

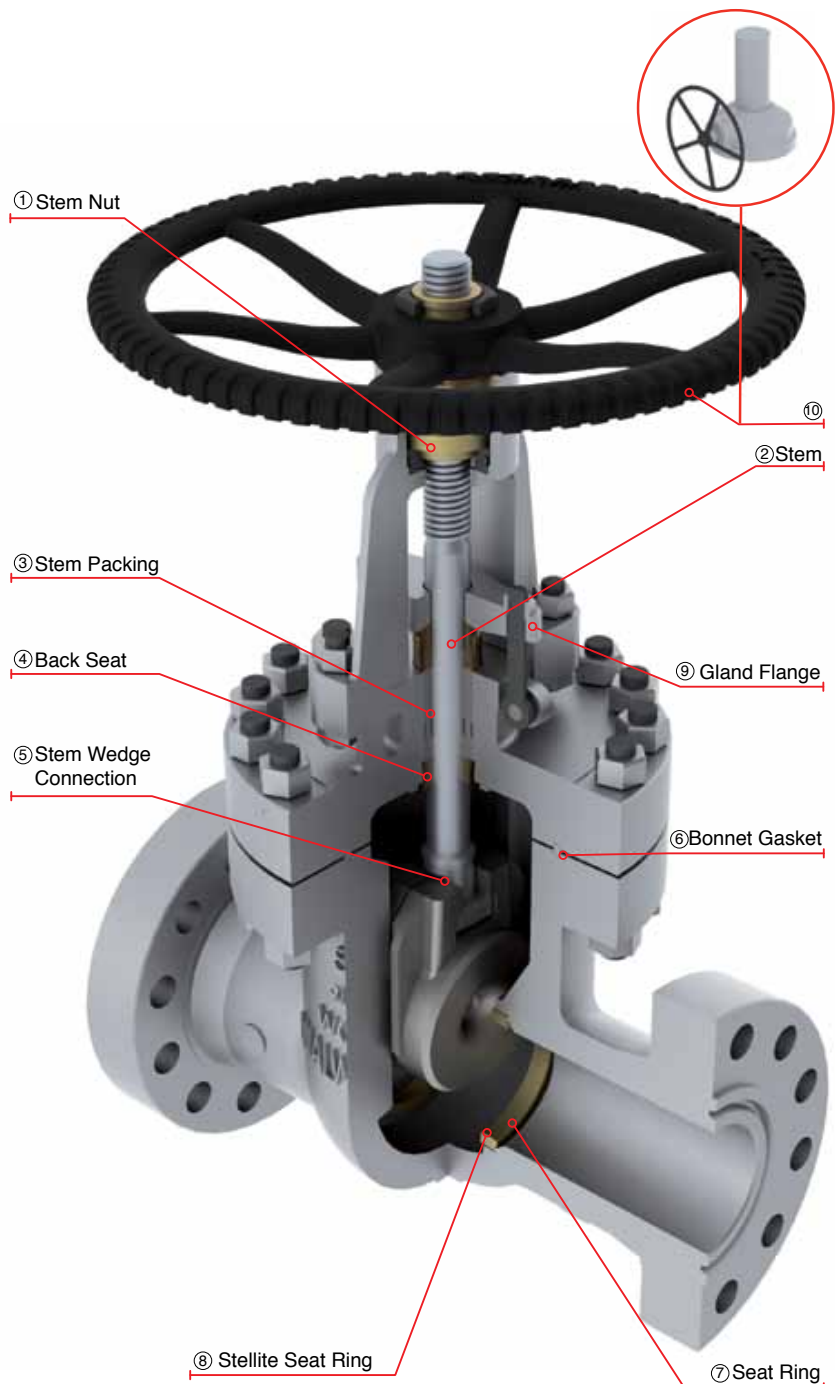
CAST STEEL GATE VALVES CLASS 900

CAST STEEL GATE VALVES HANDWHEEL OR GEAR OPERATED, WITH RISING STEM AND OUT SIDE SCREW AND YOKE (OS&Y)

