

ENTARON HD/CD

Highest application
flexibility through
innovative evolution



Round air cleaner for excellent flexibility

The two-stage air cleaners of the ENTARON HD/CD range are among the most compact solutions in their class. The air cleaners are up to 30 percent smaller than other air cleaners with a comparable filtration performance.



The best choice for each application

The ENTARON HD and CD air cleaners enable a perfect solution for each application. The ENTARON HD two-stage air cleaner is particularly suitable for applications with high dust loads. The single-stage ENTARON CD with low flow resistance and reduced operating costs is suitable for low to medium dust loads. Another benefit of the ENTARON CD is the simplified installation of the air cleaner on the raw air side which does not require any ducts.

Both filter versions offer high filtration performance with a compact design. The plastic housings are constructed in two or three parts. In the ENTARON HD, a special welding process connects the raw air connection to the filter housing and ensures a reliable connection. The innovative housing concept allows adaptation of the air cleaner to almost all installation situations as practically all orientations of the inlet duct relative to the integrated brackets are possible. The filter can be fastened both via through bushes as well as threaded bushes. can be used. Additional flexibility is provided by the option of the raw air connection inverted inverted. A seal inserted in the cover protects against water ingress, prevents the ingress of hot intake air and thus ensures reliable function. A selection of welded clean air nozzles completes the range: available a positionable 90 degree elbow (depending on model), a MAF connection as well as inch and metric connections.

Awarded the:



Compact with excellent application flexibility

Available installation space is becoming increasingly scarce. MANN+HUMMEL's compact air cleaners in the ENTARON HD/CD series replaces the proven predecessor product, the Europiclone series, in the long term. Developed for construction and agricultural machinery as well as compressors, the air cleaners cover nominal volume flows of 2 to 13 m³/min and are among the smallest air cleaners in their class in terms of installation space.

ENTARON HD

- Long service life
- High pre-separation > 85% efficiency due to integrated tangential inflow (no external pre-separator required)
- Optional secondary element for maximum motor protection during maintenance and operation of the motor
- Easy operation with dust discharge valve
- Optional dust discharge via suction possible
- Customized variants easy to generate
- Mirror image version for raw air inlet available

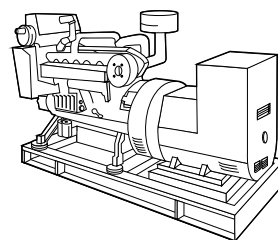
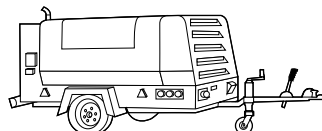
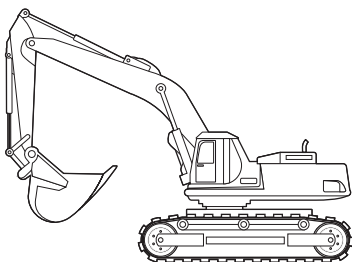
ENTARON CD

- Low flow resistance reduces operating cost
- Housing air cleaner with free intake (no air duct on the raw air side required)
- Reduced installation costs thanks to air intake via air inlet on the housing or axially via the cover*

* optional depending on version - on request

Your benefits

- Easy installation and compact design - up to 30 percent (ENTARON HD) or 50 percent (ENTARON CD) smaller than air cleaners with a comparable filtration performance
- Increased engine protection through increased initial and final separation efficiencies
- New type of sealing concept for reliable operation
- Environmentally-friendly and economical disposal through filter elements which are metal-free and fully incinerable
- Cr(VI)-free components
- Tool-less servicing due to comfort fasteners
- Attractive modern design



Design and benefits in detail



1 Housing



ENTARON HD - the three-part housing concept offers the best possible flexibility for positioning of the connections relative to the integrated bracket. The HD 10 size is also available without the bracket*.

ENTARON CD - the elimination of the raw air connection (two-part housing concept) means that no additional piping is required, thus reducing installation costs. The air inlet is via cut-outs in the housing or via covers*.

* option available on request

2 Service switch



The ENTARON HD has a connection for a service switch integrated in the housing. It is designed to use the minimum space and is in a protected position.

4 Comfort fasteners



The special end caps prevent jamming of the cover and housing. Color-coded fasteners enable reliable servicing even when visibility conditions are unfavorable. In order to meet the installation space requirements, the fasteners can be positioned on the cover according to customer requirements.

6 Safety element



The center tube attached to the housing protects the safety element and defines the installation position. This excludes unintentional removal or incorrect fitting.

