

Part number:

026-10765

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SYSTEMS**

UKŁADY HYDRAULICZNE

HYDROMA

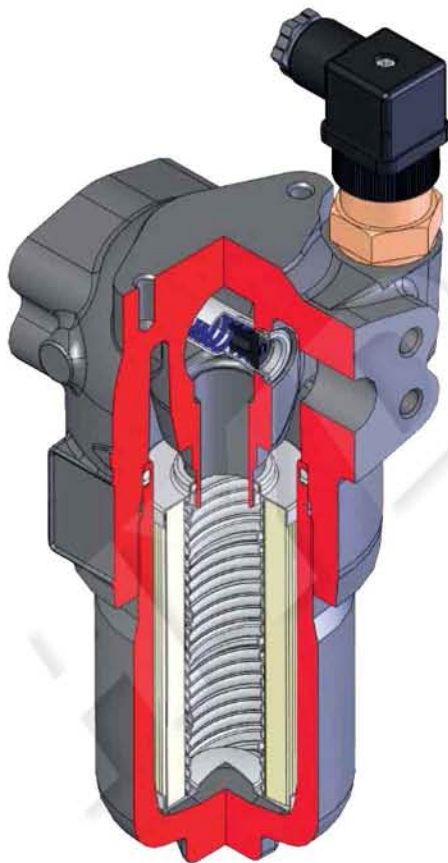
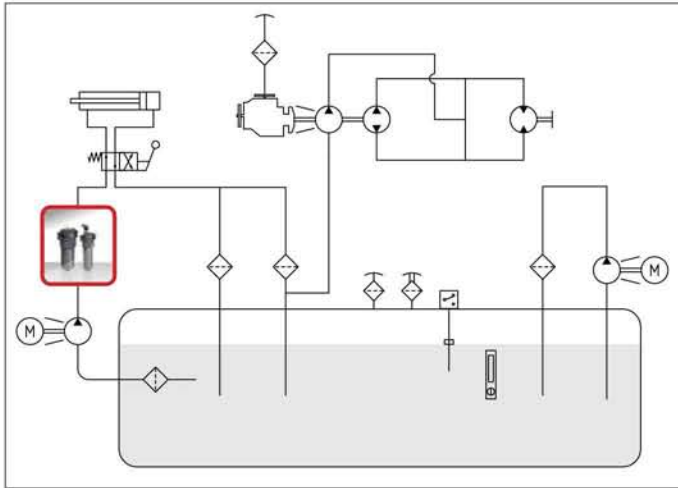
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

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 Δp 600 kPa (6 bar) \pm 10%

Reverse flow valve: available on request

Filter element collapse pressure:

Δp 2,1 MPa (21 bar) all types

Δp 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.

