

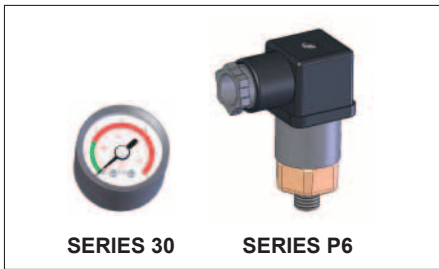


ORELL

COMBINED RETURN- SUCTION FILTERS TA-TB



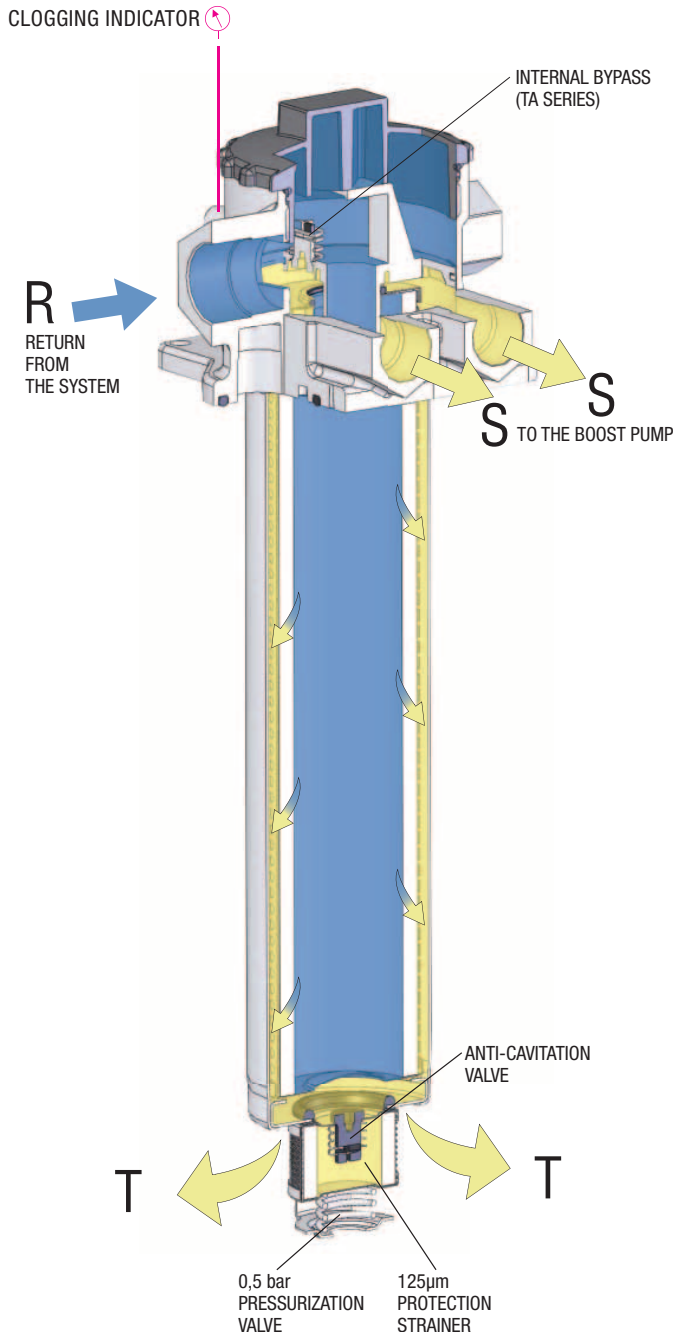
OHF 700



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 than the flow required by the boost pump is recommended in normal operating conditions.

TA have an internal bypass system.

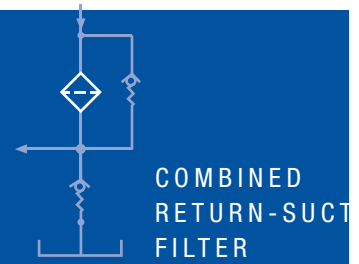
TB have external bypass to the reservoir.

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.



