

ORDERING INSTRUCTIONS

EXAMPLE:

Type	Valve Size	Flange Standard	ANSI/API Pressure Rating		Body Material	Plate Material	Body Seat	Plate Seat	End Connection	Special Feature	Spring Material	Wetted Parts
BR	30	A	015	-	C	S	W	P	R	/	Y	S

* 'R' in the valve type code indicates Retainerless.

VALVE TYPE*	
BR	Wafer
BFR (BFT)	Flanged (BFT: Threaded)
BSR (BTR)	Solid Lug (BTR: Threaded)
BHR (R)	Hub Ended Reduced Bore (R)
BHR (F)	Hub Ended Full Bore (F)
BH (F)	Hub Ended Full Bore (F)
BWR (BWA)	Buttweld End
BL	Wafer-Lined
BFL	Flanged-Lined
BSL	Solid Lug-Lined
BC	Wafer - Clad (Retainerless)
BFC	Flanged - Clad (Retainerless)
BSC	Solid Lug - Clad (Retainerless)
BD	Wafer - Clad (Retaining Plugs)
BFD	Flanged - Clad (Retaining Plugs)
BSD	Solid Lug - Clad (Retaining Plugs)

VALVE SIZE
Inches: For ANSI, AWWA & API standards
Millimetres: For JIS standards and PN ratings

FLANGE STANDARD	
FIG	STANDARD
-	ANSI B16.5
-	ANSI B16.47 Series A (MSS SP 44)
A	ANSI B16.47 Series B (API 605)
D	AWWA C207 Class D
E	AWWA C207 Class E
F	Hub Ended - Full Bore Internals
R	Hub Ended - Reduced Bore Internals
J	JIS 2210
V	Compact Flange

ANSI / API PRESSURE RATINGS	
FIG	PRESSURE RATINGS
015	ANSI 150
030	ANSI 300
060	ANSI 600
090	ANSI 900
150	ANSI 1500
250	ANSI 2500
200	API 2000
300	API 3000
500	API 5000
100	API 10000

BODY SEAT/PLATE OVERLAY MATERIAL			
FIG	MATERIAL	OPERATING TEMP RANGE *	
		°F	°C
P	Same as Body / Plate	As Body / Plate	As Body / Plate
E	410 Stainless Steel	-20 to 1000	-29 to 538
S	316 Stainless Steel	-425 to 1500	-254 to 538
F	316L Stainless Steel	-425 to 850	-254 to 455
G	17-4 PH Stainless Steel	-40 to 800	-40 to 427
I	Inconel 625		
M	Monel 400	-321 to 900	-196 to 482
U	Stellite No 6 [®]	-450 to 1500	-267 to 815
J	Viton GLT [®]	-22 to 400	-30 to 204
V	Viton A [®]	-40 to 400	-40 to 204
W	Viton B [®] Anti Explosive Decompression FR58 90	-4 to 392	-20 to 200
N	Buna-N [®]	-22 to 250	-30 to 121
T	Neoprene [®] \$	-40 to 250	-40 to 121
K	Teflon [®]	-200 to 450	-129 to 232
D	EPDM	-14 to 230	-10 to 110
L	Elast-O-Lion [®] 985	-40 to 320	-40 to 160
X	To Be Specified		

