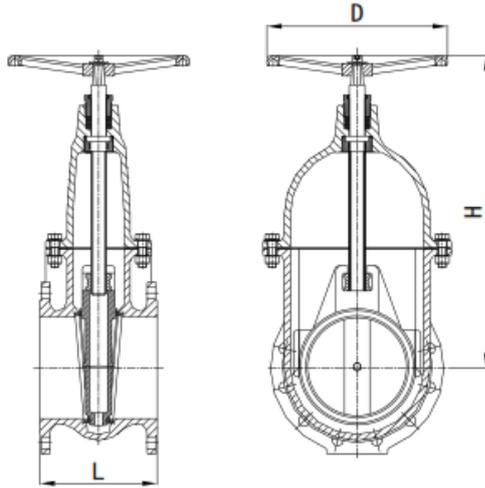


HERZ Ductile Iron Gate Valve PN16

Standard sheet for
HV5150 (1117)



Component	Material	Specification	
		BS EN	ASTM
Body	Ductile Iron	1563 EN-JS 1030	A536 65-45-12
Bonnet	Ductile Iron	1563 EN-JS 1030	A536 65-45-12
Wedge	Ductile Iron	1563 EN-JS 1030	A536 65-45-12
Wedge Ring	Bronze	1982 CC 491K	B62 C83600
Seat Ring	Bronze	1982 CC 491K	B62 C83600
Stem	Stainless Steel	BS970 420S37	AISI 420
Gland Packing	Graphite	Non-asbestos	Non-asbestos
Gland Nut	Stainless Steel	BS970 304S15	AISI 304
Handwheel	Ductile Iron	1563 EN-JS 1030	A536 65-45-12

Materials

Size	(mm)	65	80	100	125	150	200	250	300
L	mm	190	203	229	254	267	292	330	356
D	mm	175	255	255	305	305	355	405	405
H	mm	300	355	390	461	513	616	705	800
Weight	kg	15.5	21	27	43.6	54.8	89	140	240

Dimensions

BS EN 1171

Pressure/Temperature Rating
16 bar @ -10 to 120°C

Face to face dimensions to BS EN 558-1 Basic Series 3
Flanged to BS EN 1092-2 PN16

Test Pressure

Shell 24 bar
Seat 17.6 bar

Specification



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Installation Operation & Maintenance Instructions

PRESSURE/TEMPERATURE RATING

Valves must be installed in a piping system whose normal pressure and temperature do not exceed the above ratings.

If system testing will subject the valve to pressures in excess of the working pressure rating, this should be within the test pressure for the body with the valve open.

The maximum allowable pressure in valves as specified in the standards is for non-shock conditions. Water hammer and impact for example, should be avoided.

If the limits of use specified in these instructions are exceeded or if the valve is used on applications for which it was not designed, a potential hazard could result.

LAYOUT AND SITING

It should be considered at the design stage where valves will be located to give access for operation, adjustment, maintenance and repair.

Valves must be provided with adequate support. Adjoining pipework must be supported to avoid the imposition of pipeline strains on the valve body, which would impair its performance.

Heavy valves may need independent support or anchorage.

Gate valves may be installed in:

- a) Horizontal pipework with stem vertical.
- b) Vertical pipework with stem horizontal.

The valve should not be installed in horizontal pipework with the stem horizontal because shut off performance may be impaired.

In the interests of safety, valves installed on end-of-line service in the closed position with infrequent opening should be fitted with a blanking flange on the downstream flange of the valve.

INSTALLATION

Prior to installation, a check of the identification plate and body markings must be made to ensure that the correct valve is being installed.

Valves are precision manufactured items and as such, should not be subjected to misuse such as careless handling, allowing dirt to enter the valve through the end ports, lack of cleaning both valve and system before operation and excessive force during bolting and handwheel operation.

Valves must be provided with adequate support. Adjoining pipework must be supported to avoid the imposition of pipeline strains on the valve body, which would impair its performance.

Immediately prior to valve installation, the pipework to which the valve is to be fastened should be checked for cleanliness and freedom from debris.

The valve interior should be inspected through the end ports to determine whether it is clean and free from foreign matter.

The mating flanges (both valve and pipework flanges) should be checked for correct gasket contact face, surface finish and condition. If a condition is found which might cause leakage, no attempt to assemble should be made until the condition has been corrected.

The gasket should be suitable for operation conditions or maximum pressure/temperature ratings and should be checked to ensure freedom from defects or damage.

Care should be taken to provide correct alignment of the flanges being assembled. Suitable lubricant on bolt threads should be used. In assembly, bolts are tightened sequentially to make the initial contact of flanges and gaskets flat and parallel followed by gradual and uniform tightening in an opposite bolting sequence to avoid bending one flange relative to the other, particularly on flanges with raised faces.

Parallel alignment of flanges is especially important in the case of the assembly of a valve into an existing system.

Flanged joints depend on compressive deformation of the gasket material between the flange surfaces.

The bolting must be checked for correct size, length, material and that all connection flange bolt holes are utilized.

At the conclusion of installation and before operating, all dust deposits shall be removed from the equipment.

Before commissioning a system, it should be flushed to eliminate debris and chemically cleaned as appropriate to eliminate contamination, all of which will prolong the life of the valve.

OPERATING

The valve is opened by anti-clockwise rotation of the handwheel to a positive stop. Further effort is not necessary. When fully open it is advantageous to rotate the handwheel clockwise 1/2 turn.

To close the valve, the handwheel is rotated clockwise to a positive stop.

Wheel keys or other similar devices should not be used.

Note:-When the valve is closed at extreme high temperature and then cooled, the wedge may become tight in the valve and prove difficult to open. Conversely, a valve closed at room temperature can be difficult to open if there is an increase in fluid temperature causing a linear expansion of the stem, which tightens the wedge further into the body seats.

The operator should use suitable hand protection at extreme temperature conditions. The valve should only be used in the open or closed position. Regulating or throttling service should be avoided.

MAINTENANCE

The valve should be at zero pressure and ambient temperature prior to any maintenance.

Maintenance Engineers & Operators are reminded to use correct fitting tools and equipment

Gland Adjustment

The gland may need adjustment during installation and then periodically thereafter to maintain a stem gland seal. The following procedure is recommended:-

Each gland nut should be tightened evenly in a clockwise direction until increased resistance to operate the valve is obtained, or if leakage is present until the leakage stops.

Note:-It is recommended that within the 1st year the gland be inspected at 3 monthly intervals to check for gland leakage.

Under normal working conditions Herz Gate Valves should not need any further attention.



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