

# KTS

## TECHNICAL DATA

- Max. working pressure: 1 MPa (10 bar)
- Max. test pressure: 1,5 MPa (15 bar)
- Bursting pressure: 3 MPa (30 bar)
- Fatigue test: 0 ÷ 1 MPa (10 bar) / 300.000 cycles
- Bypass valve: return  $\Delta p$  250 kPa (2,5 bar)  $\pm$  10%

Filter elements collapse pressures:  
standard:  $\Delta p$  1 MPa (10 bar)

Working temperature: -25 ÷ +110°C

## MATERIALS

- Head: aluminium alloy
- Bowl: steel
- Seals: standard NBR - on request FKM

## 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.

All tests performed according to the following standards:

- ISO 2941: Element collapse resistance test
- ISO 2942: Production integrity test
- ISO 2943: Fluids compatibility
- ISO 3723: End load test method
- ISO 3724: Flow fatigue resistance method
- ISO 3968: Pressure drop versus flow rate
- ISO 16889: Multipass test.

For further information contact our Technical Dept.

The **KTS** 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 50 kPa (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.

- Two versions are available:
- with internal bypass system.
  - with external bypass valve

## ADVANTAGES

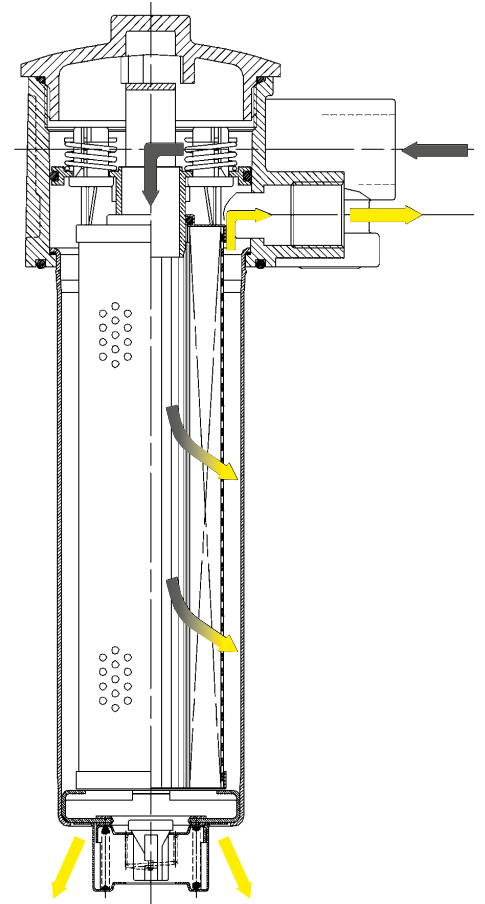
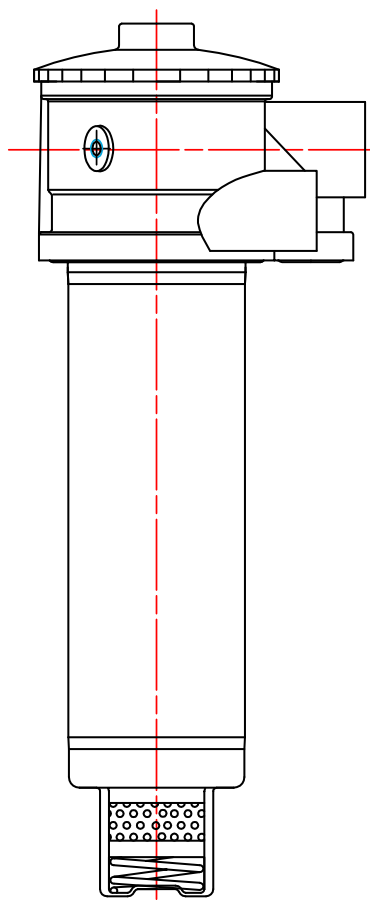
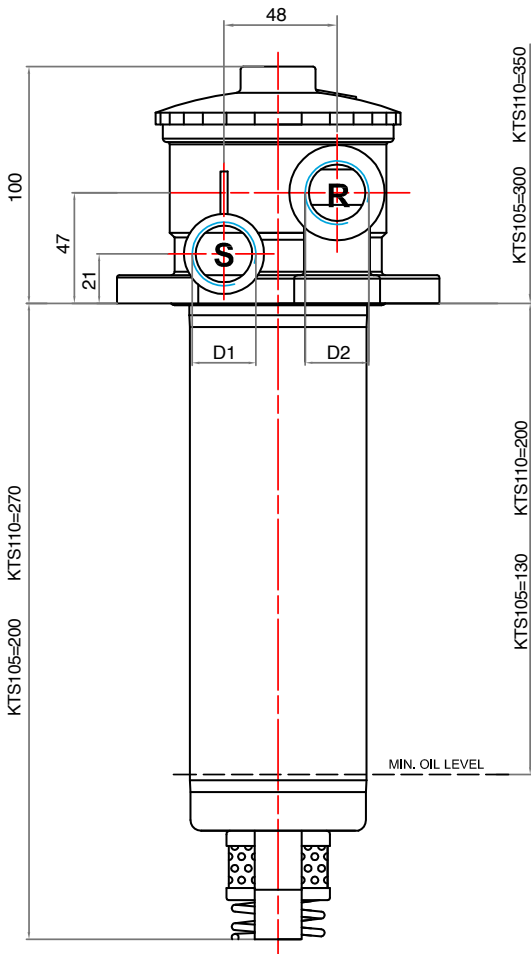
- One filter for two functions: filtering the oil returning from the hydraulic system and feeding the boost pump with cleanest oil
- Pressurization allows absolute filtration on the suction of the boost pump
- No cavitation risk
- Filter element working from inside to outside allows retained contamination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

