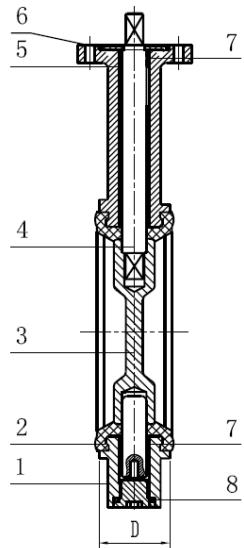
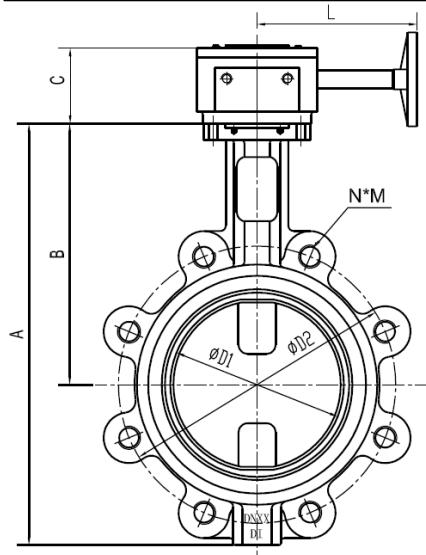


# HERZ Fully Lugged Butterfly Valve PN16

Standard sheet for  
HV-BF-FLG  
(1117)



**WRAS**  
APPROVED  
PRODUCT

Order #	Size	N*M	A	B	C	D	L	Weight
			mm	mm	mm	mm	mm	kg
HV-BF-FLG-06	DN50	4xM16	189	126	72	43	112	7.2
HV-BF-FLG-07	DN65	4xM16	202	133	72	46	112	8.0
HV-BF-FLG-08	DN80	8xM16	238	152	72	46	112	8.7
HV-BF-FLG-09	DN100	8xM16	276	170	72	52	112	11.3
HV-BF-FLG-10	DN125	8xM16	296	181	72	56	112	13.8
HV-BF-FLG-11	DN150	8xM20	324	196	72	56	112	15.0
HV-BF-FLG-12	DN200	12xM20	398	238	84	60	171	28.1
HV-BF-FLG-13	DN250	12xM24	448	258	84	68	171	38.8
HV-BF-FLG-14	DN300	12xM24	535	300	85	78	224	52.2

Dimensions

No	Item	Material	Specification	Operator
1	Body	Ductile Iron	BS EN1563, GJS-400-15	Gear
2	Seat	Elastomer	EPDM	
3	Disc	Stainless Steel	CF8	
4	Shaft	Stainless Steel	SS416	
5	Bearing	PTFE	PTFE	
6	Plate	Steel	ASTM A283	
7	O Ring	Elastomer	Elastomer	
8	Gasket	Elastomer	Elastomer	

