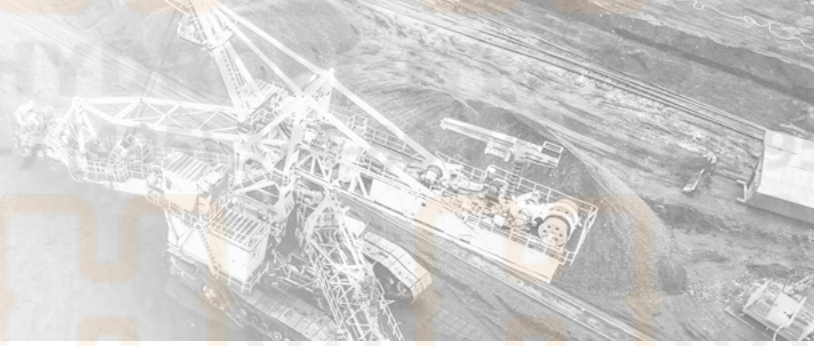
FTA-FTB-KTS

TRANSMISSION FILTERS



MATERIALS

Head: Aluminium alloy
Cover: Polyammide FTA-FTB23
Aluminium alloy FTA-FTB31-32-33
Bowl: Steel
Seals: NBR Nitrile
Indicator housing: Brass

PRESSURE

Max working: 1 MPa (10 bar)
Collapse, differential for the filter element (ISO 2941):
1 MPa (10 bar)

BYPASS VALVE

Setting: 250 kPa (2,5 bar) ± 10%

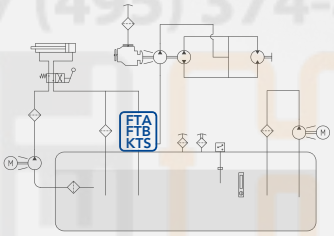
WORKING TEMPERATURE

From -25° to + 110° C

COMPATIBILITY (ISO 2943)

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

HYDRAULIC DIAGRAM



Is this datasheet the latest release? Please check on our website.

FTA-FTB

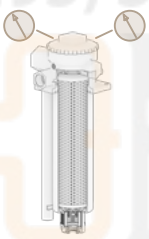
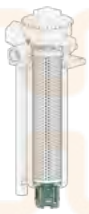
TRANSMISSION FILTERS

ORDERING AND OPTION CHART

F T		COMPLETE FILTER FAMILY					
		A = with internal bypass					
		B = with external bypass					
		SIZE & LENGTH	23	31	32	33	
	B	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					
		N = NBR Nitrile	N	N	N	N	
		FILTER MEDIA *					
		FC = fibreglass 12 $\mu m_{(c)}$ β>1.000	FC	FC	FC	FC	
		FS = fibreglass 16 $\mu m_{(c)}$ β>1.000	FS	FS	FS	FS	
		CLOGGING INDICATOR					
		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	

FILTER ELEMENT FAMILY	E	T A
SIZE & LENGTH		
SEALS	N	
FILTER MEDIA		

SPARE PARTS ELEMENTS

FILTER HOUSING	FILTER ELEMENT	CLOGGING INDICATOR	ACCESSORIES
			
B T B N X	E T A N		

KTS
TRANSMISSION FILTERS

ORDERING AND OPTION CHART

K	T	S	COMPLETE FILTER FAMILY				
			SIZE & LENGTH	110	210	220	230
			FILTER MEDIA*				
			FD = fibreglass 12 $\mu m_{(c)}$ β>1.000	FD	FD	FD	FD
			FS = fibreglass 16 $\mu m_{(c)}$ β>1.000	FS	FS	FS	FS
		1	SEALS				
			1 = NBR Nitrile	1	1	1	1
			BYPASS TYPE				
			B = Internal 250 kPa (2,5 bar)	B	B	B	B
			T = External 250 kPa (2,5 bar)	T	T	T	T
		B	PORT TYPE				
			B = BSP thread	B	B	B	B
			PORT SIZE				
			4 = 3/4" suction + 3/4" return	4	-	-	-
			D= 3/4" suction + 1" return	D	-	-	-
			E = 1 1/4" return + 2x1" suction	-	E	E	E
			CLOGGING INDICATOR				
			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

