

◦ COMPRESSED AIR TREATMENT

- ***FILTERS FOR COMPRESSED AIR***
- ***CONDENSATE DRAINS***
- ***DIFFERENTIAL PRESSURE INDICATORS & GAUGES***

GROSS PRICE LIST 2007

Upgraded on 01.04.2007

1. FH – Series - Filter Housings

Benefits

Reliable filtration

- high efficiency filter with low pressure drop ensures low operating costs
- reliable seals, prevent system leaking or by-pass

Long life operation

- high quality aluminium castings
- robust element construction for high endurance in heavy operational conditions
- wide operational temperature range from 0 to 120°C

Easy maintenance

- simple changing of cartridges
- pressure drop indication enables changing of filter cartridges in time and lower operational costs
- condensate drain assembly allows reliable draining of oily condensate
- quality materials ensure long life and reliable operating

Wide accessory range

- pressure drop indicators MD 16 N, MD 60 V, MD 60 N and MD 60 E
- manual drain H V
- internal and external condensate drains H ER, H S20, TD16, CDI16



Assembly application



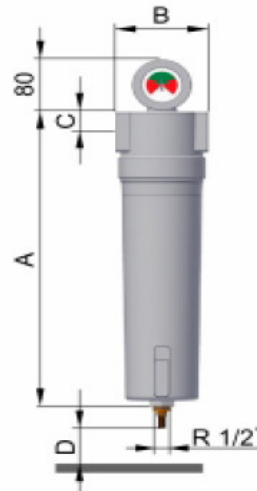
PRICES

FILTER	CAPACITY	CAPACITY	CONNECTION	MAX.WORK.	CORRESP.	GROSS PRICE
MODEL	Nm3/h*	SCMF	"	PRESSURE	FILTER ELEM.	IN €
FH 1.10	60	35	3/8	16 bar	HFE.01	68,00
FH 2.13	78	46	1/2	16 bar	HFE.02	74,00
FH 3.20	120	70	3/4	16 bar	HFE.03	86,00
FH 4.30	198	116	1	16 bar	HFE.04	124,00
FH 5.56	335	197	1	16 bar	HFE.05	135,00
FH 6.85	510	30	1 1/2	16 bar	HFE.06	160,00
FH 7.13	780	459	1 1/2	16 bar	HFE.07	192,00
FH 8.16	1000	588	2	16 bar	HFE.08	330,00
FH 9.25	1500	882	2	16 bar	HFE.09	400,00
FH10.46	2760	1620	3	16 bar	HFE.10	1.005,00

*Capacity of filters are at 7 bar or 100 psi 1

Technical data

Max. operating pressure: 16 barg (232 psig)
 Max. operating temperature: 120°C (248°F)
 Min. operating temperature: 0°C (32°F)
 Material: aluminium alloy



FILTER	FLOW	PIPE	A	B	C	D	Mass	Cart.
TYPE	Nm ³ /h SCFM	inch	mm inch	mm inch	mm inch	mm inch	kg lb	No.
FH 1.10	60 35	3/8	187 7 3/8	88 3 1/2	21 13/16	60 2 3/8	0,7 1,54	1
FH 2.13	78 46	1/2	187 7 3/8	88 3 1/2	21 13/16	60 2 3/8	0,7 1,54	1
FH 3.20	120 70	3/4	256 10 1/16	88 3 1/2	21 13/16	80 3 1/8	0,8 1,76	1
FH 4.30	198 116	1	262 10 5/16	125 4 15/16	33 1 5/16	100 3 7/8	1,9 4,19	1
FH 5.56	335 197	1	362 14 1/4	125 4 15/16	33 1 5/16	120 4 11/16	2,4 5,29	1
FH 6.85	510 300	1 1/2	452 17 3/4	125 4 15/16	33 1 5/16	140 5 1/2	2,8 6,17	1
FH 7.13	780 459	1 1/2	643 25 5/16	125 4 15/16	33 1 5/16	160 6 1/4	3,7 8,15	1
FH 8.16	1000 588	2	695 27 3/8	163 6 3/8	48 1 7/8	520 20 1/2	5,3 11,68	1
FH 9.25	1500 882	2	935 36 3/4	163 6 3/8	48 1 7/8	770 30 5/16	9,3 20,5	1
FH 10.46	2760 1620	3	1040 40 15/16	240 9 1/2	60 2 3/8	780 30 11/16	19,3 42,55	1

Correction factors

Operat. pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correct. factor	0,38	0,52	0,63	0,75	0,88	1,00	1,13	1,26	1,38	1,52	1,65	1,76	1,87	2,00	2,14

2. Filter cartridges

The FH - filter cartridge production includes 6 filtration stages (B, P, R, M, S in A) which are designet to remove particulates, water, oil vapours, taste and odours from compressed air. The design of filter media ensures the effective and efficient removal of most contaminates in compressed air systems. Note this filters will not remove carbon monoxide or carbon dioxide.

