



METAL TO METAL SEAL PLUG VALVES SERIES



CALVARY VALVE INC

COMPANY INTRODUCTION

Calvary Valve Inc. A new company. A fresh outlook on the approach of taking care of clients requirements. Our goal at Calvary is to Provide clients the highest quality available in market ,manufactured, in API6D and ISO9001 facilities, with the most competitive price available, in the time frame to fit our clients needs.

The management and ownership team assembled at Calvary Valve is over 50years of collective experience in valve manufacturing and design. What additionally sets us apart from the pack ,is a full force of service personnel to handle our clients service needs, The market is full of valve providers, but not many will boast of 24 hour on call availability of not only sales assistance, but with service technicians to answer any questions, or go to the field to address our clients service needs.

Our inventory levels, coupled with a full shop capable of third party testing requirements ,sub sea modification, ,and trim conversions.

Our background, abilities, and sincere desire to service our clients will make us a leader in the industry and develop a legacy of what Calvary Valve, Inc. is.



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INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI

PRODUCT STRUCTURAL FEATURES

Inverted pressure balance lubricated plug valve acc. to ANSI is applicable to the cutting and connection of pipelines medium that are used in various industries such as petroleum, chemical industry, pharmacy, chemical fertilizer, electric power industry etc under nominal pressure of CLASS 150-900LBS and working temperature of -29-180°C

MAIN STRUCTURAL FEATURES

1. It has logical structure, reliable seal, excellent performance and nice design.
2. It has the structure of flip-chip balanceable pressure and light on/off operation
3. An oil groove is set between valve body and seal surface, which may infuse the seal grease to increase the seal capability.
4. The part material and flange dimension may be selected according to current operating condition and users requirement, so that meet the requirements of various engineering.

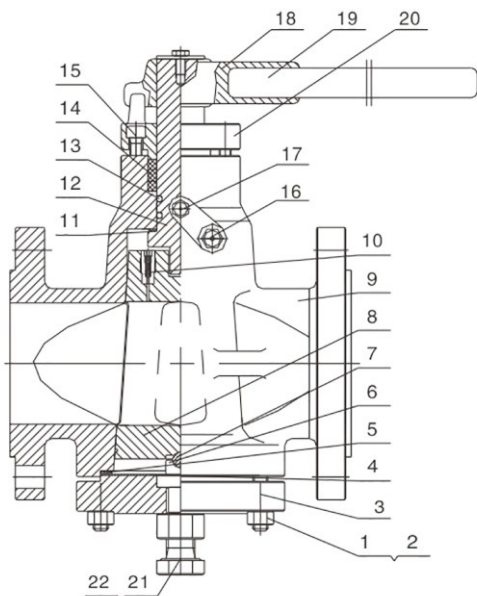
TECHNICAL SPECIFICATION

Structural formation	BC
Operation	Manual, Gear
	Electric-actuated
Design standard	API 599/API 6D
Face to Face	ASME B16. 10
Flange Ends	ASME B16. 5
NACE (Option)	MRO 175

PRODUCTS PERFORMANCE SPECIFICATION

Nominal pressure (LB)	Shell test (Mpa)	Sealing test (Mpa)	Suitable temp. (°C)	Suitable medium
150	3.0	2.2	≤80°C/300°C	Water, Steam, Gas & Oil
300	7.5	5.5		
600	15.0	11.0		
900	22.5	16.5		
1500	37.5	27.5		
2500	63.0	46.2		

