



KH420 SERIES

High pressure filter kit

FILTREC KH420 series is specifically designed to be screwed directly on the control block.

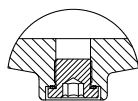
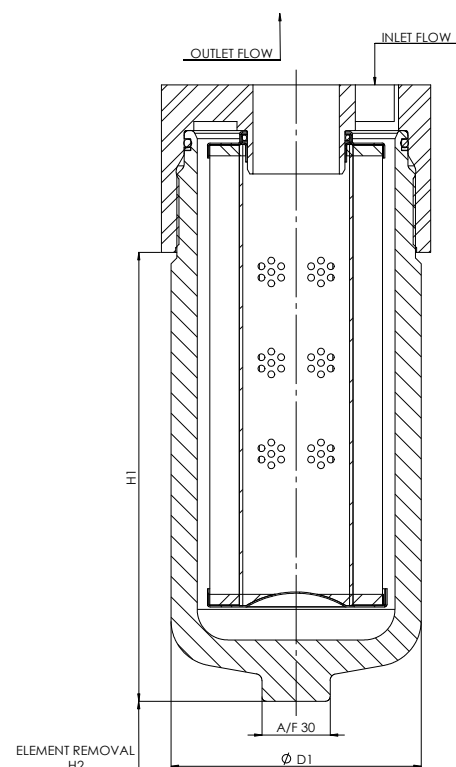
Flow rate is up 500 l/min with a wide range of bowls for a best tailored solution.



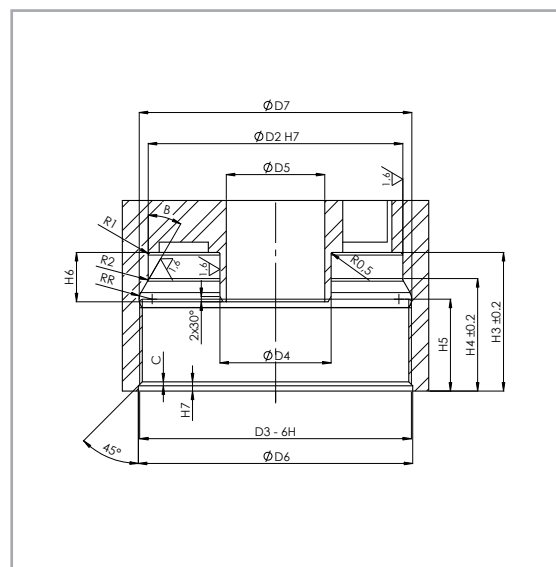
HOUSING	tested according to NFPA T3.10.5.1, ISO 10771, ISO 3968
PRESSURE:	Max operating: up to 420 bar Fatigue pressure test, over 10 ⁶ cycles from zero to max working pressure. Burst: over 1260 bar
MATERIALS:	Bowl: carbon steel Seal: NBR (FKM on request)
ELEMENT	tested according to ISO 11170, 2941, 2942, 2943, 3724, 3968, 16889, 16908, 23181
FILTER MEDIA:	Fibreglass: G01 - G03 - G06 - G10 G15 - G25
COLLAPSE PRESSURE:	21 bar With bypass 210 bar Without bypass
TEMPERATURE RANGE:	-30°C +100°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV HETG-HEES (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