DESIGN FEATURES

- Gate valves design in accordance with API-600, solid, flexible or parallel slide wedge/Disc.
- Gate valves option in accordance with API-603 only for stainless steel & nickel alloys.
- Gate valves for Cryogenic service with gas column in accordance with BS-6364 upon request.
- Flange dimensions in accordance with ASME B16.5 for valves up to 24" nominal diameter.
- Hand-wheel, impact Hand-wheel, Chain-wheel, Gear operation, Electric, Pneumatic or Hydraulic Actuation as per Customer requirements.
- By-Pass, Lantern rings, grease injectors, special connections, etc.
- Low fugitive emissions control.
- NACE Service either MR-01-75 or MR-01-03.
- Test in accordance with API-598.
- Standard manufacturing flexible wedge from 2" and up

- ① Stem Nut, replaceable in line to avoid shut down of pipe line process.
- ② Rising stem with precision ACME single or double thread for quick operation. Surface finish suitable to seal properly to obtain low fugitive emissions.
- ③ Stem Packing is designed for optimum control of fugitive emissions leakage to the atmosphere. The ultra-low emission leakage rate is assured by the polished finish stem sealing area, the reduced diametrical clearances and the stem straightness control special designed packing. Live load packing arrangement available upon request.
- ④ Backseat, either threaded or welded designed to relieve back pressure on the stem packing when fully seated. Replacing stem packing under pressure is not recommended. Hard faced backseat available for severe service as per customer requirements.
- ⑤ Stem-Gate connection designed so that under severe applied loads (stuck gate), the stem will fail outside of the stuffing box pressure boundary.
- ⑥ Body to Bonnet ring type joint is designed to apply a uniform load to the gasket to assure a leak proof seal.
- ⑦ Seat rings are seal welded to provide a bubble tight joint.
- ⑧ Stellite Seat Rings provide increased resistance to wear, abrasion and erosion of the sealing surfaces.
- ⑨ Two pieces arrangement gland flange and stem packing bushing for self-alignment to avoid stem damage.
- ⑩ Gate valves supplied handwheel or gear operated.



CAST STEEL GATE VALVES, CLASS 900 (HANDWHEEL OPERATED)

Design Features

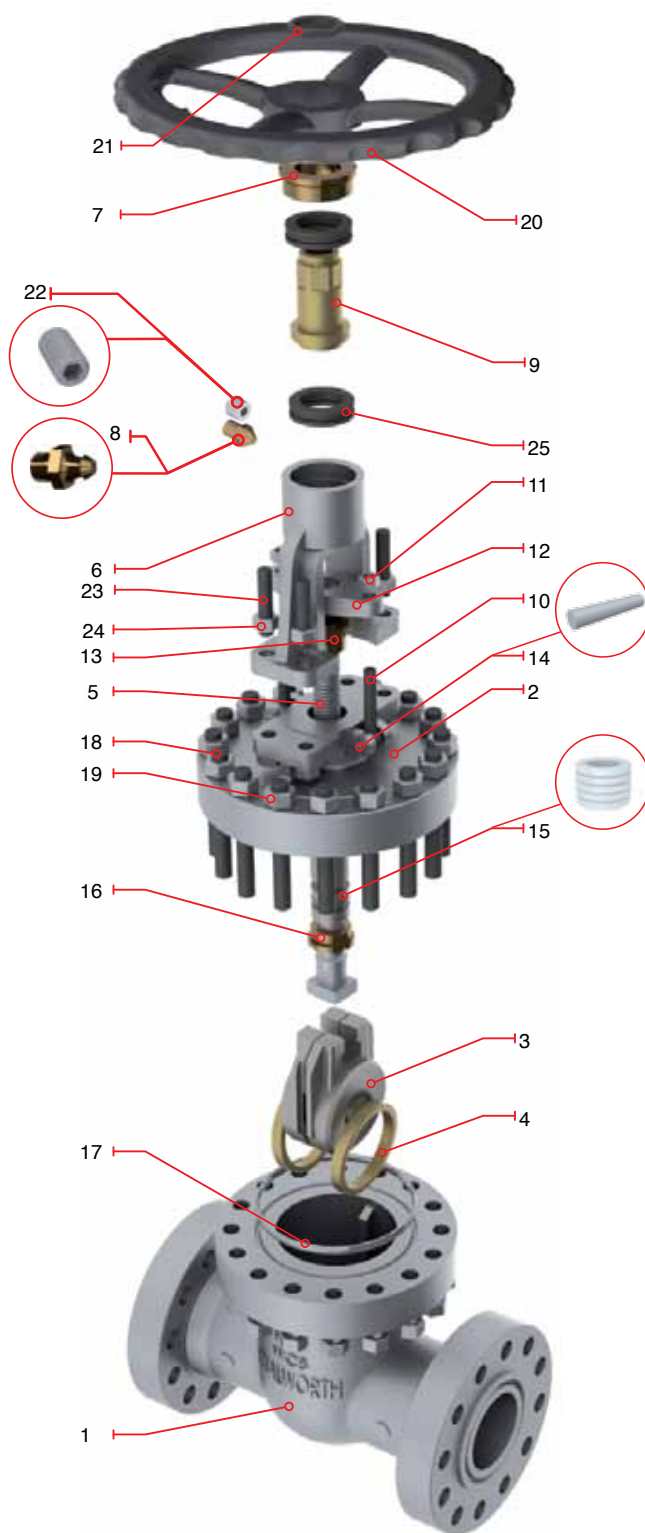
- Design in accordance with API-600
- Outside Screw & Yoke (OS & Y)
- Flexible Wedge as standard
- Size 2" and 16" supplied with Handwheel as standard
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25
- Stem Nut with Bearing: 4" and larger