KTS	Type	110	210	220	230	Type	CKT
	Filter media					Filter media	
	FT = 5µm(e)	FT	FT	FT	FT	FT = 5µm(e)	
	FC = 7µm(e)	FC	FC	FC	FC	FC = 7µm(e)	
	FD = 12µm(e) Inorganic fiber β>1000	FD	FD	FD	FD	FD = 12µm(e) Inorganic fiber β>1000	
	FV = 21µm(e)	FV	FV	FV	FV	FV = 21µm(e)	
	FS = 16µm(e)	FS	FS	FS	FS	FS = 16µm(e)	
	CD = 10µ Paper	CD	CD	CD	CD	CD = 10µ Paper	
	CV = 25µ	CV	CV	CV	CV	CV = 25µ	
1	Seals					Seals	1
	1 = NBR Nitrile	1	1	1	1	1 = NBR Nitrile	
B	Bypass type						
	B = Internal 250 kPa (2,5 bar)	B	B	B	B		
	T = External 250 kPa (2,5 bar)	T	T	T	T		
	Ports						
	B = BSP	B	B	B	B		
	N = NPT	N	N	N	N		
	S = SAE	S	S	S	S		
	Port size						
	4 = 3/4" + 3/4"	4	-	-	-		
	D = 3/4" + 1"	D	-	-	-		
	E = 1 1/4" Return + 2 x 1" Suction	-	E	E	E		
	Indicators						
	05 = Ports, plugged	05	05	05	05		
	30 = Pressure gauge	30	30	30	30		
	P6 = Pressure switch 200 kPa (2 bar) - SPDT	P6	P6	P6	P6		
	Accessories						
	A = pressurisation valve	A	A	A	A		
	B = pressurisation valve + drain hole	B	B	B	B		
	C = pressurisation valve + suction bypass	C	C	C	C		
	D = pressurisation valve + drain hole + suction bypass	D	D	D	D		
	Accessories						
	X = No accessory	X	X	X	X		

