

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

**HYDROMA**

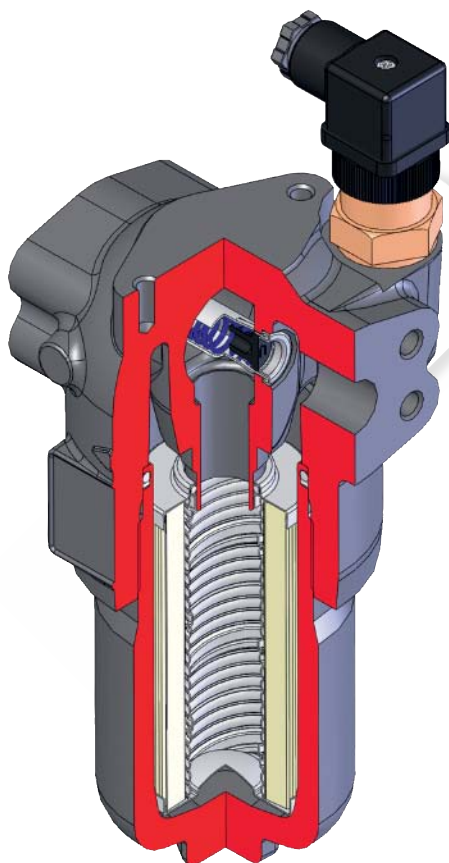
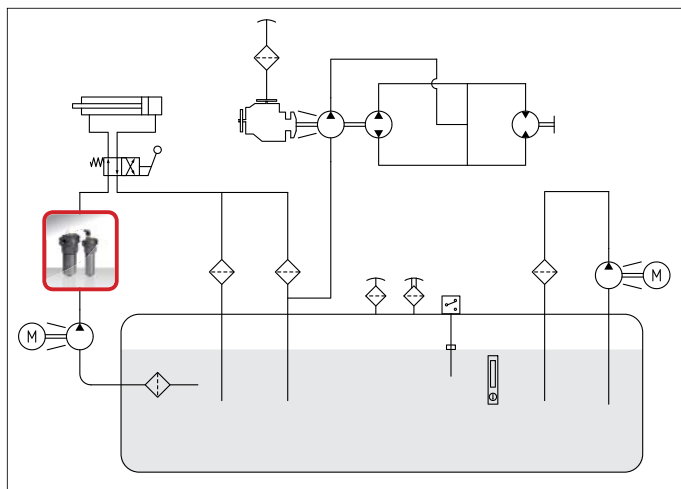
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

# MHT



Pressure Filters

**HIGH PRESSURE INLINE FILTER**



## MHT

### 42 MPa (420 bar)

Port sizes: 1/2" ÷ 1" 1/2

Flow rates: 10 ÷ 420 l/min

#### TECHNICAL DATA

Max. working pressure: 42 MPa (420 bar)

Max. testing pressure: 62 MPa (620 bar)

Min. bursting pressure: 126 MPa (1260 bar)

Fatigue test: 0 ÷ 28 MPa (280 bar)

Bypass valve: standard  $\Delta p$  600 kPa (6 bar)  $\pm$  10%

Reverse flow valve: available on request

Filter element collapse pressure:

$\Delta p$  2,1 MPa (21 bar) all types

$\Delta p$  21 MPa (210 bar) 2T - 2C - 2D - 2V - TD - TV - TT - TS

Working temperature: -25°C ÷ +110°C

#### MATERIALS

Head: cast iron

Bowl: forged 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.

