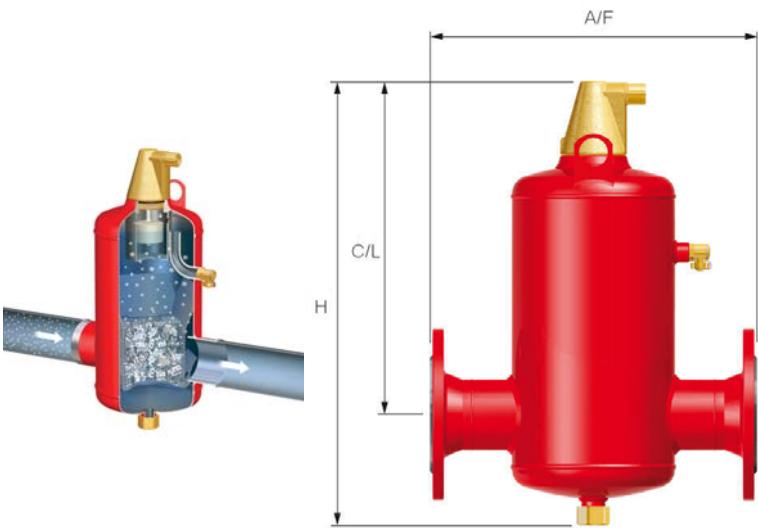


## BOSS MB Air Separator (Micro Bubble)

- Description:** The MB is a high efficiency in-line air separator, suitable for use on heating and chilled systems.
- Installation:** The MB should preferably be installed in the hottest part of the system, (typically the flow pipe from the heat exchanger).
- Features:**
- ▶ PALL Ring Technology
  - ▶ Additional manual air vent for rapid air release during commissioning

|                                  |                |
|----------------------------------|----------------|
| <b>Maximum Working Pressure</b>  | 10 bar(g)      |
| <b>Working Temperature Range</b> | -10°C to 110°C |
| <b>Maximum Velocity</b>          | 3 m/s          |
| <b>Connections</b>               | PN16 Flanged   |



| <b>Type</b>                | <b>Volume<br/>(l)</b> | <b>System<br/>Connections<br/>(DN)</b> | <b>Dimensions (mm)</b> |            |               | <b>Weight<br/>(Kg)</b> | <b>Order<br/>Code</b> |
|----------------------------|-----------------------|--|------------------------|------------|---------------|------------------------|-----------------------|
|                            |                       |  | <b>Across<br/>Face</b> | <b>C/L</b> | <b>Height</b> |                        |                       |
| BOSS MB 50F Air Separator  | 8                     | 50                                     | 350                    | 338        | 470           | 13.1                   | 18710050              |
| BOSS MB 65F Air Separator  | 8                     | 65                                     | 350                    | 338        | 470           | 14.1                   | 18710060              |
| BOSS MB 80F Air Separator  | 25                    | 80                                     | 470                    | 435        | 621           | 22.4                   | 18710072              |
| BOSS MB 100F Air Separator | 25                    | 100                                    | 470                    | 435        | 621           | 24.8                   | 18710083              |
| BOSS MB 125F Air Separator | 59                    | 125                                    | 635                    | 515        | 790           | 45.6                   | 18710094              |
| BOSS MB 150F Air Separator | 60                    | 150                                    | 635                    | 510        | 790           | 50                     | 18710102              |
| BOSS MB 200F Air Separator | 123                   | 200                                    | 774                    | 670        | 970           | 79.5                   | 18710113              |
| BOSS MB 250F Air Separator | 287                   | 250                                    | 990                    | 892        | 1277          | 154                    | 18710124              |
| BOSS MB 300F Air Separator | 333                   | 300                                    | 1016                   | 1032       | 1442          | 184                    | 18710135              |
| BOSS MB 350F Air Separator | 646                   | 350                                    | 1214                   | 1109       | 1586          | 304                    | 18710146              |
| BOSS MB 400F Air Separator | 731                   | 400                                    | 1220                   | 1252       | 1759          | 346                    | 18710157              |
| BOSS MB 500F Air Separator | 1384                  | 500                                    | 1580                   | 1470       | 2090          | 635                    | 18711244              |
| BOSS MB 600F Air Separator | 2390                  | 600                                    | 1870                   | 1760       | 2485          | 1028                   | 18711255              |

**PRESSURE DROP**

The expression for the calculation of pressure drop in relation to flow rate on Air and Dirt removal equipment is as follows:

- Δp** Pressure Drop (KPa)  
**f** Water Flow Rate (l/s)  
**K** Equipment Co-efficient (see right)

$$\Delta p = f^2 * K$$

| Size | K         |
|------|-----------|
| 50   | 0.225     |
| 65   | 0.0864198 |
| 80   | 0.046875  |
| 100  | 0.015625  |
| 125  | 0.0073    |
| 150  | 0.0034444 |
| 200  | 0.00125   |
| 250  | 0.0005    |
| 300  | 0.0002667 |
| 350  | 0.0001667 |
| 400  | 0.0001041 |
| 500  | 4.444E-05 |
| 600  | 2.089E-05 |

**PALL RINGS**

The cross section presented to the flowing water has no clear path through, all the water is diverted over the PALL rings. The increased surface area and hydrofoil action of the PALL rings allow further pockets of lower pressure to develop accelerating the de-aeration process and promoting coalescence (microbubbles merging into larger more buoyant bubbles) on the large stainless steel surface area of the PALL rings. The automatic air vent on the top of the unit is then used to vent the larger bubbles to atmosphere.