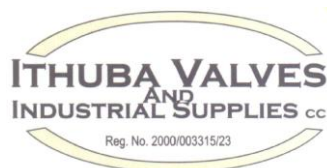
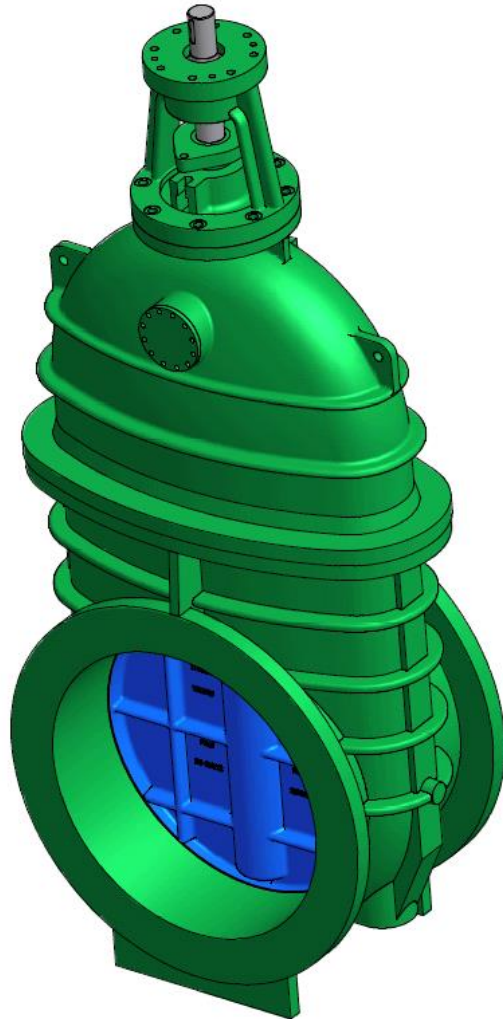


Wedge Gate Valves

Rising & Non-Rising Spindle Valves: SANS 664 & 665



THE PREFERRED VALVE PARTNER IN INDUSTRY

Introduction

Ithuba Valves has manufactured and refurbished a number of gate valves for many water utility companies around South Africa including well-known such as Rand Water, Department of Water Affairs as well as mining industries and many more. The valves are of rising or non-rising spindle type depending on the customer or contractual requirements. All the manufacturing & refurbishments is done at our Alrode premises.

The illustrations shown in this catalogue are subject to change without notice. The valves are manufactured as shown below.

Flanges:

Valves have integral flanges that can be cast & drilled to suit customer or contractual specification requirements. Common flange drillings are BS4504, SANS 1123 & BS 10.

Coating:

Internal and external coatings can be of Twin Pack Epoxy, or approved equivalent

Operation:

Valve can be operated by means of gearbox with cap-top (T-key), hand-wheel or electrical actuator. Extension spindles & pedestals can be provided for valves installed at dam lowest levels. The valve closing direction is to BS 5153 or SANS 664/665 or as per contractual requirements. Hydraulic cylinder operated gate valves are also available on request.

Size Range:

Sizes range from DN80 up to DN1800

Rating:

