

FIGURE 16B-200

SWING CHECK VALVES



HAZARD/CAUTION:

Please read these instructions carefully and completely before installation. With the correct installation and maintenance, FNW valves offer you a long, trouble-free service. Personal injury or property damage may result if the valve is installed where service conditions could exceed the valve ratings.

SAFETY PRECAUTIONS

Before starting work on any installation, a risk assessment must be made to consider the possibility of operational limits being exceeded and reduction or elimination of any potential hazards.

1. Protective clothing and safety equipment must be utilized as appropriate to the hazard presented by the nature of the process to which the valve is being installed or maintained.
2. Before installing or removing a valve, the pipeline circulating pumps (when fitted) must be turned off. The pipeline must be depressurized, drained and vented. Valves must be fully opened to ensure release of any pipeline or valve pressure.
3. Fitters must be trained in manual and mechanical handling to enable them to safely lift and install valves.
4. The valve selected must be suitable for the required service conditions. The pressure and temperature limitations are indicated on the valve nameplates, body or data plate. They must not be exceeded.
5. The check valve is designed to prevent back flow in pipe lines protecting upstream equipment from potential contamination.
6. Any flushing fluid used to clean the pipeline must not cause any damage to the valve and its components.
7. All health and safety rules must be followed when installing and maintaining valves.



GENERAL

Before starting work on any installation, a risk assessment must be made to consider the possibility of operational limits being exceeded and reduction or elimination of any potential hazards.

1. Ensure that the check valves to be used are appropriate for the conditions of the installation (type of fluid, pressure and temperature).
2. Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
3. Ensure that the valves to be installed are of correct strength to be able to support the capacity of their usage.
4. Always use FNW recommended spare parts for maintenance and replacement.
5. Valve marking: All the marking information should be cast on the body or on a metal plate which is spot-welded to the body.

PED VALVES MARKING

Mark	Description
A	Type #
B	Year of manufacture
C	Material
D	Size
E	Pressure
F	CE. mark
G	Temperature
H	TUV Rheinland/Berlin-Brandenburg

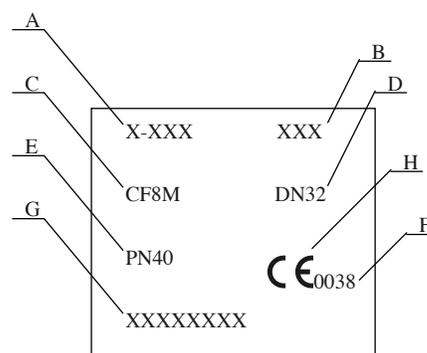
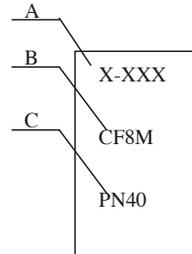


FIGURE 16B-200

SWING CHECK VALVES

PED (SEP) VALVES MARKING UNDER DN25 & OUTSIDE THE EU COUNTRIES NON-PED VALVES MARKING

Mark	Description
A	Size
B	Material
C	Pressure



LIMITATION

1. Valves are not to be used in safety functions such as safety loops or separating incompatible fluids.
2. Do not use for slurries or fluids containing solids that can build up in valve cavities.
3. In-line service only, not recommended for end-of-line service.
4. Check valves are unidirectional; make sure the valves are installed in accordance with the flow indicator on the valve body.

STORAGE

Be careful not to damage the valve stems during handling. In case the valves are rack mounted for storage, their packing chambers should not come into direct contact with the racks. Placing valves directly on the ground or on concrete floors is not recommended.

Temporary Storage

If the valves are to be temporarily stored prior to installation, the following should be observed:

1. Keep the valves wrapped and protected at all times.
2. Preferably, store the valves in a dust-free and well ventilated place with low humidity.
3. If stored outside, make sure that the valves are well protected from the environment and positioned so that water does not accumulate on or in the valve.
4. Protective end coverings are shipped with the valve to protect against mechanical damage and prevention of dust and foreign object intrusion. If the end covers are found missing during transit, apply an adequate type of end protector immediately.
5. Valves should be kept in the closed position.

Long-Term Storage

If the valves are to be stored for more than one year, they should be prepared as above and include the following:

1. Do not store the valves outdoors.
2. Remove the packing and apply a preservative to the packing well.
3. Annually, perform the following:
 - a. Lubricant may be lost or reduced from the stem threads or grease nipples. Apply lubricant to these exposed areas.
 - b. Remove the end protectors and apply a rust prevention spray to the valve interior.
 - c. Reinstall the end protectors.
 - d. As needed, apply a protective surface coating to the valve exterior. Be sure the surface area is clean before applying protective spray.

FIGURE 16B-200 SWING CHECK VALVES



INSTALLATION

1. Check materials, pressure and temperature and their maximum values. If the maximum operating limit of the product is lower than that of the system in which it is being fitted, ensure that a safety device is included in the system to prevent over-pressurization.
2. Determine the correct installation situation and the direction of fluid flow.
3. Before installing the check valves, clean and remove any objects from the pipes (in particular, bits of sealing and metal) which could obstruct and block the valves.
4. Ensure that both connecting pipes on either side of the check valve (upstream and downstream) are aligned (if they are not, the valve may not work correctly).
5. Make sure that the two sections of the pipe (upstream and downstream) match; the check valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the check valve and can even cause a rupture. To be sure, place the kit in position to ensure the assembling will work.
6. Make sure there is enough space so that the disc can be opened totally in the pipe.
7. When installing on a pump delivery side, the valve must not be installed directly onto the pump. A distance of between 5 to 10 pipe diameters should be left downstream of the pump before the valve.

OPERATION

The check valve typically does not require any outside force or signal to operate properly, but may require cleaning after commissioning and then at regular intervals during its lifecycle.

MAINTENANCE

We do not recommend any servicing or maintenance is carried out on these valves. When refitting a new valve, ensure that all joint faces are clean.

NOTES:

- End-users have the responsibility to check the wall thickness in regular intervals due to wear/tear/corrosion of the fluid in order to ensure the wall thickness is not below the minimum safety thickness allowed in the standard.
- The most important thing is to prevent injury to personnel and damage to the equipment.