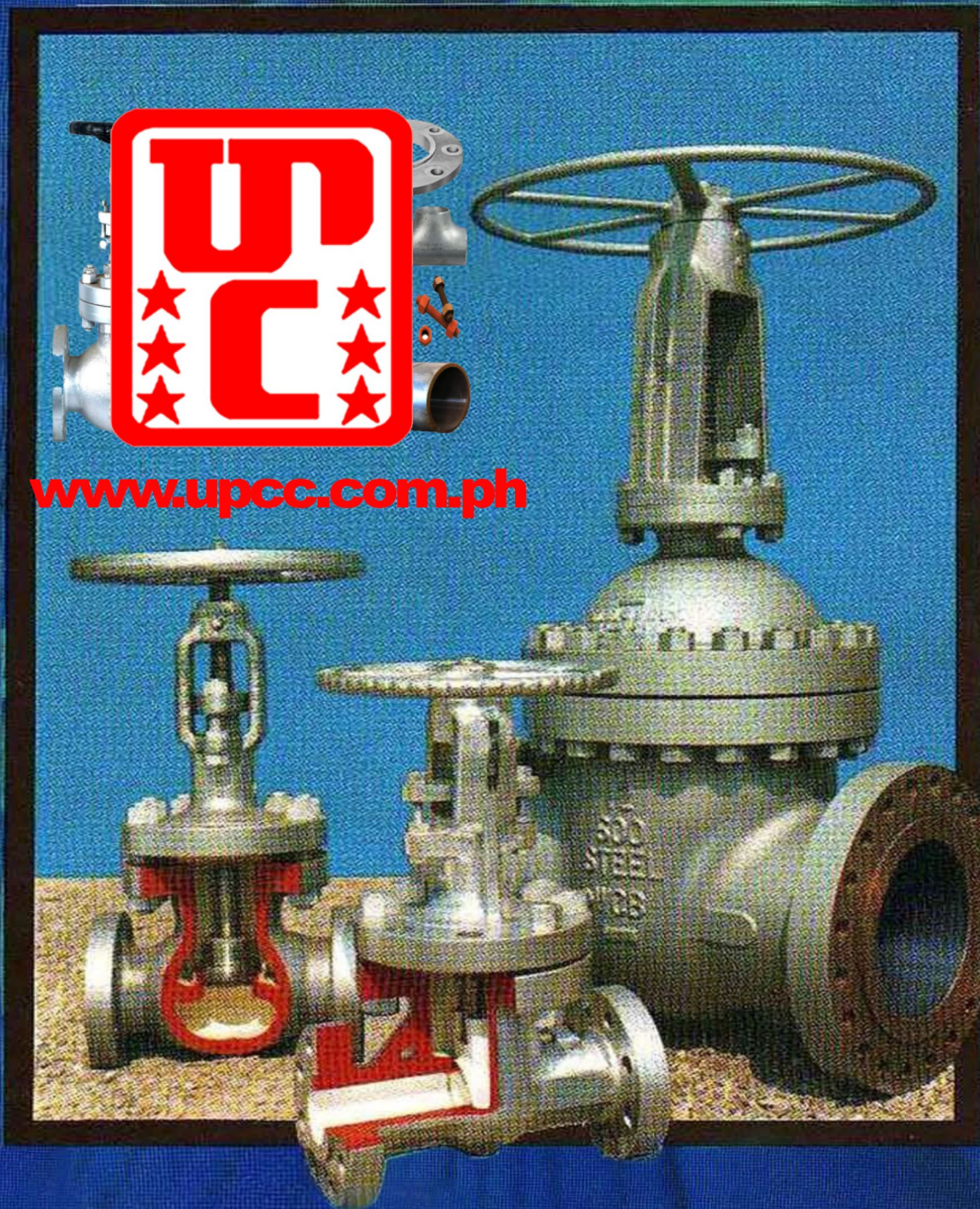




Hattersley Heaton Cast and Forged Steel Valve Range



Material Specification

Cast Carbon Steel Gate Valves and Globe Valves

Component	Material	Specification	Comparable Specification
Body**	Cast Steel	ASTM A216 Gr WCB	BS 1504-161-Gr 480
Bonnet and Yoke*	Cast Steel	ASTM A216 Gr WCB	BS 1504-161 Gr 480
Stud Bolts	Alloy Steel	ASTM A193 Gr B7	BS 4882 Gr B7
Stud Nut	Steel	ASTM A194 Gr 2H	BS 4882 Gr 2H
Body Seat Ring (*globe valves)†	13% Cr Steel Faces †	Type 410 S/S	Type 410 S/S
Wedge/Disk	13%Cr Steel Faces	Type 410 S/S	Type 410 S/S
Stem	13% Cr Steel	ASTM A276 Gr 410	BS 970 410S21
Back Seat Bush*	13%Cr Steel	ASTM A276 Gr 410	BS 970 410S21
Gland Packing	Flexible graphite with braided graphite anti-extrusion/wiper rings		
Gland Follower	Carbon Steel (nickel plated)	BS 970-070M20	
Gland Flange	Steel	BS 1501-151 26A	
Lubricator	Steel		
Yoke Sleeve/Yoke Bush*	Austenitic Ductile Iron	BS 3468 Gr S-NiCr 202	
Yoke Sleeve Ret.Nut*	Steel	BS 970-070M20	
Handwheel	Mal. Iron/Steel		
Handwheel/Nut	Mal. Iron/Steel		

