DOC NO.:
HT/CE.DJ75
REV NO.: 2006

Operation Manual for Metal Sealing Butterfly Valve

HT343SH-16C DN80 ~ 600
HT373SH-16C DN80 ~ 600

☐ Controlled Version No
☐ Non-Controlled Version

Prepared by_____ Date:_____
Reviewed by_____Date:_____
Approved by_____Date:_____

TT Trade & Consulting GmbH
Weberstraße 18
28203 Bremen

Rev No.	Revised pages/section	Revision Description	Date	Revision No.
2006	Full Text	First Edition	2006-09-25	

Contents

Operation Manual
Metal Sealing Butterfly Valve
HT343SH-16C DN80-600
HT373SH-16C DN80-600

I. Performance Features and Working Principle:

1. Performance features

This product is mainly used for shutoff, distribution and change of flow direction of the medium in the pipelines of oil industry, chemical industry, electric power, metallurgy, city construction industry, etc. It has such features as simple structure, small volume, convenient manufacture and maintenance, good sealing performance, less fluid resistance, etc.

2. Working principle

2.1 The valve consists of valve body, disc, valve seat, valve stem, packing gland, support, driving device, etc.

2.2 The valve series adopt tri-eccentric structure. The disc sealing face only contacts the valve seat instantly in the process of rapid open or close, the control torque is small and the sealing face is not easy to be worn, so the valve has a long service life. The valve sealing couple adopts multiple-level structure (1Cr18Ni9Ti + flexible graphite), contributing to its reliable operation, good sealing under low pressure in dual ways.

The disc turns 90°along with the stem to realize the open or close of the valve.

II. Technical Parameter

Nominal Pressure: 1.6 Mpa
Nominal Diameter: 80~ 600mm
Connection Type: Flange
Suitable Temperature≤ -29~425□
Suitable Media: water, steam, oil, etc.

III. Applied Standards:

GB/T12238-89 General purpose industrial valves—flanged and wafer butterfly valves
GB/T12221-89 Metal valves for use in flanged pipe systems—face-to-face and center-to-face dimensions
GB/T9113-2000 Steel Pipe Flange
GB/T13927-92 Pressure testing for general purpose valves
GB/T12229-89 General purpose industrial valves—Specification of carbon steel castings
GB/T1220-89 Stainless Steel Bars
GB/T12220-89 General Purpose Industrial Valves—Marking
GB/T7928-95 General Purpose Industrial Valves—Supply Requirements

IV. Main External and Connection Dimension (see Figure)

V. Material for main parts

Part name	Material
Valve Body	WCB
Valve Stem	WCB
Disc	WCB+ multiple-level
Support	WCB
Packing Material	Flexible graphite
Valve Seat	WCB+D507Mo
Bolt	35CrMoA
Nut	45

VI. Storage, Installation, Usage and Maintenance

1. Storage and Usage Precautions:

The valve shall be in cut-off state when out of use. Anti-rust oil shall be spread around the mechanical part. The valve shall be stored in a dry and ventilated warehouse and cannot be stacked or exposed in the open air. Both ends of the valve shall be blocked off by cover boards to prevent dust and foreign matter from entering into the inside of valve.

For long-period storage, it is necessary to make regular inspection and timely eliminate the painting and rust stain on the surface, and change anti-rust oil.

When the valve is in use, it is necessary to observe its operation at any time. If any failure occurs, find out the reason immediately and eliminate it.

2. Installation requirements:

Before installation, carefully check whether the marking and certificate of valve meet the requirements. It cannot be installed until confirmation of no mistake.

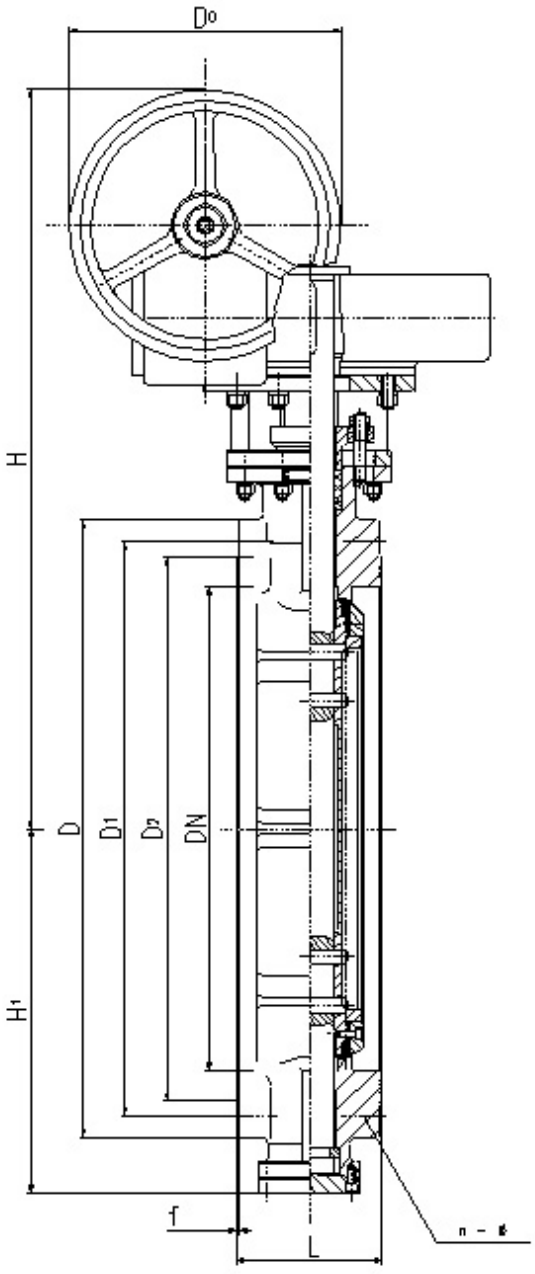
The valve shall be installed at a place convenient for operation and maintenance.