KH420 D1 2xx / 3xx / 4xx



DRAIN VERSION



CONTROL BLOCK MACHINING
REFERENCE DRAWING

NOMINAL SIZE

MODEL	D1	D2	D3	D4	D5	D6	D7	H1	H2	H3	H4	H5	H6	H7	RR	B	C	WEIGHT
D1 25	70	65,5	M70x1,5	23,7	19	70,5	70,3	69	110	41	31,7	26,2	16	2	4	30°	1x45°	1,1 Kg
D1 20	70	65,5	M70x1,5	23,7	19	70,5	70,3	110	110	41	31,7	26,2	16	2	4	30°	1x45°	1,8 Kg
D1 24	70	65,5	M70x1,5	23,7	19	70,5	70,3	153	110	41	31,7	26,2	16	2	4	30°	1x45°	2,8 Kg
D1 21	70	65,5	M70x1,5	23,7	19	70,5	70,3	203	110	41	31,7	26,2	16	2	4	30°	1x45°	2,3 Kg
D1 26	70	65,5	M70x1,5	23,7	19	70,5	70,3	247	110	41	31,7	26,2	16	2	4	30°	1x45°	3,2 Kg
D1 35	90	81,5	M85x1,5	32	27	86	85,5	151	120	43	33,5	28,5	19	2,5	4	25°	1,25x45°	3,4 Kg
D1 36	90	81,5	M85x1,5	32	27	86	85,5	211	120	43	33,5	28,5	19	2,5	4	25°	1,25x45°	4,5 Kg
D1 37	90	81,5	M85x1,5	32	27	86	85,5	281	120	43	33,5	28,5	19	2,5	4	25°	1,25x45°	5,9 Kg
D1 40	110	98,4	M105x2	42,9	38	106	105,5	104,5	130	53,5	43,4	35,5	19	3,5	5	30°	1,5x45°	3,9 Kg
D1 41	110	98,4	M105x2	42,9	38	106	105,5	197,5	130	53,5	43,4	35,5	19	3,5	5	30°	1,5x45°	6,4 Kg
D1 42	110	98,4	M105x2	42,9	38	106	105,5	317,5	130	53,5	43,4	35,5	19	3,5	5	30°	1,5x45°	9,8 Kg
D1 43	110	98,4	M105x2	42,9	38	106	105,5	416,5	130	53,5	43,4	35,5	19	3,5	5	30°	1,5x45°	12,4 Kg

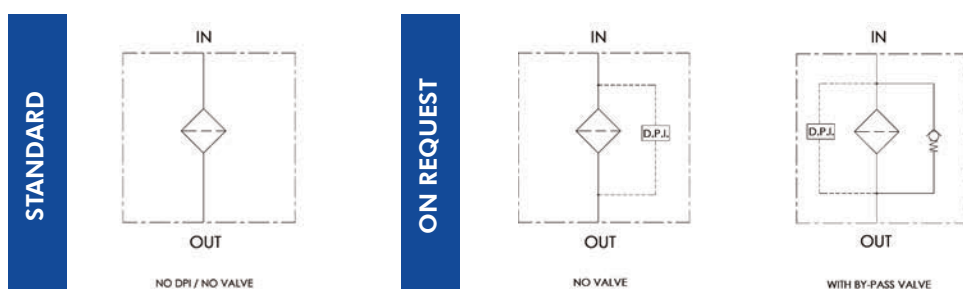
ORDERING INFORMATION

	1.	2.	3.	4.	5.	6.	7.	8.
	KH420	D1	20	G10	A	B	S	0
SPARE ELEMENT		D1	20	G10	A			

1. FILTER SERIES	KH420	
2. FILTER ELEMENT SERIES	D1	
3. FILTER SIZE	08	
	25-20-24-21-26	
	35-36-37	
	40-41-42-43	
4. FILTER MEDIA	000	no element
	G01	glassfiber $\beta_{4\mu m(c)} \geq 1.000$
	G03	glassfiber $\beta_{5\mu m(c)} \geq 1.000$
	G06	glassfiber $\beta_{7\mu m(c)} \geq 1.000$
	G10	glassfiber $\beta_{12\mu m(c)} \geq 1.000$
	G15	glassfiber $\beta_{17\mu m(c)} \geq 1.000$
	G25	glassfiber $\beta_{22\mu m(c)} \geq 1.000$
5. ELEMENT COLLAPSE	A	21 bar
	B	210 bar
6. SEALS	*B	NBR
*omitted for spare element	V	FKM (option)
7. CORROSION PROTECTION	S	standard
8. OPTION	0	no option
	D	drain plug (on request)

By pass valve, indicator and related measurements and tolerances for machining available on request.

HYDRAULIC SYMBOLS



ELEMENT PRESSURE DROP (filter elements 21 bar collapse)

The element Δp (bar) is given by the flow rate (l/min) multiplied by the factor in the table here below corresponding to the selected media and divided by 1000.

If the oil has a viscosity V_x different than 32 cSt a corrective factor $V_x/32$ must be applied.