* Secured against loosening **0.25% max. carbon content

† Hardfaced seats are used instead of 13% chromium steel in sizes 2"-8" Gates and Checks.

Cast Carbon Steel Swing Check Valves

Component	Material	Specification	Comparable Specification
Body**	Cast Steel	ASTM A216 Gr WCB	BS 1504-161-Gr 480
Cover	Carbon Steel	BS 1501-161-430	ASTM A515 Gr60
Cover Stud Bolts	Steel	ASTM A193 Gr B7	BS 4882 Gr B7
Cover Nuts	Steel	ASTM A194 Gr 2H	BS 4882 Gr 2H
Body Seat Ring †	13% Cr Steel Faces†	Type 410 S/S	Type 410 S/S
Disk	13% Cr Steel Faces	Type 410 S/S	BS 1504-420 C29
Hinge Pin	13% Cr Steel	ASTM A276 Gr 410	BS 970410S21
Disk Retaining Nut	Stainless Steel	BS 4882 Gr8	ASTM A194 Gr8
Split Pin	Stainless Steel	BS 970302 S25	
Hinge Pin Plug*	Steel	BS 970 070M20	
Hinge Pin Plug Gasket	Armco Iron		
Hinge**	Cast Steel	ASTM A216 Gr WCB	BS 1504-161 Gr480

* Secured against loosening **0.25% max. carbon content

† Hardfaced seats are used instead of 13% chromium steel in sizes 2"-8"

Bonnet and Cover Gaskets

Pressure Class	Material
Class 150: Gate Valves	Corrugated Armco Iron
Globe Valves	316 S/S Reinforced graphite
Check Valves	316 S/S Reinforced graphite
Class 300: All	Corrugated Armco Iron
Class 600 to Class 1500: All	Armco Iron Ring Joint

Valve Seat Rings

Class 900, 1500 Valves and all Butt-weld end valves have hardfaced seat rings as standard. Class 150, 300, 600 Gate and Check valves sizes 2"-8" have hardfaced seats as standard. Hardfacing is equal to UNS R30006 (Co-Cr-W alloy).

Certification

Certification is available on every valve. Pressure test to API 598 / BS7655. DIN 50049 3.1B physical and chemical properties for bodies and bonnets. Conformity certification for bolting and trim.

Valve Identification

Each individual valve bears an identification plate stating the following details:
 Size
 Type
 Pressure Class
 Body/Bonnet material designation
 Trim material details
 Service limitations (where applicable).
 In addition the Body and Bonnet castings each bear a melt identification marking, traceable directly to original Mill Certificates.

