

CAST STEEL GATE VALVES

5.150

ANSI Class 150

API 600

Carbon steel
ASTM A216 WCB

Flanged ANSI 150 RF

F6/Stellited trim

DN50 to DN600



5.150

Bolted bonnet

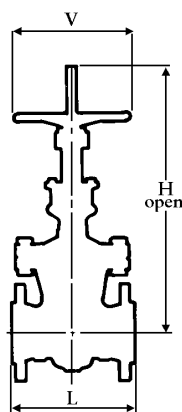
Back seated

Flexi-wedge disk

Rising stem

Outside screw and yoke

Handwheel



API

Applications – bi-directional on/off duties in Class 150 piping systems within the P/T limits prescribed for steam, water, oil, oil vapour, gas and general services in industries where process integrity, valve reliability and safety are of primary importance. Principal industries include chemicals, petrochemicals, oil refineries, thermal and nuclear power, off-shore exploration and production, liquified natural and refined gases storage and transportation. The overall valve design ensures minimum turbulence and flow resistance, shock resistance and general toughness in harsh environments.

Specification – construction and manufacture are to API 600 and API 598. The tapered, 'H'-section flexi-disk is surfaced hardened in ASTM A182 F6a. The welded-in body seat rings have Stellite Gr.6 hard facing as an option to combat high pressure and abrasion across the face of the valve. The 'T'-head disk/stem connection prevents lateral strain on the stem and ensures smooth and easy valve operation. A 2-part packing gland exerts even pressure on the packing without binding the stem. The body/bonnet joint is flat faced. End connections are flanged and drilled ANSI 150 RF; face-to-face to ANSI B16.10. Body marking is to MSS-SP-25.

P/T ratings – in accordance with ANSI B16.34

Temperature °Celsius	-29° +38°	100°	150°	200°	250°	300°	350°	375°	400°	425°	* 450°	* 475°	* 500°	* 538°
Pressure bar	19,7	17,7	15,8	14,0	12,1	10,2	8,4	7,4	6,5	5,6	4,6	3,7	2,8	1,4

* Prolonged temperatures above 425° Celsius may result in deterioration of the carbon phase of carbon steel.

Materials – to API 600 standards

Part	Material	Part	Material
Body	ASTM A216 WCB*	Packing gland	CS 1020 + Cr plate
Bonnet	ASTM A216 WCB	Yoke cap	CS 1020
Disk	ASTM A217 CA 15	Bonnet bolts/nuts	ASTM A193-B7/A194-2H
Body seat ring	CS 1020 + Tp 410	Hinge bolts/nuts	ASTM A307 B
Yoke	ASTM A216 WCB	Handwheel nut	ASTM A47 Gr. 32510
Handwheel	ASTM A197 or WCB	Hinge pin	CS 1020
Stem	ASTM A479 Tp 410	Gasket	Soft steel
Back seat ring	ASTM A479 Tp 410	Yoke bolts/nuts	A193-B7/A194-2H
Gland flange	ASTM A105	Packing	Graphite
Yoke sleeve	ASTM A439-D2C (with ball bearing sizes DN 350 and above)		

* ASTM A216 WCB contains typically Carbon 0,25; Manganese 1,0; Phosphorus 0.04; Sulphur 0,05; Silicon 0,60; all maximum values.

Testing – in accordance with API 598; body 30 bar; seat 22 bar.

Dimensions mm/Weights

DN	50	65	80	100	150	200	250	300	350	400	450	500	600
in	2	2½	3	4	6	8	10	12	14	16	18	20	24
L	178	191	203	229	267	292	330	356	381	407	432	457	508
H	367	397	458	560	763	960	1166	1369	1515	1824	1900	2124	2502
V	200	200	224	250	315	355	400	450	500	560	630	710	800
kg	19	26	33	48	87	129	180	280	410	580	675	842	1380

Options – sizes DN40, DN750, DN900, and larger on request; end connections to ANSI 150 FF; butt weld ends to ANSI B16.25; RTJ to ANSI B16.5/B16.10; bevel or spur gear operators; pneumatic/hydraulic/electric actuators and accessories; by-passes; locking device; chainwheels; extension stems; special gland packings. Special materials include carbon steels ASTM A352 LCB, A352 LC2; alloy steels A217 WC6, A217 WC9, A217 C5 and A217 C12.