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5247RF	5247F	Flanged Raised Face
5247RTJ	5247RJ	Flanged Ring Type Joint
5247WE	5247WE	Buttweld

Regular Bill of Materials

No.	Description	WCB Trim UT
1	Body	ASTM A 216 GR WCB
2	Bonnet	ASTM A 216 GR WCB
3	Wedge	ASTM A 216 GR WCB + 13% Cr.
4	Seat Ring	ASTM A 515 GR 70 + ST6
5	Stem	ASTM A 276 Type 410
6	Yoke	ASTM A 216 GR WCB
7	Stem Nut Retainer	ASTM A 36
8	Grease Fitting	Commercial Steel
9	Stem Nut	UNS C95600 or Ni-Resist
10	Eyebolt / Gland Flange Studs	Alloy Steel
11	Eyebolt Nut	ASTM A 307
12	Gland Flange	ASTM A 515 GR 70
13	Packing Bushing	ASTM A 108 GR 1020
14	Eye Lug Bolt /Eyebolt pin	Alloy Steel
15	Stem Packing	Graphite
16	Bonnet Bushing	ASTM A 276 Type 410
17	Ring Type Joint Gasket	ASTM A 108 GR 1010
18	Bonnet Stud	ASTM A 193 GR B7
19	Bonnet Stud Nut	ASTM A 194 GR 2H
20	Handwheel	ASTM A 197
21	Handwheel Nut	ASTM A 108 GR 1020
22	Set Screw	Alloy Steel
23	Yoke Bolt	Alloy Steel
24	Yoke Bolt Nut	ASTM A 307
25	Stem Nut Bearing	Commercial Steel
*26	Stem Nut Oil Seal	Rubber/Commercial Steel
*27	Identification Plate	Stainless Steel