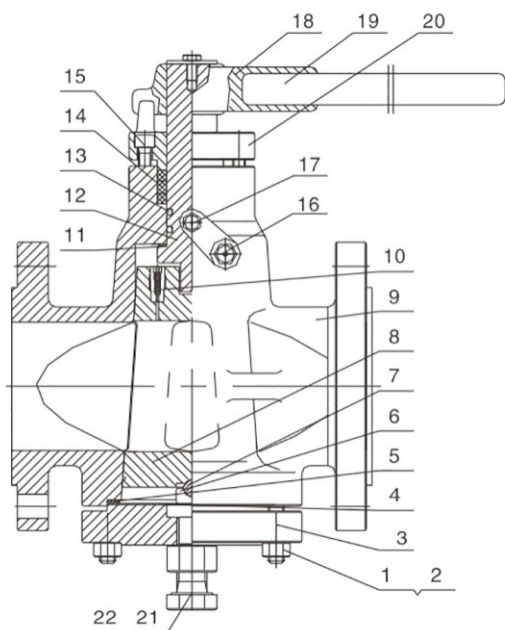
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Bolt	ASTM A193-B7
2	Nut	ASTM A194-2H
3	Cover	ASTM A216-WCB
4	Metal Diaphragm	ASTM SS304
5	Wind Gasket	SS304+Flexible graphite
6	Ball Seat	ASTM A276 410
7	Ball	ASTM SS304
8	Plug	ASTM A217 CA15+N
9	Body	ASTM A216-WCB
10	Check Valve	UCA
11	Gasket	PTFE
12	Stem	ASTM A182 F6a
13	O-ring	Viton
14	Packing	Flexible graphite
15	Bolt	ASTM A193 B7
16	Grease Nozzle	UCA
17	Emergency Seal Assembly	UCA
18	Handhole	ASTM A216-WCB
19	Pipe	ASTM A570
20	Gland	ASTM A216-WCB
21	Lock Nut	ASTM A194-2H
22	Adjusting Bolt	ASTM A193-B7

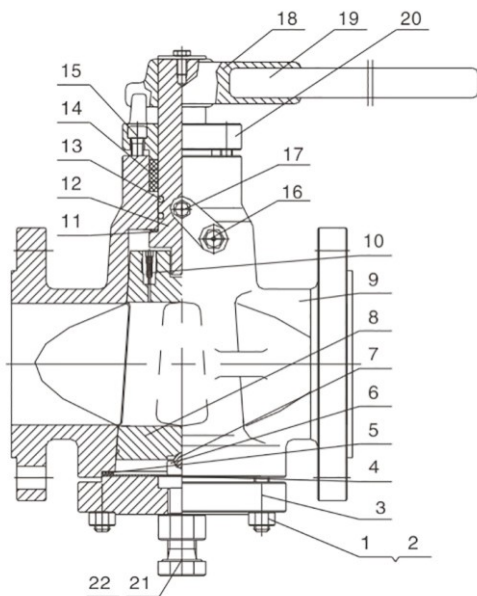
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Bolt	ASTM A193-B7
2	Nut	ASTM A194-2H
3	Cover	ASTM A216-LCB
4	Metal Diaphragm	ASTM SS316
5	Wind Gasket	SS316+Flexible graphite
6	Ball Seat	ASTM A276 316
7	Ball	ASTM SS316
8	Plug	ASTM A352 LCB+ N
9	Body	ASTM A352-LCB
10	Check Valve	UCA
11	Gasket	PTFE
12	Stem	ASTM A182 F316
13	O-ring	Viton
14	Packing	Flexible graphite
15	Bolt	ASTM A320-L7
16	Grease Nozzle	UCA
17	Emergency Seal Assembly	UCA
18	Handhole	ASTM A216-WCB
19	Pipe	ASTM A570
20	Gland	ASTM A216-WCB
21	Lock Nut	ASTM A194-4
22	Adjusting Bolt	ASTM A320-L7

