

ISUKA VALVE MFG. CO., LTD.



General Design Specifications

Items	American Std.	British Std.
Shell wall thickness and general valve design specifications	API 600	BS1414 (Gate valve) BS1873(Globe valve) BS1868(Check valve)
Pressure-temperature ratings	ANSI B16.34	BS1560
Face-to-face dimensions End-to-end dimensions	ANSI B16.10	BS2080
End flange dimensions Gasket contact facing	ANSI B16.5*	BS1560
Welding end dimensions	ANSI B16.25	BS1414 (Gate valve) BS1873 (Globe valve) B1868 (Check valve)

* MSS SP-44 for 22" and API 605 for 26" and larger, for end flange dimensions.

Valve Shell Materials and Temperature

ASTM Specification	Material Designation	Working Temperature* °F (°C)
A216 WCB	Carbon steel	1000(538) Maximum
A217 WC1	C-½ MO	
A217 WC6	1¼Cr - ½Mo	1100(593) Maximum
A217 WC9	2¼Cr-1MO	
A217 C5	5Cr - ½ Mo	1200(649) Maximum
A217 C12	9Cr-1MO	
A352 LCB	Carbon steel	- 50(- 46) Minimum
A352 LCC	Carbon steel	
A352 LC1	C-½ Mo	- 75(- 59) Minimum
A352 LC2	2½ Ni	- 100(- 73) Minimum
A352 LC3	3½ Ni	- 150(- 101) Minimum

Trim Selection Guide

TRIM No.		1	2	3	4. (NACE)	5	6	7	8
GATE VALVE	Wedge	F6a	F6a	F6a-HF	F6a	F304	F316	F316	Monel
	Seat Ring	F6a	F6a-HF	F6a-HF	F6a-HF	F304	F316	F316-HF	Monel
	Back Seat	F6a	F6a	F6a	F6a	F304	F316	F316	Monel
	Stem	F6a	F6a	F6a	F6a	F304	F316	F316	Monel
GLOBE VALVE	Disc	F6a	F6a	F6a-HF	F6a	F304	F316	F316	Monel
	Seat Ring	F6a	F6a-HF	F6a-HF	F6a-HF	F304	F316	F316-HF	Monel
	Back Seat	F6a	F6a	F6a	F6a	F304	F316	F316	Monel
	Stem	F6a	F6a	F6a	F6a	F304	F316	F316	Monel
CHECK VALVE	Disc	F6a	F6a	F6a-HF	F6a	F304	F316	F316	Monel
	Seat Ring	F6a	F6a-HF	F6a-HF	F6a-HF	F304	F316	F316-HF	Monel
	Hinge	F6a	F6a	F6a	F6a	F304	F316	F316	Monel
	Hinge Pin	F6a	F6a	F6a	F6a	F304	F316	F316	Monel

HF-Hardfaced AWS 5.13 Class CoCr-Walloy (Stellite # 6)