



CE
0086

BS EN ISO 9001



FM 00707

FLowsERVE[®]

Worcester Controls

AW44

High Temperature 3-Piece Ball Valves

In the AW44, Worcester has recognised the need for a high temperature, 3-piece ball valve. With energy costs already high and still rising, the AW44 has proved itself to be cost effective in minimising the loss of process steam.

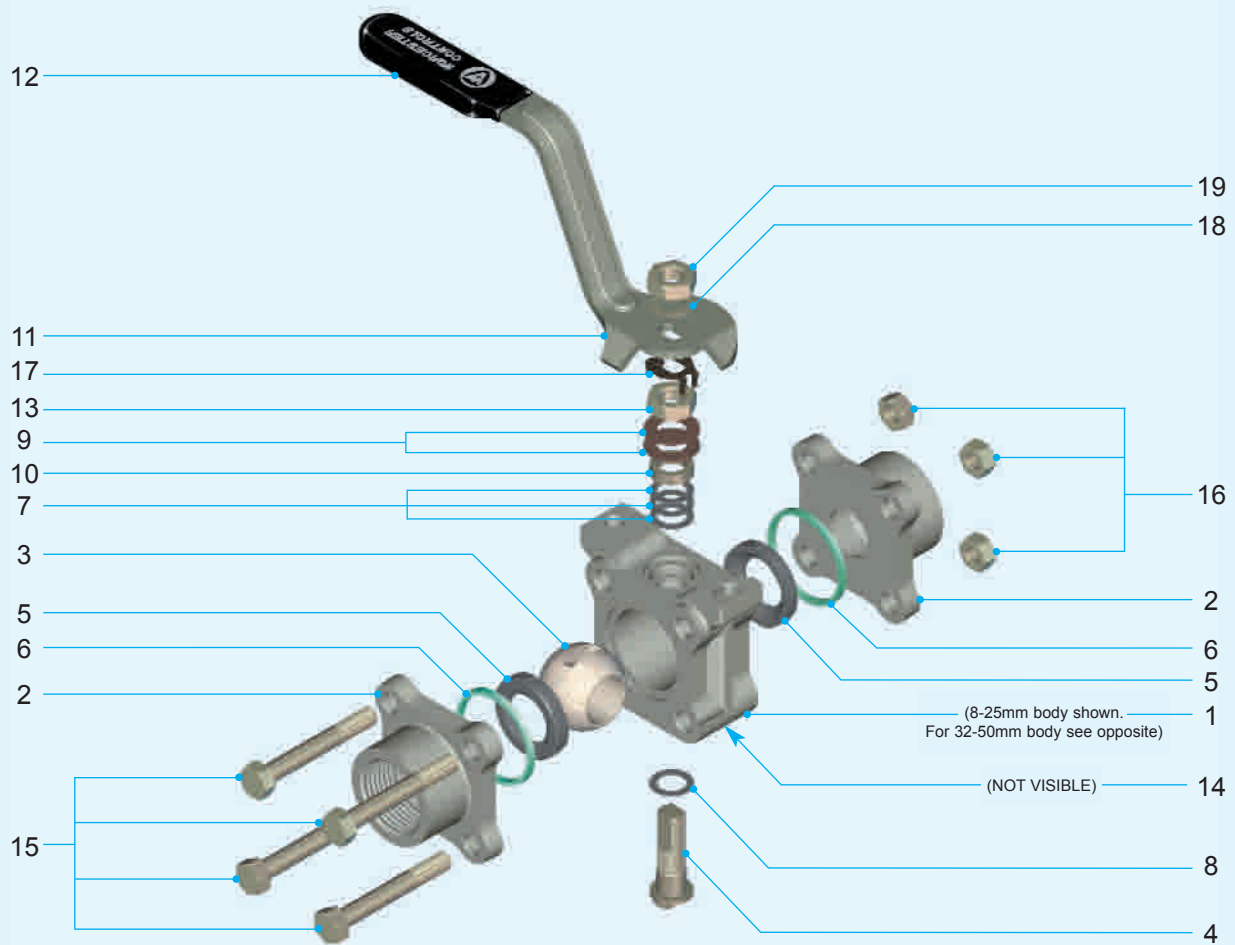
Using its unique Fluorofill seat material, Worcester guarantees the AW44 on continuous saturated steam service up to 250 psi. (17 bar) whilst other Worcester high performance seat materials provide even higher temperature/pressure capabilities.