The valve must be installed in the pipe as its mark indicates.

VII. Possible failure, reasons and elimination methods

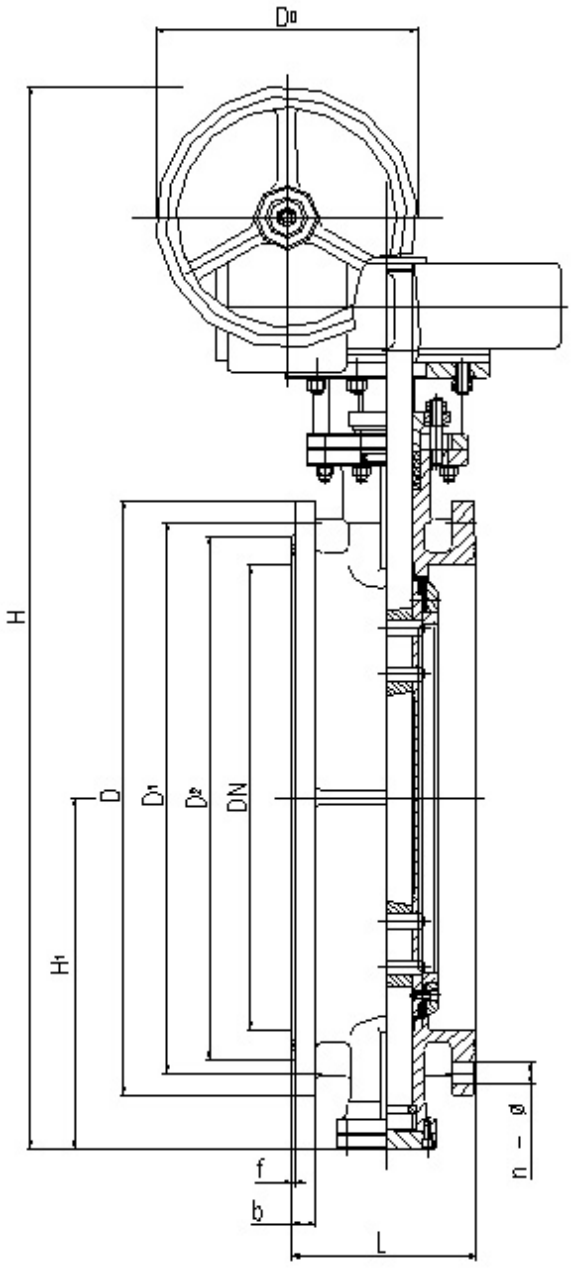
Failure	Reasons	Elimination Methods
Valve stem doesn't turn smoothly.	Packing gland is tilting.	Readjust the position of packing gland.
	Packing material is packed tightly.	Loosen the clamp nut and tighten again.
	Valve stem and its connecting part are damaged.	Dismount and repair
	Not operated for a long time and disc surface attached with dirt	Open it and clean thoroughly
Packing leakage	Packing material isn't packed tightly.	Screw down the nut evenly
	Packing material is used for long time or damaged.	Change packing material
Leakage at the disc and valve seat	The holder bolt are screwed unevenly	Screw down the bolt evenly
	There is scratch or dirt on the surface of disc or valve seat	Repair and grind the sealing face again or clean away dirt
	The seal ring of disc is deformed.	Change the seal ring

Figure: HT373SH-16C DN80-600



600	229	990	840	720	2	4-36	510	1300	435	350
500	229	715	650	609	2	4-33	450	1140	340	230
450	222	640	585	548	2	4-30	400	1100	340	210
400	216	580	525	480	2	4-30	375	980	340	180
350	190	520	470	429	2	4-26	340	940	340	160
300	178	460	410	370	2	4-26	288	820	295	100
DN	L	D	D1	D2	f	n-ϕ	H1	H	Do	

Figure: HT343SH-16C DN80-600



600	229	990	840	720	38	2	20–36	510	1300	435	480
500	229	715	650	609	36	2	24–33	450	1140	340	355
450	222	640	585	548	34	2	20–30	400	1100	340	290
400	216	580	525	480	32	2	16–30	375	980	340	250
350	190	520	470	429	30	2	16–26	340	940	340	190
300	178	460	410	370	26	2	12–26	286	820	295	140
DN	L	D	D1	D2	b	f	n – ø	H1	H	Do	