



**MANN+HUMMEL Air/oil separators  
for vacuum pumps**

# MANN+HUMMEL Air/oil separators for vacuum pumps



## Service life

The rise in flow resistance and thus service life primarily depend on the cleanness of the oil and the quality of the air filter. A service life of several thousand hours can be achieved with a well-functioning system.

## Fitting advice

The full separation efficiency of the air/oil separators is only available fully when there is no leakage between the wet and dry sides.

## Design and function

This model is designed for flows from the inside to the outside. The listed available air/oil separators are particularly suitable for integrated fitting in oil flooded vane vacuum pumps. The installation position can be chosen freely.

## Pressure resistance

The air/oil separators for vacuum pumps are designed for differential pressures of up to at least 1.5 bar (150 KPa).

## Separation efficiency

The residual oil content at nominal air flow is approx. 1 to 3 mg/m<sup>3</sup>.



# Dimensions and order numbers

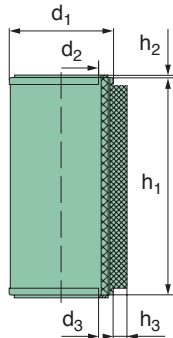


Fig. 1

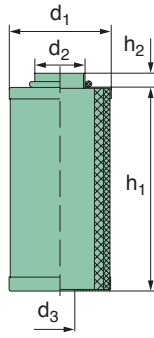


Fig. 2

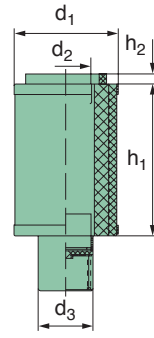


Fig. 4

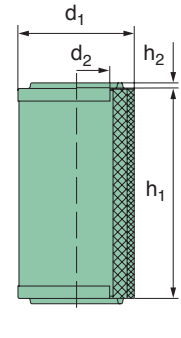


Fig. 6

Order No.	Fig.	Nominal flow rate [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						with seals
			d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	
49 000 53 108	1	0.1 [3.53]	30 [1.18]	10 [0.39]	10 [0.39]	60 [2.36]	-	-	-
49 000 52 114	2	0.1 [3.53]	35 [1.38]	G 3/8"	-	55 [2.17]	11 [0.43]	-	-
49 000 52 102	2	0.15 [5.30]	35 [1.38]	G 3/8"	-	55 [2.17]	11 [0.43]	-	-
49 000 51 401	4	0.15 [5.30]	55 [2.17]	26.5 [1.04]	29 [1.14]	40 [1.57]	5 [0.20]	-	x
49 000 52 115	2	0.2 [7.06]	35 [1.38]	G 3/8"	-	75 [2.95]	11 [0.43]	-	-
49 000 52 171	2	0.2 [7.06]	35 [1.38]	G 3/8"	-	85 [3.35]	11 [0.43]	-	-
49 000 52 109	2	0.25 [8.83]	35 [1.38]	G 3/8"	-	110 [4.33]	11 [0.43]	-	-
49 000 52 241	1	0.3 [10.59]	40 [1.57]	20.2 [0.80]	20.2 [0.80]	96 [3.78]	-	-	-
49 000 54 121	4	0.3 [10.59]	55 [2.17]	26.5 [1.04]	29 [1.14]	80 [3.15]	5 [0.20]	-	x
49 000 52 351	6	0.3 [10.59]	55 [2.17]	25.2 [0.99]	-	75 [2.95]	3 [0.12]	-	-

Customized versions are available on request.