## HOW TO ORDER THE COMPLETE FILTER

## HOW TO ORDER THE FILTER ELEMENT

MHT	Type				Type	CCH
		151	301	801		
		152	302	802		
		153	-	803		
		-	-	804		

Filter media					Filter media
FT = 5 $\mu$ m <sub>(c)</sub>		FT	FT	FT	FT = 5 $\mu$ m <sub>(c)</sub>
FC = 7 $\mu$ m <sub>(c)</sub> Inorganic fiber $\beta$ >1000		FC	FC	FC	FC = 7 $\mu$ m <sub>(c)</sub> Inorganic fiber $\beta$ >1000
FD = 12 $\mu$ m <sub>(c)</sub>		FD	FD	FD	FD = 12 $\mu$ m <sub>(c)</sub>
FV = 21 $\mu$ m <sub>(c)</sub>		FV	FV	FV	FV = 21 $\mu$ m <sub>(c)</sub>
CD = 10 $\mu$ Paper		CD	CD	CD	CD = 10 $\mu$ Paper
CV = 25 $\mu$		CV	CV	CV	CV = 25 $\mu$
RD = 10 $\mu$ Steel wire mesh		RD	RD	RD	RD = 10 $\mu$ Steel wire mesh
MV = 25 $\mu$		MV	MV	MV	MV = 25 $\mu$
2T = 5 $\mu$ m <sub>(c)</sub>		2T	2T	2T	2T = 5 $\mu$ m <sub>(c)</sub>
2C = 7 $\mu$ m <sub>(c)</sub> Inorganic fiber $\beta$ >1000 - $\Delta$ p = 21 MPa (210 bar)		2C	2C	2C	2C = 7 $\mu$ m <sub>(c)</sub> Inorganic fiber $\beta$ >1000 - $\Delta$ p = 21 MPa (210 bar)
2D = 12 $\mu$ m <sub>(c)</sub>		2D	2D	2D	2D = 12 $\mu$ m <sub>(c)</sub>
2V = 25 $\mu$ m <sub>(c)</sub>		2V	2V	2V	2V = 25 $\mu$ m <sub>(c)</sub>
TD = 10 $\mu$ Steel wire mesh $\Delta$ p = 21 MPa (210 bar)		TD	TD	TD	TD = 10 $\mu$ Steel wire mesh $\Delta$ p = 21 MPa (210 bar)
TV = 25 $\mu$		TV	TV	TV	TV = 25 $\mu$

Seals					Seals
1 = NBR Nitrile		1	1	1	1 = NBR Nitrile
2 = FKM Fluoroelastomer		2	2	2	2 = FKM Fluoroelastomer

Bypass type				
S = Without		S	S	S
C = 600 kPa (6 bar)		C	C	C
R = Reverse flow valve		-	R	R
P = 600 kPa (6 bar) + option R		-	P	P

} On request only

Ports				
B = BSP		B	B	B
N = NPT (N3 not available)		N	N	N
S = SAE		S	S	S
F = SAE flange 3000 psi		-	F	F
H = SAE flange 6000 psi		-	H	H

Port size				
3 = 1/2"		3	-	-
4 = 3/4"		4	4	-
5 = 1" (*)		-	5	5
6 = 1" 1/4		-	-	6
7 = 1" 1/2 (H7 not available)		-	-	7

(\*) = F5 only for MHT30+,  
H5 > MHT30+ not available  
F5/H5 > MHT80+ not available

Indicators				
03 = Port, plugged		03	03	03
5E = Visual differential 500 kPa (5 bar)		5E	5E	5E
5F = Visual differential 800 kPa (8 bar)		5F	5F	5F
6E = Electrical differential 500 kPa (5 bar)		6E	6E	6E
6F = Electrical differential 800 kPa (8 bar)		6F	6F	6F
7E = 6E with LED		7E	7E	7E
7F = 6F with LED		7F	7F	7F
T2 = Electrical 500 kPa (5 bar) with thermostat 30°C		T2	T2	T2
T3 = Electrical 800 kPa (8 bar) with thermostat 30°C		T3	T3	T3