* option available on request

3 Mounting possibilities



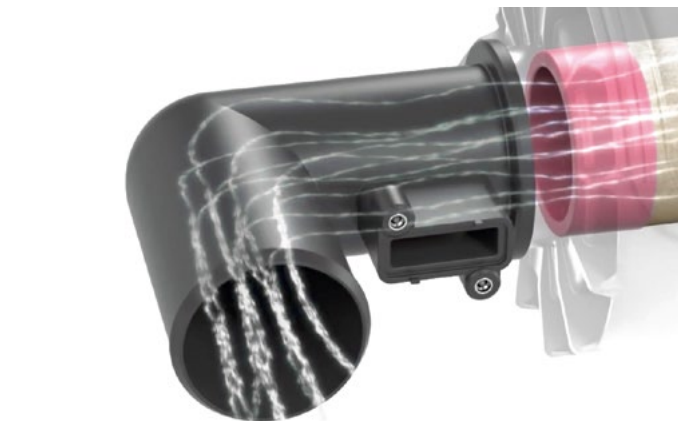
The bracket integrated in the housing offers two mounting possibilities: through-holes (as standard with M8 screws) and threaded inserts*.

5 Main element



The innovative filter medium offers the best separation performance with a simultaneously long service life. The filter element is equipped with a new sealing system which reliably ensures the tightness of the element to the housing. The primary and secondary elements are metal-free and fully incinerable and are therefore less expensive to dispose of in an environment-friendly manner.

7 Designed for MAF sensor



Through the defined fitting position of the secondary element and the welded clean air connection available as an option, the ENTARON HD is perfectly prepared for a MAF sensor with the best signal quality.