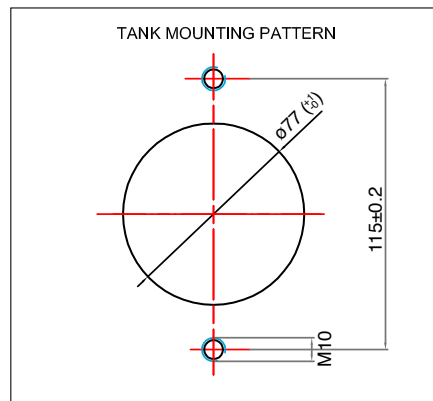
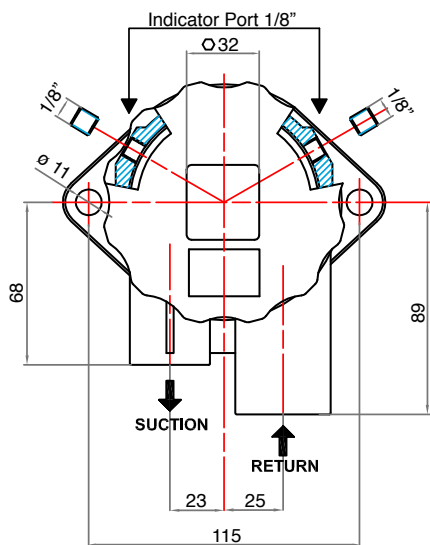
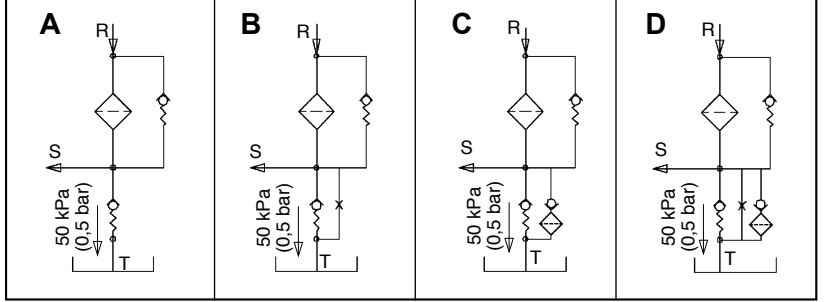
**DIMENSIONAL LAYOUT**

(mm)