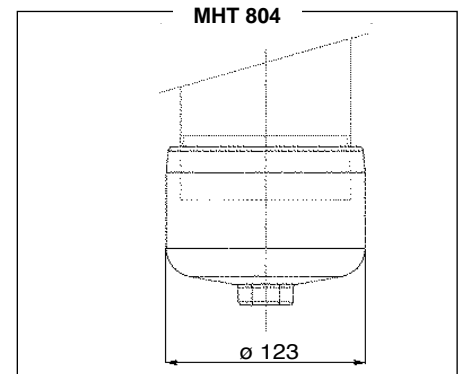
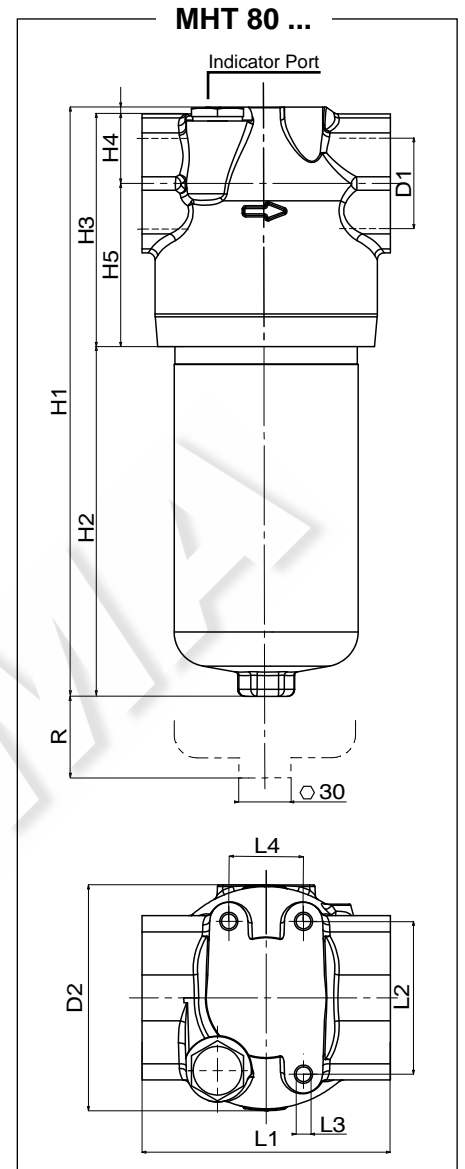
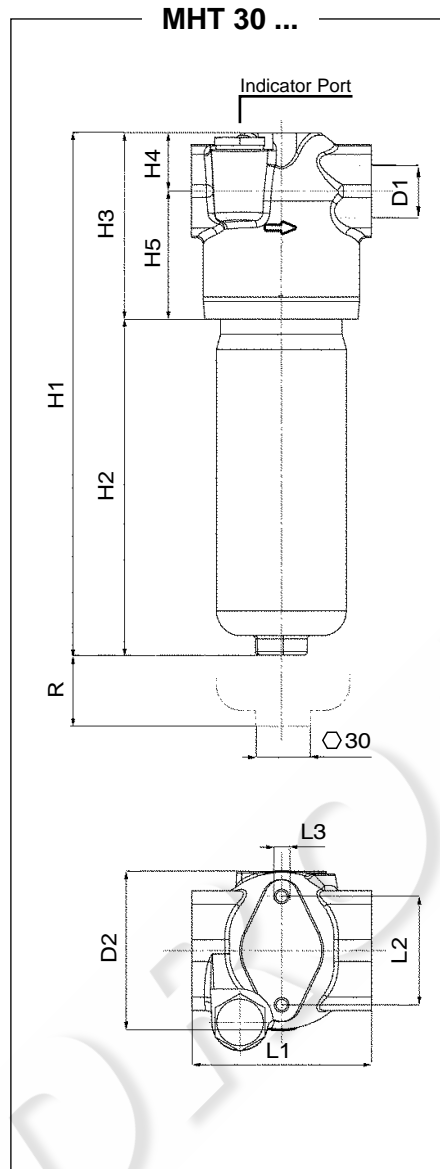
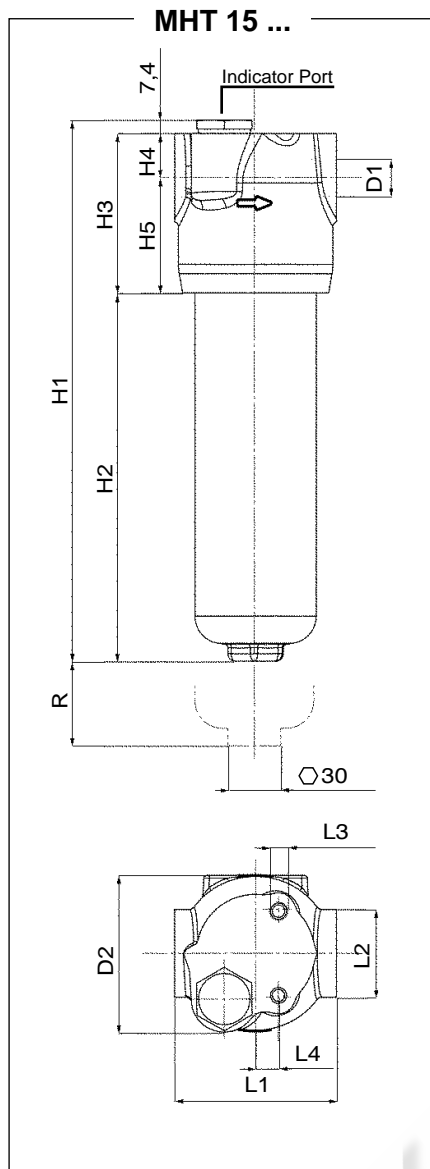
Indicator 72 - 73  
on request only