FILTER ELEMENT FAMILY	C	K	T
SIZE & LENGTH			
FILTER MEDIA			
SEALS	1		

SPARE SEAL KIT

	NBR	FKM
FTA2-FTB2 KTS1	521.0121.2	521.0122.2
FTA3-FTB3 KTS2	521.0123.2	521.0124.2

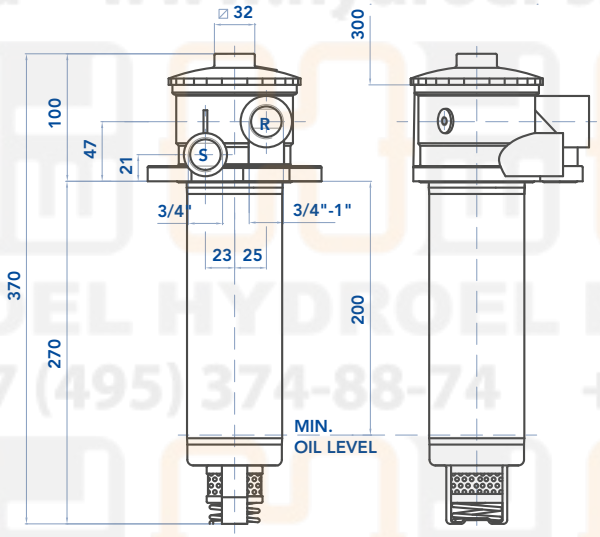
* For any different media requirement, please check availability with our Customer Service