Valves are rated for PN6 up to PN40

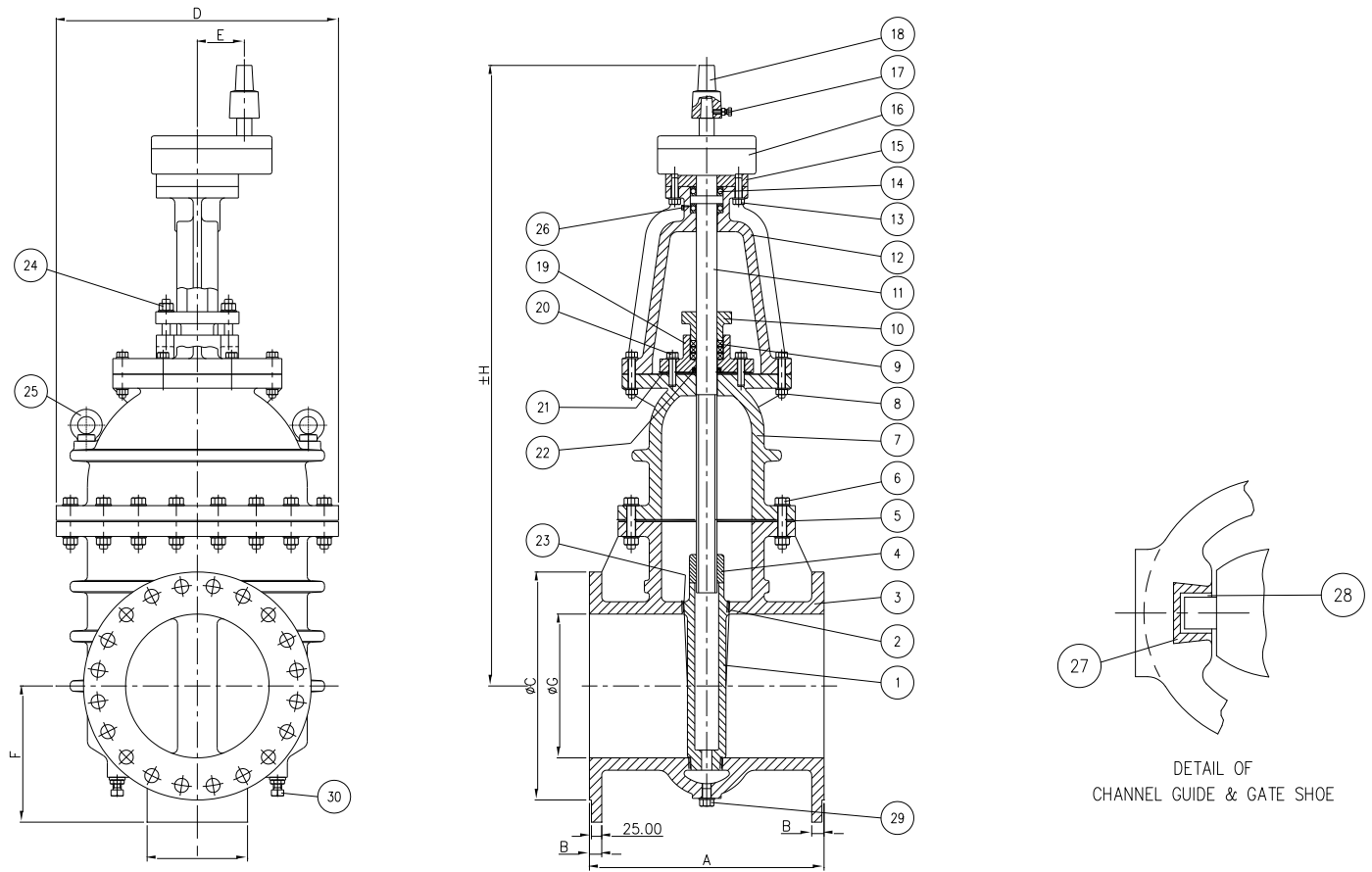
Installation:

All valves are built for horizontal pipe installation. However, valves can also operate equally well in vertical pipe installation or lying horizontally on feet

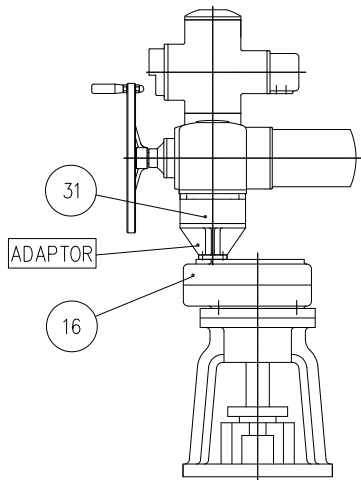
Materials of Construction

For all valve ratings the material for primary components conforms to relevant specification and as listed below.