TA & TB



MATERIALS

Head:
Aluminium alloy

Cover:
Polyamide 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) \pm 10%

WORKING TEMPERATURE

From -25° to + 110° C

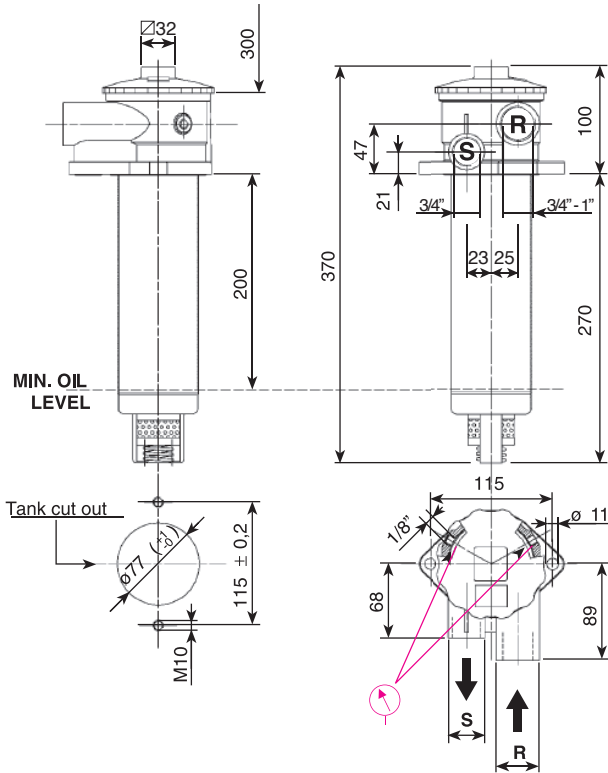
COMPATIBILITY (ISO 2943)

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

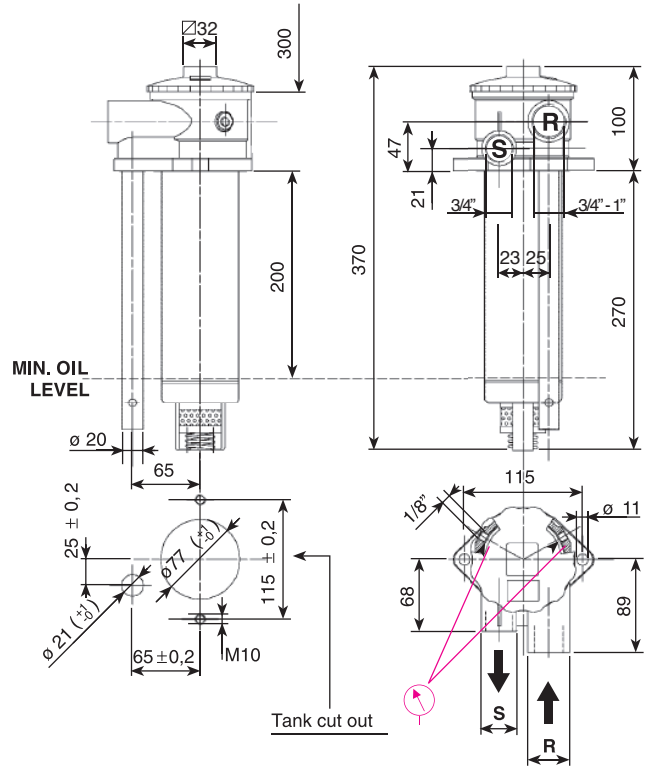
APPLICATION EXAMPLE



**TA 23
WITH INTERNAL BYPASS**



**TB 23
WITH EXTERNAL BYPASS**

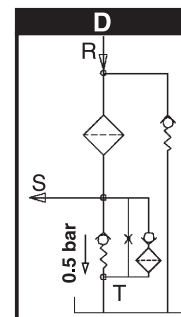
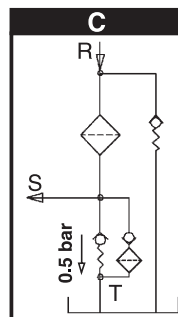
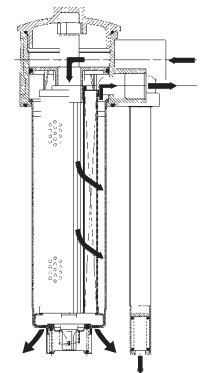
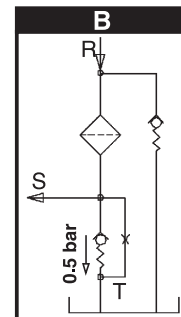
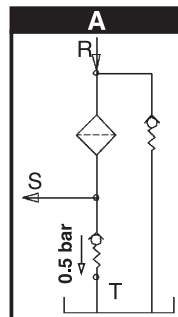
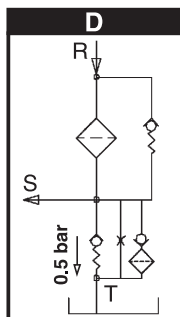
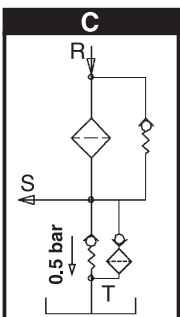
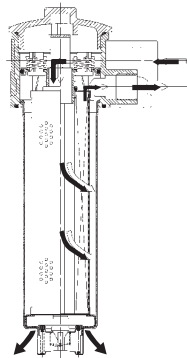
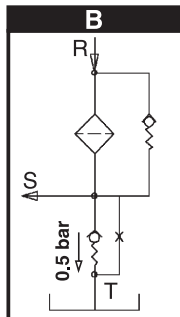
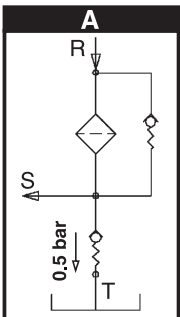