When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see page 188-189).

XX	Accessories			
	XX = Not available	XX	XX	XX

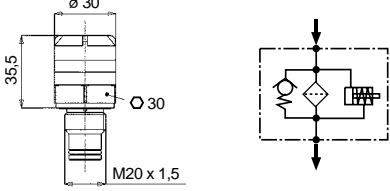
**DIMENSIONAL LAYOUT**

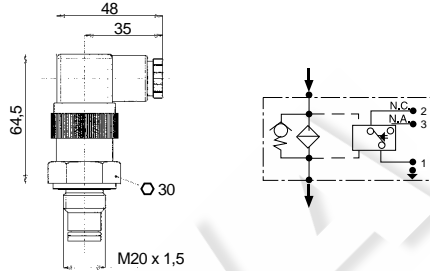
(mm)



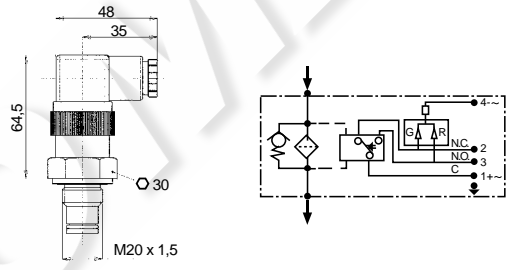
Type	D1	D2	H1	H2	H3	H4	H5	L1	L2	L3	L4	R	Weight Kg
MHT 151	1/2" - 3/4"	86	166	79	87	24	63	88	46	M8 5/16" 18 UNC	12,5	100	4,4
MHT 152	1/2" - 3/4"	86	196	109	87	24	63	88	46		12,5	100	4,6
MHT 153	1/2" - 3/4"	86	296	209	87	24	63	88	46		12,5	100	5,2
MHT 301	3/4" - 1"	94	226	116	112	35	77	108	65		=	100	6,6
MHT 302	3/4" - 1"	94	317	207	112	35	77	108	65		=	100	8,2
MHT 801	1"-1 1/4"-1 1/2"	128	245	107	138	44	94	143	88	M10 7/16" 14 UNC	43	100	11,0
MHT 802	1"-1 1/4"-1 1/2"	128	337	199	138	44	94	143	88		43	100	13,9
MHT 803	1"-1 1/4"-1 1/2"	128	457	319	138	44	94	143	88		43	100	17,2
MHT 804	1"-1 1/4"-1 1/2"	128	558	420	138	44	94	143	88		43	100	22,0

**CLOGGING INDICATORS**

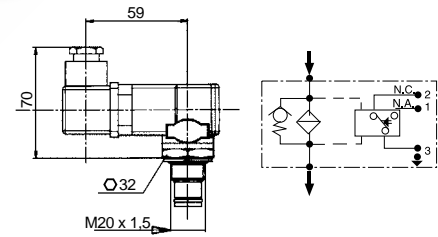
NBR	FKM	Differential VISUAL indicators	Recommended tightening torque 90 Nm 
5E	AE	Setting 500 kPa (5 bar)	
5F	AF	Setting 800 kPa (8 bar)	

