

# GATE VALVES

# How to use your RWV gate valves. (Installation, Operation and Maintenance Instructions).

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Red-White Valve Corp. assumes no responsibility for any damages or injuries resulting from non-compliance with installation instructions or standard good practice when installing, operating or maintaining the valves, even if not explicitly mentioned in these installation instructions.

### **GENERAL INFORMATION**

RWV gate valves are produced in a wide range of ratings and connections. RWV portfolio includes models suitable for HVAC systems, oil, water distribution and irrigation.

Instructions apply to the following RWV valve models:

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204A	207AB	267	268AB	280B	318A
206AB	207F	267AB	267CH	298	882
206F	208B	268			

Please contact RWV for models not listed above.

## CHOICE OF THE VALVE

RWV offers gate valves made of different materials: brass, lead free brass, bronze, and stainless steel. We recommend using valves made of a material suitable for the specific application. Stainless steel and bronze are recommended to reduce risk of de-zincification and stress corrosion. Details of the materials used for each model are listed in the specific valve technical sheet. Please refer to your local water authority for compatibility with brass products. RWV cannot be held responsible for failures caused by the quality of the water in combination with an unsuitable material chosen for the valve.

### PRESSURE AND TEMPERATURE RATINGS

Specific information on pressure and temperature ratings of each valve model are provided in the RWV technical sheets, those can be obtained through RWV site or by contacting RWV. All contact information is provided in the last page of these instructions.

The operative conditions given in the tech sheets are intended for non-shock operating conditions: water hammer, impacts, stress loads, corrosive or erosive external environmental elements and the transport of fluids with abrasive properties should be avoided.

Federal Safe Drinking Water Act – SDWA 2011 standards have determined "lead free" as having less than 0.25% of wetted surface area.
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#### VALVE INSTALLATION

Prior to installation, verify the valve is suitable for the pressures, temperatures, operating fluids and environment in which it will be installed. It is the responsibility of the installer and/or of the facility designer to ensure that the application does not exceed the limits of pressure and temperature of the valve and is carried out in accordance with local current laws and regulations.

All models referred to in the above table can be installed in any position (vertical, horizontal, inclined), with flow going in both direction, we suggest however to install them horizontally with handwheel pointing upward. The position chosen for the installation should allow for accessibility to the valve during operation, inspection and maintenance.

Pipe ends should be void of any burrs and not protrude inside the bore or obstruct any part of the flow (it's advisable to flush the line after installation or after performing maintenance on the system).

Do not subject the valve to any torsion, bending or tension. We recommend the use of pipe brackets. Pipe brackets should be installed at a distance suitable to properly support the valve. Do not to overload the valve with any unexpected additional stresses

#### Threaded connections

The valves shall be installed on pipes using, if necessary, a sealant suitable for the application and the expected type of fluid.

- The pipe threading shall be in accordance with the applicable standard requirements (please refer to the valve technical sheet). The pipe threading must be free of damage that could impair the correct coupling with the valve and the outward seal.
- The valves shall be installed in the closed position to avoid additional stresses on the body (with possible twisting of the sealing surfaces resulting in possible leakages). For the same reason the pipe clamp or key wrench must always grasp onto the hexagon/octagon portion of the threaded end that needs to be screwed to the pipe. In order to avoid additional stress on the valve be careful not to tighten the pipe at an excessive distance from the threaded area.
- Avoid screwing male threaded pipes too far into the valve. This could result in damage to the valve seats, resulting in leakage once the valve is operational.



#### **Sweat connections**

RWV sweat connections are designed to be soft soldered.

- Valves may contain polymer materials such as PTFE seats. These elements can be damaged by excessive heat, therefore the use of heat sinks (for example a wet towel around the valve) is required. The flame must be directed away from the center of the valve body.
- Gate valves must be placed in the closed position prior to soldering. After the installation wait for the valve to cool to room temperature before operating it.
- Make sure that the cut on the pipe is as square as possible and no burrs or rough edges are present. Clean both the valve socket and pipe end with a suitable tool until they are made bright.
- Coat both the valve socket and pipe with non-corrosive solder flux. In cold weather this should be done with the parts at ambient temperature. After applying the flux, slide the pipe to the shoulder of the socket then rotate a few times to insure flux properly covers the connection prior to soldering.

#### **USE AND MAINTENANCE**

Valves need to be operated on a regular basis (at least 6 times a year) with a complete open/close cycle. Beyond routine periodic cycling no additional maintenance is required

Valves must be replaced in case of leakages and/or damages. For models with adjustable packing nuts, leakages through the stem may be stopped by tightening the packing nut. Rotate the nut clockwise just enough to stop the leakage (and taking care not to damage the valve with excessive strength). Wear proper protection gear when performing any maintenance. If leakage doesn't stop, the valve may have to be replaced.

The valves have been designed and manufactured to be exclusively used as shut-off valves, therefore they shall be used in the fully open or fully closed position only. They must be operated only by acting on the handwheel provided by RWV without any other additional device.

RWV declines any direct or indirect responsibility in case of improper use, tampering, modification or dismantling of the valves. The improper use, tampering and/or modification on any part of the valve, voids the warranty and liability for any failure or damage as well as any applicable Certification.

#### **RED-WHITE VALVE CORP.**

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