Part numbers and specifications

PART NUMBERS

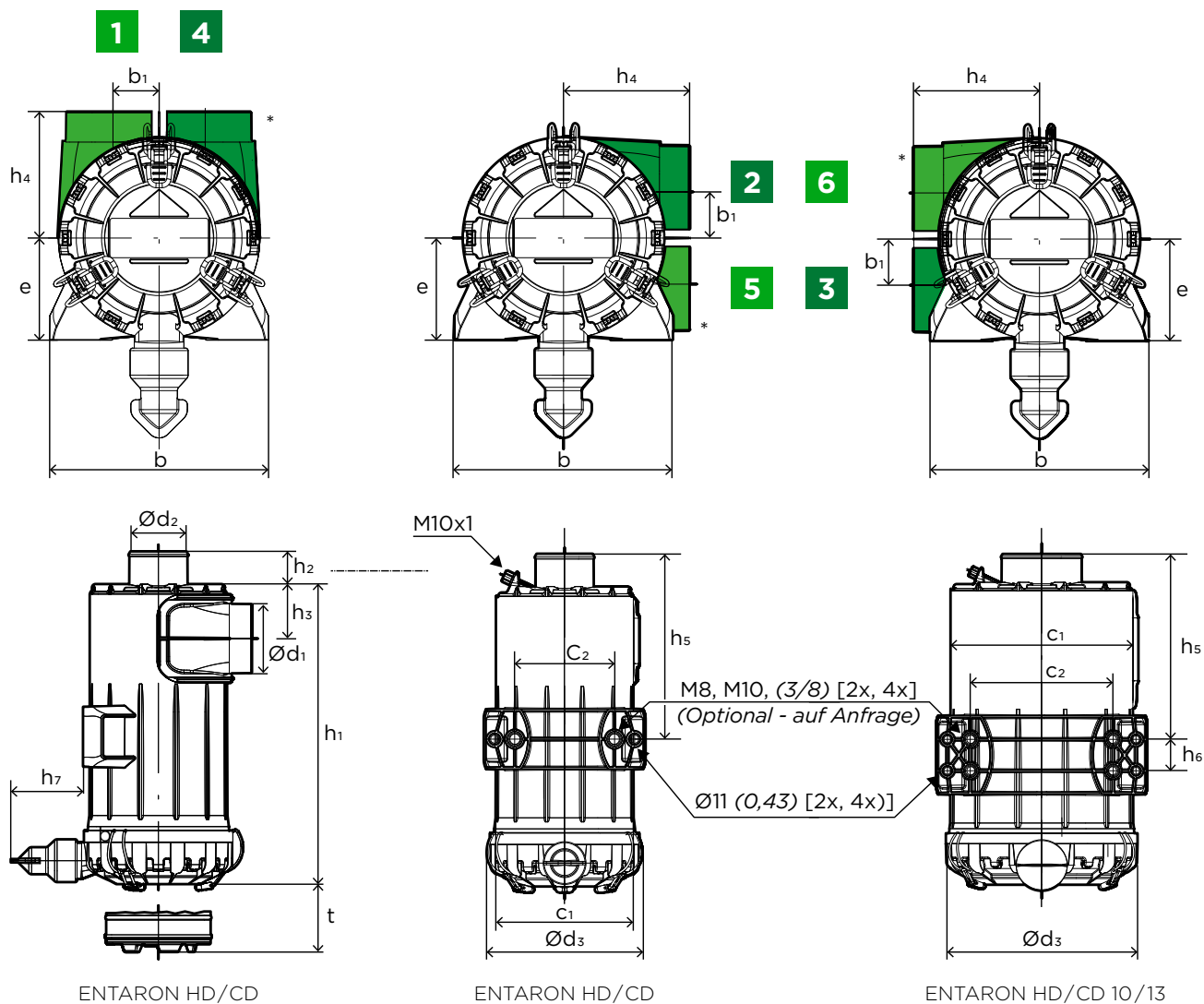
MODEL	Nominal flow rate [m ³ /min]	Raw air inlet position	Part number		Replacement filter element		Weight [kg]	
			without secondary element	with secondary element	Main element	Secondary element		
ENTARON HD 4	2 - 4	left	1*	45 131 92 950	45 131 92 910	C 12 004	CF 240	1,4
			2*	45 131 92 951	45 131 92 911			
			3*	45 131 92 952	45 131 92 912			
		right	4*	45 132 92 950	45 132 92 910			
			5*	45 132 92 951	45 132 92 911			
			6*	45 132 92 952	45 132 92 912			
ENTARON HD 5.5	3 - 5,5	left	1*	45 151 92 950	45 151 92 910	C 13 009	CF 355	1,7
			2*	45 151 92 951	45 151 92 911			
			3*	45 151 92 952	45 151 92 912			
		right	4*	45 152 92 950	45 152 92 910			
			5*	45 152 92 951	45 152 92 911			
			6*	45 152 92 952	45 152 92 912			
ENTARON HD 7.5	4 - 7,5	left	1*	45 171 92 950	45 171 92 910	C 15 020	CF 475	2,2
			2*	45 171 92 951	45 171 92 911			
			3*	45 171 92 952	45 171 92 912			
		right	4*	45 172 92 950	45 172 92 910			
			5*	45 172 92 951	45 172 92 911			
			6*	45 172 92 952	45 172 92 912			
ENTARON HD 10	5 - 10	left	1*	45 191 92 950	45 191 92 910	C 16 100	CF 510	3,1
			2*	45 191 92 951	45 191 92 911			
			3*	45 191 92 952	45 191 92 912			
		right	4*	45 192 92 950	45 192 92 910			
			5*	45 192 92 951	45 192 92 911			
			6*	45 192 92 952	45 192 92 912			
ENTARON HD 13	7,5 - 13	left	1*	45 231 92 950	45 231 92 910	C 19 130	CF 613	3,8
			2*	45 231 92 951	45 231 92 911			
			3*	45 231 92 952	45 231 92 912			
		right	4*	45 232 92 950	45 232 92 910			
			5*	45 232 92 951	45 232 92 911			
			6*	45 232 92 952	45 232 92 912			
ENTARON CD 4 bis 13	2 - 13	independent of position	on request	on request	on request	on request	on request	

* Other spigot orientations available on request.

SPECIFICATIONS

MODEL	Housing material	Dust discharge connection diameter	Tightening torque			Operating temperature		Discharge valve orientation (downwards)
			Hose clamp (clean side)	Threaded insert	Through-hole	Continuous	Short-term	
ENTARON HD 4 bis 7.5	PP-GF30	54 mm (2,13 Zoll)	max. 5 Nm	max. 25 Nm	max. 25 Nm	-30 °C bis +80 °C	+110 °C	±15 °
ENTARON HD 10 bis 13		40 mm (1,57 Zoll)						±15 °
ENTARON CD 4 bis 13		-						-

Specifications



DIMENSIONS ENTARON HD/CD

Dimensions in mm (dimensions in inches)