NBR	FKM	Differential ELECTRICAL indicators	Recommended tightening torque 90 Nm 
6E	CE	Setting 500 kPa (5 bar)	
6F	CF	Setting 800 kPa (8 bar)	

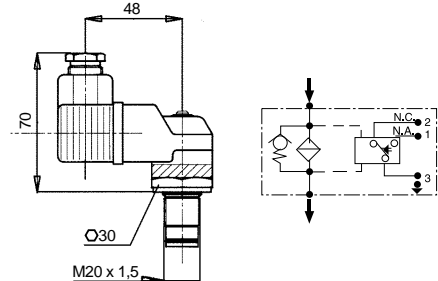
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively  
C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650

NBR	FKM	Differential ELECTRICAL indicators with LED (24 V) for visual indication	Recommended tightening torque 90 Nm 
7E	EE	Setting 500 kPa (5 bar)	
7F	EF	Setting 800 kPa (8 bar)	

SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively  
C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650

NBR	FKM	Differential ELECTRICAL indicators with THERMOSTAT 30°C	Recommended tightening torque 90 Nm 
T2	DE	Setting 500 kPa (5 bar)	
T3	DF	Setting 800 kPa (8 bar)	

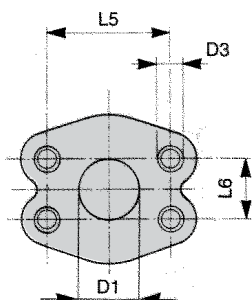
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively  
C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650

NBR	FKM	Differential VISUAL ELECTRICAL indicators	Recommended tightening torque 90 Nm 
72	E2	Setting 500 kPa (5 bar)	
73	E3	Setting 800 kPa (8 bar)	

SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively  
C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650

**FLANGE MOUNTING BOLT DIMENSIONS**

(mm)



Type	Code	D1	Max Pressure	L5	L6	D3	T (min. thread depth)
MHT 30	H4	3/4"	42 MPa (420 bar)	50,8	23,8	M10	14
	F5	1"	21 MPa (210 bar)	52,4	26,2		14
MHT 80	H6	1" 1/4	42 MPa (420 bar)	66,7	31,8	M14	19
	F6	1" 1/4	21 MPa (210 bar)	58,72	30,18	M10	19
	F7	1" 1/2	21 MPa (210 bar)	70,0	35,7	M12	19

## FLOW RATES

(l/min)

Type	Filter Media	Δ p		
		50 kPa (0,5 bar)	100 kPa (1 bar)	150 kPa (1,5 bar)
MHT 151 Port 3/4"	FT	11	21	28
	FC	14	26	40
	FD	19	38	57
	FV	31	60	85
	CD	45	75	90
	CV	75	90	90
	RD	70	90	90
	MV	80	90	90
	TD	68	90	90
	TV	78	90	90
	2T	9	19	25
	2C	12	23	35
	2D	16	33	52
	2V	27	50	77
MHT 152 Port 3/4"	FT	15	30	45
	FC	18	35	50
	FD	25	50	75
	FV	40	68	90
	CD	50	80	90
	CV	80	90	90
	RD	75	90	90
	MV	85	90	90
	TD	73	90	90
	TV	83	90	90
	2T	13	26	41
	2C	15	30	47
	2D	22	46	70
	2V	35	60	85
MHT 153 Port 3/4"	FT	22	35	50
	FC	24	41	56
	FD	35	55	85
	FV	55	83	90
	CD	72	90	90
	CV	85	90	90
	RD	80	90	90
	MV	90	90	90
	TD	78	90	90
	TV	90	90	90
	2T	20	33	48
	2C	22	38	52
	2D	31	50	81
	2V	50	78	90