BODY AND/OR PLATE MATERIAL		
FIG	MATERIAL	SPECIFICATION
C	Carbon Steel	ASTM A216 WCB / A105
L	Low Temp Carbon Steel	ASTM A352 LCB
O	Low Temp Carbon Steel	ASTM A352 LCC / A350 LF2
D	High Temp Cr Mo Steel	ASTM A217 WC6
K	Low Alloy Steel	ASTM A487 GR 4C
E	410 Stainless Steel	ASTM A217 CA15
P	5% Cr Steel	ASTM A217 C5
W	9% Cr Steel	ASTM A217 C12
G	Low Temp 13% Cr 4% Ni	ASTM A352 CAGNM
S	316 Stainless Steel	ASTM A351 CF8M / A182 F316
F	316L Stainless Steel	ASTM A351 CF3M / A182 F316L
Y	347 Stainless Steel (High Temp)	ASTM A351 CF8C / A182 F321
Q	22% Chrome Duplex ¹	J92205 / ASTM A890 4A or A995 4A (WE ¹)
B	25% Chrome Super Duplex ²	J93372 / ASTM A995 CD4MCuN (WE ²)
R	Ferrallium 255-3SC ²	
Z	25% Chrome Super Duplex ³	J93380 / ASTM A890 6A or A995 6A (WE ³)
H	Alloy 825 ⁴	N08826 / ASTM A494 CU5MCuC (WE ⁴)
I	Alloy 625 ⁵	N26625 / ASTM A494 CW6MC (WE ⁵)
V	Avesta 254 SMO ⁶	J93254 / ASTM A351 CK3MCuN (WE ⁶)
U	Stellite [®]	Stellite 6 [®]
T	Titanium	ASTM B367 C2 / B381 F2 / B348 GR2
J	Hastelloy C276 ⁷	ASTM A494 CW12MW (WE ⁷)
M	Monel	ASTM A494-M35-2
A	Nickel Aluminium Bronze	† BS EN 1982 CC333G / ASTM B148 C95800
1	Chromium Molybdenum Steel	ASTM A217 GR WC9
2	3.5% Nickel Steel	ASTM A352 LC3
3	304 Stainless Steel	ASTM A351 CF8
4	304L Stainless Steel	ASTM A351 CF3
5	Alloy 20	ASTM A351 CN7M
6	317 Stainless Steel	ASTM A351 CG8M
7	Carbon Molybdenum Steel	ASTM A352 LC1
8	Ni-Resist [®] Iron	ASTM A439 D2
9	Ductile Iron	ASTM A395
X	To Be Specified	TO BE SPECIFIED

END CONNECTION	
FIG	CONNECTION
Q	Raised Face 3.2 µm max. Spiral Groove
R	Raised Face 3.2-6.3 µm Spiral Groove
S	Raised Face 6.3-12.5 µm Spiral Groove
F	Flat Face 3.2-6.3 µm Spiral Groove
G	Flat Face 6.3-12.5 µm Spiral Groove
E	Raised Face 3.2 µm max Concentric Groove
D	Raised Face 3.2-6.3 µm Concentric Groove
C	Raised Face 6.3-12.5 µm Concentric Groove
A	Flat Face 3.2-6.3 µm Concentric Groove
Z	Flat Face 6.3-12.5 µm Concentric Groove
J	Ring Type Joint
H	Clamped End
W	Buttweld End
V	Compact Flange

SPECIAL FEATURES	
-	No Special Features
/	To be specified in order and inquiry text
S	Super Torque Spring
L	Low Torque Spring
M	Mini Torque Spring

SPRING MATERIAL			
FIG	MATERIAL	RECOMMENDED MAX TEMP	
		°F	°C
S	316 Stainless Steel	250	121
Y	Inconel X750 [®]	1000	537
I	Inconel 625 [®]	1000	537
M	Monel K500 [®]	400	204
L	Inconel 718	1022	550
T	Titanium Ti 6AL4V	662	350
X	To Be Specified		

WETTED PARTS*	
FIG	PINS/OTHER
S	316 SS
F	316L SS / 316 SS
E	410 SS / 316 SS
G	17-4 PH / 316 SS
I	Inconel 625 [®]
A	Monel K500 [®] / 625
M	Monel 400 [®] / 625
3	304 SS / 316 SS
4	304L SS / 316 SS
W	347 SS / 625
Y	321 SS / 625
Q	F51 DSS / 625
Z	F55 SDSS / 625
H	Incoloy 825 [®] / 625
T	Titanium

* Manufacturers standard materials for Wetted parts. Other combinations available on request.

LINED VALVES

Valves can be supplied with various linings, such as Neoprene[®], Chloroprene[®], Chlorobutyl, Rilsan Nylon II[®], EPDM, Glass Flake and Coal Tar Epoxy (lined valves have retaining plugs).

CLAD VALVES

Valves can be supplied with various internal claddings such as Inconel 625 & 825.

† Previously BS 1400 AB2

WE - Wrought Equivalents

¹ UNS S31803 ⁵ UNS N06625

² UNS S32550 ⁶ UNS S31254

³ UNS S32760 ⁷ UNS N10276

⁴ UNS N08825

* Suitability will depend, in part, on operating temperature range of base material.

\$ For ANSI 150lb & 300lb only