

VALVE SIZE	PORT Ø MIN.	A		B	C	D	E	STEM		J	K	L THREAD & DEPTH	M	S Ø	TI	T2	V Ø	APPROX WEIGHT kg	
		F53	F54					F	G									F53	F54
DN15	9.5	115.0	130.0	46.0	20.91 20.65	17.56 16.85	10.69 10.19	5.54 5.46	3/8"-24 UNF	97.9	155.0	M6 x 1.0P 9.2 MIN.	15.9	15.0	18.0	24.0	19.5	2.3	2.5
DN20	12.7	120.0	150.0	49.4	23.27 23.01	17.56 16.85	10.69 10.19	5.54 5.46	3/8"-24 UNF	100.3	155.0	M6 x 1.0P 9.2 MIN.	15.9	20.0	18.0	24.0	19.5	3.0	3.2
DN25	19.0	125.0	160.0	57.2	31.21 30.95	24.88 24.05	15.19 14.69	7.54 7.47	7/16"-20 UNF	112.8	168.0	M8 x 1.25P 9.7 MIN.	20.65	27.0	24.0	30.25	22.5	4.2	4.5
DN32	23.8	-	180.0	60.4	35.98 35.72	24.88 24.05	15.19 14.69	7.54 7.47	7/16"-20 UNF	117.6	168.0	M8 x 1.25P 9.7 MIN.	20.65	32.0	20.0	30.25	22.5	-	6.0
DN40	30.1	140.0	200.0	62.3	42.31 42.05	31.26 30.43	18.39 17.89	8.71 8.64	9/16"-18 UNF	128.9	193.0	M8 x 1.25P 9.7 MIN.	22.25	40.0	21.0	30.25	29.5	7.2	7.5
DN50	36.4	150.0	230.0	67.9	47.06 46.80	31.26 30.43	18.39 17.89	8.71 8.64	9/16"-18 UNF	133.6	193.0	M8 x 1.25P 9.7 MIN.	22.25	50.0	21.0	30.25	29.5	9.5	10.0

ITEM No	DESCRIPTION	MATERIAL	QTY	
			STAINLESS STEEL VALVES	CARBON STEEL VALVES / REPAIR KIT
1	BODY	DN15 - DN25	1	
		DN32 - DN50		1
		DN15 - DN50		1
2	INSERT	DN15 - DN25	1	
		DN32 - DN50		1
3	BALL	STAINLESS STEEL ASTM A479 316 (UNS S31600) or ASTM A351 CF8M (UNS J92900)	1	
4	STEM	STAINLESS STEEL AISI TYPE 316	1	
5	SEAT RING (STANDARD VARIATIONS)	T PTFE VIRGIN	2	2
		R PTFE 15% GLASS FILLED		
		H PTFE 25% GLASS FILLED		
		P FLUOROFILL: PTFE 10% GLASS, 15% CARBON FILLED		
6	BODY SEAL	PTFE VIRGIN	1	1
7	THRUST SEAL	PTFE 25% GLASS FILLED	1	1
8	GLAND PACKING	FLEXIBLE GRAPHITE	1	1
9	GLAND	STAINLESS STEEL	1	1
10	DISC SPRINGS	STAINLESS STEEL	2	2
11	GLAND NUT	STAINLESS STEEL GR. A2-70	1	1
12	LOCKING CLIP	CARBON SPRING STEEL	1	1
13	WRENCH	STAINLESS STEEL	1	
		CARBON STEEL		1
14	WRENCH SLEEVE	VINYL PLASTISOL	1	
15	SPRING WASHER	STAINLESS STEEL	1	1
16	WRENCH NUT	STAINLESS STEEL GR. A2-70	1	
17	STOP PIN	STAINLESS STEEL	1	
18	ANTI-STATIC BALL	STAINLESS STEEL	1	
19	ANTI-STATIC SPRING	STAINLESS STEEL	1	
20	IDENTITY PLATE	STAINLESS STEEL	1	

STANDARDS OF COMPLIANCE

VALVE SIZE DN32 AND ABOVE:
 PRESSURE EQUIPMENT DIRECTIVE 97/23/EC.
 PRESSURE EQUIPMENT REGULATIONS SI 1999 2001.
 ASSESSMENT CATEGORY: PRESSURE ACCESSORY, GROUP 1 GAS,
 TABLE 6, MODULE 'H', CATEGORY III.