FTA-FTB-KTS

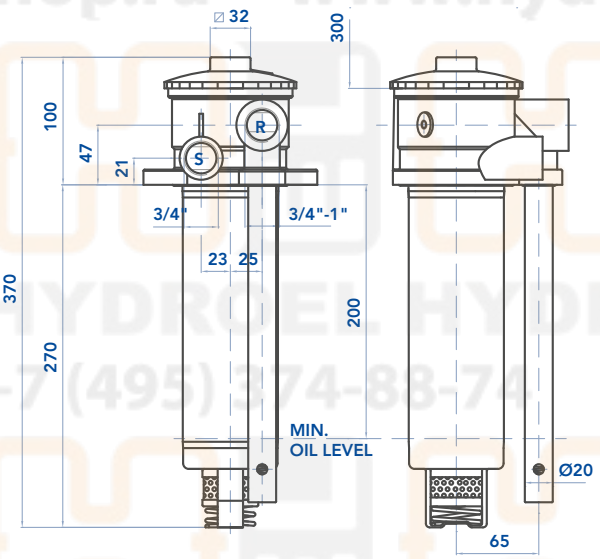
TRANSMISSION FILTERS

INSTALLATION DRAWING

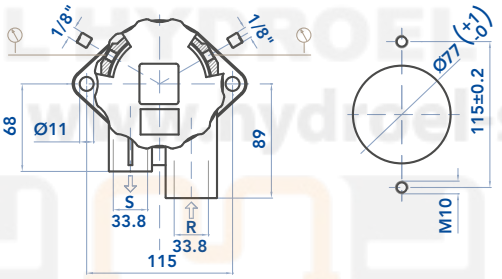
FTA 23
WITH INTERNAL BY-PASS



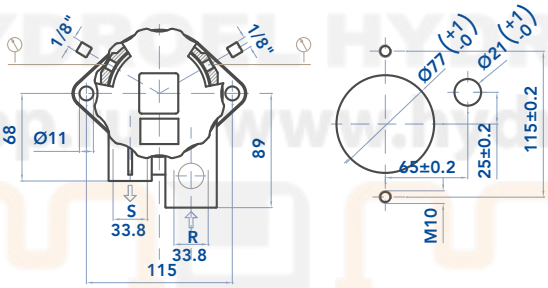
FTB 23
WITH EXTERNAL BY-PASS



TANK MOUNTING
PATTERN



TANK MOUNTING
PATTERN

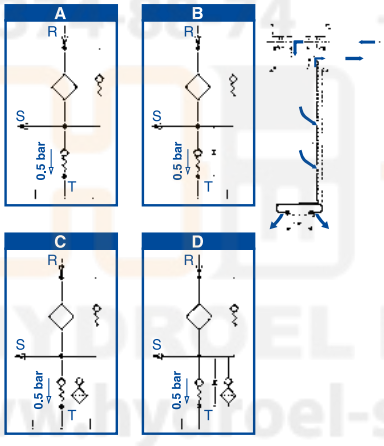


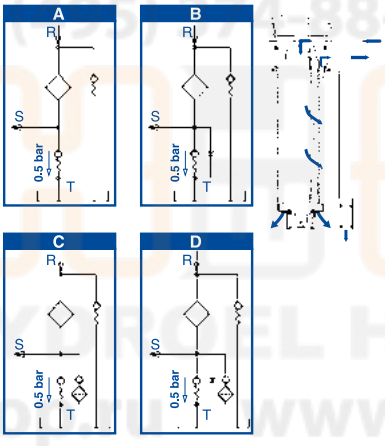
WORKING SCHEME

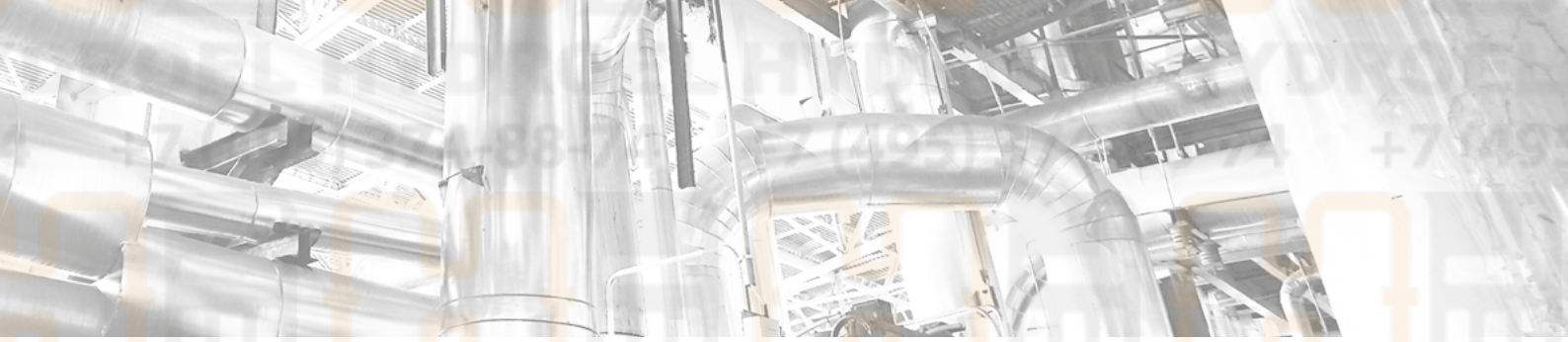
Options A and C
are recommended for horizontal filter mounting.

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)

