



QUANSHUN FLOW CONTROL

Brochures of Dumping valve



HENAN QUANSHUN FLOW CONTROL SCIENCE& TECHNOLOGY CO.,LTD

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Introduction

Dumping valve is a high performance industry valve which made by henan quanshun flow control science & technology Co,ltd,which has characteristics of anti-abrasive,anti-high pressure and anti-scrab . Dumping valve is widely used in alumina ,coal chemical,steel ,metallurgy indusrty for dischaging materials in the reaction kettle or reactor.

Design standard

ASME B16.34 Valves, Flanged, Threaded and Welding End
 API 623 Steel Globe Valves - Flanged and Butt Welding Ends, Bolted Bonnet
 ASME B16.10 Face-to-Face and End-to-End Dimensions of Valves
 ASME B16.11 Forged Fittings, Socket Welding and Threaded
 ASME B16.25 Butt Welding Ends
 ASME B16.5 Pipe Flanges and Flanged Fittings
 API 598 Valve Inspection and Testing
 MSS SP-25 Standard Marking System for Valves, Fittings, Flanges and Unions
 MSS SP-42 Corrosion Resistant Gate, Globe, Angle and Check Valves
 MSS SP-61 Pressure Testing of Valves

Performance data

1 ANSI standards

Pressure class	150Lb	300Lb	600Lb
Shell Test (MPa)	3.0	7.7	15.3
Sealing test (MPa)	2.0	5.7	11.3
Applicable medium	Alumina slurry ,pulp,Pulverized-coal ash etc		
Applicable temperature	t≤425℃		

2 GB standards

Nominal pressure (MPa)	0.6	1.0	1.6	2.0	2.5	4.0	5.0	6.4	10
Shell Test (MPa)	0.9	1.5	2.4	3.0	3.75	6.0	7.5	9.6	15
Sealing test (MPa)	0.66	1.1	1.76	2.2	2.75	4.4	5.5	7.04	11
Applicable medium	Alumina slurry ,pulp,Pulverized-coal ash etc								
Applicable temperature	t≤425℃								

Design feature

1.valve body design

The series of dumping valve has two constructions :Y type and angle type .According to the actual operating conditions, has two types: pipe connecting and flat bottom. We can design the dumping valve according to customer's demand.



2.Special plated

An anti-washing and anti- corrosion protection plate is set in the cavity of the valve body.At the moment of the valve opened,the plate can protect valve from washing and cossosion,and carry out chemical Ni/P plating treatment on the whole valve which makes the surface hardness up to HRC60.

3.Sealing surface

The sealing adpots spherical seal ,the surface of which is line connecting. This can ensure the sealing realiability and avoid scarred .Moreover ,the valve belt has back sealing structure which can protect packing in full-open state.

4.Rotation-resisent device

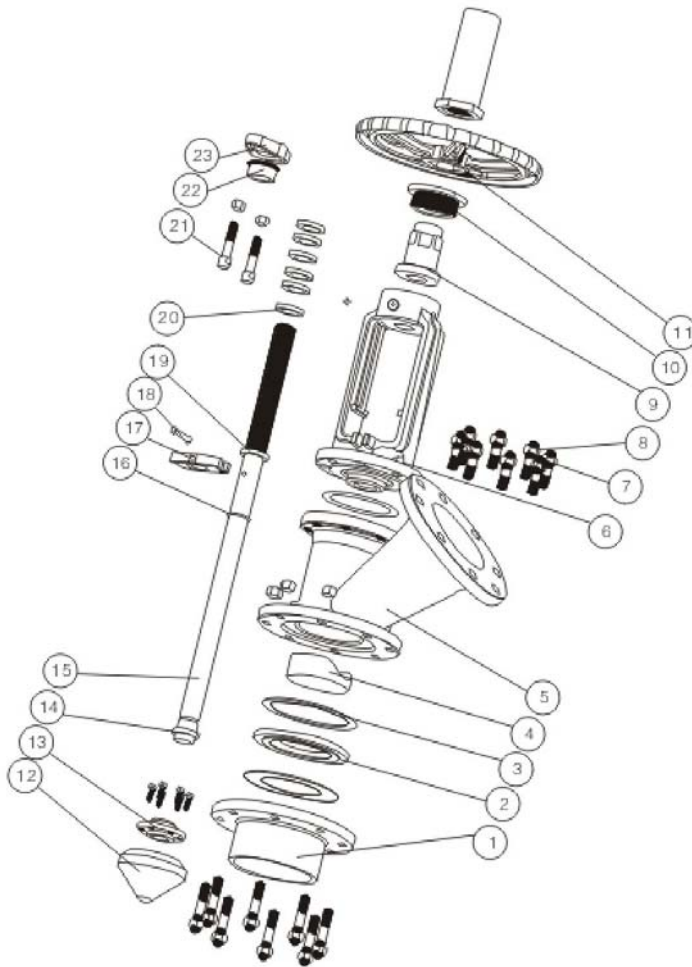
A rotation-resisent device is set up to ensure that the valve stem only has straight line motions ,and no more revolving motions.