All materials are suitable for operation in the temperature range from 0 to 120°C (32 to 248°F). They are corrosion-proof and suitable for most applications. The filterand cartridge size is determined by the compressed air flow. They are all designed for operation up to 16 barg (232 psig).



FILTER ELEMENT	CAPACITY	CAPACITY	MODEL	CORRESP.	GROSS PRICE
HFE MODEL	Nm ³ /h*	SCMF		FILTER	IN €

HFE.01/...	60	35	B P M R S A	FH 1.10	29,00
HFE.02/...	78	46	B P M R S A	FH 2.13	36,00
HFE.03/...	120	70	B P M R S A	FH 3.20	45,00
HFE.04/...	198	116	B P M R S A	FH 4.30	57,00
HFE.05/...	335	197	B P M R S A	FH 5.56	81,00
HFE.06/...	510	30	B P M R S A	FH 6.85	98,00
HFE.07/...	780	459	B P M R S A	FH 7.13	125,00
HFE.08/...	1000	588	B P M R S A	FH 8.16	179,00
HFE.09/...	1500	882	B P M R S A	FH 9.25	218,00
HFE.10/...	2760	1620	B P M R S A	FH 10.46	320,00



	B	P	R	M	S	A
Filter type	sintered	prefilter	prefilter	microfilter	microfilter	activated carbon
	15 mic.	3 mic.	1 mic.	0,1 mic.	0,01 mic.	-
FH 1.10	HFE.01/B	HFE.01/P	HFE.01/R	HFE.01/M	HFE.01/S	HFE.01/A
FH 2.13	HFE.02/B	HFE.02/P	HFE.02/R	HFE.02/M	HFE.02/S	HFE.02/A
FH 3.20	HFE.03/B	HFE.03/P	HFE.03/R	HFE.03/M	HFE.03/S	HFE.03/A
FH 4.30	HFE.04/B	HFE.04/P	HFE.04/R	HFE.04/M	HFE.04/S	HFE.04/A
FH 5.56	HFE.05/B	HFE.05/P	HFE.05/R	HFE.05/M	HFE.05/S	HFE.05/A
FH 6.85	HFE.06/B	HFE.06/P	HFE.06/R	HFE.06/M	HFE.06/S	HFE.06/A
FH 7.13	HFE.07/B	HFE.07/P	HFE.07/R	HFE.07/M	HFE.07/S	HFE.07/A
FH 8.16	HFE.08/B	HFE.08/P	HFE.08/R	HFE.08/M	HFE.08/S	HFE.08/A
FH 9.25	HFE.09/B	HFE.09/P	HFE.09/R	HFE.09/M	HFE.09/S	HFE.09/A
FH 10.46	HFE.10/B	HFE.10/P	HFE.10/R	HFE.10 M	HFE.10/S	HFE.10/A

HITEMA[®]

Package water chillers
 Dry coolers heating pumps
 Rooftop

	B	P	R	M	S	A
solid particle size [microns]	15	3	1	0,1	0,01	-
quality class - solids (ISO 8573-1)	4	3	2	1	1	-
residual oil content [mg/m ³]	-	-	-	0,1	0,01	0,005
quality class - oils (ISO 8573-1)	-	-	-	2	1	1
pressure drop -new element [mbar/psi]	30 0,43	40 0,58	<50 <0,72	<80 <1,16	<90 <1,3	120 1,74
change cartridge at pressure drop [mbar/psi]	600 8,7	600 8,7	600 8,7	600 8,7	600 8,7	6 months
filter material	sintered bronze	acrole fibres, cellulose	acrole fibres, cellulose	borosilic. micro fibres	borosilic. micro fibres	active carbon
pleated version	-	+	+	+	+	-
wrapped version	-	+	+	+	+	+
sintered version	+	-	-	-	-	-

Filter elements "A" must be changed periodically to suit application but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.