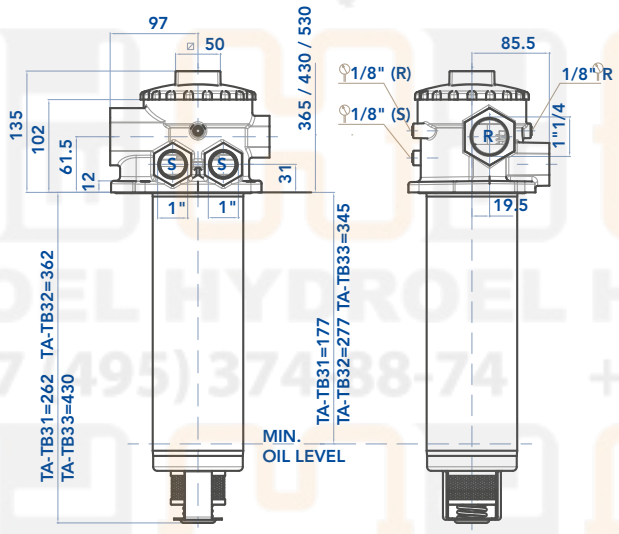




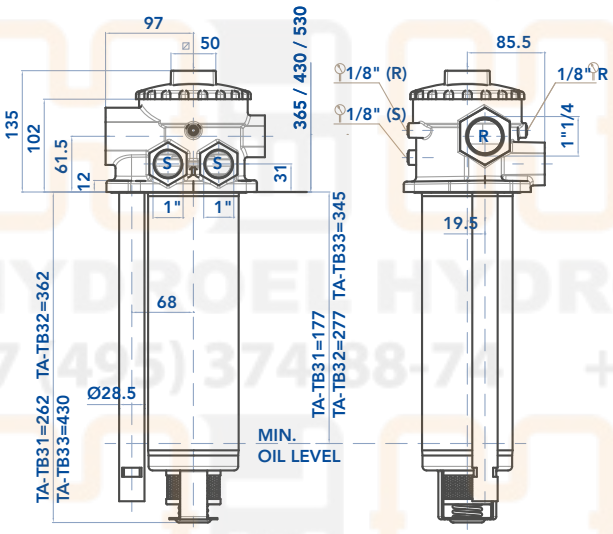


INSTALLATION DRAWING

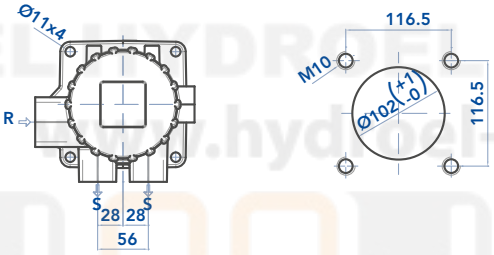
FTA 31 - 32 - 33
WITH INTERNAL BY-PASS



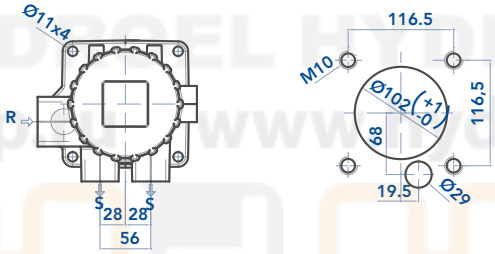
FTB 31 - 32 - 33
WITH EXTERNAL BY-PASS



TANK MOUNTING
PATTERN



TANK MOUNTING
PATTERN



WORKING SCHEME

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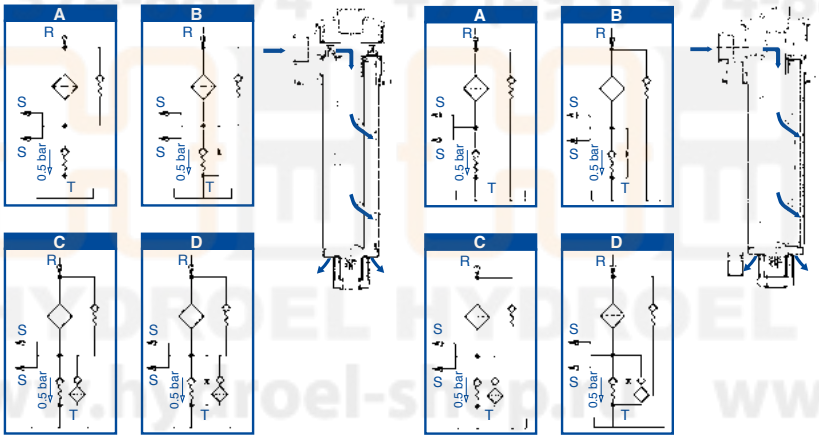
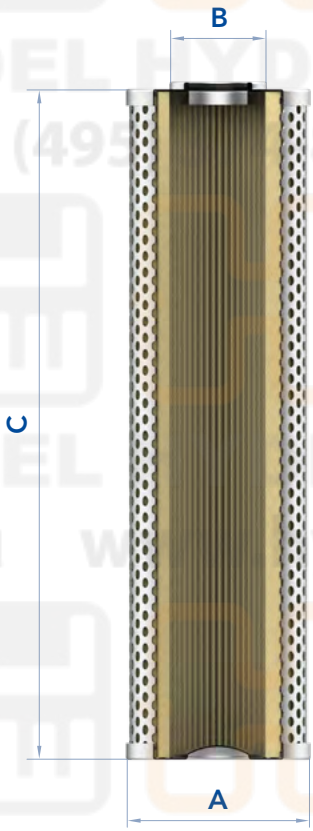