**KTS 1B**



**Working Scheme**

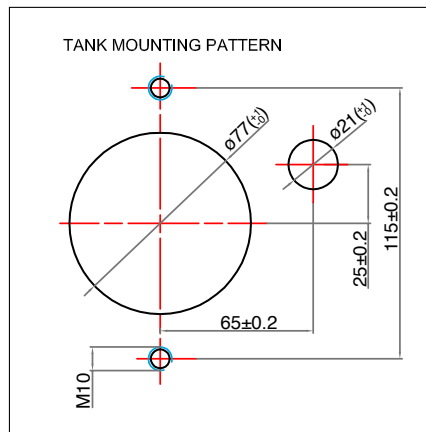
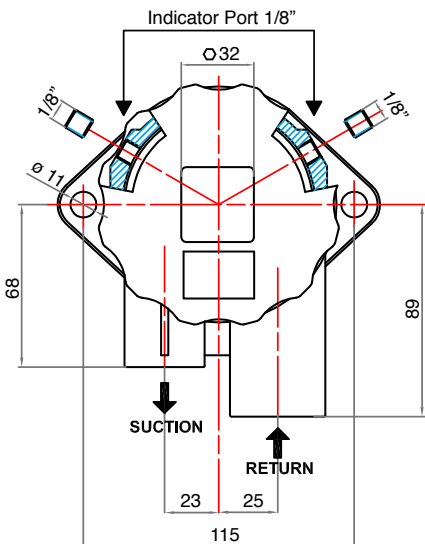
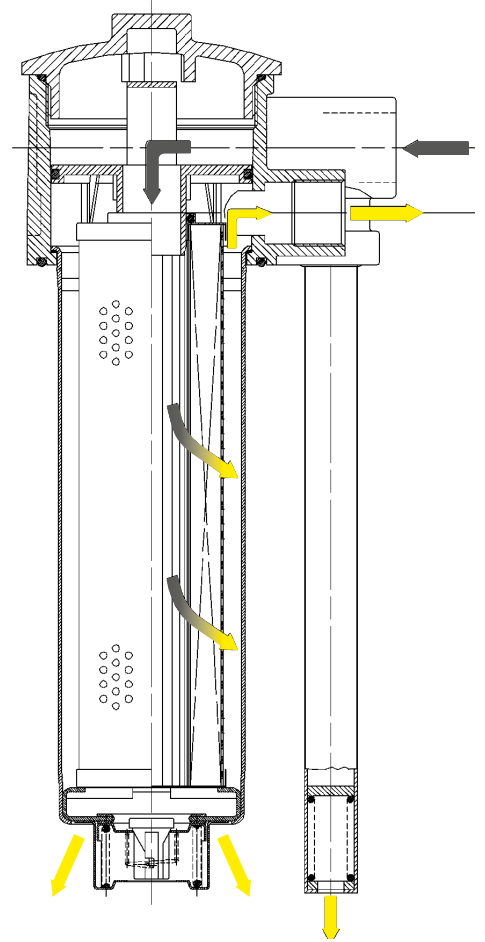
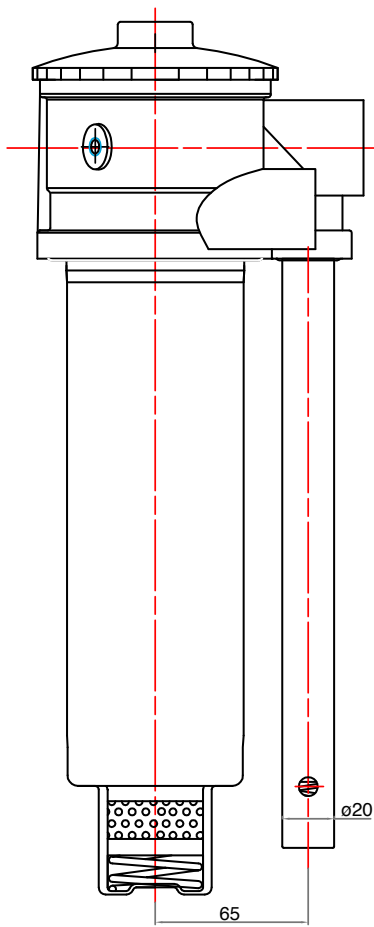
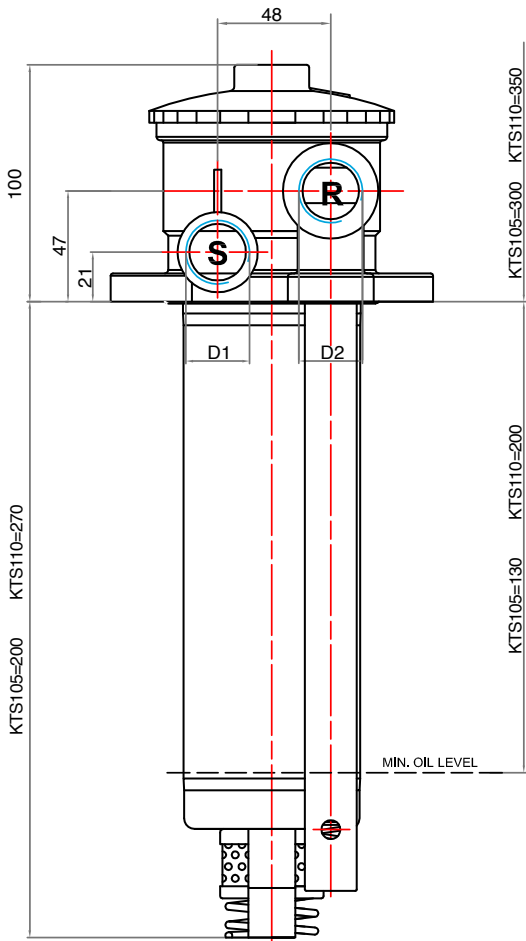
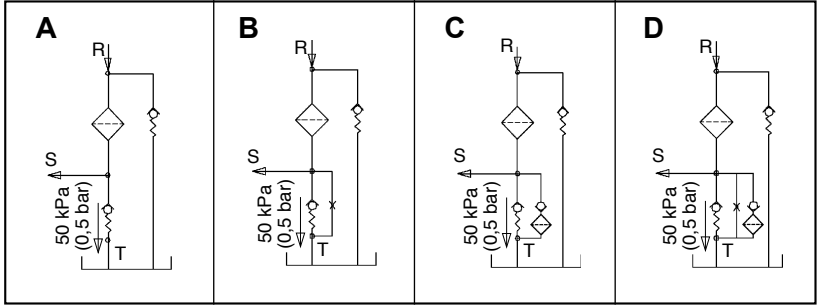


