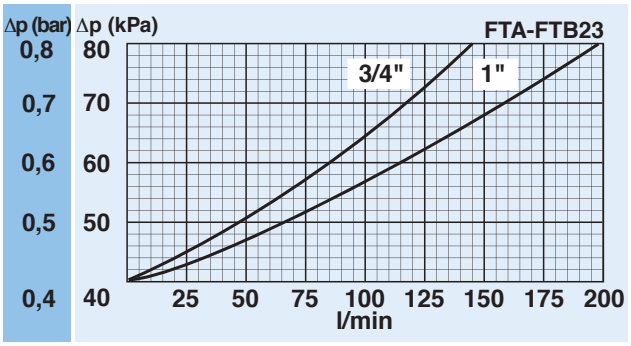


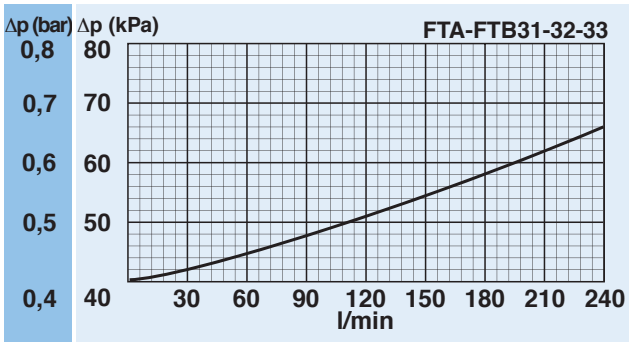




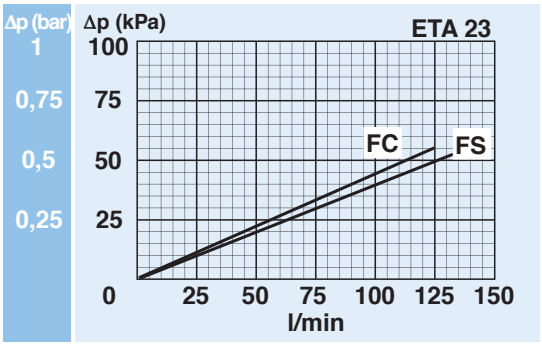


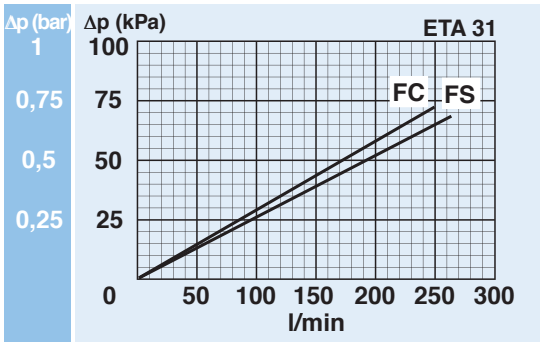
FILTER HOUSING PRESSURE DROP

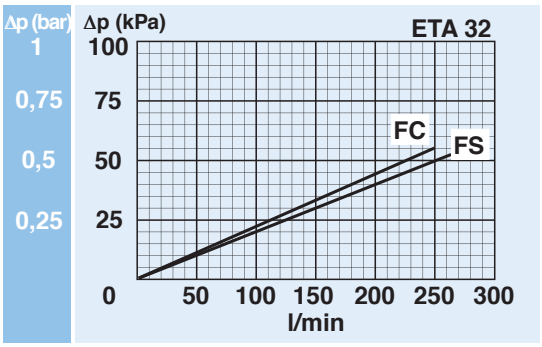


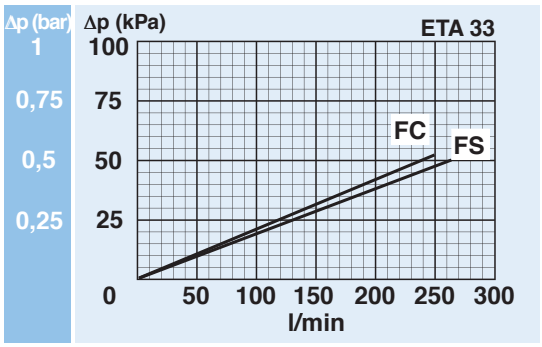


CLEAN FILTER ELEMENT PRESSURE DROP

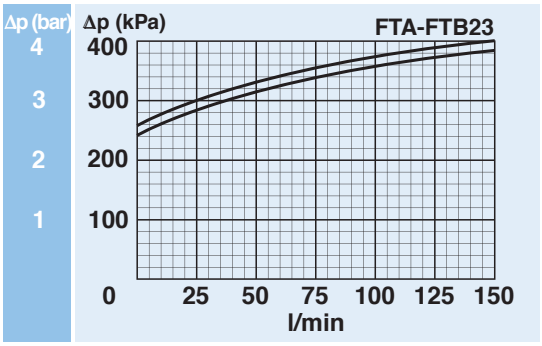


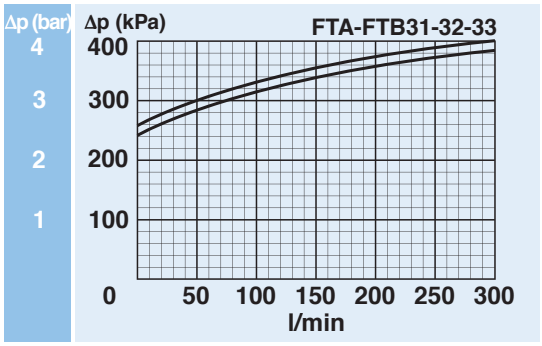






BYPASS VALVE PRESSURE DROP

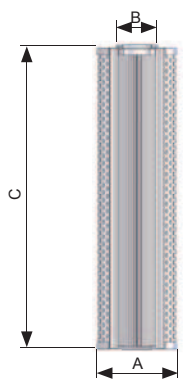




N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 kg/dm³; for fluids with different features, please consider the factors described in the first part of this catalogue. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968:2005. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

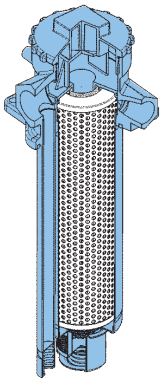
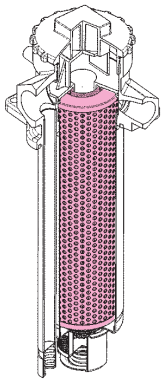
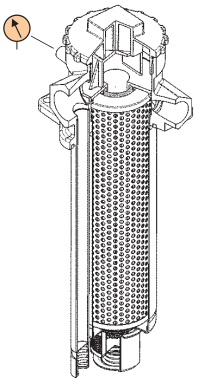
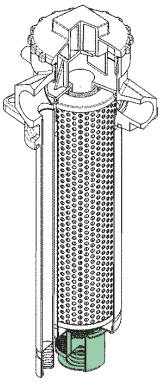
FILTER ELEMENT

	A	B	C	kg	Area (cm²) Media F+
ETA23	63,5	28	230	0,40	1.900
ETA31	90	40	232	0,55	2.800
ETA32	90	40	333	0,77	4.100
ETA33	90	40	400	0,85	4.900



	TYPE					
	F = FILTER COMPLETE	F	F	F	F	
	B = FILTER HOUSING	B	B	B	B	ELEMENT E
T	FAMILY, NOMINAL SIZE & LENGTH					FAMILY SIZE & LENGTH T A
	TA = with internal bypass	23	31	32	33	
	TB = with external bypass	23	31	32	33	