Model	b	b ₁	c ₁	c ₂	d ₁	d ₂	d ₃	e	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	h ₇	t
ENTARON HD 4	178 (7,01)	37,5 (1,48)	154 (6,07)	110 (4,33)	76 (2,99)	64 (2,52)	164 (6,46)	83 (3,27)	330 (13,00)	36 (1,42)	60 (2,36)	103 (4,06)	204 (8,04)	-	80 (3,15)	300 (11,82)
ENTARON HD 5.5	193 (7,60)	40 (1,58)	165 (6,50)	110 (4,33)	90 (3,55)	76 (2,99)	189 (7,45)	95,5 (3,76)	340 (13,40)	36 (1,42)	68 (2,68)	118 (4,65)	212 (8,35)	-	80 (3,15)	310 (12,21)
ENTARON HD 7.5	230 (9,06)	46 (1,81)	190 (7,49)	127 (5,00)	102 (4,02)	89 (3,51)	216 (8,51)	109 (4,29)	360 (14,18)	36 (1,42)	74 (2,92)	131 (5,16)	221 (8,71)	-	80 (3,15)	330 (13,00)
ENTARON HD 10	268,6 (10,58)	51 (2,01)	240 (9,46)	182 (7,17)	130 (5,12)	102 (4,02)	244 (9,61)	123 (4,85)	385 (15,17)	36 (1,42)	85,5 (3,37)	143 (5,63)	236 (9,30)	40 (1,58)	90 (3,55)	355 (13,99)
ENTARON HD 13	290,6 (11,48)	45,5 (1,79)	262 (10,3)	204 (8,10)	150 (5,92)	110 (4,34)	278 (10,91)	140 (5,49)	414 (16,36)	37 (1,42)	97 (3,82)	166 (6,51)	258 (10,15)	40 (1,58)	90 (3,55)	385 (15,21)

* not applicable for the CD variants

ENTARON HD/CD

At a glance



TECHNICAL FEATURES	ENTARON HD	ENTARON CD
Type of operation	Two-stage air cleaner	Single-stage air cleaner
Field of application	Mobile applications with high dust loads such as construction and agricultural machines and compressors	Stationary applications in areas with a low dust load such as machines and engines, gensets and compressors
Air flow requirements	2 - 13 m ³ /min	2 - 13 m ³ /min
Pre-separator	Tangential	-
Pre-separation efficiency		
▪ With dust discharge valve	> 86%	-
▪ With scavenging (5%)	> 89%	-
Final separation efficiency	> 99,99%	> 99,97%
Dust discharge	Dust discharge valve (option: scavenging)	-
Secondary element	Option	-
Installation	Vertical and horizontal installation possible ¹⁾	Vertical and horizontal installation possible
Servicing concept	Front servicing with comfort fasteners	Front servicing with comfort fasteners
Additional protection against ingress of water	Standard	-

1) Depends on the position of the dust discharge valve (valve always directed downwards).





1



2



3



4

ENTARON HD - REPLACEMENT PARTS

MODEL	Order number replacement part		
	Cover (Fig. 1)	Main element (Fig. 2)	Secondary element (Fig. 3)
ENTARON HD 4	45 131 17 909	C 12 004	CF 240
ENTARON HD 5.5	45 151 17 909	C 13 009	CF 355
ENTARON HD 7.5	45 171 17 909	C 15 020	CF 475
ENTARON HD 10	45 191 17 909	C 16 100	CF 510
ENTARON HD 13	45 231 17 119	C 19 130	CF 613

ENTARON CD spare parts on request

DUST DISCHARGE VALVE*

MODEL	Connection diameter dust discharge	Order number replacement part		
		Dust discharge small (standard, Fig. 4)	Dust discharge large/offset	Dust discharge large/straight
ENTARON HD 4	40 mm	39 000 40 391	39 000 40 661	39 000 40 102
ENTARON HD 5.5	40 mm	39 000 40 391	39 000 40 661	39 000 40 102
ENTARON HD 7.5	40 mm	39 000 40 391	39 000 40 661	39 000 40 102
ENTARON HD 10	54 mm	39 000 40 731	-	-
ENTARON HD 13	54 mm	39 000 40 731	-	-

* not applicable for the CD variants



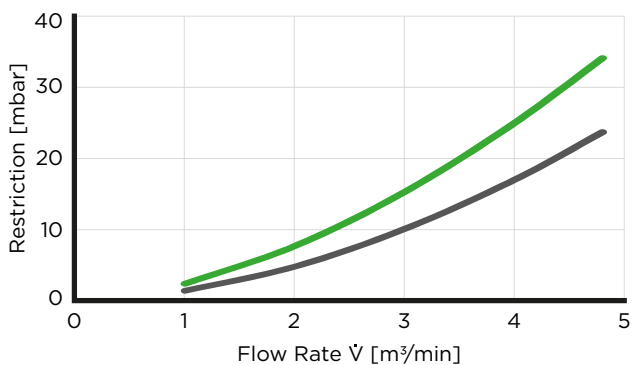
NOTE

The complete range of accessories can be found in our current Air Cleaner catalog.