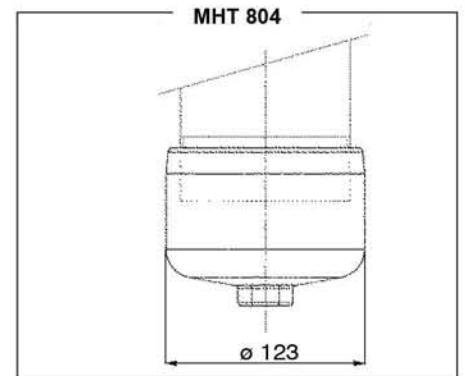
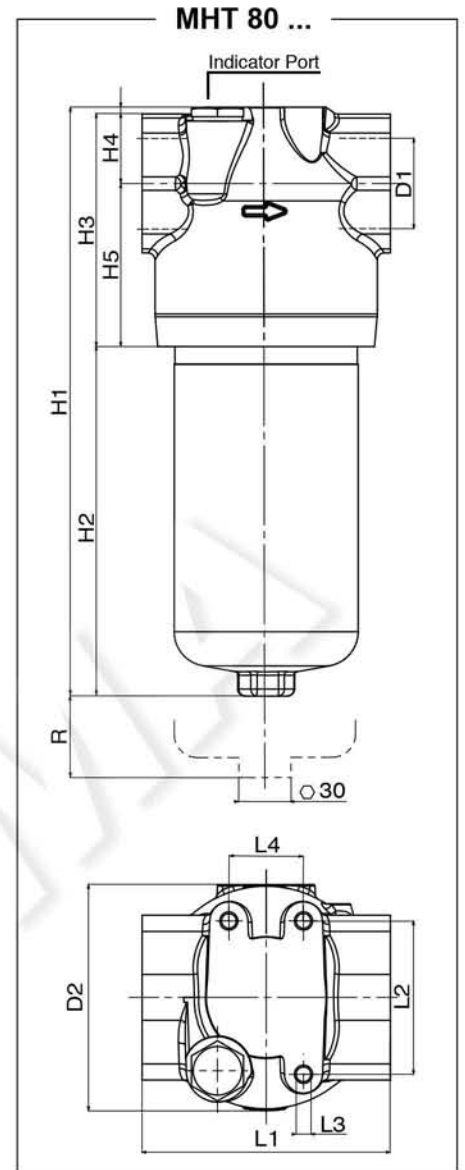
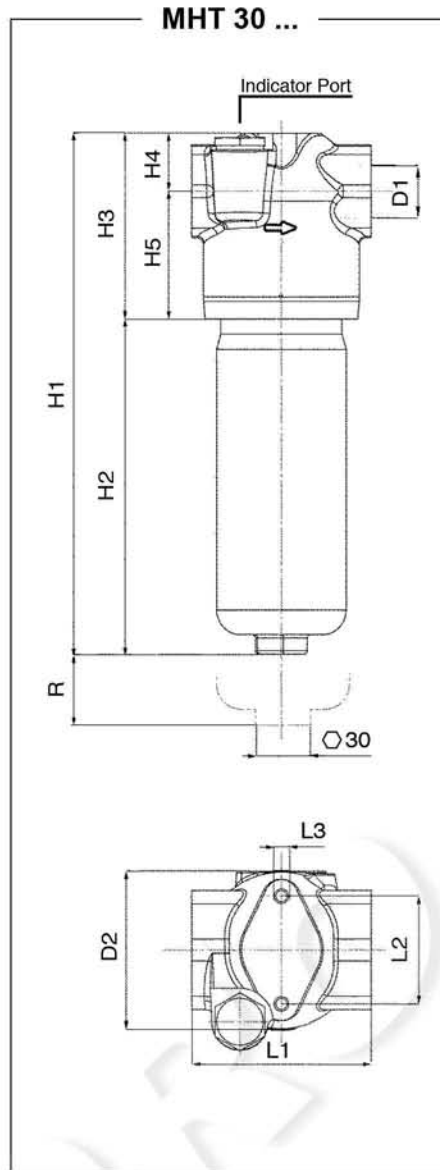
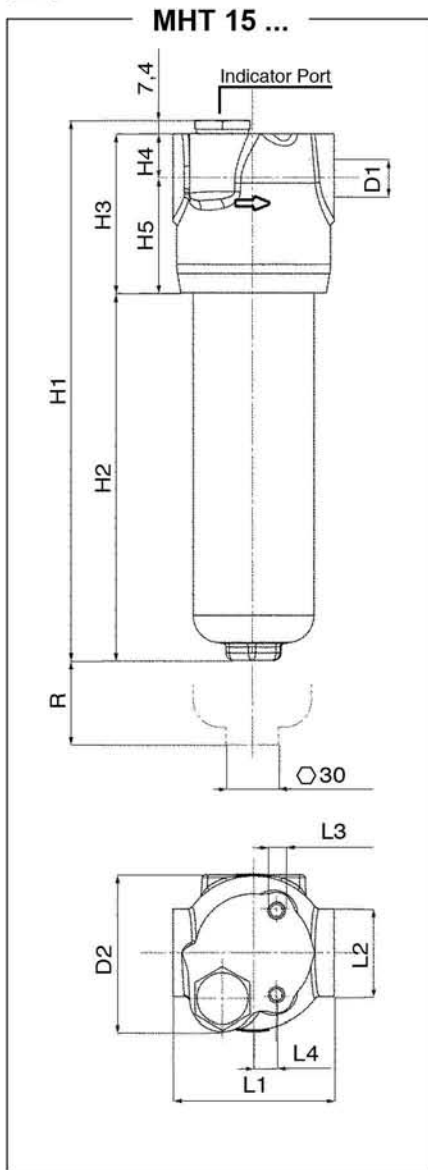
HOW TO ORDER THE COMPLETE FILTER