Valve Finish

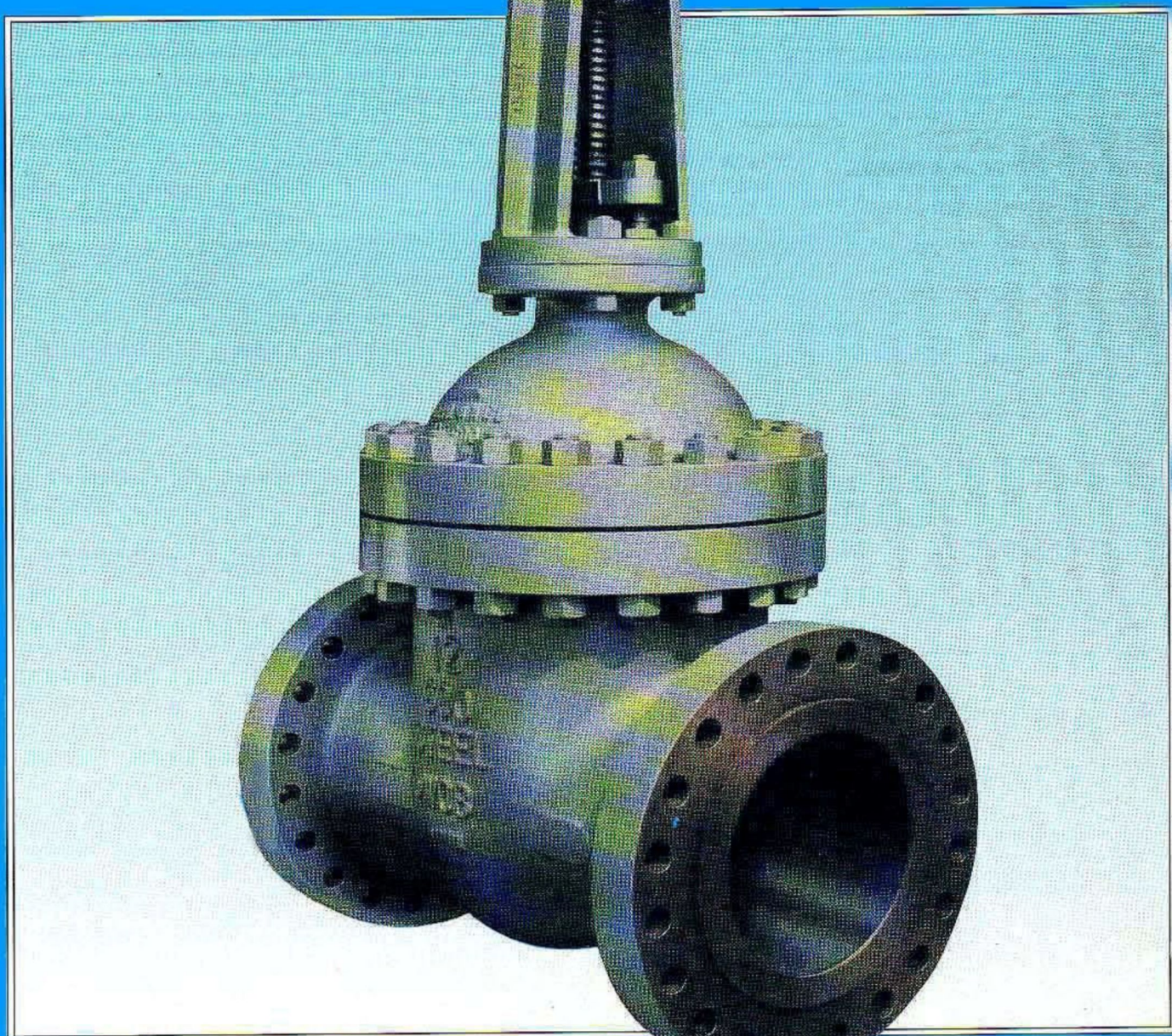
Unless otherwise specified, external unmachined surfaces are coated with aluminum paint, whilst machined and internal surfaces are protected with removable rust-preventative.

Valves for steam service

Hardfaced* trim is recommended for all valves in steam duty class 300 and over and all superheated steam duties. Flexible design wedges are recommended for gate valves. Graphite gaskets are recommended. Welded or Microbrazed seats are recommended for steam services class 600 and above.

*Check valves are adequate with only seats hardfaced.

Cast Steel Gate Valves



Cast Steel Gate Valves

HATTERSLEY HEATON

DIMENSIONS

Nominal Size	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24
		mm	50	65	80	100	150	200	250	300	350	400	450	500
A (Flanged RF)	in	7	7 1/2	8	9	10 1/2	11 1/2	13	14	15	16	17	18	20
	mm	178	191	203	229	267	292	330	356	381	406	432	457	508
A (Butt Weld)	in	8 1/2	-	11 1/8	12	15 7/8	16 1/2	18	19 3/4	-	-	-	-	-
	mm	216	-	283	305	403	419	457	502	-	-	-	-	-
B (Closed)	in	13 1/4	15 1/2	15 3/4	19	26	33 1/4	39 1/8	45	49 7/8	54 1/4	59 1/4	68 3/8	80
	mm	337	394	400	483	660	845	994	1143	1267	1378	1505	1738	2032
C	in	7	7	9	10	14	16	18 1/2	18 1/2	18 1/2	22	24	28	30
	mm	178	178	229	254	356	406	470	470	470	559	610	711	762
D	in	19	22	24	28	36	48	57	65	75	83	90	102	119
	mm	483	559	610	711	914	1219	1448	1651	1905	2108	2286	2591	3023

A	in	8 1/2	9 1/2	11 1/8	12	15 7/8	16 1/2	18	19 3/4	30	33	36		
	mm	216	241	283	305	403	419	457	502	762	838	914		
B (Closed)	in	14 3/4	16 1/4	19	22 3/8	27	32 7/8	42 5/8	48 1/2	50 1/4	59 3/4	65 1/2		
	mm	375	413	483	556	686	835	1083	1232	1276	1516	1664		
C	in	7	8	9	10	16	18 1/2	24	24	24	28	30		
	mm	178	203	229	254	406	470	610	610	610	711	762		
D	in	22	23	28	33	41	51	61	67	77	93	97		
	mm	559	584	711	838	1041	1295	1549	1702	1956	2362	2464		