# Dimensions and order numbers

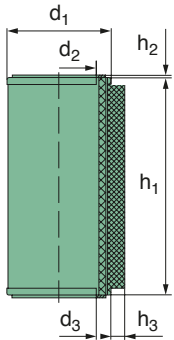


Fig. 1

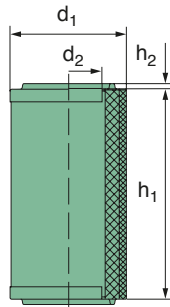


Fig. 6

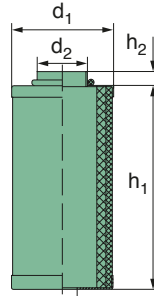


Fig. 2

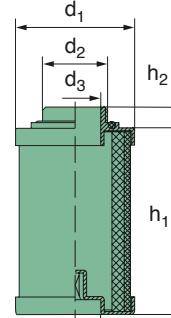


Fig. 7

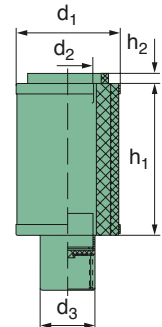


Fig. 4

Order No.	Fig.	Nominal flow rate [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						with seals
			d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	
49 000 54 361	7	0.3 [10.59]	55.5 [2.19]	M 25x2	15 [0.59]	77 [3.03]	13 [0.51]	-	x
49 000 54 211	4	0.3 [10.59]	56 [2.20]	26 [1.02]	29 [1.14]	80 [3.15]	5 [0.20]	-	x
49 000 52 501	2	0.4 [14.13]	53 [2.09]	28 [1.10]	-	120 [4.72]	9 [0.35]	-	-
49 000 50 391	4	0.4 [14.13]	55 [2.17]	26.5 [1.04]	29 [1.14]	95 [3.74]	5 [0.20]	-	x
49 000 52 352	6	0.4 [14.13]	72 [2.83]	32.2 [1.27]	-	80 [3.15]	2.5 [0.10]	-	-
49 000 53 106	1	0.5 [17.66]	55 [2.17]	25 [0.98]	25 [0.98]	135 [5.31]	-	-	-
49 000 52 271	6	0.5 [17.66]	55 [2.17]	25.2 [0.99]	-	130 [5.11]	3 [0.12]	-	-
49 000 55 251	1	0.5 [17.66]	65 [2.56]	43 [1.69]	43 [1.69]	100 [3.94]	3 [0.12]	-	x
49 000 54 351	7	0.5 [17.66]	72.5 [2.85]	M 32x2	22 [0.87]	83 [3.27]	13 [0.51]	-	x

Customized versions are available on request.

# Dimensions and order numbers

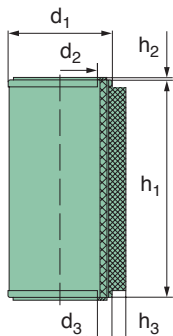


Fig. 1

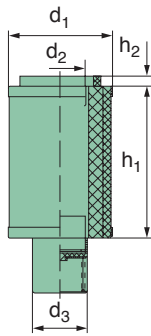


Fig. 4

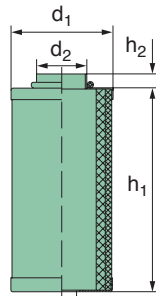


Fig. 2

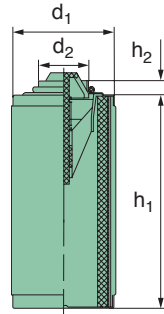


Fig. 5

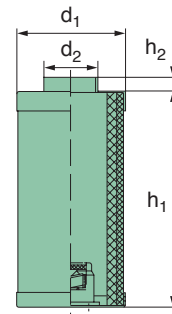


Fig. 3

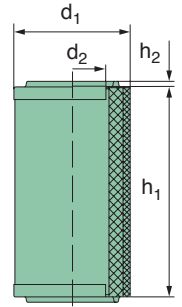


Fig. 6

Order No.	Fig.	Nominal flow rate [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						with seals
			d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	
49 000 54 201	4	0.6 [21.19]	56 [2.20]	26 [1.02]	29 [1.14]	177 [6.97]	5 [0.20]	-	x
49 000 54 151	1	0.6 [21.19]	65 [2.56]	43 [1.69]	43 [1.69]	100 [3.94]	3 [0.12]	-	x
49 000 54 191	4	0.6 [21.19]	84 [3.31]	51 [2.01]	35.5 [1.40]	100 [3.94]	5 [0.20]	-	x
49 000 54 131	4	0.7 [24.72]	55 [2.17]	26.5 [1.04]	29 [1.14]	177 [6.97]	5 [0.20]	-	x
49 000 52 105	3	0.7 [24.72]	72 [2.83]	35 [1.38]	-	125 [4.92]	9 [0.35]	-	-
49 000 52 353	6	0.7 [24.72]	80 [3.15]	45.2 [1.78]	-	125 [4.92]	3.5 [0.14]	-	-
49 000 54 111	4	0.7 [24.72]	82 [3.23]	52.5 [2.07]	35 [1.38]	100 [3.94]	5 [0.20]	-	x
49 000 52 181	2	0.8 [28.25]	53 [2.09]	28 [1.10]	-	202 [7.95]	9 [0.35]	-	-
49 000 55 241	5	0.8 [28.25]	72 [2.83]	35 [1.38]	3 [0.12]	130 [5.12]	10 [0.39]	-	x