WORKING SCHEME

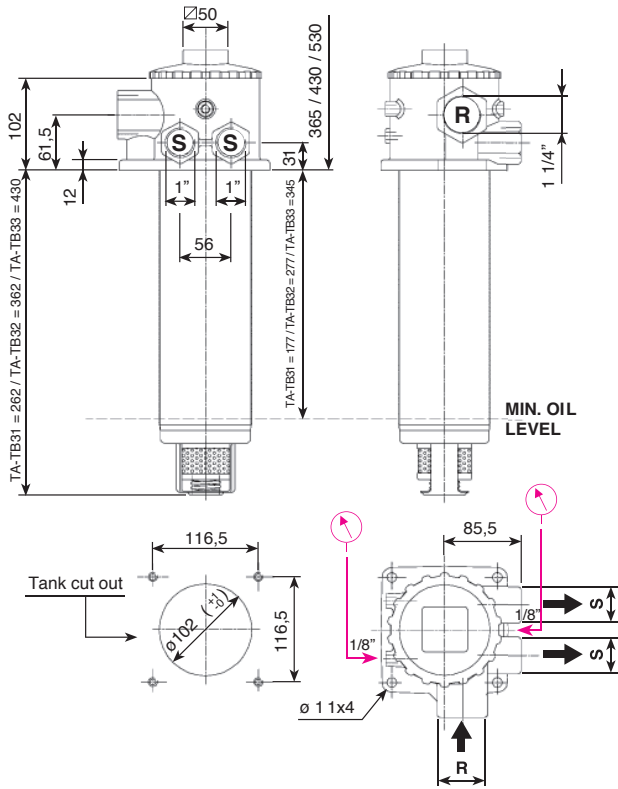
Options A and C
are recommended
for horizontal filter mounting.

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

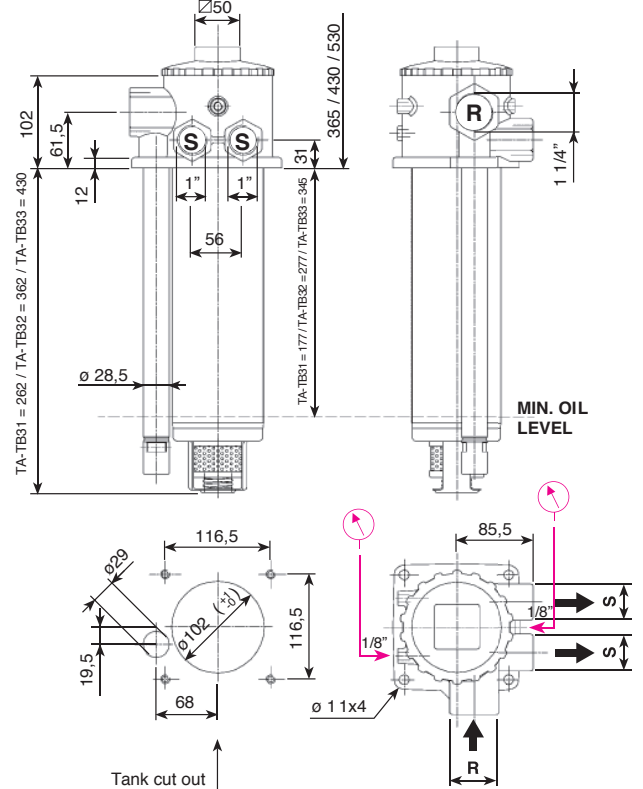
Options C and D
a 125 μ m strainer protects the emergency
valve in case of brief lack of oil in the suction
of the boost pump (situation to be anyway
avoided)