**DIMENSIONAL LAYOUT**

(mm)

**KTS 1T**

**Working Scheme**

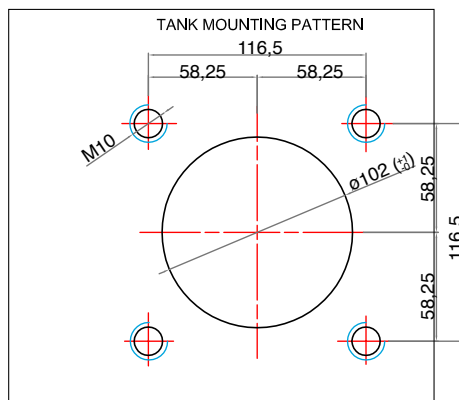
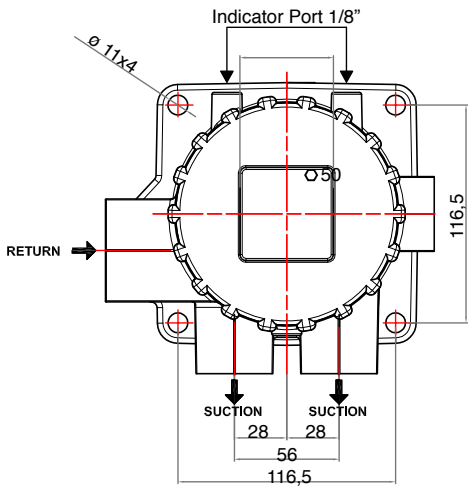
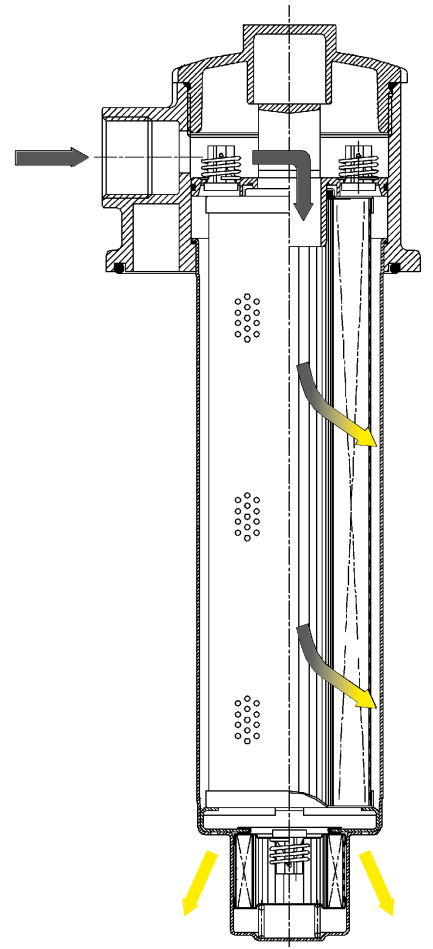
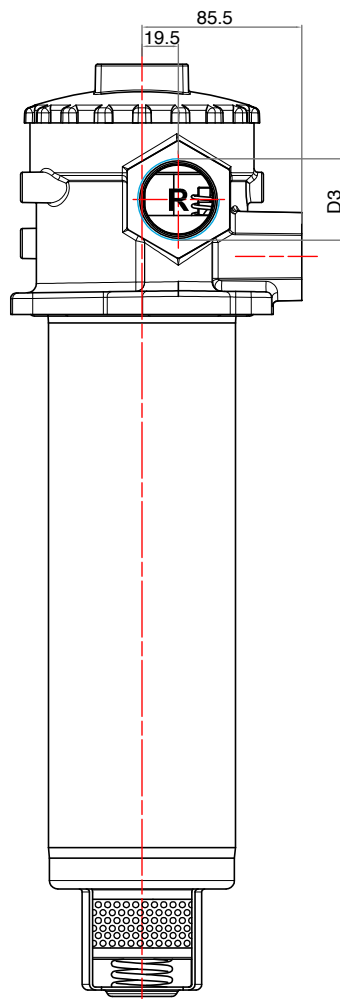
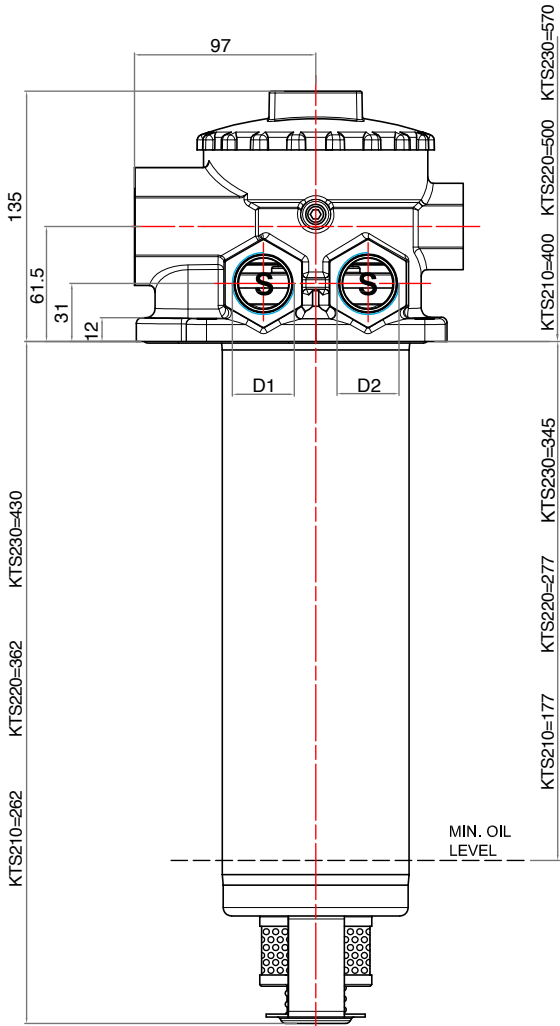
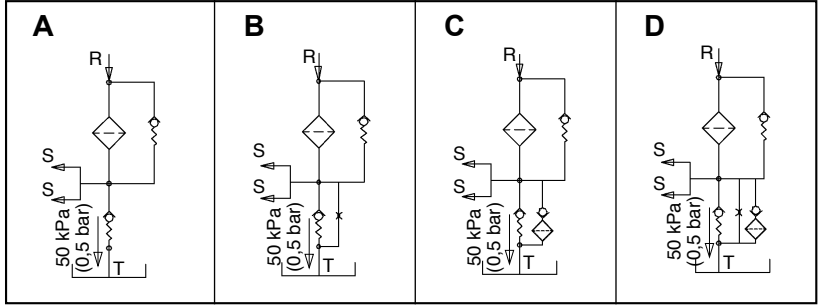