*Not Shown



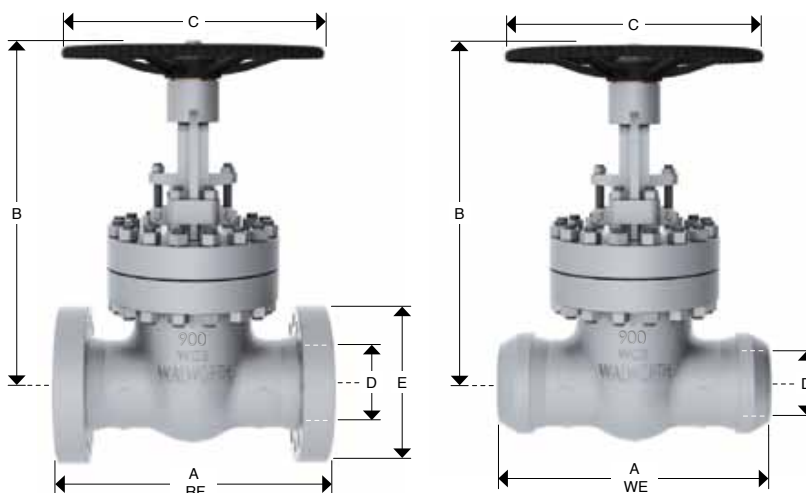
CAST STEEL GATE VALVES, CLASS 900

(HANDWHEEL OPERATED)

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Dimensions and Weights

D Nominal Diameter	mm	76	102	127	152	203	254	305
	in	3	4	5	6	8	10	12
A (RF and WE)	mm	381	457	559	610	737	838	965
	in	15	18	22	24	29	33	38
A (RTJ)	mm	384	460	562	613	740	841	968
	in	15 1/8	18 1/8	22 1/8	24 1/8	29 1/8	33 1/8	38 1/8
B	mm	578	641	829	970	1127	1365	1727
	in	22 3/4	25 1/4	32 5/8	38 3/16	44 3/8	53 3/4	68
C	mm	406	457	508	508	610	660	914
	in	16	18	20	20	24	26	36
E	mm	241	292	349	381	470	546	610
	in	9 1/2	11 1/2	13 3/4	15	18 1/2	21 1/2	24
Weight 5247 RF/RTJ	Kg	106.5	153	367	352	542	905	1385
	lb	212	336.6	807.4	774.4	1192.4	1991	3047
Weight 5247 WE	Kg	95	136	327	313	482	805	1233
	lb	209	300	719	689	1061	1772	2712

CAST STEEL GATE VALVES, CLASS 900 (GEAR OPERATED)

Design Features

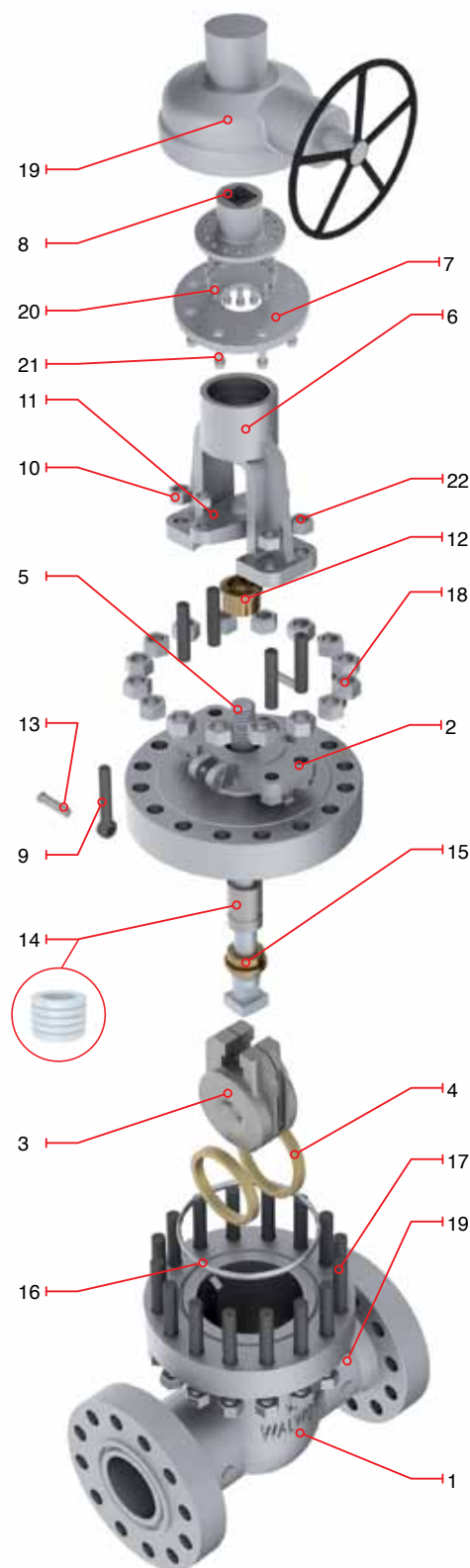
- Design in accordance with API-600
- Outside Screw & Yoke (OS & Y)
- Flexible Wedge as standard
- Size 18" to 24" supplied with Gear operator as standard
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B16.25
- Stem Nut with Bearing: 4" and larger