In addition to its proven record with steam as a heat transfer medium, the AW44 can accommodate other

thermal fluids/hot oils up to 250°C (Fluorofill), or up to 280°C where required with other seat materials.

The AW44 features a mounting platform on the body for ease of ancillary mounting while retaining valve integrity. For these demanding duties, Worcester incorporates its unique PTFE-coated metal body seal which maintains its sealing capability during thermal cycling.

Available in sizes 8-50 mm, the AW44 is manufactured in carbon steel and stainless steel with a range of end connections.



PARTS/MATERIALS LIST

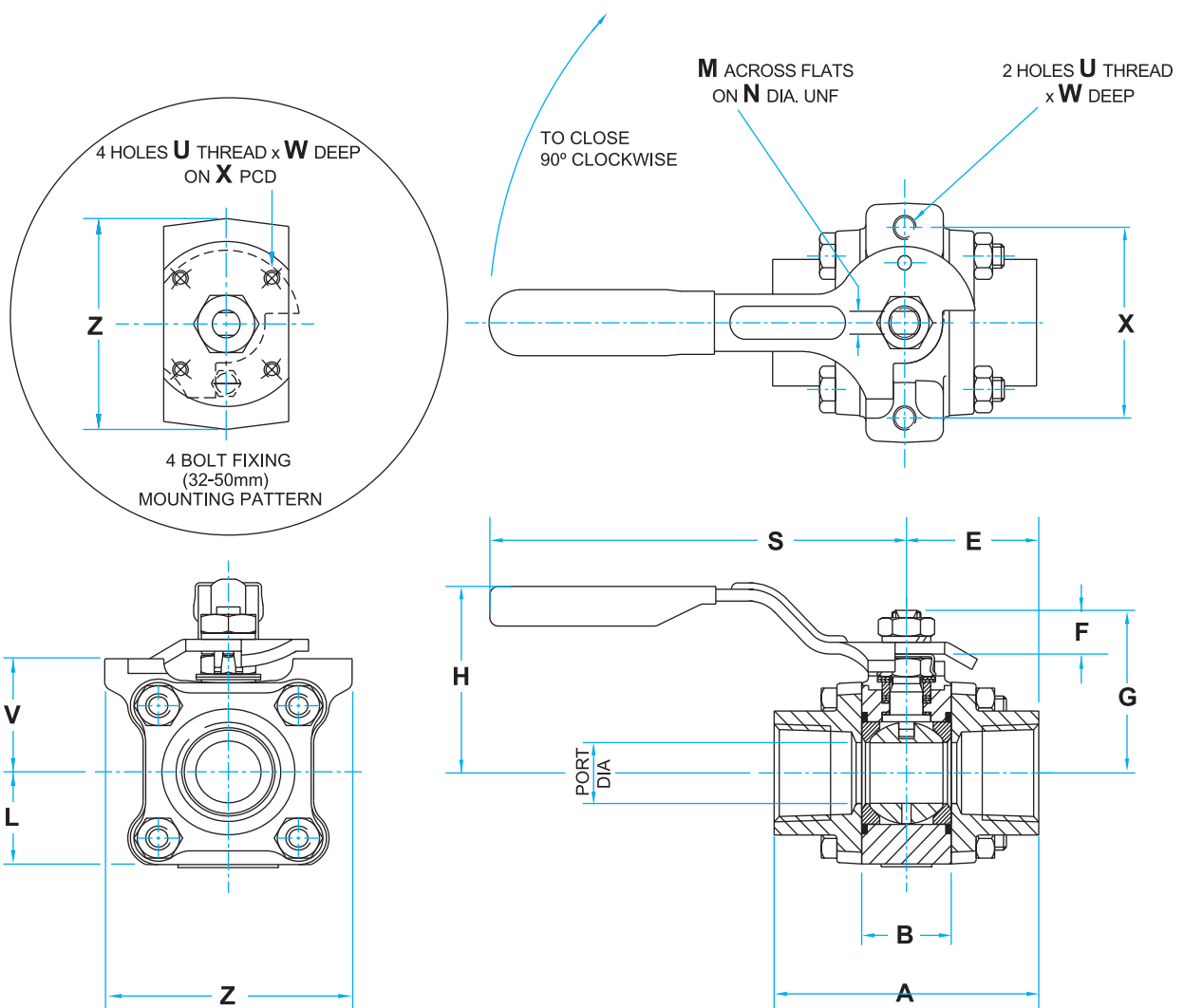
ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL
1.	Body	Carbon Steel ASTM A105 Stainless Steel A351 CF8M	11.	Wrench	Carbon Steel Rustproofed / Stainless Steel 304
2.	Body Connector	Carbon Steel ASTM A105 Stainless Steel A351 CF8M / CF3M	12.	Wrench Sleeve	Vinyl Plastisol
3.	Ball (See Note 7)	Stainless Steel 316	13.	Gland Nut	Stainless Steel 316
4.	Stem	Stainless Steel 316	14.	Identification Plate	Stainless Steel 304
5.*	Seat Ring (See Note 5)	Fluorofill / PEEK	15.	Body Connector Bolt	Carbon Steel BS3692 Gr. 8.8 / Stainless Steel B6105/ISO 3506 A40-80
6.*	Body Connector Seal	Stainless Steel PTFE Coated	16.	Body Connector Nut	Carbon Steel BS3692 Gr. 8.8 / Stainless Steel B6105/ISO 3506 A40-80
7.*	Gland Packing	PTFE 35% Carbon Filled	17.	Gland Nut Locking Clip	Coated Spring Steel
8.*	Stem Thrust Seal	PTFE 35% Carbon Filled	18.	Spring Washer	Stainless Steel 316
9.*	Disc Spring	Stainless Steel	19.	Wrench Nut	Stainless Steel 316
10.	Gland	Stainless Steel 316			

