

0086

BS EN ISO 9001



FM 00707



*Worcester Controls*

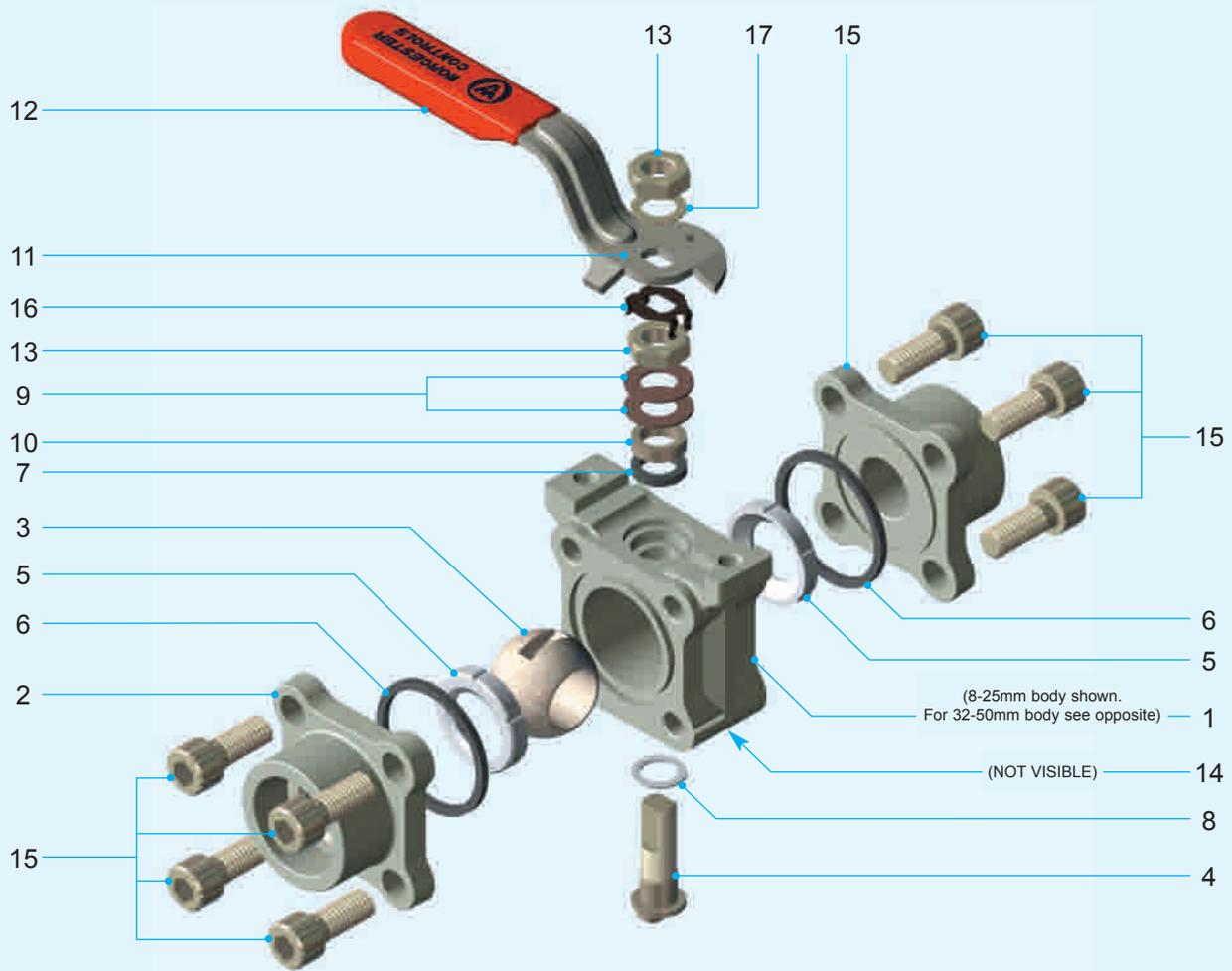
*F44*

*Anti-Static Firesafe 3-Piece Ball Valves*

The Series F44 is a fire-safe variant of the renowned Worcester three-piece range of ball valves. It has been fire-tested in accordance with BS 6755 Part 2 and features graphite gland and body seals, 8 high tensile body connector screws for strength in fire conditions, and an integral location spigot machined on the body connector to ensure correct alignment of the fire lip to the ball in a fire.