**DIMENSIONAL LAYOUT**

(mm)

**KTS 2B**

**Working Scheme**

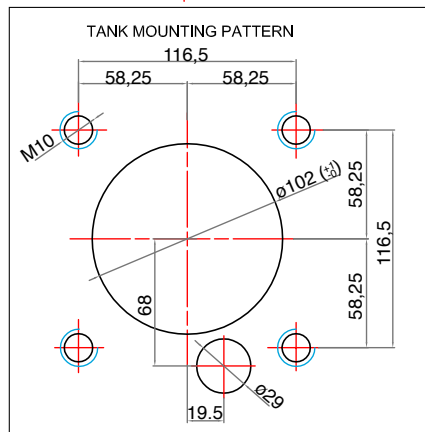
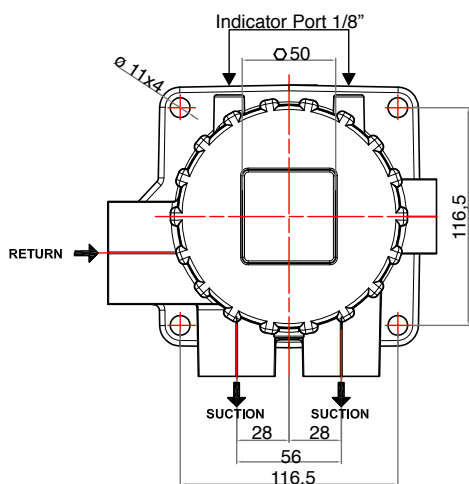