	PORT TYPE					
	B = BSP thread	B	B	B	B	
	PORT SIZE					
	D3 = 3/4" suction + 3/4" return	D3	-	-	-	
	D4 = 3/4" suction + 1" return	D4	-	-	-	
	T1 = 1 1/4" return + 2x1" suction	-	T1	T1	T1	
B	**BYPASS VALVE**					
	B = 250 kPa (2,5 bar) return	B	B	B	B	
N	**SEALS**					SEALS N
	N = NBR Nitrile	N	N	N	N	N = NBR
	FILTER MEDIA					FILTER MEDIA
	FC = fiber 12 $\mu m_{(c)}$ β>1.000	FC	FC	FC	FC	FC = fiber 12$\mu m_{(c)}$
	FS = fiber 16 $\mu m_{(c)}$ β>1.000	FS	FS	FS	FS	FS = fiber 16$\mu m_{(c)}$
	CLOGGING INDICATORS					
	05 = nr. 2 x 1/8" ports, plugged	05	05	05	05	
	30 = pressure gauge, rear connection	30	30	30	30	
	P6 = SPDT, pressure switch	P6	P6	P6	P6	
	ACCESSORIES					
	A = pressurisation valve	A	A	A	A	
	B = press. valve + drain hole	B	B	B	B	
	C = press. valve + suction bypass	C	C	C	C	
	D = press. valve + drain hole + suction bypass	D	D	D	D	
X	**ACCESSORIES**					
	X = no other accessory available	X	X	X	X	

SPARE PARTS ELEMENTS (For filling up see table "Ordering and option chart")

FILTER HOUSING	FILTER ELEMENT	CLOGGING INDICATOR	ACCESSORY
			
B T _ _ _ _ _ _ B N _ _ _ _ X	E T A _ _ N _ _	_ _	_

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WITH QUALITY SYSTEM
CERTIFIED BY DNV
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ENVIRONMENTAL MANAGEMENT
SYSTEM CERTIFIED BY DNV
=ISO 14001=