1. Condensate Drains

MODEL	MAX WORKING PRESSURE	GROSS PRICE
HV	16 bar	13,50
HER	16 bar	52,00
HS 20	20 bar	57,00
TD 16	16 bar	133,00
CDI 16	16 bar	210,00

HV - Manual condensate drain

Manual condensate drains HV are used for discharging condensate from filters and other vessels with 1/2" drain connections. In order to prevent condensate from becoming re-entrained in the airstream we recommend controlling the condensate level in filter bowl, which requires an automatic drain trap.



Technical data

- material: brass
- operating temperature range: 0-120°C (32-248°F)
- operating pressure range: 0-16 barg (0-232 psig)
- connection: R 1/2"
- oil resistant o-ring

HER - Automatic condensate drain trap

HER is primarily used in filters. Its task is the automatic discharge of condensate and oil. When the accumulated condensate exceeds to discharge level, the float rises, opens the outlet aperture, and discharges condensate from the system. A manual emergency drain allows the operator to manually drain the filter, and confirm the automatic operation.



Technical data

- material: durable plastic, brass
- operating temperature range: 0-120°C (32-248°F)
- operating pressure range: 0-16 barg (0-232 psig)
- connection: R 1/2"
- oil resistant o-ring

HS 20 - Automatic condensate drain trap

The HS20 is used when larger amounts of condensate (up to 300 l/h) must be automatically discharged from filters, pressure vessels and cyclone separators. It ensures reliable operation up to 20 barg (290 psig). When the condensate exceeds the discharge level, the float rises, opens the discharge aperture and discharges condensate from the system. We recommend the installation of the filter or nipple, which improves the performance of the HS20.



Technical data

- material: aluminium alloy
- operating temperature range: 0 - 120°C (32 - 248°F)
- operating pressure range: 0 - 20 barg (0 - 290 psig)
- connection: R 1/2"
- oil resistant o-ring

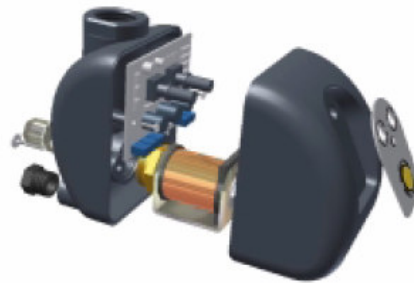
TD 16 – Timer controlled condensate drain

TD16 is condensate drain which allows the user to discharge condensate for a controlled time and duration. Its purpose is draining accumulated condensate from filters or pressure vessels. TD16 is adaptable according to different applications, discharge frequency and opening time.



Benefits

- easy opening time settings
- easy opening frequency settings
- no moving parts
- reliable operating without clogging and unsensible to outside conditions
- test button
- warning LED light for condense disposal phase
- DC and AC versions



Technical data

- min/max operating temperature: 1-60°C / 33-140°F
- min/max operating pressure: 0-16 barg / 0-232 psig
- input connection: R 1/2"
- output connection: R 1/8"
- output pipe diameter: 6-8 mm
- capacity at 10 bar (145 psi): 0,2 - 300 l/h / 0,00012 - 0,17 cfm
- mass: 0,35 kg / 0,77 lb
- housing material: dylamid

Model	Voltage	Frequency	El. power	Protection	Cable
TD16 24VAC	24V +/- 10%	50-60 Hz	10 W	IP65	3x0,75mm2
TD16 110VAC	110V +/- 10%	50-60 Hz	10 W	IP65	3x0,75mm2
TD16 220VAC	220V +/- 10%	50-60 Hz	10 W	IP65	3x0,75mm2

Dimensions

- A.....92 mm (3 5/8")
- B.....97 mm (3 13/16")
- C.....68 mm (2 10/16")



CDi 16 – Intelligent condensate drain

CDi 16 is used for the automatic discharge of accumulated condensate from compressed air systems.

The basic principle is contactless measurement of the accumulated condensate which is then discharged without the loss of valuable compressed air.

Condensate water level is perceived by touchy electronics. Condensate drain disposal is performed without compressed air losses.

CDi 16 is made of durable plastic housing, which protects electronics inside the device from outside harmful conditions.