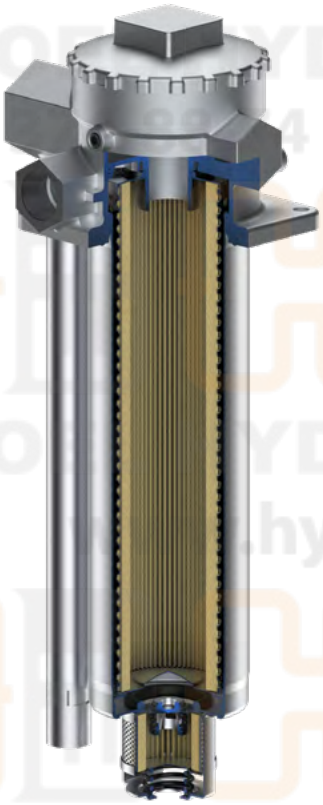
FTA-FTB-KTS

TRANSMISSION FILTERS

MAINTENANCE

The best time to change your filter element is just before it reaches its maximum dirt-holding capacity. For this reason, we recommend to monitor the pressure of the hydraulic oil flowing through the filter with a clogging indicator. When it is time to change the filter element, switch off the system before opening the filter housing.
Unscrew the plug and extract the handle from the housing. Remove the dirty filter element and replace it with an original UFI element, verifying the part number on the filter label or on the catalogue. Clean the handle, check the handle O-Ring condition and lubricate with oil.
Check the gaskets conditions and replace if necessary. Insert the clean element on the shank of the handle, handling with care and cleanliness. Replace the handle complete with filter element in the housing ensuring the sealing of the gasket. Tighten the plug until it stops with the following tightening torques:
KTS 105-110 Series: 25 Nm +5/0
KTS 210-220-230 Series: 35 Nm +5/0
We recommend the stocking of a spare UFI filter element for timely replacement when required.





FILTER ELEMENT

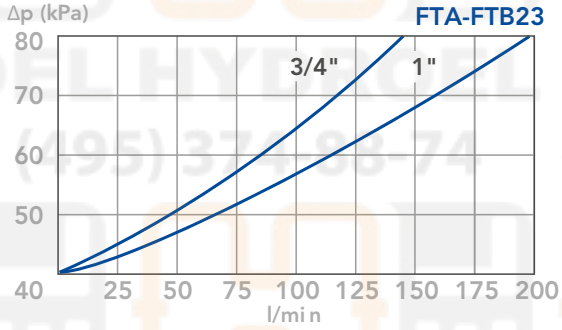
					AREA (cm²)
	A	B	C	KG	Media F+
ETA23 CKT110	63,5	28	230	0,40	1.900
ETA31 CKT210	90	40	232	0,55	2.800
ETA32 CKT220	90	40	333	0,77	4.100
ETA33 CKT230	90	40	400	0,85	4.900

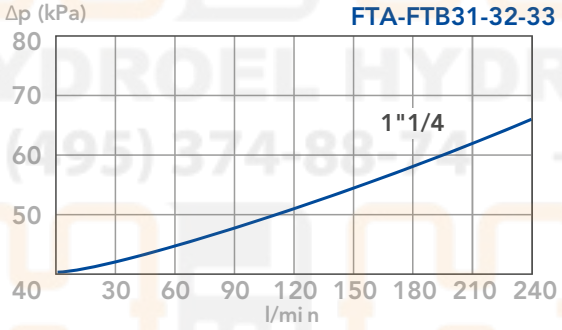
The used filter elements cannot be cleaned and are classified as “Dangerous waste material”. They must be disposed according to local laws by authorized Companies.
Verify that the Company you choose has the expertise and authorization to dispose this type of waste material.