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 μ m _(c) | | FT | FT | FT | FT = 5 μ m _(c) | |
| FC = 7 μ m _(c) | Inorganic fiber $\beta > 1000$ | FC | FC | FC | FC = 7 μ m _(c) | Inorganic fiber $\beta > 1000$ |
| FD = 12 μ m _(c) | | FD | FD | FD | FD = 12 μ m _(c) | |
| FV = 21 μ m _(c) | | FV | FV | FV | FV = 21 μ m _(c) | |
| CD = 10 μ | Paper | CD | CD | CD | CD = 10 μ | Paper |
| CV = 25 μ | | CV | CV | CV | CV = 25 μ | |
| RD = 10 μ | Steel wire mesh | RD | RD | RD | RD = 10 μ | Steel wire mesh |
| MV = 25 μ | | MV | MV | MV | MV = 25 μ | |
| 2T = 5 μ m _(c) | | 2T | 2T | 2T | 2T = 5 μ m _(c) | |
| 2C = 7 μ m _(c) | Inorganic fiber | 2C | 2C | 2C | 2C = 7 μ m _(c) | Inorganic fiber |
| 2D = 12 μ m _(c) | $\beta > 1000 - \Delta p = 21 \text{ MPa (210 bar)}$ | 2D | 2D | 2D | 2D = 12 μ m _(c) | $\beta > 1000 - \Delta p = 21 \text{ MPa (210 bar)}$ |
| 2V = 21 μ m _(c) | | 2V | 2V | 2V | 2V = 21 μ m _(c) | |
| TD = 10 μ | Steel wire mesh | TD | TD | TD | TD = 10 μ | Steel wire mesh |
| TV = 25 μ | $\Delta p = 21 \text{ MPa (210 bar)}$ | TV | TV | TV | TV = 25 μ | $\Delta p = 21 \text{ MPa (210 bar)}$ |
| 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 | } On request only | |
| C = 600 kPa (6 bar) | | C | C | C | | |
| R = Reverse flow valve | | - | R | R | | |
| P = 600 kPa (6 bar) + option R | | - | P | P | | |
| 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 | - | - | (*) = F5 only for MHT30+, H5 > MHT30+ not available F5/H5 > MHT80+ not available | |
| 4 = 3/4" | | 4 | 4 | - | | |
| 5 = 1" (*) | | - | 5 | 5 | | |
| 6 = 1" 1/4 | | - | - | 6 | | |
| 7 = 1" 1/2 (H7 not available) | | - | - | 7 | | |
| Indicators | | | | | | |
| 03 = Port, plugged | | 03 | 03 | 03 | Indicator 72 - 73 on request only | |
| 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 | | |
| 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 | | |

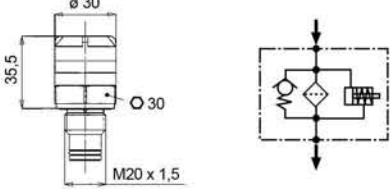
DIMENSIONAL LAYOUT

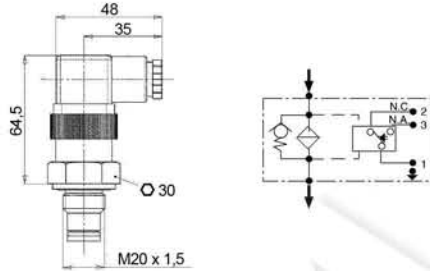
(mm)



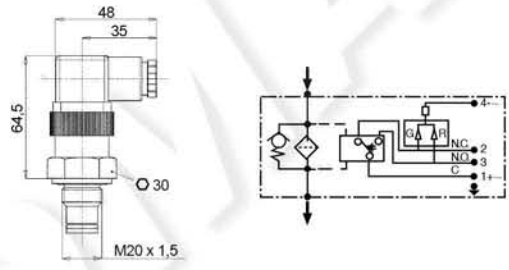
| Type | D1 | D2 | H1 | H2 | H3 | H4 | H5 | L1 | L2 | L3 | L4 | R | Weight Kg |
|---------|------------------|-----|-----|-----|-----|----|----|-----|----|------------------------|------|-----|-----------|
| MHT 151 | 1/2" - 3/4" | 86 | 166 | 79 | 87 | 24 | 63 | 88 | 46 | M8 5/16" 18 UNC | 12,5 | 100 | 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

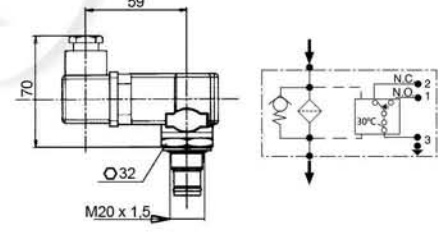
| NBR | FKM | Differential VISUAL indicators | Recommended tightening torque 90 Nm  |
|-----|-----|--------------------------------|---|
| 5E | AE | Setting 500 kPa (5 bar) | |
| 5F | AF | Setting 800 kPa (8 bar) | |

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

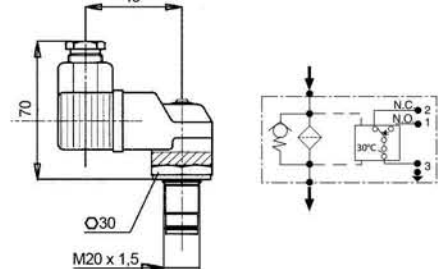
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively
C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650

| 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) | |

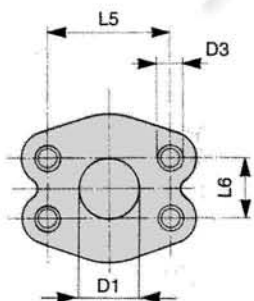
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively
C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650

| 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/dm³.
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(cm²)

| 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 |