5.A variety of driving method can be choosed

The driving manner of the valve include hand driving ,electric driving ,pneumatic and gear driving .

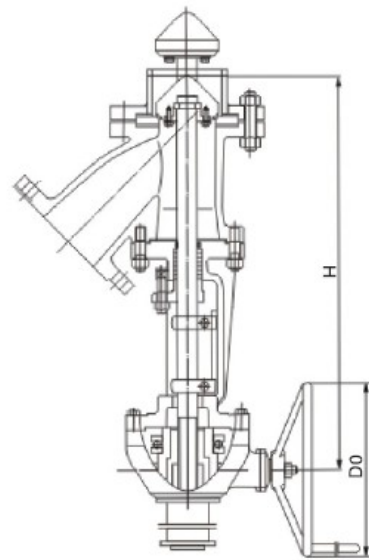
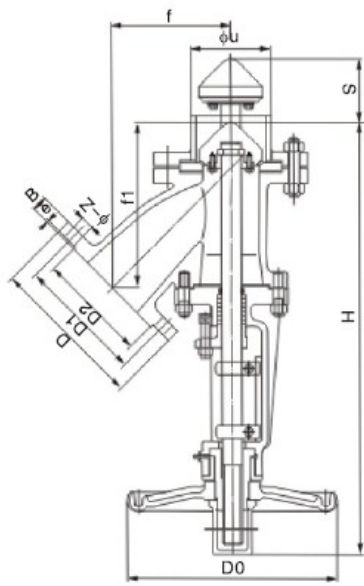
Main parts materials



No.	Part name	Material	No.	Part name	Material
1	Flange	25	13	Valve flat	45
2	Seat	25+STL	14	Split ring	2Cr13
3	Gasket	Graphite+SS	15	Valve stem	2Cr13
4	Guard plate	35CrMo	16	O-ring	Rubber
5	Body	WCB	17	Move-proof plate	35
6	Bonnet	WCB	18	Pin	35
7	Stud	35	19	Packing seat	1Cr13
8	Nut	45	20	Packing	Graphite
9	Valve stem nut	Copper alloy	21	Reloaded screw bolt	35
10	Bearing gland	45	22	Stuffing cover	1Cr13
11	Driving device	35	23	Gland	WCB
12	Disc	25+STL			

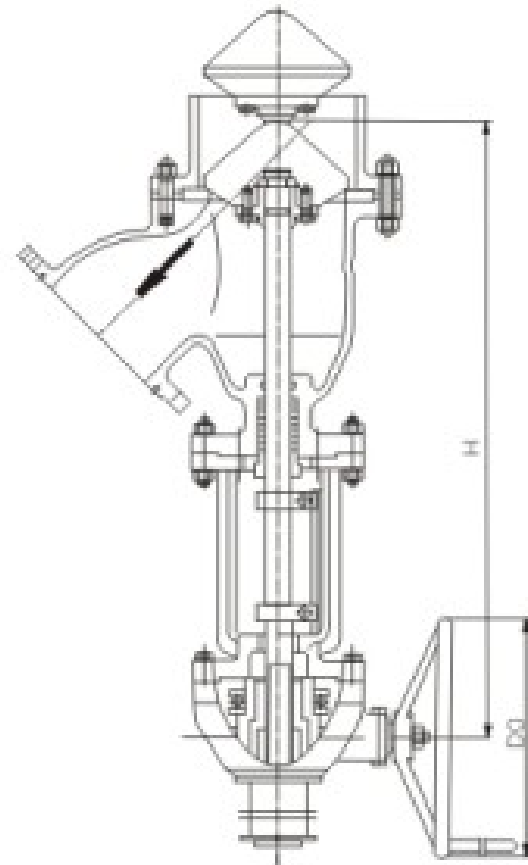
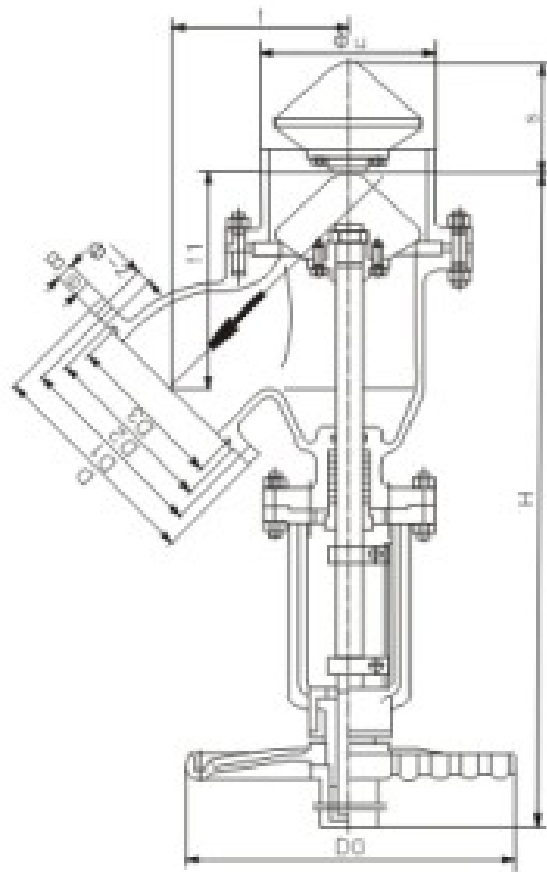
Notes :Materials listed in above table is a common materials ,we can also make valve by other materials by the user's demand.