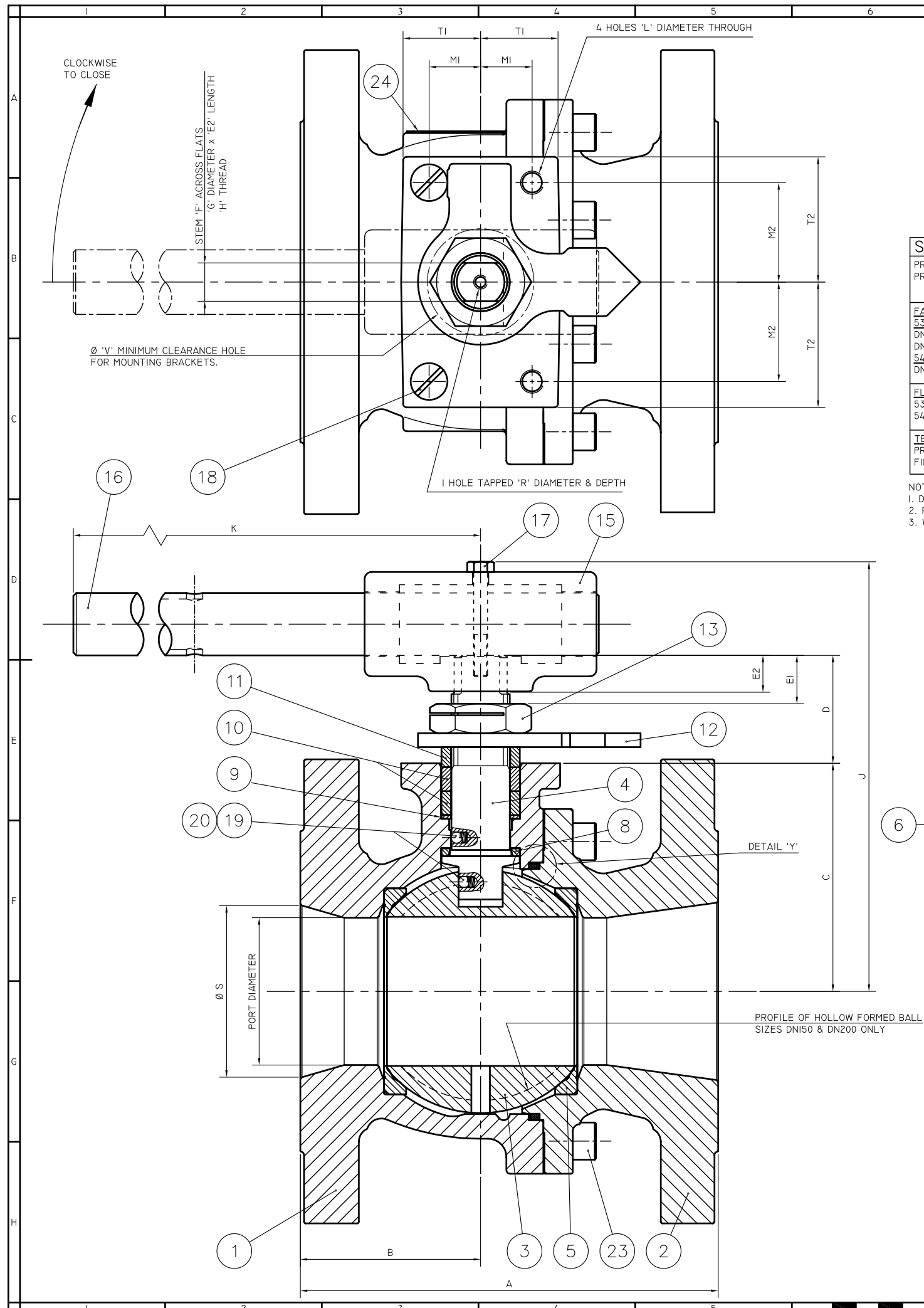
FACE TO FACE DIMENSIONS:
 53 SERIES: DIN3202 COLUMN F4, BS EN 558-1 TABLE 6 SERIES 27
 54 SERIES: DIN3202 COLUMN F1, BS EN 558-1 TABLE 6 SERIES 1

FLANGES CONNECTIONS:
 53 SERIES: BS EN 1092-1 PN16
 54 SERIES: BS EN 1092-1 PN40

TESTING SPECIFICATIONS:
 PRESSURE TEST: BS EN 12266-1
 FIRE TEST: BS6755 PART 2 & ISO 10497.

NOTES:
 1. DRAWING SHOWS A DN50, F53 SERIES VALVE WITH PN16 FLANGES.
 2. FOR ACTUATED VALVES EXCLUDE ITEMS 13, 14, 15, 16 & 17.