PRESSURE DROP CURVES (ΔP)

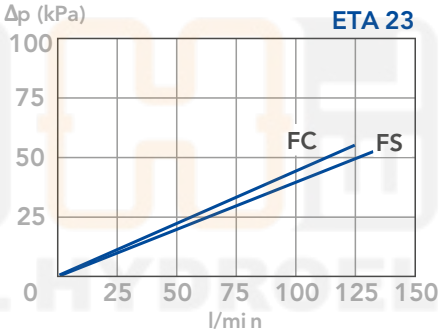
The “Assembly Pressure Drop (Δp)” is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 40 kPa (0,4 bar) and should never exceed 1/3 of the bypass valve setting.

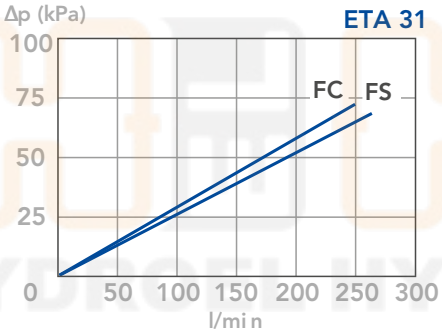
FILTER HOUSING PRESSURE DROP
(mainly depending on the port size)

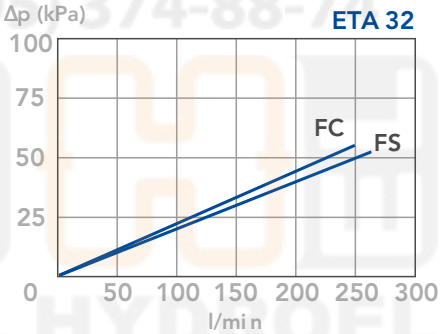


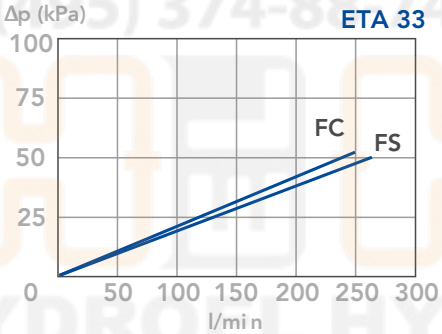


CLEAN FILTER ELEMENT PRESSURE DROP
(depending both on the internal diameter of the element and on the filter media)







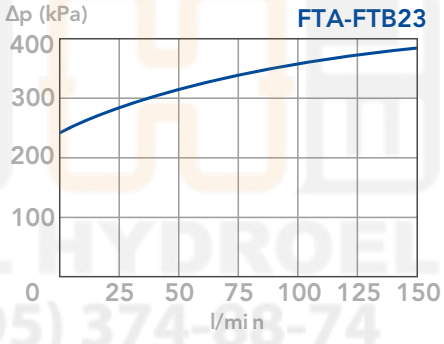


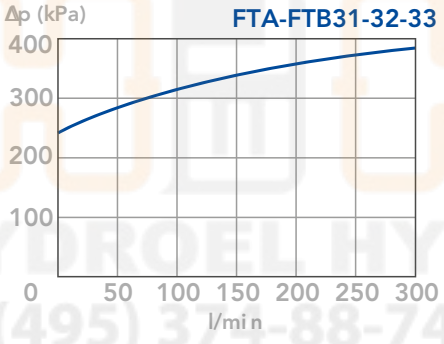
FTA-FTB-KTS

TRANSMISSION FILTERS

BYPASS VALVE PRESSURE DROP

When selecting the filter size, these curves must be taken into account if it is foreseen that any flow peak is to be absorbed by the bypass valve, it also must be of proper configuration to avoid pressure peaks. The valve pressure drop is directly proportional to fluid specific gravity.





N.B.

All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,86 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.
In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.