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# Dimensions and order numbers

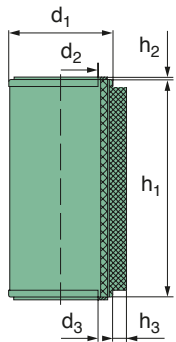


Fig. 1

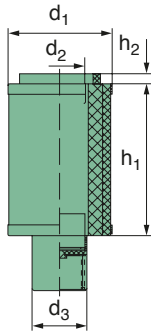


Fig. 4

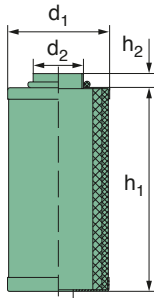


Fig. 2

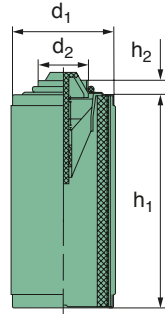


Fig. 5

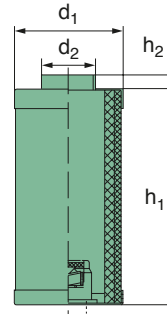


Fig. 3

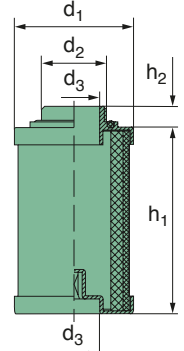


Fig. 7

Order No.	Fig.	Nominal flow rate [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						with seals
			d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	
49 000 55 301	7	0.8 [28.25]	82 [3.23]	M 45x3	35 [1.38]	128 [5.04]	14 [0.55]	-	x
49 000 50 611	1	0.9 [31.78]	80 [3.15]	45 [1.77]	45 [1.77]	145 [5.70]	-	-	-
49 000 52 612	1	0.9 [31.78]	80 [3.15]	45 [1.77]	45 [1.77]	145 [5.70]	-	-	-
49 000 54 261	1	1.2 [42.38]	71 [2.80]	41 [1.61]	8.4 [0.33]	227 [8.94]	2 [0.08]	-	x
49 000 55 221	5	1.25 [44.14]	72 [2.83]	35 [1.38]	3 [0.12]	208 [8.19]	10 [0.39]	-	x
49 000 54 102	2	1.3 [45.91]	82 [3.23]	50 [1.97]	9 [0.35]	200 [7.87]	10 [0.39]	-	x
49 000 51 451	4	1.3 [45.91]	82 [3.23]	52.5 [2.07]	35 [1.38]	200 [7.87]	5 [0.20]	-	x
49 000 53 107	1	1.4 [49.44]	70 [2.76]	41 [1.61]	41 [1.61]	250 [9.84]	-	-	-
49 000 52 103	2	1.45 [51.21]	72 [2.83]	35 [1.38]	-	252 [9.92]	9 [0.35]	-	-
49 000 50 571	3	1.45 [51.21]	72 [2.83]	35 [1.38]	-	252 [9.92]	9 [0.35]	-	-

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# Dimensions and order numbers