Materials

Specification

WRAS Approved  
EN593

Face to Face: EN558-1  
End Flange: BS EN 1092-2 PN16  
Top Flange: ISO5211

Working Temperature: -10 to 120°C

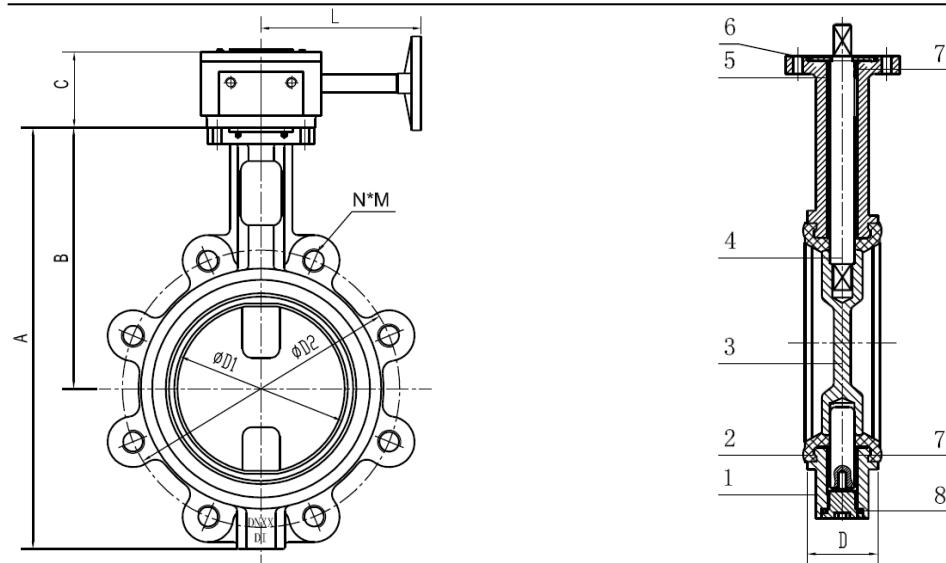
Test pressure

Shell 24 bar  
Seat 17.6 bar



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Dimensions

Order #	Size	N*M	A	B	D	L	Weight
			mm	mm	mm	mm	kg
HV-BF-FLG-15	DN350	16xM24	652	370	78	225	80
HV-BF-FLG-16	DN400	16xM27	710	400	86	291	120
HV-BF-FLG-17	DN450	20xM27	749	420	105	291	-
HV-BF-FLG-18	DN500	20xM30	833	480	130	252	-
HV-BF-FLG-19	DN600	20xM33	1020	565	152	295	-

Materials

No	Item	Material	Specification	Operator
1	Body	Ductile Iron	GJS-400-15 (GGG40)	Gear
2	Seat	Elastomer	EPDM, NBR	
3	Disc	Stainless Steel	CF8	
4	Shaft	Stainless Steel	SS410	
5	Bearing	PTFE	PTFE	
6	Plate	Steel	ASTM A283	
7	O Ring	Elastomer	EPDM, NBR	
8	Taper Pin	Stainless Steel	SS410, SS304	

EN593

Face to Face: EN558-1

End Flange: BS EN 1092-2 PN16

Top Flange: ISO5211

Specification

Working Temperature: -10 to 120°C

Test pressure

Shell 24 bar

Seat 17.6 bar



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# Installation Operation & Maintenance Instructions

## **PRESSURE/TEMPERATURE RATING**

The butterfly 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**

Butterfly valves can be fitted in either horizontal or vertical pipework. When installed in a horizontal pipeline, the valve stem should be preferably horizontal. This enables the butterfly valve to be self-cleaning and also enables the weight of the disk to be equally borne by the bearings.

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.

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**

HV-BF-FLG are fully-lugged valves and are located between flanges utilizing the flange bolt holes.

The flange bolts or studs should be tightened diagonally until the body touches the flange face with metal to metal contact.

Prior to installation, a check of the identification plate and body marking 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/lever operation.

All special packaging material must be removed.

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.

Valve packaging should only be permanently removed immediately before installation. 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 butterfly valves are suitable for connection to steel flanges in accordance with BS EN 1092-1:2007 – PN16. The use of Type 11 weld-neck flanges is recommended.

If alternative flange types are used the installer is reminded to ensure that the raised face of the flange is flat with no weld metal protruding and that the integral rubber sealing faces on the butterfly valve have full contact with the raised face of the flange.

These Butterfly valves have integral rubber sealing faces and gaskets must not be used.

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 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 integral rubber sealing faces between the flange surfaces until metal to metal contact is achieved.

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

## **OPERATING**

An enclosed worm gear reduction operator (gearbox) is mounted on the valve body with the gear quadrant intimately connected with the valve shaft. The full open and full closed position travel stops are set at the factory and require no further adjustment.

Valve closure is by clockwise rotation of the handwheel until the travel stop restriction is felt. No excessive force is required to effect tight shut off and under no circumstances should additional wrenches or wheel keys be used on the handwheel.

Counter clockwise rotation of the handwheel will open the valve until the full open travel stop.

A non-adjustable pointer indicates the actual valve disk position.

## **MAINTENANCE**

These butterfly valves are maintenance free.

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

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



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