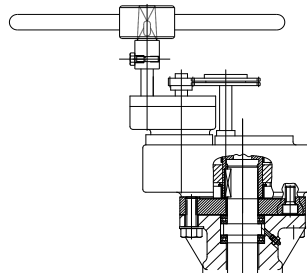
Item No	Component	Specification	
		PN6 up to PN25	PN40 up PN100
1	Gate	SG BS 2789 Gr. 420/12	CAST STEEL BS3100-A2
2	Body Seat	Stainless Steel 316 Ring or (Weld Deposit)	
3	Body	SG BS 2789 Gr. 420/12	CAST STEEL BS3100-A2
7	Bonnet	SG BS 2789 Gr. 420/12	CAST STEEL BS3100-A2
11	Shaft	Stainless Steel BS970 431S29	
12	Thrust Housing	SG BS 2789 420/12	CAST STEEL BS 3100-A2
19	Stuffing Box	SG BS 2789 420/12	
10	Gland	SG BS 2789 420/12	
23	Gate Seat	NA Bronze AB1 Ring or (Weld Deposit)	



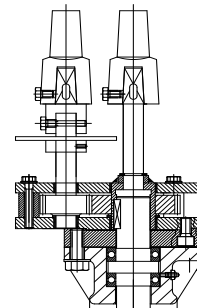
Typical illustration of an Ithuba non-rising wedge gate valve complete with closed spur gearbox



Electrical Actuator Operated Assembly



Handwheel operated closed spur box assembly showing differential position indicators



Typical example of a captop operated open spur box.

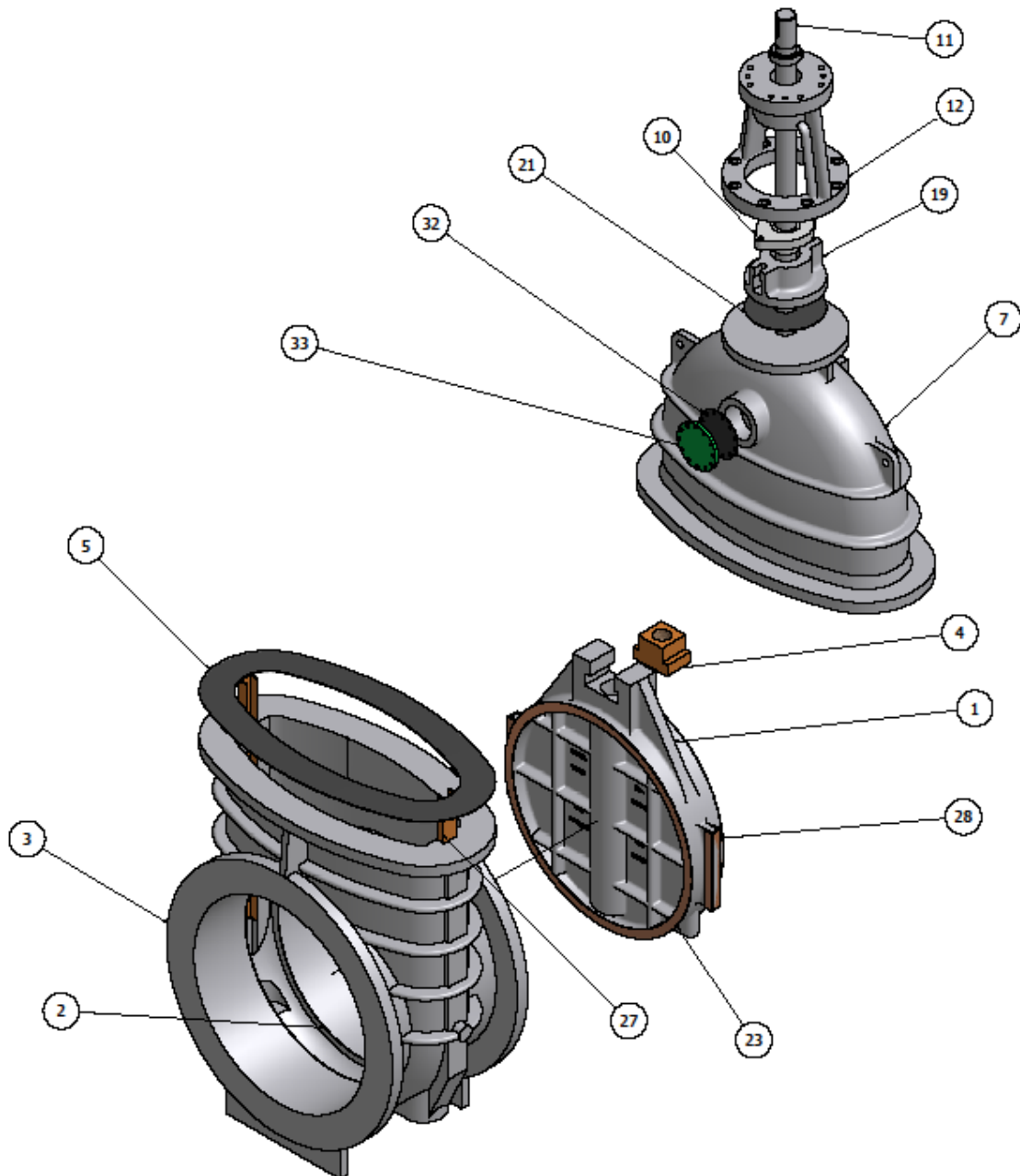
Dimensions in Millimeters (Schematic diagram)

