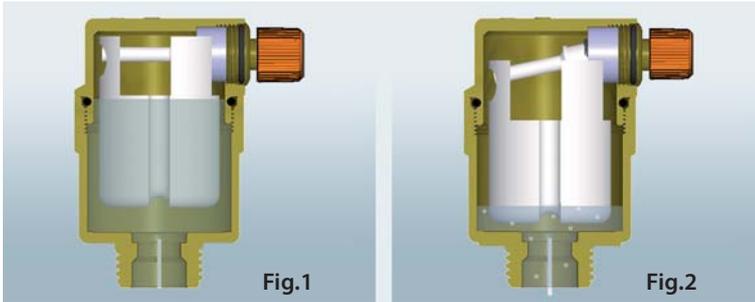**4. SOLARFAR AIR VENT VALVES**

4.1 DESCRIPTION

The air vent valve art. **2042** has to be installed on solar heating systems to automatically vent any air in the circuit, thus ensuring a better heat transfer. Air discharge from the system avoids noise problems arising from imperfect fluid circulation. The valve must be installed at the highest point of the systems and in a vertical position in order to guarantee perfect operation.

Normally the cap has to be slightly loose to allow air to escape from the valve through a notch on the male thread. The plastic cap is provided with a sealing seat and can be closed if necessary.
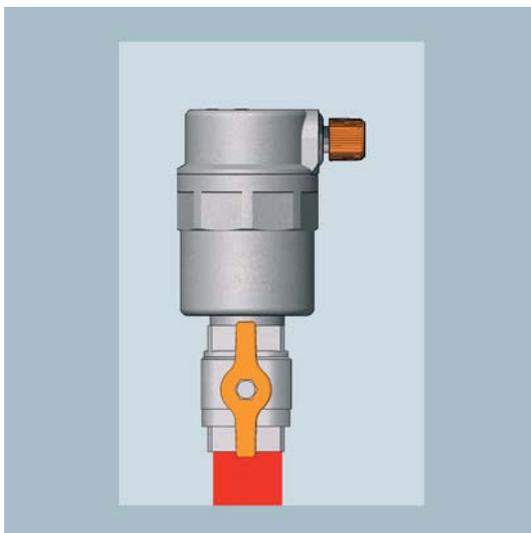
Art. 2042

Fig.1 - If there is no air in the circuit, water inside the air vent valve keeps the float in such a position as to close the shutter.
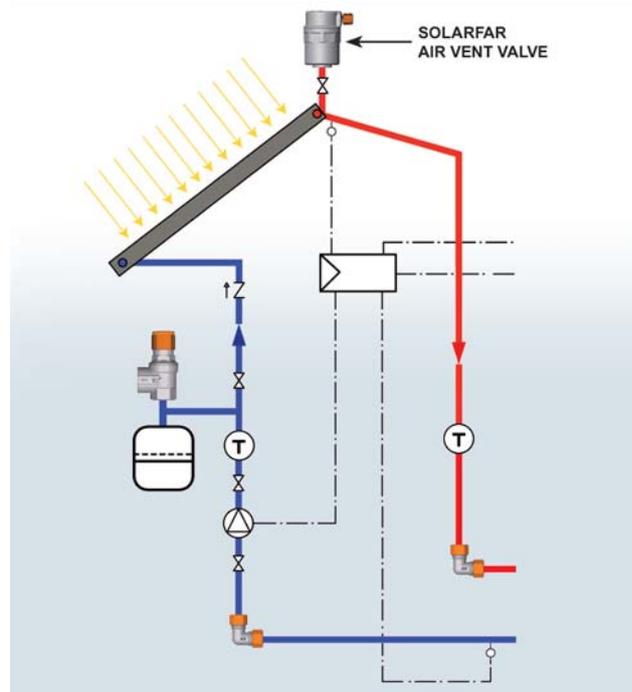
Fig.2 - The air in the circuit reduces the water level in the air vent valve, thus lowering the float and opening the air discharge.

Fig.1   **Fig.2**

If debris in the system interferes with the normal working of the valve, it is possible to unscrew and remove the cover and float. On the stem holding the float is a rubber disk, which operates as a shutter when the float lifts the stem. It is essential to check for the presence of any debris which may prevent the shutter reaching the end of its stroke. A plastic flow separator placed inside the 3/8" or 1/2" connection forces the air bubbles upwards and generates micro-currents in the fluid which ease any bubbles towards the higher side of the valve.

Example of SOLARFAR air vent valve installation in a solar system with forced circulation

SOLARFAR AIR VENT VALVE

It is necessary to install a shut-off valve to exclude the air vent valve, once the system filling is completed. This is essential as the antifreeze fluid could be vented in gaseous state, hindering the regular systems functioning.

4.2 TECHNICAL FEATURES

Nominal pressure:	10bar
Max. fluid temperature:	160°C
Max. differential pressure:	4 bar
Compatible fluids:	water, water with glycol
Available connections:	3/8" e 1/2"