



## **MANN+HUMMEL Air/oil separator boxes**

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## Flow rates

Air/oil separator boxes are available for nominal flow rates of 1 m<sup>3</sup>/min up to 5.5 m<sup>3</sup>/min at an operating pressure of 7 bar (0.7 MPa).

## Pressure drop

The pressure drop at nominal flow rate and at 7 bar (0.7 MPa) operating pressure is approx. 0.25 bar (25 KPa) with a new element.



## Pressure resistance

The housings of the air/oil separator boxes are designed for operating pressures up to a maximum of 20 bar (2 MPa) or a maximum of 14 bar (1.4 MPa). The fitted filter elements are suitable for pressure differences greater than 5 bar (0.5 MPa).

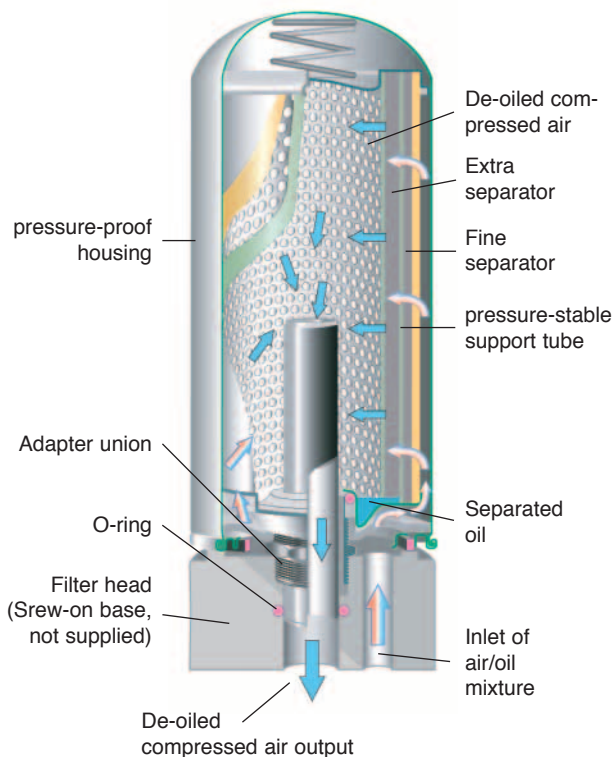


Fig. 1

## Separation efficiency

The residual oil content of the compressed air at nominal flow rate and 7 bar (0.7 MPa) operating pressure is approximately 1 to 3 mg/m<sup>3</sup>.

## 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.

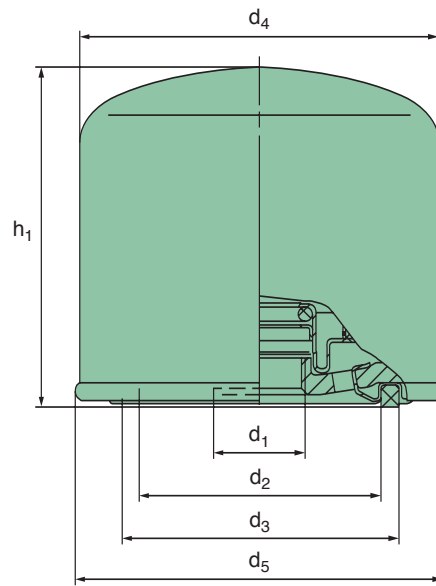
## Fitting advice

Air/oil separator boxes are fitted vertically (Fig. 1) by hand on the firmly installed filter head using a suitable adapter union. We recommend fitting in a position with good access for servicing.

## Maintenance

The air/oil separator boxes must be replaced if the flow resistance reaches 1 bar (0.1 MPa). The box may only be replaced when the system is depressurised. A commercially available belt wrench is sufficient to remove the box. The box is fitted and tightened manually.