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4	Seat Ring	ASTM A 515 GR 70 + ST6
5	Stem	ASTM A 276 Type 410
6	Yoke	ASTM A 216 GR WCB
7	Stem Nut Retainer	ASTM A 36
8	Stem Nut	ASTM B 148 UNS C95600
9	Eyebolt / Gland Flange Studs	Alloy Steel
10	Eyebolt Nut	ASTM A 307
11	Gland Flange	ASTM A 515 GR 70
12	Packing Bushing	ASTM A 108 GR 1020
13	Eye Lug Bolt / Eye Bolt Pin	Alloy Steel
14	Stem Packing	Graphite
15	Bonnet Bushing	ASTM A 276 Type 410
16	Ring Type Joint Gasket	ASTM A 108 GR 1010
17	Bonnet Stud	ASTM A 193 GR B7
18	Bonnet Stud Nut	ASTM A 194 GR 2H
19	Gear Operator	as customer requirements
20	Operator Bolts	Alloy Steel
21	Yoke Bolts	Alloy Steel
*22	Yoke Bolt Nut	ASTM A 307
*23	Identification Plate	Stainless Steel

*Not Shown

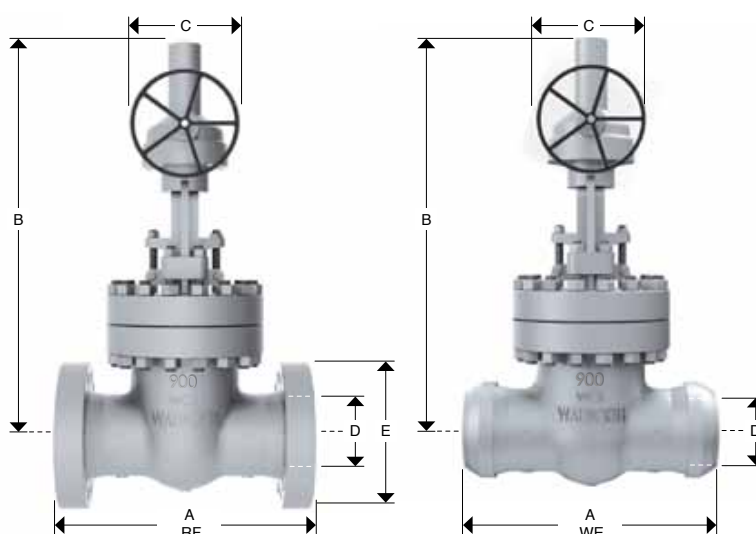


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Dimensions and Weights

D Nominal Diameter	mm	356	406	457	508	610
	in	14	16	18	20	24
A (RF and WE)	mm	1029	1130	1219	1321	1549
	in	40 1/2	44 1/2	48	52	61
A (RTJ)	mm	1038	1140	1232	1334	1568
	in	40 7/8	44 7/8	48.5	52.5	61.75
B	mm	1972	2197	2057	2286	2743
	in	77 5/8	86 1/2	81	90	108
C	mm	914	914	762	762	762
	in	36	36	30	30	30
E	mm	641	705	787	857	1041
	in	25 1/4	27 3/4	31	33 3/4	41
Weight 5247RF/RTJ	Kg	2778	3459	4370	6300	8410
	lb	6111.6	7609.8	9614	13860	18502
Weight 5247WE	Kg	2472	3079	3889	5607	7485
	lb	5439	6773	8556	12335	16467