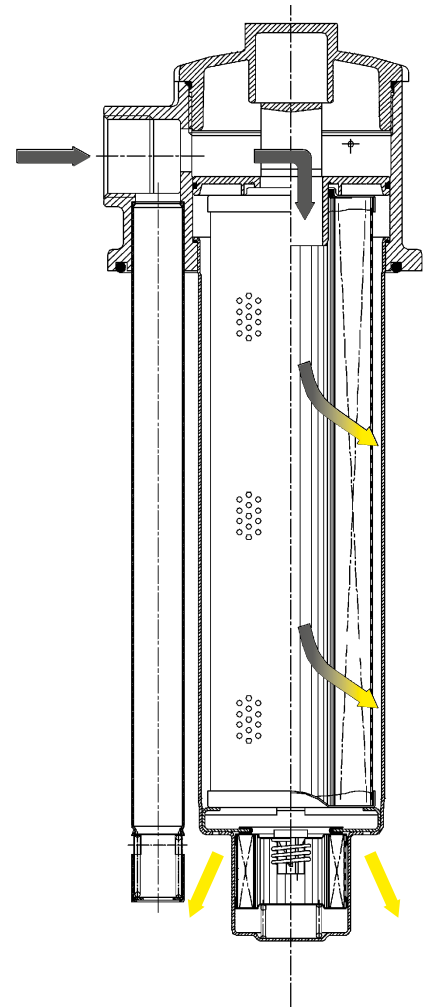
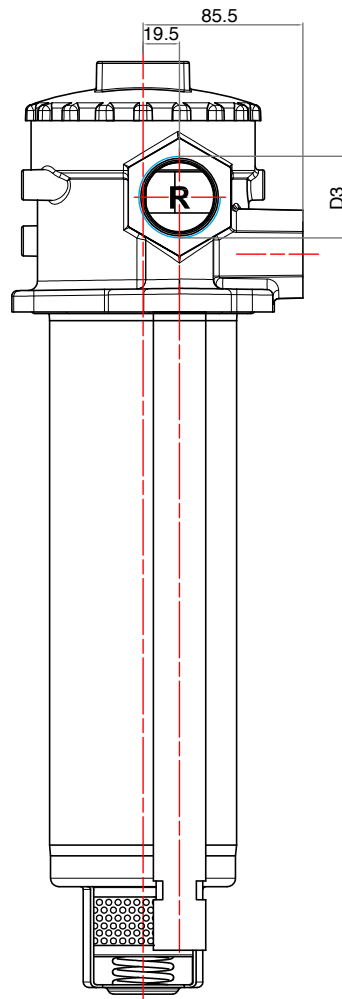
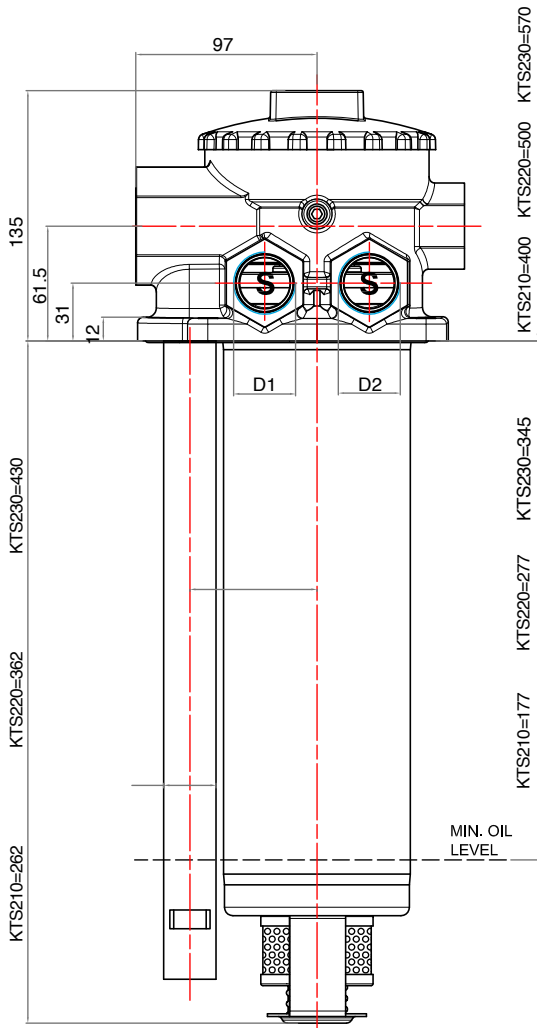
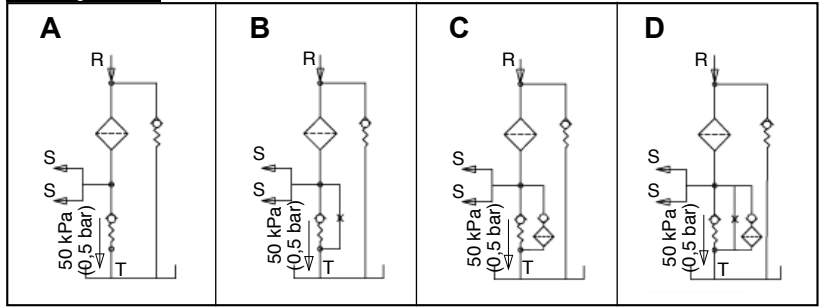