**TA 31-32-33
WITH INTERNAL BYPASS**



**TB 31-32-33
WITH EXTERNAL BYPASS**

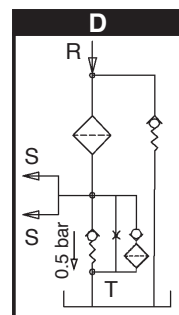
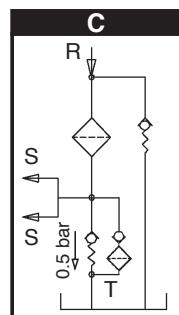
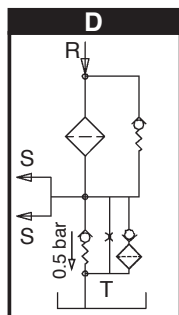
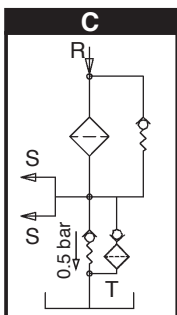
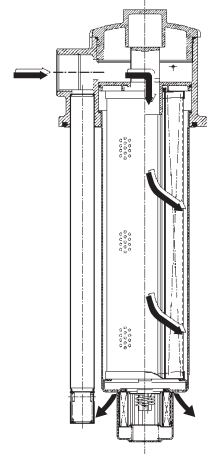
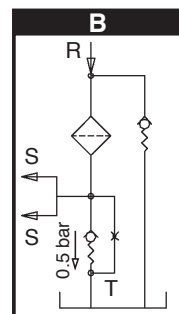
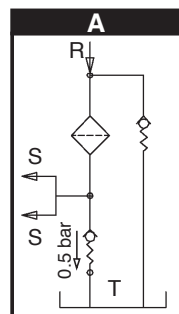
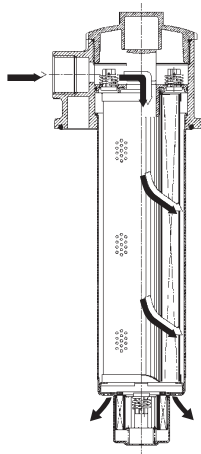
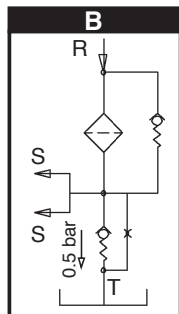
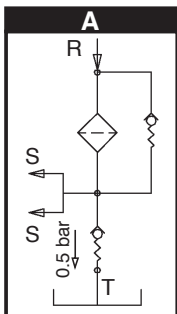


WORKING SCHEME

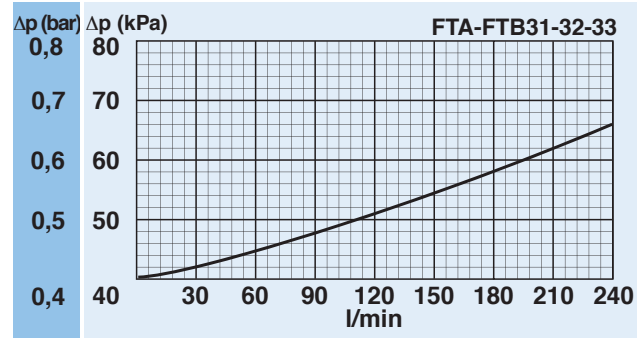
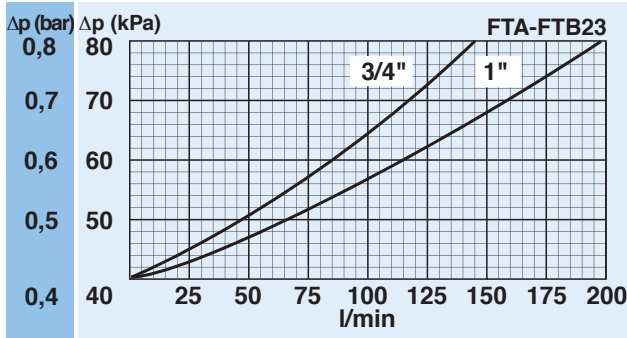
Options A and C are recommended for horizontal filter mounting.