Flow characteristics according to ISO 5011

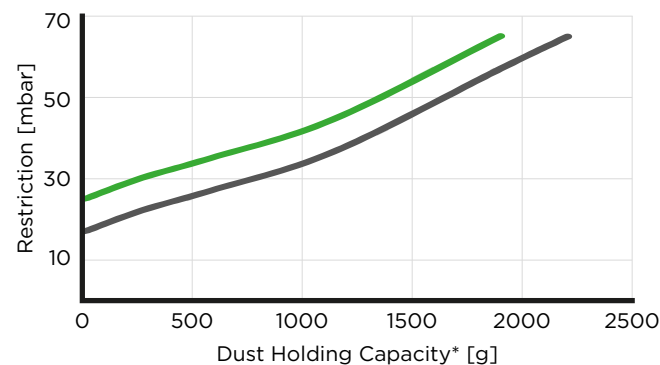
ENTARON HD 4

Flow Rates



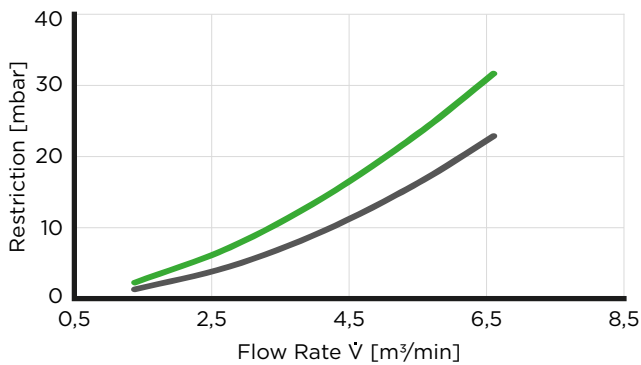
ENTARON HD 4

Dust Capacity with PTI Coarse Test Dust



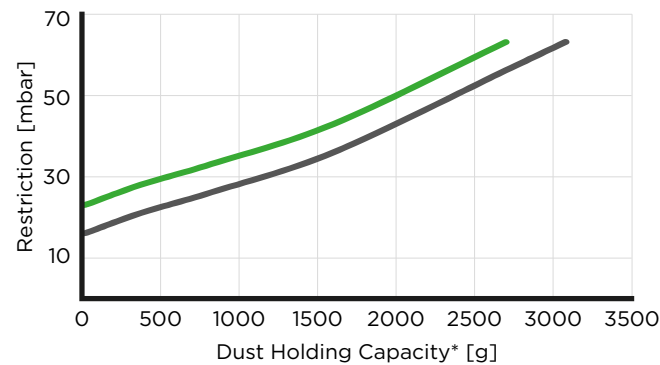
ENTARON HD 5.5

Flow Rates



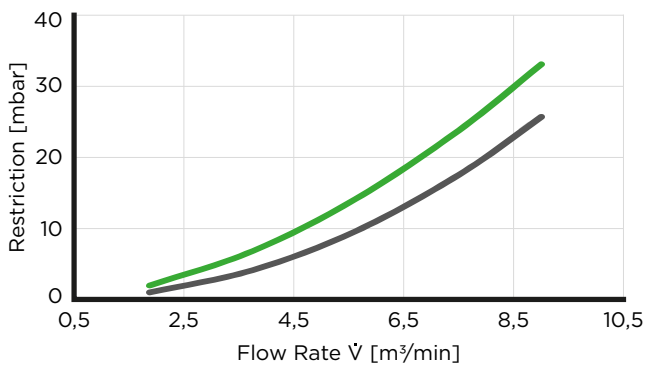
ENTARON HD 5.5

Dust Capacity with PTI Coarse Test Dust



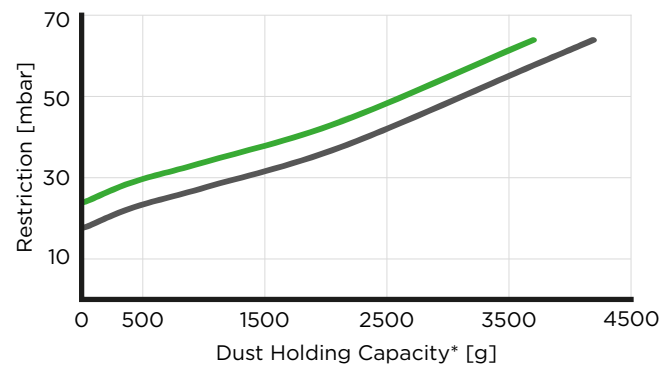
ENTARON HD 7.5

Flow Rates



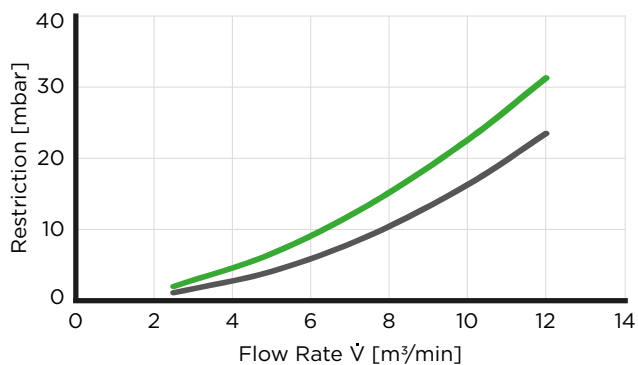
ENTARON HD 7.5

Dust Capacity with PTI Coarse Test Dust



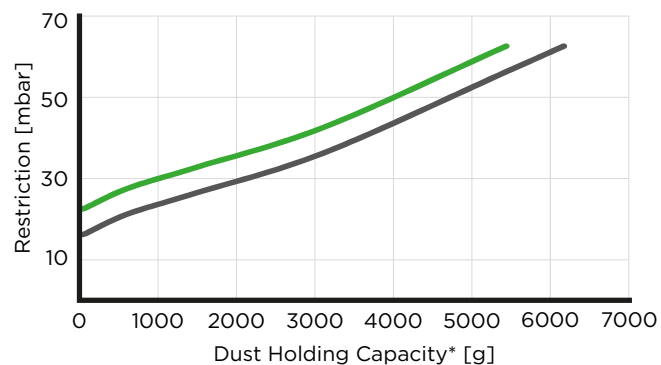
ENTARON HD 10

Flow Rates



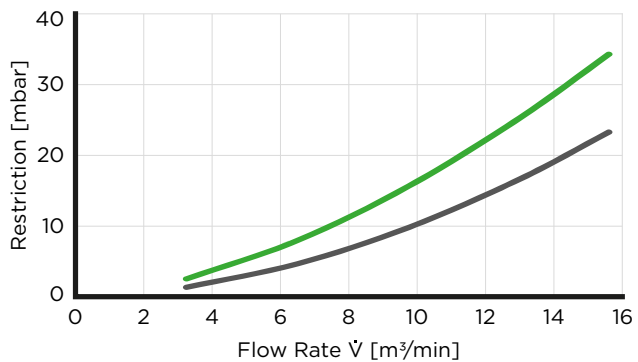