A (Flanged RF)	in	11 1/2	-	14	17	22	26	31	33					
	mm	292	-	356	432	559	660	787	838					
B (Closed)	in	14 3/4	-	18 7/8	22 3/8	31 5/8	38 3/4	44	51 1/2					
	mm	375	-	479	568	803	984	1118	1308					
C	in	9	-	12	15	17 1/2	24	28	30					
	mm	229	-	305	381	445	610	711	762					
D	in	22	-	28	33	45	56	65	75					
	mm	559	-	711	838	1143	1422	1651	1905					

A (Raised Face)	in	-	-	15	18	24								
	mm	-	-	381	457	610								
A (RJF)	in	-	-	15 1/8	18 1/8	24 1/8								
	mm	-	-	384	460	613								
B (Closed)	in	-	-	20 7/8	24	33 1/8								
	mm	-	-	530	610	841								
C	in	-	-	12	15	20								
	mm	-	-	305	381	508								
D	in	-	-	32	37	49								
	mm	-	-	813	940	1245								

A (Raised Face)	in	14 1/2	-	18 1/2	21 1/2	27 3/4								
	mm	368	-	470	546	705								
A (RJF)	in	14 3/8	-	18 5/8	21 5/8	28								
	mm	371	-	473	549	711								
B (Closed)	in	23 1/4	-	26 1/8	26 1/2	40 7/8								
	mm	591	-	664	673	1038								
C	in	12	-	16	18 1/2	24								
	mm	305	-	406	470	610								
D	in	27	-	37	40	59								
	mm	686	-	940	1016	1499								

ORDERING DETAILS	FLANGED ENDS	CARBON STEEL (ASTM A216 WCB)		LOW TEMP.CS. (ASTM A352 LCB)	NACE CS. (ASTM A216 WCB)	NACE LOW TEMP (ASTM A352 LCB)	STAINLESS (ASTM A351 CF8M)
		ANSI CLASS	SIZE	FIGURE	FIGURE	FIGURE	FIGURE
ANSI CLASS 150 RF	2" - 8"	1481		K1481	X1481 DT	N4481	SP4481
	10" - 24"	481		K0481	X1481 DT	N4481	SP4481
ANSI CLASS 300 RF	2" - 8"	1482		K1482	X1482 DT	N4482	SP4482
	10" - 18"	482 FW		K0482 FW	X1482 DT FW	N4482 FW	SP4482 FW
ANSI CLASS 600 RF	2" - 8"	1484		K1484	X1484 DT	N4484	SP4484
	10" - 12"	484		K0484	X1484 DT	N4484	SP4484
ANSI CLASS 900 RF		1485		K1485	X1485 DT	N9485	SP9485
ANSI CLASS 1500 RF		1486		K1486	X1486 DT	N9486	SP9486
BUTT WELD ENDS ANSI CLASS 150		1491		K1491	-	-	SP9491
BUTT WELD ENDS ANSI CLASS 300		1492		K1492	-	-	SP9492

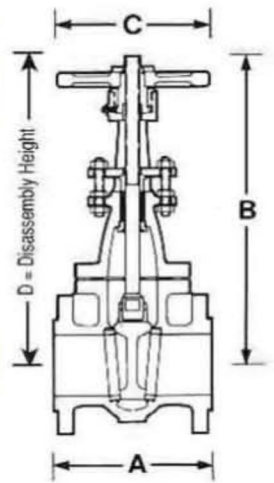
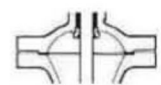
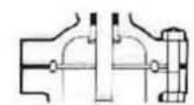


Illustration shows Class 150 Bonnet Joint



Class 300 Bonnet Joint



Class 600, 900, 1500 Bonnet Joint

SPECIFICATION:

Cast Steel gate valve to BS1414, ANSI B16.34 and API600 - in sizes 2"-12" class 150 and 300.

Outside screw rising stem non rising handwheel, bolted bonnet, bolted gland.

Flanges to ANSI B16.5 and BS 1560 raised face.

Solid wedge fitted as standard.

See note on Flexiwedges.

Flexiwedges fitted as Standard to Class 150 sizes 12" and 14", Class 300 sizes 10" to 18". Otherwise use suffix FW.

Other flanges available.

For ring joint use suffix RJF.

For details of alternative materials of construction and figure numbers see pages 28 - 29

Pressure temperature ratings (ANSI B16.34) see page 27

Weights page 31

For materials of construction see pages 6 & 8

STANDARD FIGURE NUMBERS

Notice:

Due to current market conditions, prices & stocks are subject to change without prior notice.