# DIMENSIONAL LAYOUT

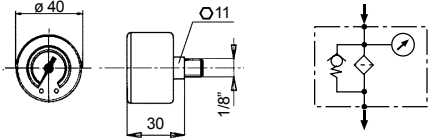
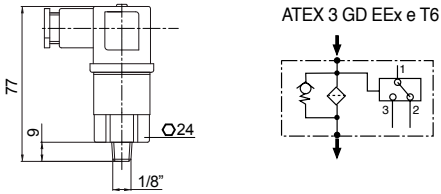
(mm)

**KTS 2T**

## Working Scheme



**CLOGGING INDICATORS**

NBR	FKM	Pressure gauge	
30	-	Scale 0 ÷ 600 kPa (6 bar)	
NBR	FKM	Pressure switch	
P6	-	Setting 200 kPa (2 bar)	
SPDT, C.C. 30V: > max resistive or inductive load 3A - 1A respectively C.A. 125 or 250V: > max resistive or inductive load 3A - 0,5A respectively Protection IP65 - Connector DIN 43650			

**FLOW RATES**

(l/min)

 $\Delta p = 25 \div 35 \text{ kPa (0,25} \div 0,35 \text{ bar)}$ 

Type	Filter Media					
	FC	FD	FS	FV	CD	CV
KTS 110	55	75	80	80	80	85
KTS 210	100	120	140	140	150	150
KTS 220	120	170	190	190	200	200
KTS 230	140	190	210	210	220	200

The reference fluid has a kinematic viscosity of 30 cSt and a density of 0,86 Kg/dm<sup>3</sup>.  
 For different oil viscosity please contact our Sales Department for further information.

**DIRT HOLDING CAPACITY**(g) ISO MTD  $\Delta p = 250 \text{ kPa (2,5 bar)}$ 

Type	Filter Media					
	FC	FD	FS	FV	CD	CV
CKT 110	16	21	23	27	25	29
CKT 210	26	35	40	46	42	50
CKT 220	35	46	50	58	54	63
CKT 230	45	55	70	76	72	78