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

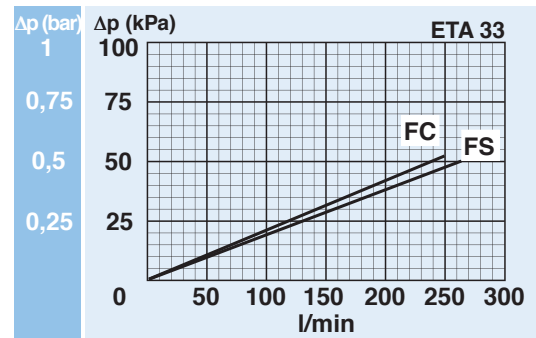
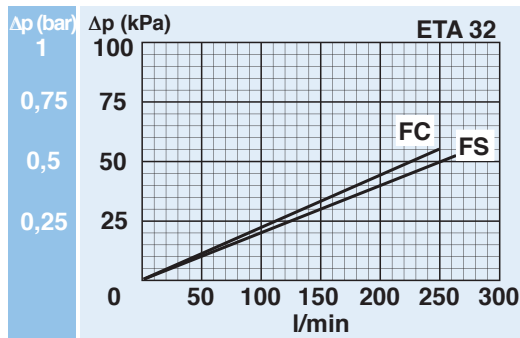
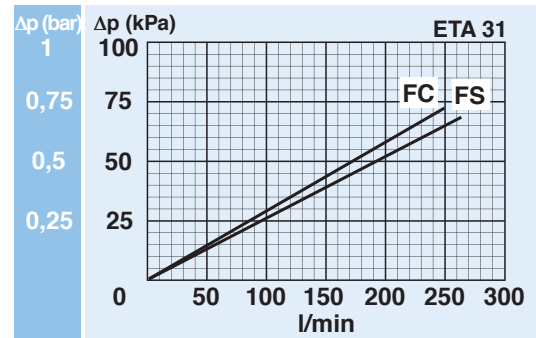
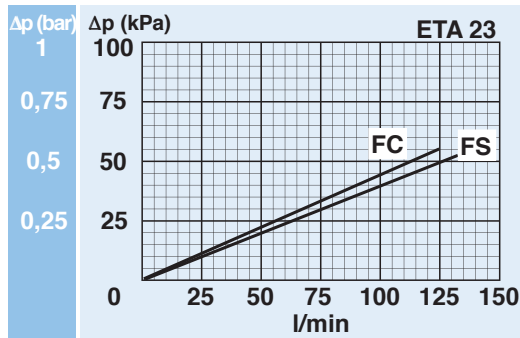
Options C and D a 125 µm strainer protects the emergency valve in case of brief lack of oil in the suction of the boost pump (situation to be anyway avoided)



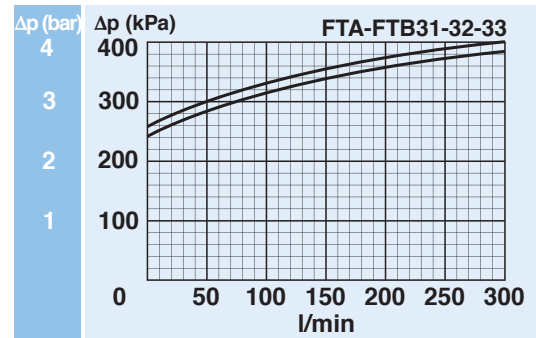
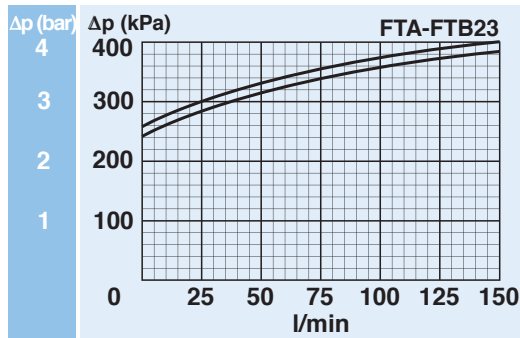
FILTER HOUSING PRESSURE DROP



**CLEAN
FILTER
ELEMENT
PRESSURE
DROP**



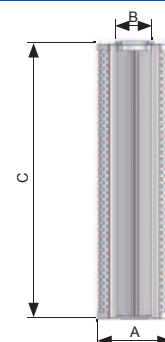
**BYPASS
VALVE
PRESSURE
DROP**



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.

FILTER ELEMENT

	A	B	C	kg	Area (cm ²) 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					
	TA = with internal bypass					23	31	32	33	T	A
	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 $\mu\text{m}_{(e)}$ $\beta > 1.000$					FC	FC	FC	FC	FC = fiber 12 $\mu\text{m}_{(e)}$		
FS = fiber 16 $\mu\text{m}_{(e)}$ $\beta > 1.000$					FS	FS	FS	FS	FS = fiber 16 $\mu\text{m}_{(e)}$		
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")