The design of the valve is such that graphite contamination of the media is now a thing of the past. Further benefits of this product include a mounting platform on the body for ease of ancillary mounting whilst retaining valve integrity, the three-piece valve's inherent ease of maintenance and its compact and lightweight design. The F44 is available in sizes 8-50mm in a range of materials and with a variety of end connections.

The F44 is fully PED (Pressure Equipment Directive) approved (97/23/EC).



### PARTS/MATERIALS LIST

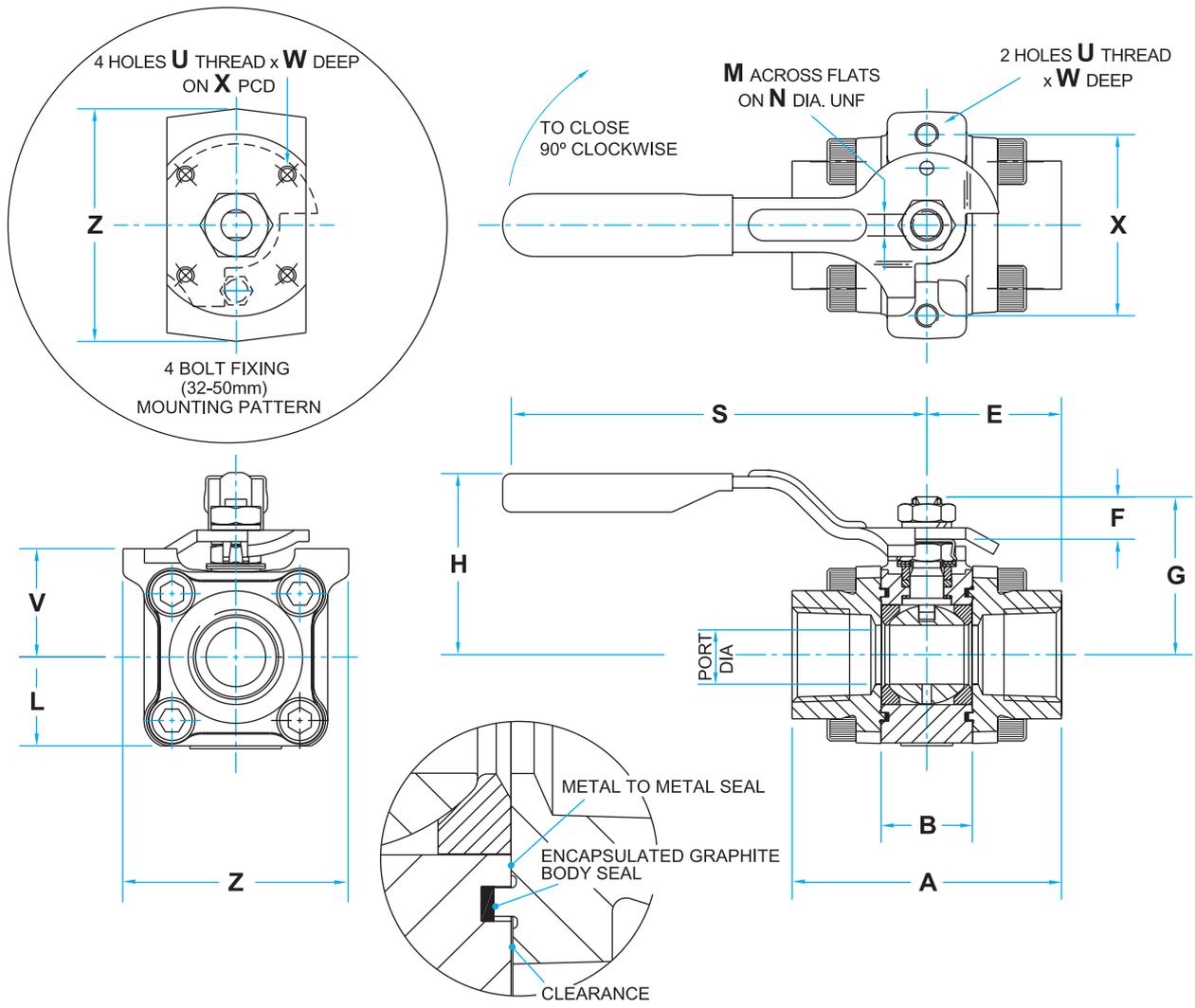
ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL
1.	Body	Carbon Steel ASTM A105 Stainless Steel ASTM A182 F316	11.	Wrench	Carbon Steel Rustproofed Stainless Steel 304
2.	Body Connector	Carbon Steel ASTM A105 Stainless Steel ASTM A182 F316L	12.	Wrench Sleeve	Vinyl Plastisol
3.	Ball (See Note 7)	Stainless Steel 316	13.*	Gland / Wrench Nut	Stainless Steel 316
4.	Stem	Stainless Steel 316	14.	Identification Plate	Stainless Steel 304
5.*	Seat Ring (See Note 5)	PTFE Virgin / 15% Glasss Filled	15.	Body Connector Screw	Stainless Steel BS 4882 B 8 MX
6.*	Body Connector Seal	PTFE Coated Graphite	16.*	Gland Nut Locking Clip	Spring Steel Rustproofed
7.*	Gland Packing	Graphite	17.*	Spring Washer	Stainless Steel
8.*	Stem Thrust Seal	PTFE 35% Carbon Filled	* Items marked thus denote component supplied in repair kit Notes: For 15-50mm valves, one gland packing is used. For 65-150mm valves, two are used.		
9.*	Disc Spring	Stainless Steel			
10.	Gland	Stainless Steel 316			