FEATURES

- * Mounting platform on valve body.
- * Range of seat materials.
- * PTFE coated metal body seal.
- * Carbon-filled PTFE stem seals.
- * Black wrench sleeve.
- * Compact size.
- * Lightweight.
- * 3-piece design.

BENEFITS

- Improved stem cycle life.
- Long life performance at high temperatures.
- Optimum performance during thermal cycling.
- Leak tight high cycling capability.
- Clear visual indication of AW44 Energymiser.
- Takes less space.
- Minimises need for pipe supports.
- Ease of maintenance.

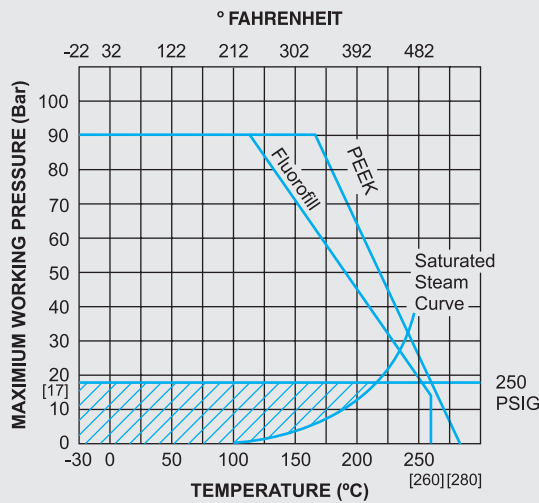


VALVE DIMENSIONS (mm)