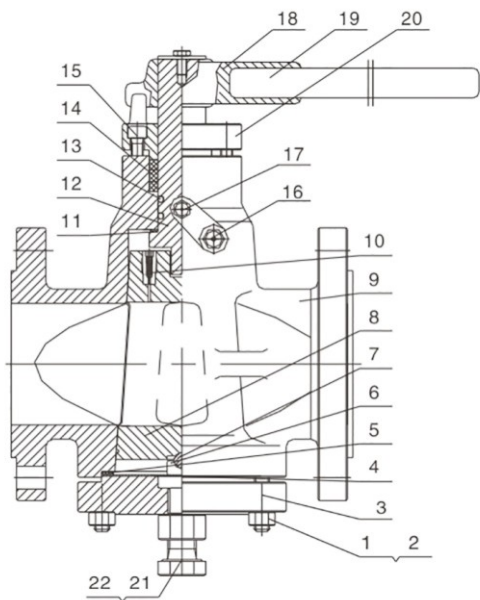
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Bolt	ASTM A193-B7
2	Nut	ASTM A194-2H
3	Cover	ASTM A216-WCB
4	Metal Diaphragm	ASTM SS304
5	Wind Gasket	SS316+Flexible graphite
6	Ball Seat	ASTM A276 316
7	Ball	ASTM SS316
8	Plug	ASTM A351 CF8M+ N
9	Body	ASTM A216-WCB
10	Check Valve	UCA
11	Gasket	PTFE
12	Stem	ASTM A182 F316
13	O-ring	Viton
14	Packing	Flexible graphite
15	Bolt	ASTM A193-B7
16	Grease Nozzle	UCA
17	Emergency Seal Assembly	UCA
18	Handhole	ASTM A216-WCB
19	Pipe	ASTM A570
20	Gland	ASTM A216-WCB
21	Lock Nut	ASTM A194-2H
22	Adjusting Bolt	ASTM A193-B7

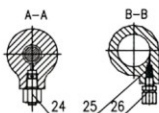
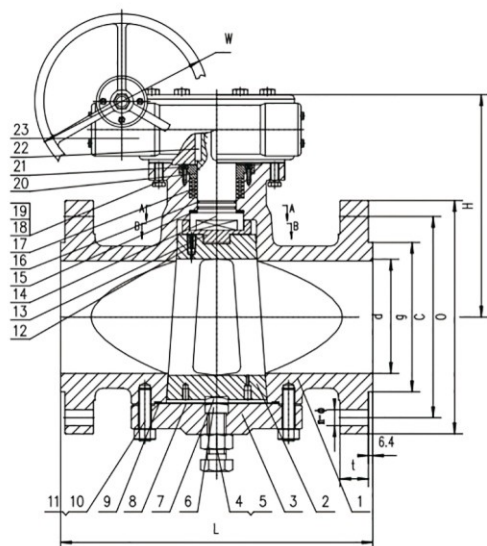
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Bolt	ASTM A193-B8M
2	Nut	ASTM A194-8M
3	Cover	ASTM A351-CF8M
4	Metal Diaphragm	ASTM SS316
5	Wind Gasket	SS316+Flexible graphite
6	Ball Seat	ASTM A276 316
7	Ball	ASTM SS316
8	Plug	ASTM A351 CF8M+ N
9	Body	ASTM A351-CF8M
10	Check Valve	UCA
11	Gasket	PTFE
12	Stem	ASTM A182 F316
13	O-ring	Viton
14	Packing	Flexible graphite
15	Bolt	ASTM A193-B8M
16	Grease Nozzle	UCA
17	Emergency Seal Assembly	UCA
18	Handhole	ASTM A216-WCB
19	Pipe	ASTM A570
20	Gland	ASTM A351-CF8
21	Lock Nut	ASTM A194-B8
22	Adjusting Bolt	ASTM A193-B8M