**FEATURES**

- \* Graphite gland and body seals.
- \* Mounting platform on valve body.
- \* Metal to metal ball / fire lip seal.
- \* 8 high tensile bolts.
- \* Compact size.
- \* Lightweight.
- \* 3-piece design.

**BENEFITS**

- For optimum stem integrity before and after a fire.
- Improved stem cycle life.
- To minimise leakage through the valve.
- Maintains integrity of pressure vessel during fire.
- Takes less space.
- Minimises need for pipe supports.
- Ease of maintenance.



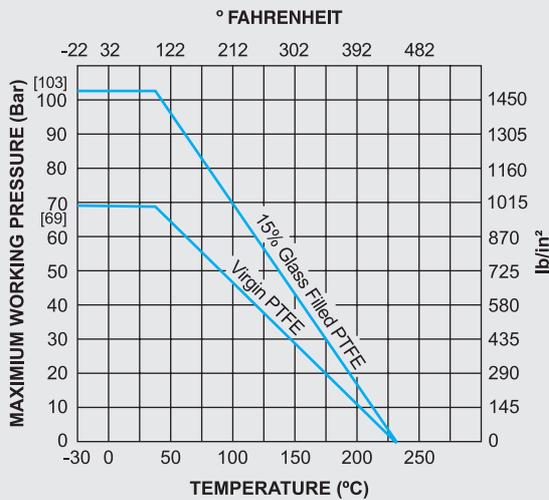
TOP MOUNTED SERIES F44 FIRESAFE BODY SEAL DESIGN

**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	58.0	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	60.3	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	64.8	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	69.6	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	77.9	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	82.6	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

- Screwed ends shown for clarity. Butt weld and socket weld variations are available.
- Limiting stem input torque figures are based on random practical laboratory tests. For critical applications where a guaranteed figure is essential consult Worcester Controls.
- When wrench not fitted flats on stem when parallel to pipeline axis, denotes ball in open position.
- All weld end valves are assembled with Buna 'O' ring body connector seals with fire 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 fire seals.
- Other seat variations are available.
- Stainless steel valves have stainless steel trim as standard.
- Installation, Operating and Maintenance Instructions are available on request.
- Specially prepared versions of this valve are available which comply to NACE-MR-01-75.

### FLOW COEFFICIENTS

Valve Size		Flow Coefficients		Equivalent Length of Pipe	
mm	in	Cv	Kv	Feet	Metres
8-15	½	8	6.9	1.9	0.58
20	¾	12	10.4	5.5	1.67
25	1	32	28.1	3	0.91
32	1¼	46	39.8	3.1	0.94
40	1½	80	69.2	3.9	1.19
50	2	104	90.0	7.5	2.28

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.
Firesafe Specification	In accordance with BS 6755 Part 2
Test Rating	Valves are subjected to the requirements of BS 6755 with hydrostatic Shell test.

### LIMITING STEM INPUT TORQUE

Valve Size		Limiting Stem Input Torque		See Note 2
mm	in	lbf/in	Nm	
8-20	¼-¾	117	13.2	See Note 2
25-32	1¼	216	24.4	
40-50	1½-2	430	48.6	

#### 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.



F44 with Norbro's Series 40R pneumatic actuator (l) and series 75 electric actuator (r).



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Flow Control Division

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