SIZE	D	E	F	G	±H	I	PN6/PN16 RATING				PN25/PN40 RATING			
							A	B	C	MASS (kg)	A	B	C	MASS (kg)
80	241	***	110	80	430	80	229	19	200	56	283	19	200	60
100	267	***	125	100	523	100	254	19	220	62	305	19	235	66
150	325	***	150	150	600	135	280	19	285	99	403	26	300	106
200	413	***	195	200	740	165	377	20	240	145	419	30	375	155
250	485	***	231	250	930	200	356	22	405	213	457	35	450	228
300	590	100	265	300	1306	200	380	25	460	450	502	40	515	520
350	688	100	305	350	1385	350	470	27	520	850	572	44	580	930
400	740	100	305	400	1800	350	470	28	580	1080	470/610	48	660	1134
450	790	150	408	450	1880	300	485	30	640	1170	485/660	49	685	1230
500	852	150	425	500	1996	370	510	32	715	1246	711	52	755	1308
600	1001	140	512	600	2180	400	600	36	640	1408	787	58	890	1478
700	1146	140	575	700	2390	500	610	40	910	2480	695	***	***	2605
750	1244	216	575	750	2540	450	702	43	970	2850	702	***	***	2990
800	1250	216	633	800	2540	400	660	43	1025	3205	758	***	***	3365
900	1390	216	633	900	2745	450	711	47	1125	3570	711	***	***	3750
1000	1450	216	770	1000	3268	700	811	50	1255	5700	950	***	***	5990
1100	1670	200	845	1100	3200	750	966	54	1355	5850	966	***	***	6140
1200	1770	300	845	1200	3450	750	950	57	1485	7260	1170	***	***	10 560
1400	2000	360	990	1400	4250	1000	1228	60	1685	12 745	1228	***	***	14 850
1500	2130	360	1063	1500	4540	1000	1234	65	1930	15750	1234	***	***	17 500
1600	2130	360	1050	1600	4540	1000	1300	***	***	1580	1300	***	***	17545
1800	2366	360	1730	1800	5845	1050	1500	***	***	17390	1500	***	***	21050

Note:

- Dimensional size B and C for PN6 - PN10 will change accordingly to drilling specification