ENTARON HD 10

Dust Capacity with PTI Coarse Test Dust



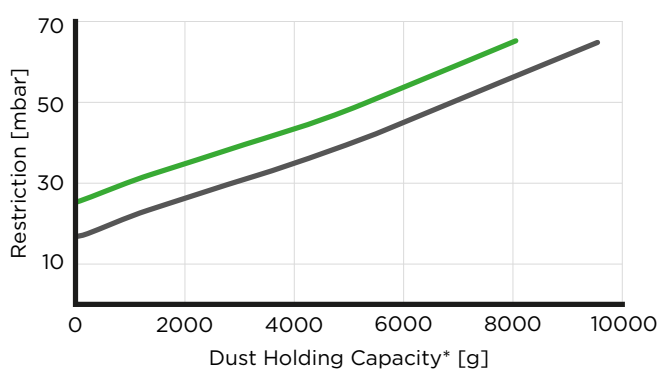
ENTARON HD 13

Flow Rates



ENTARON HD 13

Dust Capacity with PTI Coarse Test Dust



NOMINAL FLOW RATES

ENTARON HD Series

Filter Size	ENTARON HD 4	ENTARON HD 5.5	ENTARON HD 7.5	ENTARON HD 10	ENTARON HD 13
Nominal Flow Rate	4 m³/min	5.5 m³/min	7.5 m³/min	10 m³/min	13 m³/min

■ With Secondary Element ■ Without Secondary Element

* Dust holding capacities ENTARON HD measured at max. nominal volume flow. Data with extraction on request.
Dust holding capacities ENTARON CD on request.



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