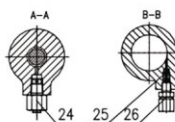
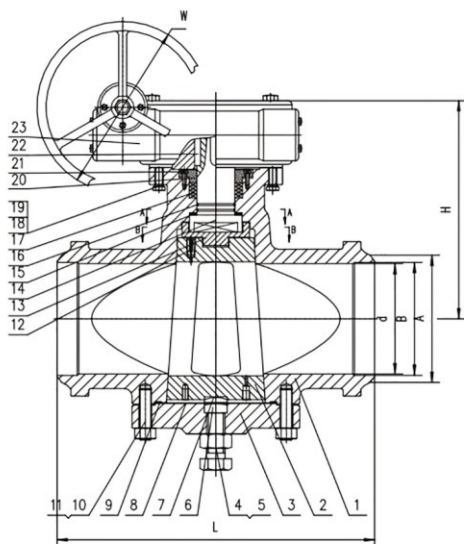
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Body	A352 LCC
2	Plug	A352 LCC+Nitriding
3	Cover	A352 LCC
4	Nut	A194-4
5	Bolt	A320-L7
6	Adjustable Block	A276-410
7	Adjustable Block	A276-410
8	Metal Diaphragm	SS304
9	Wind Gasket	SS304+Flexible graphite
10	Nut	A194-4
11	Bolt	A320-L7
12	Check Valve	UCA
13	Articulated Joint	A276-410
14	Stem	A182-F6a
15	Gasket	PTFE
16	O-ring	Viton
17	Packing	Flexible graphite
18	Bolt	AISI 1035
19	Spring Washer	AISI 1066
20	Gland	A352 LCC
21	Bolt	A320-L7
22	Key	AISI 1045
23	Worm-gear Actuator	UCA
24	Emergency Device	UCA
25	Check Valve	UCA
26	Grease Fitting	UCA

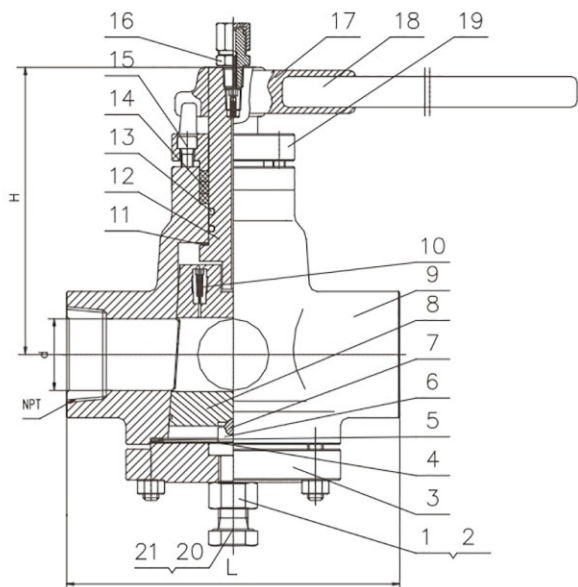
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Body	A216 WCB
2	Plug	A216 WCB+ENP
3	Cover	A216 WCB
4	Nut	A194-2H
5	Bolt	A193-B7
6	Adjustable Block	A276-410
7	Adjustable Block	A276-410
8	Metal Diaphragm	SS304
9	Wind Gasket	SS304+Flexible graphite
10	Nut	A194-2H
11	Bolt	A193-B7
12	Check Valve	UCA
13	Articulated Joint	A276-410
14	Stem	A182-F6a
15	Gasket	PTFE
16	O-ring	Viton
17	Packing	Flexible graphite
18	Bolt	AISI1035
19	Spring Washer	AISI1066
20	Gland	A216 WCB
21	Bolt	A193-B7
22	Key	AISI 1045
23	Worm-gear Actuator	UCA
24	Emergency Device	UCA
25	Check Valve	UCA
26	Grease Fitting	UCA