General Construction



Ithuba Valves & Industrial Supplies

ITEM	DESCRIPTION	MATERIAL	ITEM	COMPONENT	MATERIAL
1	GATE	SG BS 2789-420/12	14	THRUST BEARING	STEEL CADMIUM PLATED
2	BODY SEAT	ST/STEEL 316 WELD DEPOSIT / GUNMETAL LG2 RING	15	THRUST PLATE	MILD STEEL 300WA
3	BODY	SG BS 2789-420/12	16	SPUR GEARBOX	VIROUS
4	GATE NUT	N.A. BRONZE-AB2	17	CAPTOP BOLTING	STEEL-SANS 136 Gr.4.6
5	BODY GASKET	KLINGER (ASBESTOS FREE)	18	CAPTOP	SG BS 2789 420/12
6	BODY BOLTING	STEEL-SANS 136 Gr. 8.8	19	STUFFING BOX	SG BS 2789 420/12
7	BONNET	SG BS 2789-420/12	20	STUFFING BOX BOLTING	STEEL-SANS 136 Gr. 8.8
8	THRUST HOUSING BOLTING	STEEL-SANS 136 Gr. 8.8	21	STUFFING BOX GASKET	KLINGER (ASBESTOS FREE)
9	GLAND PACKING	PTFE	22	U-SEAL	NITRILE RUBBER
10	GLAND	ST/STEEL 304	23	GATE SEAT	N.A. BRONZE-AB1 WELD DEPOSIT/ GUNMETAL LG2 RING
11	SPINDLE	ST/STEEL BS 970 431S29	24	GLAND BOLTING	STEEL-SANS 136 Gr. 8.8
12	THRUST HOUSING	CS BS 3100-A2/ SG BS2789 420/12	25	EYE-BOLT	H.T. STEEL-EN5A
13	THRUST PLATE BOLTING	STEEL-SANS 136-8.8	26	GREASE NIPPLE	STEEL-GALVANISED

ITEM	DESCRIPTION	MATERIAL	<u>OPTIONALS</u>		
27	CHANNEL GUIDE	GM BS 1400 LG2	-	CYLINDER	ST/STEEL 304
28	GATE SHOE	N.A. BRONZE-AB1 WELD DEPOSIT	-	CYLINDER ADAPTOR	M/STEEL 300WA
29	DRAIN PLUG	STEEL-GALVANISED	-	CYLINDER BOLTING	ST/STEEL 304
30	LIMIT STOP	ST/STEEL BS970 431S29	-	UNIVERSAL COUPLING	STEEL - 304
31	ELECTRIC ACTUATOR	OPTIONAL			
32	INSPECTION GASKET	NITRILE RUBBER			
33	INSPECTION COVER	MILD STEEL 300WA			

Rated Torque Values @ PN16 Rating

Valve Size	TORQUE (Nm) @PN16 RATING	GEARBOX/RATIO	Handwheel Size	EFFORT (kg)
80	25	None	250	200
100	32	None	305	210
150	57	None	305	374
200	143	None	305	96
250	203	None	450	90
300	238	None	450	107.8
300	238	SSV100/4:1	450	29.95
350	294	SSV100/4:1	450	37.00
400	376	SSV100/4:1	450	47.32
450	468	SSV127/4:1	450	58.90
500	628	SSV150/4:1	450	78.73
600	1035	SSV150/6:1	610	63.67
700	1390	DSV140/8:1	610	70.57
750	2065	DSV140/16:1	610	73.22
800	2065	DSV140/12:1	610	73.22
900	2952	DSV140/12:1	700	87.22
1000	3785	DSV216/12:1	800	98.03
(1100)	5509.5	DSV216/20:1	800	86.90
1200	7496	DSV216/24:1	800	98.52
1400	8011	DSV216/28:1	800	105.31
1500	8480	DSV216/28:1	800	(SPECIAL ON REQUEST)
1800	9890	DSV216/45:1	800	(SPECIAL ON REQUEST)

Note:

- For electrical operation and other pressure ratings, the gearbox size may change. Please refer to Ithuba Valves for specifications.
- Special open spur boxes are available on request.
- It is recommended that an electrical actuator be used on bigger size valve from DN1000 up to gain operation time as these usually take longer to open/close.



Ithuba Valves & Industrial Supplies

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