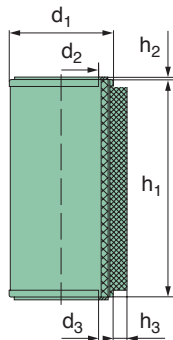


Fig. 1

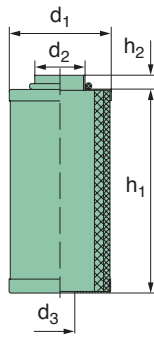


Fig. 2

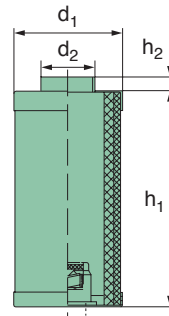


Fig. 3

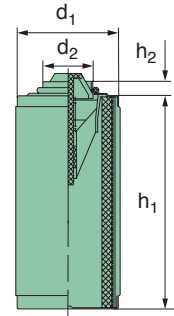


Fig. 5

Order No.	Fig.	Nominal flow rate [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						with seals
			d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	
49 000 52 201	2	1.5 [52.97]	72 [2.83]	35 [1.38]	–	252 [9.92]	9 [0.35]	–	–
49 000 55 341	2	1.5 [52.97]	72 [2.83]	35 [1.38]	3 [0.12]	250 [9.84]	9 [0.35]	–	x
49 000 55 231	5	1.5 [52.97]	72 [2.83]	35 [1.38]	3 [0.12]	250 [9.84]	10 [0.39]	–	x
49 001 53 112	1	1.8 [63.57]	70 [2.76]	41 [1.61]	41 [1.61]	330 [12.99]	–	–	–
49 000 50 461	1	2.0 [70.63]	108 [4.25]	73 [2.87]	73 [2.87]	220 [8.66]	6 [0.24]	12 [0.47]	x
49 001 52 108	1	2.2 [77.69]	108 [4.25]	75 [2.95]	75 [2.95]	230 [9.06]	–	–	–
49 001 52 171	2	2.2 [77.69]	72 [2.83]	35 [1.38]	–	377 [14.84]	9 [0.35]	–	–
49 000 50 651	3	2.2 [77.69]	72 [2.83]	35 [1.38]	–	377 [14.84]	9 [0.35]	–	–
49 000 55 171	2	2.3 [81.22]	72 [2.83]	35 [1.38]	3 [0.12]	375 [14.76]	10 [0.39]	–	x
49 001 55 201	5	2.3 [81.22]	72 [2.83]	35 [1.38]	3 [0.12]	375 [14.76]	10 [0.39]	–	x
49 001 54 100	1	2.5 [88.29]	108 [4.25]	73 [2.87]	73 [2.87]	285 [11.22]	6 [0.24]	12 [0.47]	x
49 001 52 110	2	2.5 [88.29]	82 [3.23]	50 [1.97]	9 [0.35]	380 [14.96]	10 [0.39]	–	x

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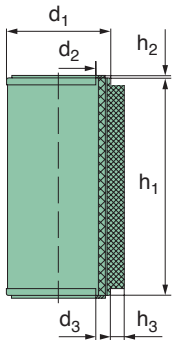


Fig. 1

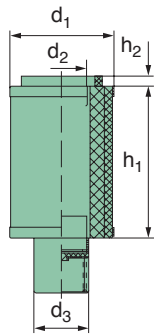


Fig. 4

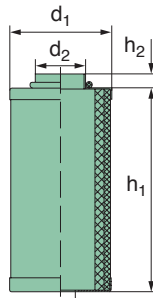


Fig. 2

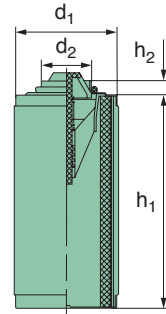


Fig. 5

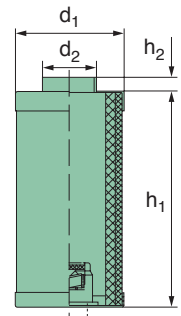


Fig. 3

Order No.	Fig.	Nominal flow rate [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						with seals
			d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	
49 000 51 341	4	2.65 [93.58]	82 [3.23]	52.5 [2.07]	35 [1.38]	400 [15.75]	5 [0.20]	-	x
49 001 54 281	1	2.70 [95.35]	71 [2.80]	41 [1.61]	8.4 [0.33]	398.5 [15.69]	2 [0.08]	25 [0.98]	x
49 001 52 151	2	2.90 [102.41]	72 [2.83]	35 [1.38]	-	502 [19.76]	9 [0.35]	-	-
49 001 52 172	2	2.90 [102.41]	72 [2.83]	35 [1.38]	-	502 [19.76]	9 [0.35]	-	-
49 000 50 661	3	2.90 [102.41]	72 [2.83]	35 [1.38]	-	502 [19.76]	9 [0.35]	-	-
49 001 54 105	2	2.90 [102.41]	82 [3.23]	50 [1.97]	9 [0.35]	450 [17.72]	10 [0.39]	-	x
49 001 55 181	2	3.10 [109.48]	72 [2.83]	35 [1.38]	3 [0.12]	500 [19.69]	10 [0.39]	-	x
49 001 55 191	5	3.10 [109.48]	72 [2.83]	35 [1.38]	3 [0.12]	500 [19.69]	10 [0.39]	-	x
49 002 52 171	2	3.60 [127.13]	82 [3.23]	50 [1.97]	9 [0.35]	540 [21.26]	10 [0.39]	-	x

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