# Dimensions and order numbers



MANN-FILTER	Nominal flow rate <sup>1)</sup> [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						max. working pressure	
		$d_1$	$d_2$	$d_3$	$d_4$	$d_5$	$h_1$	[bar]	[MPa]
<b>LB 719/2</b>	1.0 [35.31]	M 22x1.5	62 [2.44]	71 [2.80]	76 [2.99]	80 [3.15]	127 [5.00]	20	2.0
<b>LB 962/2</b>	2.0 [70.63]	M 24x1.5	62 [2.44]	71 [2.80]	93 [3.66]	96 [3.78]	212 [8.35]	20	2.0
<b>LB 1374/2</b>	3.0 [105.94]	M 39x1.5	100 [3.94]	111 [4.37]	136 [5.35]	140 [5.51]	177 [6.97]	20	2.0
<b>LB 11 102/2</b>	4.0 [141.26]	M 32x1.5	93 [3.66]	104 [4.09]	108 [4.25]	110 [4.33]	260 [10.24]	14	1.4
<b>LB 13 145/3</b>	5.5 [194.23]	M 39x1.5	100 [3.94]	111 [4.37]	136 [5.35]	140 [5.51]	302 [11.89]	20	2.0

1) Flow rate according to DIN 1945 at 7 bar (0.7 MPa) operating pressure.

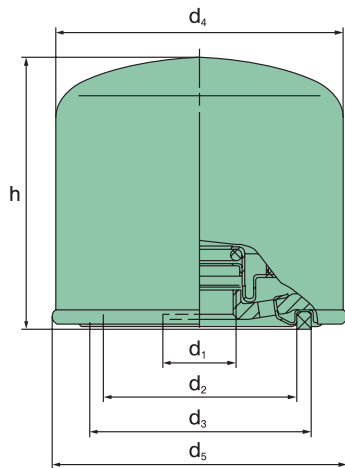
# MANN+HUMMEL StarBox

High quality air/oil separators are crucial for process reliability and energy efficiency in compressors. The StarBox from MANN+HUMMEL sets new standards for both criteria in the separation of oil from compressed air. The new generation with more performance in the same installation space offers greater energy efficiency and process reliability. This has been made possible through a new high performance medium specially developed for compressors. As a result the StarBox, in comparison to conventional air/oil separator

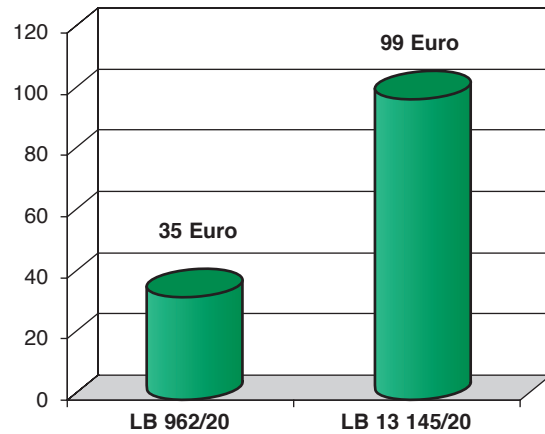
boxes, performs better in the critical areas of residual oil content and differential pressure.

### Advantages at a glance:

- up to 99 Euro energy saving per filter through lower differential pressure
- residual oil content of 1-3 ppm
- up to 25% longer service life in comparison to conventional air/oil separator boxes
- longer service life of the fine filters installed downstream



### Energy saving per filter \*



\* Calculation based on a filter service life of 3,000 operating hours and power costs of 0.12 Euro per kWh, in comparison with a conventional air/oil separator box.

MANN-FILTER	Compatible to	Nominal flow rate [m <sup>3</sup> /min] [cfm]	Dimensions in mm [ <i>dimensions in inches</i> ]						max. working pressure	
			d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	h	[bar]	[MPa]
LB 962/20	LB 962/2	2.2 [77.69]	M 24x1.5	62 [2.44]	71 [2.80]	93 [3.66]	96 [3.78]	212 [8.35]	20	2.0
LB 13 145/20	LB 13 145/3	6.0 [211.89]	M 39x1.5	100 [3.94]	111 [4.37]	136 [5.35]	140 [5.51]	302 [11.89]	20	2.0