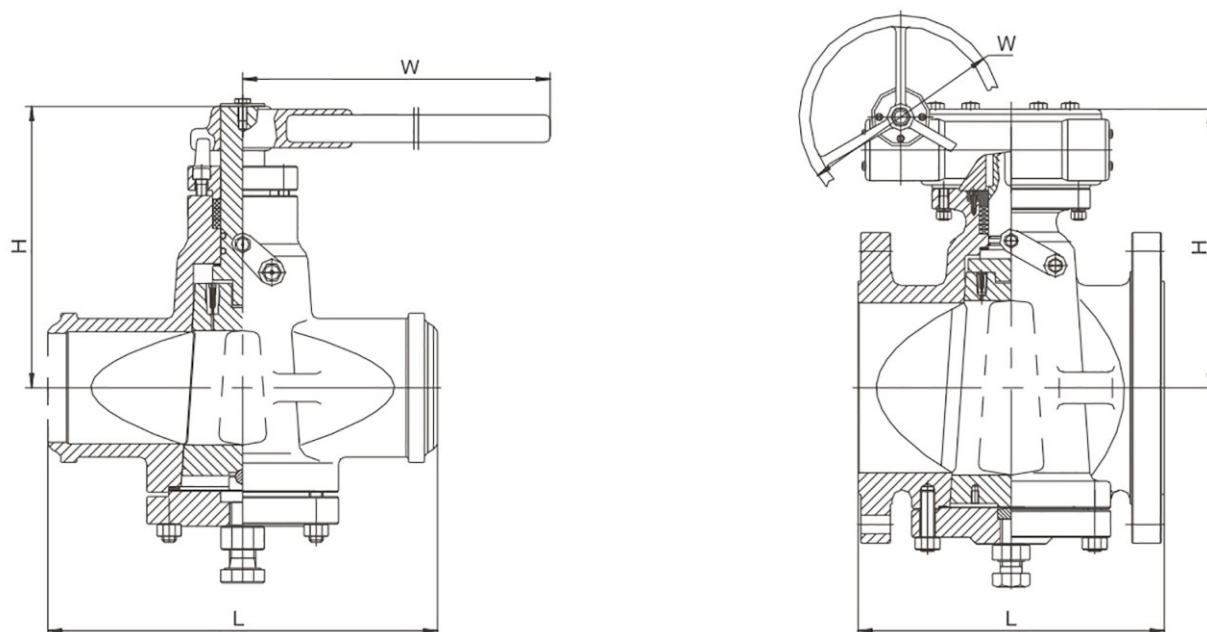
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Bolt	A193-B7
2	Nut	A194-2H
3	Cover	A105
4	Metal Diaphragm	Ss304
5	Wind Gasket	SS304+Flexible graphite
6	Adjustable Block	A276-410
7	Ball	SS304
8	Plug	A182-F6a+Nitriding
9	Body	A105
10	Check Valve	UCA
11	Gasket	PTFE
12	Stem	A182-F6a
13	O-ring	Viton
14	Packing	Graphite
15	Bolt	A193-B7
16	Grease Fitting	UCA
17	Pipe	A570
18	Handhold	A216-WCB
19	Gland	A216-WCB
20	Bolt	A193-B7
21	Nut	A194-2H

PLUG VALVE



DIMENSIONS

Model		150LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		108	117	127	140	165	178	190	203	229	254	267	292	330	356	381
H		180	180	185	200	214	215	250	270	300	340	365	400	450	510	590
W		400	400	500	500	600	600	820	820	300	300	320	320	350	380	380
Weight(Kg)		10	12	14	17	19	21	29	33	48	75	98	125	171	230	370

Model		300LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		140	152	165	178	190	216	241	283	305	381	403	419	457	502	762
H		180	180	185	200	210	215	250	270	300	340	365	400	450	510	590
W		400	400	500	600	600	820	1000	1000	300	300	320	320	350	380	380
Weight(Kg)		12	14	16	19	21	24	31	36	61	86	130	190	255	380	560

Model		600LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		165	190	216	229	241	292	330	356	432	508	559	660	787	838	889
H		180	180	185	200	210	215	250	270	300	340	365	400	450	510	590
W		400	400	500	500	600	600	820	820	300	300	320	320	350	380	380
Weight(Kg)		14	16	18	20	24	29	35	47	91	129	210	320	660	920	1250

Model		900LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		216	229	254	279	305	368	419	381	457	559	610	737	838	965	1029
H		180	180	185	200	210	215	250	270	300	340	365	400	450	510	590
W		400	400	500	600	600	820	1000	1000	300	300	320	320	350	380	380
Weight(Kg)		17	29	21	24	30	37	44	65	110	160	255	380	810	1050	1460