Note: Main drawings show 8-25mm body. See inset drawing for 32-50mm

Valve Size (mm)	Port Dia.	A	B	E	F	G	H	L	M Max.	N	S	U	V	W	X	Z	Weight (kg)
8, 10, 15	11.1	65.4	20.6	32.7	10.5	38.0	99.0	24.2	5.54	3/8 U.N.F.	136.0	M6	26.6	9.5	48.0	59.1	0.67
20	14.3	71.0	24.6	35.5	10.5	40.4	101.3	27.6	5.54	3/8 U.N.F.	136.0	M6	29.0	9.5	54.0	65.1	0.90
25	20.6	93.7	31.7	46.9	15.0	55.6	113.8	33.0	7.54	7/16 U.N.F.	149.0	M8	38.0	9.7	63.5	78.5	1.6
32	25.4	106.0	41.2	53.0	15.0	60.3	118.6	36.7	7.54	7/16 U.N.F.	149.0	M5	37.1	7.5	42.0	73.4	1.8
40	31.8	114.6	48.4	57.3	18.2	73.0	130.4	42.7	8.71	9/16 U.N.F.	181.0	M6	44.0	9.0	50.0	85.4	2.7
50	38.1	127.1	56.3	63.6	18.2	77.8	135.1	47.8	8.71	9/16 U.N.F.	181.0	M6	48.7	9.0	50.0	95.6	3.6

PRESSURE TEMPERATURE RATINGS



NOTES

1. Screwed ends shown for clarity. Butt weld and socket weld variations are available
2. Limiting stem input torque figures are based on random practical laboratory tests. For critical applications where a guaranteed figure is essential consult Worcester Controls.
3. When wrench not fitted flats on stem when parallel to pipeline axis, denotes ball open.
4. All weld end valves are assembled with Buna 'O' ring body connector seals with body seals attached loose. This provides for the valve to be tested by Worcester Controls, disassembled by the customer to weld in line, and reassembled-Instructions will be supplied for fitting body seals.
5. Other seat variations are available.
6. Stainless steel valves have stainless steel trim as standard.
7. Installation. Operating and Maintenance Instructions are available on request.
8. Specially prepared versions of this valve are available which comply to NACE-MR-O1-75.

FLOW COEFFICIENTS

Valve Size		Flow Coefficients		Equivalent Length of Pipe	
mm	in	Cv	Kv	Feet	Metres
8-15	¼-½	8.3	7.2	1.9	0.58
20	¾	13.6	11.8	5.5	1.67
25	1	37.5	32.6	3.0	0.91
32	1¼	37.7	32.7	4.6	1.4
40	1½	79.5	69.1	3.9	1.19
50	2	106	92	9.0	2.74

Cv – Flow in US GPM Pressure – psi
Kv – Flow in M³/hr Pressure – bar

Due to continuous development of our product range, we reserve the right to alter the dimensions and information contained in this leaflet as required.

STANDARDS OF COMPLIANCE

Butt Weld Valves	Weld Preparation: SCH 40 & 10: BS 2633 suitable for Schedule Pipe to BS 1600
Socket Weld Valves	Prepared for assembly to plain end pipe in accordance with BS 1600
Screwed Valves	Thread Specification: BSP Taper - ISO/7 BS 21 BSP Parallel - BS 2779/ISO 228/1 ISO/7 (BS 21 DIN 2999) NPT- ANSI B1.20.1
Test Rating	Valves are tested to the pressures and durations as defined in BS 6755 Part 1

LIMITING STEM INPUT TORQUE

Valve Size		Limiting Stem Input Torque (See Note 2)			
		Fluorfill		PEEK	
mm	in	lbf/in	Nm	lbf/in	Nm
8-20	¼ - ¾	117	13.2	284	32
25-32	1 - 1¼	216	24.4	520	59
40-50	1½-2	430	48.6	1040	118

How to order Worcester Valves and other Worcester products

Please order Worcester Valves and other products by description, not by part number.

We need a precise description of the valve you require. We will then translate this information into our own coding for order processing and production.

Please state the despatch address and desired date of delivery.



A44 with Norbro's Series 40R pneumatic actuator (l) and Series 75 electric actuator (r).



Flowserve Flow Control (UK) Ltd
Burrell Road, Haywards Heath, West Sussex RH16 1TL
T: +44 (0)1444 314400 F: +44 (0)1444 314401
E-mail: wwukinfo@flowserve.com
Website: www.worcestercontrols.co.uk



Flow Control Division

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