Type	Filter Media	Δ p		
		50 kPa (0,5 bar)	100 kPa (1 bar)	150 kPa (1,5 bar)
MHT 301 Port 1"	FT	25	55	70
	FC	27	62	81
	FD	39	73	95
	FV	62	110	150
	CD	80	130	150
	CV	110	150	150
	RD	100	150	150
	MV	120	150	150
	TD	97	150	150
	TV	117	150	150
	2T	23	51	67
	2C	24	58	76
	2D	36	67	90
	2V	57	100	145
MHT 302 Port 1"	FT	34	63	79
	FC	38	73	90
	FD	50	84	104
	FV	75	119	150
	CD	122	150	150
	CV	135	150	150
	RD	130	150	150
	MV	148	150	150
	TD	127	150	150
	TV	144	150	150
	2T	30	60	74
	2C	34	68	86
	2D	47	78	100
	2V	70	109	150
MHT 801 Port 1"	FT	39	73	124
	FC	46	91	142
	FD	79	154	193
	FV	105	194	240
	CD	159	240	240
	CV	219	240	240
	RD	178	240	240
	MV	186	240	240
	TD	150	240	240
	TV	155	240	240
	2T	27	48	74
	2C	36	62	87
	2D	50	98	131
	2V	73	130	184

Type	Filter Media	Δ p		
		50 kPa (0,5 bar)	100 kPa (1 bar)	150 kPa (1,5 bar)
MHT 802 Port 1 1/2"	FT	93	198	250
	FC	128	218	281
	FD	163	286	300
	FV	201	300	300
	CD	239	300	300
	CV	279	300	300
	RD	261	300	300
	MV	291	300	300
	TD	217	300	300
	TV	242	152	300
	2T	71	152	190
	2C	125	167	216
	2D	125	230	280
	2V	153	280	300
MHT 803 Port 1 1/2"	FT	131	270	340
	FC	140	287	350
	FD	170	325	420
	FV	225	380	420
	CD	290	420	420
	CV	320	420	420
	RD	311	420	420
	MV	335	420	420
	TD	260	420	420
	TV	280	420	420
	2T	109	225	283
	2C	116	239	291
	2D	141	270	408
	2V	187	316	420
MHT 804 Port 1 1/2"	FT	173	351	420
	FC	188	363	420
	FD	237	410	420
	FV	312	420	420
	CD	330	420	420
	CV	340	420	420
	RD	331	420	420
	MV	355	420	420
	TD	277	420	420
	TV	295	420	420
	2T	144	292	310
	2C	156	302	362
	2D	197	341	420
	2V	260	390	420

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  $\Delta p = 500$  kPa (5 bar)

Type	Filter Media							
	FT	2T	FC	2C	FD	2D	FV	2V
CCH 151	2,0	2,0	2,6	2,6	3,0	3,0	4,3	4,3
CCH 152	3,0	3,0	3,8	3,8	3,9	3,9	6,2	6,2
CCH 153	5,5	5,5	7,2	7,2	7,8	7,8	11,5	11,5
CCH 301	5,7	5,7	7,5	7,5	8,2	8,2	12,1	12,1
CCH 302	10,9	10,9	14,1	14,1	15,6	15,6	21,8	21,8
CCH 801	11,9	11,9	15,5	11,3	17,2	12,6	25,3	18,4
CCH 802	22,0	16,1	27,6	20,7	31,0	23,0	46,0	33,3
CCH 803	28,0	25,3	37,9	32,2	42,5	36,8	62,1	52,9
CCH 804	39,1	33,3	49,4	42,5	56,3	48,3	80,5	70,1

## FILTER AREA

(cm<sup>2</sup>)

Type	Filter Media					
	RD	TD	MV	TV	CD	CV
CCH 151	300	300	300	300	310	310
CCH 152	430	430	430	430	475	475
CCH 153	805	805	805	805	915	915
CCH 301	770	770	770	770	975	975
CCH 302	1455	1455	1455	1455	1785	1785
CCH 801	1710	1430	1710	1430	1720	1720
CCH 802	3160	2210	3160	2210	2695	2695
CCH 803	5020	3560	5020	3560	4325	4325
CCH 804	6580	4700	6580	4700	5685	5685