Connect dimensions



Class 150(PN2.0MPa)

Size		Driving method	f	f1	D	D1	D2	B	Z-Φ	e	D0	h	s	Φu
DN	NPS													
50	2	Hand operate	120	162	150	120.5	92	16	4-18	2	250	470	60	63.5
80	3		150	200	190	152.5	127	19.5	4-18	2	250	500	80	89
100	4		170	235	230	190.5	157.5	24	8-18	2	250	610	80	114
125	5		200	275	255	216	186	24	8-22	2	320	720	100	140
150	6		225	295	280	241.5	216	25.5	8-22	2	360	900	120	159
200	8	Gear driving	290	350	345	298.5	270	29	8-22	2	450	1100	170	219
250	10		355	390	405	362	324	30.5	12-26	2	500	1280	200	273
300	12		420	450	485	432	381	32	12-26	2	550	1420	230	325
350	14		480	515	535	476	413	35	12-30	2	600	1580	260	356



Class 300(PN5.0MPa)

Size		Driving method	f	f1	D	D1	D2	D3	B	Z-Φ	e	D0	H	s	Φu
DN	NPS														
50	2	Hand operate	120	162	165	127	108	82.55	22.5	8-18	7.9	305	485	60	63.5
80	3		150	200	210	168.5	146	123.82	29	8-22	7.9	400	565	80	89
100	4		170	235	255	200	175	149.22	32	8-22	7.9	500	675	80	114
125	5		200	275	280	235	210	190.98	35	8-22	7.9	500	835	100	140
150	6	Gear driving	225	295	320	270	241	211.12	37	12-22	7.8	550	1050	120	159
200	8		290	350	380	330	302	269.88	41.5	12-26	7.9	600	1080	220	219
250	10		355	390	445	387.5	356	323.85	48	16-30	7.9	700	1080	275	273

Class 400(PN6.3MPa)

Size		Driving method	f	f1	D	D1	D2	D3	B	Z-Φ	e	D0	H	s	Φu
DN	NPS														
50	2	Hand operate	180	240	165	127	108	82.55	25.5	8-18	7.9	305	485	60	63.5
80	3		200	250	210	168.5	146	123.82	32	8-22	7.9	400	565	80	89
100	4		225	295	275	216	175	149.22	38.5	8-26	7.9	500	675	80	114
125	5		255	345	330	267	210	180.98	44.5	8-30	7.9	500	835	100	140
150	6	Gear driving	300	330	355	292	241	211.12	48	12-30	7.9	550	1050	120	159
200	8		350	445	420	349	302	269.88	55.5	12-33	7.9	600	1080	220	219
250	10		390	490	510	432	356	323.85	63.5	16-36	7.9	700	1080	275	273

Application



Pneumatic dumping valve used in alumina



Pneumatic dumping valve used in alumina seed precipitation tank wall

How to order

Please give detail information about dumping valve

1-Driving type code:

Handwheel drive Worm gear drive Pneumatic drive Electric drive

2-Connecting way code:

Flange connection Welding connection

3-Valve structure code :

(4) Angle type (5) Y type

4-Sealing surface material code:

Y-Hard alloy M-Surfacing Monel Alloy H--Stainless steel

5-Nominal pressure :

10 times of the MPa

6-Valve body material:

C-Cast steel P-Stainless steel 304 R-Stainless steel 316 I-Chromium-molybdenum steel

7- Other information about medium

Temperature , medium ,PH value ,etc