

Construction of the Flamcovent micro-bubble air separators brass execution (patented)



BRASS FLAMCOVENT WITH THREADED CONNECTIONS OR COMPRESSION FITTINGS

The Flamcovent air separators are used in sealed central cooling and heating systems up to a maximum temperature of 120 °C and a maximum pressure of 10 bar.

The Flamcovent brass execution is constructed of a vertically orientated housing on which an air chamber is mounted. The housing accommodates the special PALL rings. These PALL rings ensure a very large contact surface, so that an optimum exchange of gas from the water is achieved.



The PALL rings are so constructed that the pressure fall is minimal. The float, float mechanism and venting valve are located in the air chamber. The air chamber of the Flamcovent air separator is conical in shape. The advantage of this construction is that the distance between the water level and venting valve is larger then in a straight air chamber. When the water level is rising in both chambers, the pressure rise in the conical shaped one will, due to the smaller volume, be faster then in the straight one. Pressure balance will, in the conical shaped one, be reached at a lower water level. Dirt, floating on the water in the Flamcovent air separator will thus remain well clear of the venting valve in normal operating conditions. This means that fouling of the transfer mechanism and the venting valve is reduced to a minimum. The venting valve itself can be closed off.

The perforated protective plate keeps the float mechanism free of any impurities floating on the water. The venting valve is incorporated in the air chamber, so that damage from outside is almost impossible.

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Construction of the Flamcovent micro-bubble air separators steel execution



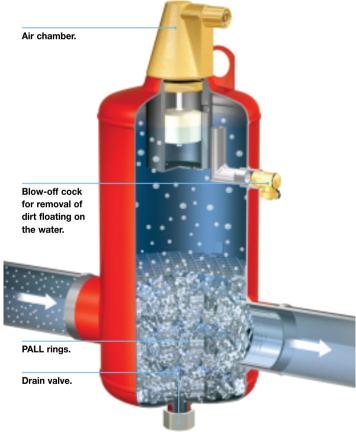
STEEL FLAMCOVENT WITH WELDED CONNECTIONS



The Flamcovent air separators are used in sealed central cooling and heating systems up to a maximum temperature of 120 °C and a maximum pressure of 10 bar.

The Flamcovent steel execution is constructed of a vertically orientated steel housing on which an air chamber is mounted. The housing accommodates the special PALL rings. These PALL rings ensure a large contact surface, so that an optimum exchange of gas from the water is achieved. Float, float mechanism and venting valve are located in a special air chamber. This air chamber is completely protected, so that any impurities floating on the water, such as oil, grease or hemp, cannot cause damage to float or gearing mechanism. Using the flushing cock mounted on the Flamcovent, such impurities can be removed.

The blow-off cock can also be used to release large quantities of air, for instance during filling of the system.



The air chamber of the Flamcovent air separator is conical in shape. The effect of this special design is that the clearance between the water level and the venting valve is as large as possible. The water level in the Flamcovent air separator will thus remain well clear of the venting valve in normal operating conditions. This means that fouling of the transfer mechanism and venting valve is reduced to a minimum. The venting valve itself can be closed off.

Impurities which are heavier than water, such as sand, welding debris and the like, will collect in the bowl-shaped lower part of the air separator. By means of the drain valve located in the centre of the bottom, these impurities can be readily removed.