The Watts Cazzaniga ALIMAT automatic filling valve ensures prompt automatic make up of water losses from the heating system by highly accurate and reliable adjustment of the heating system pressure until reaching the required operating parameter.

**EASY FILLING**

The use of the Watts Cazzaniga ALIMAT filling valve allows fully automatic filling of water in the system with appreciable time saving.

**PROTECTION**

The Watts Cazzaniga ALIMAT automatic filling valve includes an inspectable check valve whose function is to prevent risk of back flows which could cause contamination of the water main with the water of the heating system. When an even higher level of safety is required, Watts Intermes offers filling and back flow preventer units for systems with capacities either higher or lower than 70 kW.
APPLICATION
A closed circuit heating system should be connected to the water main via a valve ensuring the following conditions:
- a filling pressure suitable for system requirements;
- protection against risk of back flow which could cause pollution of the water main;
- stop of water filling upon reaching a preset pressure.

Such conditions are guaranteed by the ALIMAT automatic filling valve which combines the following functions:
- pressure control;
- non-return;
- checking for correct check valve operation;
- shut-off;
- filtration;
- check of heating system pressure via pressure gauge.

DESIGN FEATURES
Body and head end: Nickel-plated brass
Body: Shot-blasted stamped brass
Diaphragm: NBR rubber reinforced with nylon fabric
Inlet connection: 1/2" M tailpiece (UNI-ISO228/1)
Outlet connection: 1/2" F (UNI-ISO228/1)
Gauge connection: 1/4" F (UNI-ISO228/1)
O-rings: NBR rubber
Cap (AL/ALM): High impact plastic
Cap (ALO/ALOM): Die-cast brass

TECHNICAL CHARACTERISTICS
Max. inlet pressure: 10 bar
Set pressure: 0.3 to 4 bar
Max. flow rate: 1.8 m³/h
Operating sensitivity: 0.2 bar
Max. fluid temperature: 40°C

Overall dimensions (mm)

Flow rate - pressure drop chart
In order to avoid uncontrollable feeding of water in the system, which would prevent leak detection, it is recommended, once filling has finished, to close the shut-off valve. The pressure gauge will show any leaks which, whenever of continuous nature, should be promptly identified and eliminated.

OPERATION

When the pressure exerted by the fluid inside the system drops below the pressure exerted by spring (3) on diaphragm (5), the spring pushes plug (4) down. The mains water flows via inlet (E) through filter cartridge (9), then rises into chamber (10), opens check valve (6) and thus flows towards the system (U). When filling of the system is complete, the pressure in it increases, and therefore in chamber (10). After exceeding the value balanced by the force exerted by the opposing spring the pressure pushes diaphragm (5) upwards while plug (4) closes. Check valve (6) prevents back flow. Hence the pressure settles according to the set pressure given by the spring.

SETTING

The ALIMAT automatic filling valve is set by turning screw (2):
- towards + (clockwise) = to increase the pressure;
- towards - (counter-clockwise) = to decrease the pressure.

Pressure of the system can be checked on the pressure gauge.

APPLICATION

Risk of pollution of drinking water pipes is a factor not be underestimated.

There are regulations prescribing preventive measurements against contamination of drinking water: among these, UNI 9157 - “Three-way back flow preventers” lists the circuits and/or appliances whose direct connection to the public water main is recognized as possible source of pollution; hence the use of a back flow preventing unit is prescribed:
- independent and central heating systems;
- air conditioning and air treatment systems.

In order to protect public drinking water mains, a filling and back flow preventing is a useful device for connection to the heating system.

This unit combines both functions of protection and automatic feeding of the system.

APPROVALS

The following approvals refer to the back flow preventers only:
- DIW009:
  UNI certification according to UNI 9157 standard
  NF/ANSEAU/KIWA/DVGW/ASSE/AWWA/IAPMO
- DNW9D:
  Certifications ANSEAU/KIWA/ASSE/CSA

CONTROL OF CHECK VALVE FOR PRESSURE TIGHTNESS

The ALIMAT automatic filling valve is able to control the pressure tightness of the check valve. For such purpose, after closing knob (8), slightly loosen (2 or 3 turns) vent screw (7): if there is faulty seating of the check valve, there would be a continuous loss of water. After controlling, fully tighten the vent screw and again open the knob.

MAINTENANCE

La manutenzione dell’alimentatore automatico ALIMAT si limita alla pulizia periodica del filtro, in particolare dopo il primo riempimento dell’impianto. Per estrarre il filtro procedere come segue:

1. Close the gate valve upstream to ALIMAT (if there is no gate valve, shut off the supply pipe from the water main).
2. Unscrew the bottom nut and remove the knob assembly (8) where filter (9) is seated.
3. Rush the filter with water (do not use aggressive chemicals).
4. Grease the O-rings mounted on plug (4).
5. Refit the filter and spring in the seat in the bottom nut, then fully tighten the nut to the body.
6. Re-open the gate valve upstream to ALIMAT or the one before the system.

APPLICATION

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALOMDIW</td>
<td>1505199</td>
</tr>
<tr>
<td>ALOMDNW</td>
<td>1505299</td>
</tr>
</tbody>
</table>

DESIGN FEATURES

| Ball valve body | Nickel-plated stamped brass |
| Ball valve seats | PTFE |
| Inlet connection | 1/2” F (UNI-ISO228/1) |
| Outlet connection | 1/2” F (UNI-ISO228/1) |
| Gauge connection | 1/4” F (UNI-ISO228/1) |

TECHNICAL CHARACTERISTICS

| Max. inlet pressure | 10 bar |
| Set pressure | 0.3 to 4 bar |
| Max. flow rate | 1.8 m³/h with set pressure 4 bar |
| Operating sensitivity | 0.2 bar |
| Max. fluid temperature | 40°C |
Flow rate - pressure drop chart

Overall dimensions (mm)

ALOMDIW

ALOMDNW

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding. WATTS CAZZANIGA reserves the right to carry out any technical and design improvements to its products without prior notice.