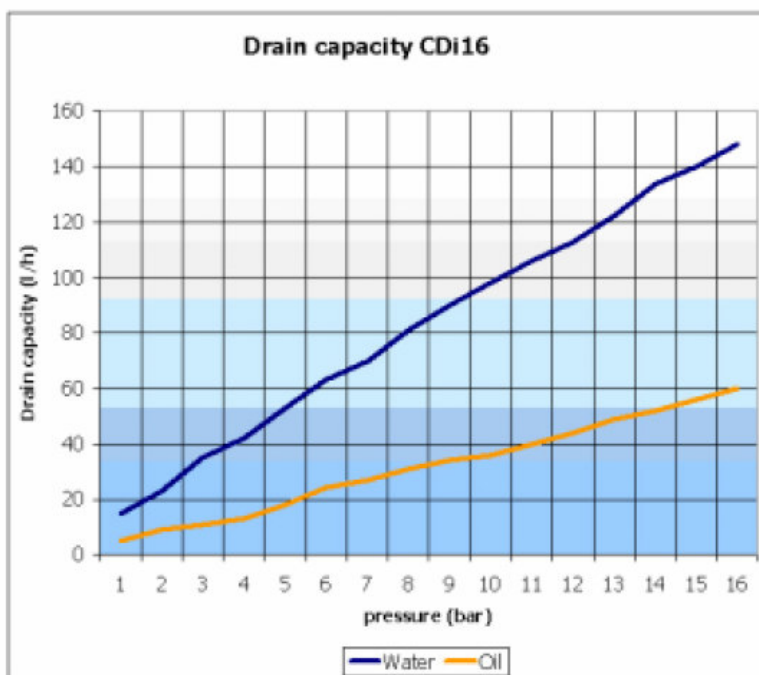
Benefits

- contactless measuring
- no moving parts
- reliable operation without clogging, and impervious to outside conditions
- test button
- selfcontrolling electronics
- warning LED light for "drain operating" and "alarm"
- DC and AC versions
- IP 65 electrical protection



Technical data

- min/max operating temperature: 1-60°C / 33-140°F
- min/max operating pressure: 0-16 barg / 0-232 psig
- input connection: R 1/2"
- output connection: R 1/8"
- output pipe diameter: 6-8 mm
- capacity at 10 bar (145 psi): 98 l/h / 0,05 cfm
- mass: 1,0 kg / 2,2 lb
- housing material: dylamid



Dimensions

- A.....92 mm (3 5/8")
- B.....97 mm (3 13/16")
- C.....68 mm (2 10/16")



1. Differential Pressure Indicators & Gauges

MD 16 N - Differential pressure indicator

MD 16 N saves compressed air energy by indicating when the filter element needs changing. If the filter element is clean, the indicator remains green. It changes to red when the filter is clogged and should be changed.



Technical data

- green area: pressure drop 0 - 0,6 bar (0 - 8,7psi)
- red area: pressure drop 0,6 - 0,9 bar (8,7 - 13psi)
- max. operating pressure: 16 barg (232 barg)
- operating temperature range: 0-120°C (32-248°F)

MODEL	MAX WORKING PRESSURE	GROSS PRICE
MD 16 N	16 bar	23,50
MD 60 V	16 bar	76,50
MD 60 N	16 bar	52,50
MD 60 E	16 bar	95,00

MD 60 V - Pressure drop indicator

Pressure drop indicator MD 60 V is used to accurately display the pressure drop across the filter. The housing is made of aluminium alloy.



Technical data

- max. operating pressure: 16 barg (232 psig)
- operating temperature range: 0-120°C (32-248°F)
- measuring range: +/- 2 bar (+/- 29 psi)

MD 60 N / MD 60 E - Pressure drop indicator

The magnetic pressure drop indicator **MD 60 N** is available in two versions:

- basic version **MD 60 N**
- electronic version **MD 60 E** (with LED alarm light for cartridge changing)



Technical data

- | | |
|--------------------------------|--|
| - green area: | pressure drop 0 - 0,6 bar (0 - 8,7 psi) |
| - red area: | pressure drop 0,6 - 0,9 bar (8,7 - 13 psi) |
| - max. operating pressure: | 16 barg (232 barg) |
| - operating temperature range: | 0-60°C (32-140°F) |

MD 60 N



MD 60 E