FLANGE-CONNECTION LIFTING PLUG VALVE ACC. TO ANSI

PRODUCT STRUCTURAL FEATURES

Flange-connection lifting plug valve acc. to ANSI is applicable to the cutting and connection of pipelines medium that are used in various industries such as petroleum, chemical industry, pharmacy, chemical fertilizer, electric power industry etc under nominal pressure of CLASS150-1500LBS and working temperature of -29-550°C

MAIN STRUCTURAL FEATURES

1. The product has reasonable structure, reliable sealing, excellent performance and beautiful appearance.
2. Opening and closing of the valve is carried out while the sealed surface is taken off, so it will not cause abrasion on the sealed surface.
3. Its characteristic double-direction flow makes installation and use more convenient.
4. The materials of the parts and sizes of flanges can be reasonably configured according the actual operation condition of the requirements of the customers, so as to meet the various needs of engineering.

PRINCIPLE OF OPENING AND CLOSING OF THE VALVE

Process of opening and closing of the valve, when opening the valve, first of all, turn the hand wheel to make the plug lifted and separated with the sealed surface, then turn the handle by 90 degree to connect the channel of valve body, so that the valve is opened, when closing the valve, first of all, turn the handle by 90 degree to make the channel of plug vertical to the channel of valve body, and then turn the hand wheel to descend the plug, so that the valve is closed.

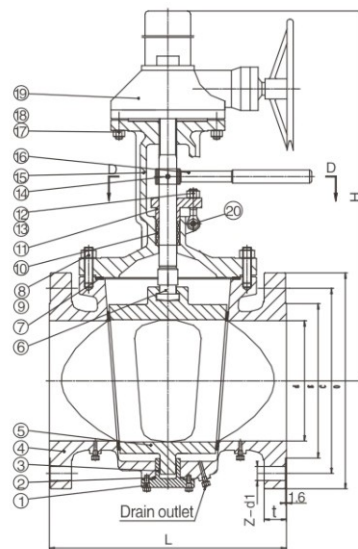
TECHNICAL SPECIFICATION

Structural formation	BC
Driving manner	BB-BG-QS&Y
	Lever, Gear
Design standard	API 599/API 6D
Face to Face	ASME B16. 10
Flange Ends	ASME B16. 5
Test&Inspection	API 598/API 6D
NACE (Option)	MRO 175

PRODUCTS PERFORMANCE SPECIFICATION

Nominal pressure (LB)	Shell test (Mpa)	Sealing test (Mpa)	Suitable temp. (°C)	Suitable medium
150	3.0	2.2	≤300°C/350°C	Water 、 Gas & Oil
300	7.5	5.5		
600	15.0	11.0		
900	22.5	16.5		
1500	37.5	27.5		
2500	63.0	46.2		

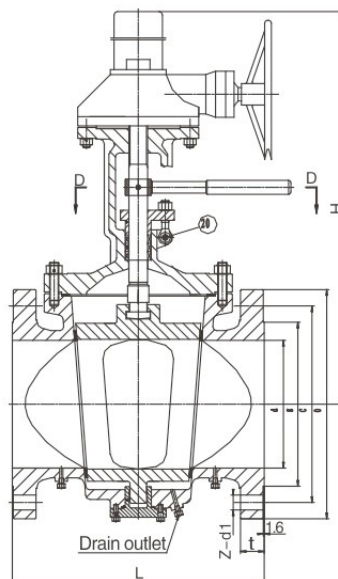
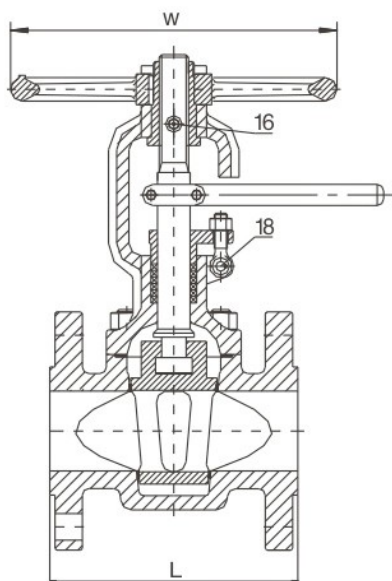
PLUG VALVE