Example: 80 l/min with D121G10A and oil viscosity 46 cSt $> (80 \times 4,42)/1000 \times (46/32) = 0,51$ bar

	G01A	G03A	G06A	G10A	G15A	G25A
D125	50,24	35,56	25,75	15,51	8,27	7,57
D120	30,43	21,30	13,97	8,39	5,18	4,78
D124	19,90	13,93	8,42	5,17	4,16	3,60
D121	15,48	10,84	6,79	4,42	3,38	2,93
D126	13,24	8,61	5,75	4,03	2,91	2,43
D135	15,82	11,07	7,27	4,45	3,03	2,87
D136	13,19	9,23	6,06	3,71	2,53	2,39
D137	9,63	6,74	4,43	2,71	1,85	1,75
D140	14,65	10,26	6,73	4,12	2,81	2,66
D141	6,88	4,82	2,98	2,02	1,42	1,21
D142	4,67	3,27	1,99	1,36	1,04	0,83
D143	3,28	2,30	1,26	0,70	0,56	0,40

ELEMENT PRESSURE DROP (filter elements 210 bar collapse)

The element Δp (bar) is given by the flow rate (l/min) multiplied by the factor in the table here below corresponding to the selected media and divided by 1000.

If the oil has a viscosity V_x different than 32 cSt a corrective factor $V_x/32$ must be applied.

Example: 80 l/min with D121G10B and oil viscosity 46 cSt $> (80 \times 5,25)/1000 \times (46/32) = 0,60$ bar

	G01B	G03B	G06B	G10B	G15B	G25B
D108	120,86	83,59	57,25	34,76	24,65	15,93
D125	57,38	39,23	27,50	16,53	10,15	8,03
D120	37,18	26,03	14,77	11,57	6,89	6,13
D124	24,56	17,19	11,37	6,63	4,93	3,92
D121	23,89	16,72	11,25	5,25	3,85	3,34
D126	17,65	11,48	7,79	5,17	3,55	2,85
D135	20,27	14,19	9,50	5,66	4,01	3,41
D136	16,90	11,83	7,92	4,72	3,34	2,84
D137	12,35	8,64	5,79	3,45	2,44	2,07
D140	18,57	13,00	9,63	5,05	3,74	3,33
D141	10,22	7,15	4,00	2,57	1,76	1,44
D142	5,53	3,87	2,93	1,67	1,12	0,77
D143	4,59	3,21	1,80	1,10	0,93	0,70

USER TIPS



- ① FILTER ELEMENT
- ② SEAL KIT
- ③ FILTER BOWL
- ④ IDENTIFICATION LABEL

SPARE SEAL KIT PART NUMBER

	NBR	FKM
KH420 D1-08	06.021.00313	06.021.00314
KH420 D1-2x	06.021.00268	06.021.00269
KH420 D1-3x	06.021.00270	06.021.00271
KH420 D1-4x	06.021.00272	06.021.00273

BOWL TIGHTENING TORQUE

screw up filter bowl till end

WARNING

- ⚠ Make sure that Personal Protective Equipment (PPE) is worn during installation and maintenance operation.

DISPOSAL OF FILTER ELEMENT

- ⚠ The used filter elements and the filter parts dirty of oil are classified as "Dangerous waste material": they must be disposed according to the local laws by authorized Companies.

INSTALLATION

- ⚠ 1. the filter bowl should be preferably mounted (3) downward
- 2. enough space must be available for filter element replacement
- 3. the visual clogging indicator must be in a easily viewable position
- 4. when a electrical indicator is used, make sure that it is properly wired
- 5. never run the system with no filter element fitted
- 6. keep in stock a spare FILTREC filter element for timely replacement when required
- 7. the hydraulic system should be earthed

OPERATION

- ⚠ 1. the filter must work within the operating conditions of pressure, temperature and compatibility given in the first page of this data sheet
- 2. the filter element must be replaced as soon as the clogging indicator signals at working temperature (in cold start conditions, oil temperature lower than 30°C, a false alarm can be given due to oil viscosity)
- 3. If no clogging indicator is mounted, replace the element according to the system manufacturer's recommendations

MAINTENANCE

- ⚠ 1. make sure that the system is switched off and there is no residual pressure in the filter / hydraulic system
- 2. unscrew the bowl (3) by turning it anti-clockwise and remove it
- 3. remove the dirty element (1)
- 4. fit a new FILTREC element (1), verifying the part number, particularly concerning the micron rating; open its plastic protection on the open end side and insert it onto the spigot in the filter head, then remove completely the plastic protection
- 5. clean carefully the bowl; check the O-rings (2) conditions and replace if necessary
- 6. lubricate the bowl's thread (3) and screw it by hand in your hydraulic system by turning it clockwise
- ⚠ 7. screw in the bowl to stop
- 8. the used filter elements cannot be cleaned and re-used

