

COMPRESSED AIR TREATMENT







# WHY FILTER THE COMPRESSED AIR

The Hitema filtration system provides reliable, safe and versatile compressed air for machines while avoiding production stops, maintinance costs and repair work. The filtration of compressed air also ensures health in the work place by protecting staff from hazardous pollutants and oil vapours.

# ADVANTAGES OF HITEMA FILTERS

- Environmental compatility
- High-absorption capacity
- Efficiency and energy saving
- Easy installation
- Maximum working safety
- Top quality at the right price
- Quality guaranteed by accurate tests and advanced technology in co-operation with University departments of Biology

# TECHNICAL SPECIFICATIONS

- FILTER BODY IN CAST ALUMINIUM
- AIR TIGHT CONNECTION BETWEEN THE TWO FILTER PARTS
- FILTER ELEMENTS FITTED WITH ANTI-ENTRAINMENT BARRIER



#### **FILTRATION**

**HITEMA** offers four different P.M.S.A. filtration levels, each of which has special features designe to satisfy the specific requirements of individual users.

The polluted gas crosses the filtering element from the inside to the outside and meets a layer of resin-impregnated cellulose fibres that remove solid particles of at least 3 micron.

The used of impregnated resin guaratees high resistance of filtering element, especially when liquid phases are present. The compressed air then passes through the coalescent layer, comprising a multylayer borosilicate fibre filtering section that removes solid particles as small as 0,01 microns.

Any particles of liquid are pushed by the air flow towards the outside of element where an anti-entrainment barrier causes them to fall into a low turbulence area in the lower part of the filter.

The compressed air outlet is fitted with a further drain anti-entrainment barrier. The filter is emptied by means of a **HITEMA** mechanical, electronic or capacitive condensate drain.

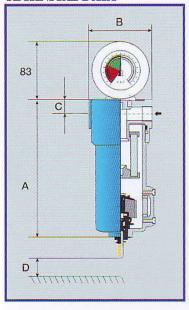
#### ACTIVATED CARBON FILTER ELEMENTS

After treatment with coalescent, P.M.S.A. grade filters, the compressed air contains oil mists and odours.

These elements are removed by absorption through the A **activated carbon** filtering element.

The grade A **activated carbon** elements comprise granules of high microporosity and depth that can absorb odours and particles in oily vapours. A filtering layer in the compressed air flow outlet prevents any entrainment.

#### TECHNICAL DATA



	CAPA	ACITY	MAX WORKING PRESSURE	AIR	DIMENSION OF BODY (mm)				WEIGHT	FILTERING ELEMENT	
MODEL	M³/h Lt/Min		bar	CONNECTIONS	A B C D				Kg.	TYPE	
FH 1.10	60	1.000	16	1/2"	187	88	21	60	0,77	HFE.01**	
FH 2.13	78	1.300	16	1/2"	187	88	21	60	0,77	HFE.02**	
FH 3.20	120	2.000	16	3/4"	256	88	21	80	0,88	HFE.03**	
FH 4.30	198	3.300	16	1"	262	125	33	100	2,20	HFE.04**	
FH 5.56	335	5.585	16	1,33	362	125	33	120	2,60	HFE.05**	
FH 6.85	510	8.500	16	1" 1/2	452	125	33	140	2,90	HFE.06**	
FH 7.13	780	13.000	16	1" 1/2	643	125	33	160	3,70	HFE.07**	
FH 8.16	1.000	16.670	16	2"	695	163	48	520	7,40	HFE.08**	
FH 9.25	1.500	25.000	16	2"	935	163	48	770	10	HFE.09**	
FH 10.46	2.760	46.000	12	3"	1170	248	74	780	25	HFE.10**	

Hitema riserves the right to modify specification without notice.

#### CORRECTION FACTORS "F" FOR DIFFERENT WORKING PRESSURES

BAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F	0,25	0,38	0,5	0,65	0,75	0,88	-1	1,13	1,25	1,38	1,5	1,63	1,75	1,88	2	2,13

# FILTER ELEMENT SPECIFICATIONS

#### PREFILTER FILTRATION GRADE P



Removes particles as small as 3 microns.

and the second second
+60°C
+1°C
0,03 bar
700 mbar
16 bar g.

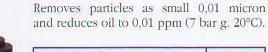
#### FILTER FILTRATION GRADE M



Removes particles as small 0,1 micron and reduces oil to 0,5 ppm (7 bar g. 20°C).

Max working temperature	+60°C
Min. working temperature	+1°C
Nominal initial pressure drop (with clean filter)	0,05 bar
Nominal final pressure drop (for changing filter element)	700 mbar
Max working pressure	16 bar g.

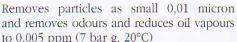
#### FILTER FILTRATION GRADE S





Max working temperature	+60°C
Min. working temperature	+1°C
Nominal initial pressure drop (with clean filter)	0,06 bar
Nominal final pressure drop (for changing filter element)	700 mbar
Max working pressure	16 bar g.

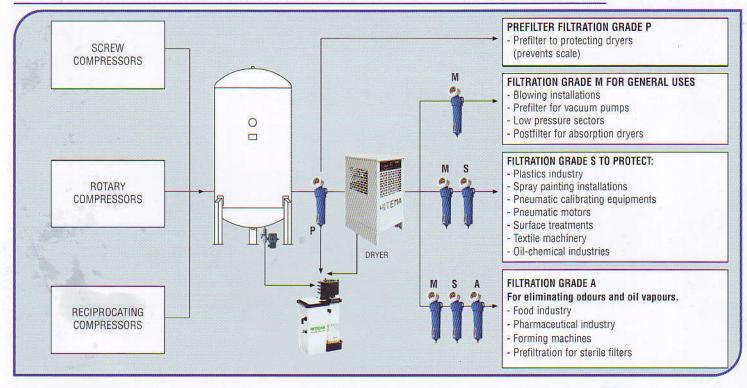
#### FILTER FILTRATION GRADE A - ACTIVATED CARBON





 0,000 ppin (/ bar g. 20 0)	
Max working temperature	+60°C
Min. working temperature	+1°C
Nominal initial pressure drop (with clean filter)	0,12 bar
Nominal final pressure drop (for changing filter element)	700 mbar
Max working pressure	16 bar g.

### GUIDE TO THE CORRECT INSTALLATION OF FILTER ELEMENTS



## OPTIONAL ACCESSORIES



DIFFERENTIAL PRESSURE GAUGE

Cod. MD



MANUAL CONDENSATE DRAIN

cod. HV



ALUMINIUM FLOAT CONDENSATE DRAIN

cod, HS20



INSTALLATION KIT



AUTOMATIC MICRO CONDENSATE DRAIN

cod. HER



CONDENSATE LEVEL INDICATOR

cod. LC



ASSEMBLY KIT



ELETTRONIC CONDENSATE DRAIN

cod. EDC.16



OIL WATER SEPARATOR

series "HD"

#### **COMPRESSED AIR TREATMENT:**

- COMPRESSED AIR DRYERS
- FILTERS FOR COMPRESSED AIR
- CONDENSATE DRAINS
- WATER-OIL SEPARATORS

#### **M REFRIGERATION AIR CONDITIONING:**

- AIR AND WATER COOLED CHILLERS
- AIR COOLERS FOR WATER

ADVANCED COOLING SOLUTIONS COMPRESSED AIR TREATMENT

COMPRESSED AIR TREATME

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