◆ MAIN PARTS MATERIALS

NO.	Part Name	Material
1	Bolt	A193-B16
2	Gasket	SS304+Flexible graphite
3	Under plate	A217 C5
4	Body	A217 C5
5	Plug	A217 C5+Nitriding
6	Stem	A276-410
7	Gasket	SS304+Flexible graphite
8	Bolt	A193 B16
9	Nut	A194 7
10	Packing	Flexible graphite
11	Gland	A217 C5
12	Bolt	A193 B16
13	Nut	A194 7
14	Key	SS304
15	Cover	A217 C5
16	Handle	A570
17	Bolt	A193 B16
18	Nut	A194 7
19	Gear	UCA
20	Key	SS304

PLUG VALVE



◆DIMENSIONS

Model		150LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		108	117	127	140	165	178	190	203	229	254	267	292	330	356	381
H		190	195	225	260	280	310	250	395	300	470	535	590	630	680	720
W		280	280	280	300	300	300	820	300	300	340	400	450	450	500	500
Weight(Kg)		9	10	11	17	19	23	29	32	48	82	98	130	178	250	380

Model		300LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		140	152	165	178	190	216	241	283	305	381	403	419	457	502	762
H		190	195	225	260	280	310	340	395	435	470	535	590	630	680	720
W		280	280	280	300	300	300	300	300	300	340	400	450	450	500	500
Weight(Kg)		10	12	14	19	21	28	34	39	75	95	135	200	255	415	650

Model		600LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		165	190	216	229	241	292	330	356	432	508	559	660	787	838	889
H		190	195	225	260	280	310	340	395	435	470	535	590	630	680	720
W		280	280	280	300	300	300	300	300	300	340	400	450	450	500	500
Weight(Kg)		13	14	19	23	25	32	40	55	105	139	300	440	730	1150	1570

Model		900LB														
Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
	in	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14
L		216	229	254	279	305	368	419	381	457	559	610	737	838	965	1029
H		190	195	225	260	280	310	340	395	435	470	535	590	630	680	720
W		280	280	280	300	300	300	300	300	300	340	400	450	450	500	500
Weight(Kg)		16	17	26	30	33	39	39	70	137	181	397	590	860	1470	1880



HOW TO ORDER AND SPECIFY CVI PLUG VALVES

A	TYPE
PLG	Plug Valve

C	PRESSURE CLASS			
15	Class 150	90	Class 900	
30	Class 300	150	Class 1500	
60	Class 600	250	Class 2500	

E	BODY				
A1	WCB	A5	CF8M	B1	F316
A2	WCC	A6	CF8	B2	F304
A3	LCB	A7	WC6		
A4	LCC	A8	WC9		

G	SEAT
D1	A276 410
D2	SS304+FGP
D3	SS316

I	OPERATION		
1	Lever/Wrench	3	Electric
2	Gear		

B	DN		
050	1/2"	08	8"
075	3/4"	12	12"
01	1"	16	16"
02	2"	24	24" etc.

D	END
RJ	Ring joint
BW	Butt weld
RF	Raised face

F	PLUG		
G1	105+Hcr	G5	A352 LCC+Nitriding
G2	A351CF8M+Nitriding	G6	A216 WCB+ENP
G3	CA15+Nitriding	G7	A182+F6a+Nitriding
G4	A352 LCB+Nitriding		

H	SOFT GOODS
E1	VITON
E2	HNBR
E3	BUNA

A	B	C	D	E	F	G	H	I
TYPE	DN	CLASS	END	BODY	PLUG	SEAT	SOFT GOODS	OPERATION

EXAMPLE	DESCRIPTION
PLG-02-30-RF-A1-G1-D1-E1-1	Plug Valve, 2" 300 Class, Raised Face, Body WCB, Plug Cr13, Seat A276 410, Soft Goods Viton, Operation Lever



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