C	77009	AFB	15/10/2003	EP	COPYRIGHT © FLOWSERVE FLOW CONTROL UK, BURRELL Rd. HAYWARDS Heath, WEST SUSSEX RH16 1TL, ENGLAND, UK. DATED:			SIZE A1	TITLE DN15-50 F53 & F54 BALL VALVES FIRESAFE, REDUCED BORE	
REV	C/N	SIGN	DATE	CHK	Confidentiality notice: This drawing, specification and dimensions of design embodied herein are and shall remain the exclusive and confidential property of Flowserve Corporation. They shall not be communicated, disclosed, reproduced or used in any way outside the Company except as previously authorized in writing by Flowserve. If provided to organisations or individuals outside the Company, this drawing shall be returned and all copies thereof destroyed upon request by Flowserve.			DRAWING NUMBER F5354-0520-004	SHEET 1 OF 1	REV C
DIMENSIONS MM		UNSPECIFIED TOLS		SCALE	FOR FINISH REFER TO WORCESTER SPEC 300033/IF			APP: EP		
DRAWN TO BS 8888		DIMENSIONS: - ±		1:1	DATE: 03/01/2003	CHK: JH	DATE: 13/05/2003	APP: EP	DATE: 13/05/2003	



VALVE SIZE	PORT Ø MIN.	A		B	C	D	E1 MIN.	E2 MIN.	STEM			J	K	L THREAD	M1	M2	R THREAD & DEPTH	S Ø	T1	T2	V Ø	APPROX WEIGHT kg	
		F53	F54						F A/F	G Ø	H THREAD											F53	F54
DN65	50.5	170.0	290.0	68.0	74.4 74.0	42.6 40.6	13.68	-	14.00 13.85	-	M20 x 1.5P	141.5	225.0	M8x1.25P	16.0	35.0	M6 x 1.0P x 10.0 MIN	65.0	26.0	45.0	40.0	16.0	18.5
DN80	63.1	180.0	310.0	77.8	98.55 98.05	47.43 45.63	18.85	15.9	15.87 15.77	23.00 22.75	1"-14 UNS	184.5	350.0	M10x1.5P	22.22	42.86	M6 x 1.0P x 9.0 MIN	77.0	33.3	54.0	46.0	21.0	24.0
DN100	82.1	190.0	350.0	84.1	114.25 113.75	47.43 45.63	18.85	15.9	15.87 15.77	23.00 22.75	1"-14 UNS	200.0	558.0	M10x1.5P	22.22	42.86	M6 x 1.0P x 9.0 MIN	101.0	33.3	54.0	46.0	26.0	32.0
DN150	110.7	350.0	-	120.6	157.55 157.05	69.78 67.98	31.68	25.4	23.80 23.70	35.30 35.05	1 1/2"-12 UNF	282.5	850.0	M12x1.75P	38.10	50.80	M8 x 1.25P x 11.0 MIN	153.0	50.8	63.5	68.0	60.0	-
DN200	144.3	400.0	-	136.4	185.05 184.55	69.78 67.98	31.68	25.4	23.80 23.70	35.30 35.05	1 1/2"-12 UNF	310.0	850.0	M12x1.75P	38.10	50.80	M8 x 1.25P x 11.0 MIN	202.5	50.8	63.5	68.0	100.0	-

STANDARDS OF COMPLIANCE
 PRESSURE EQUIPMENT DIRECTIVE 97/23/EC.
 PRESSURE EQUIPMENT REGULATIONS SI 1999 2001 ASSESSMENT CATEGORY:
 PRESSURE ACCESSORY, GROUP I GAS, TABLE 6, MODULE 'H', CATEGORY III.

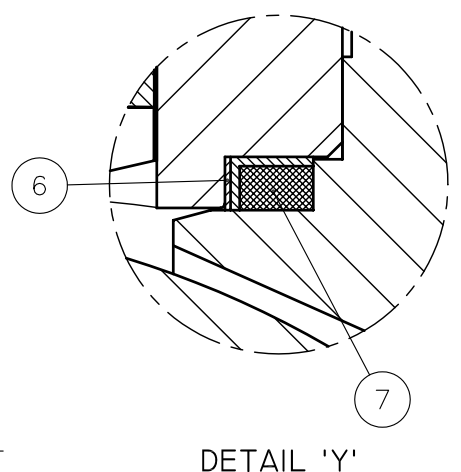
FACE TO FACE DIMENSIONS:
53 SERIES:
 DN65 - DN100: DIN3202 COLUMN F4, BS EN 558-1 TABLE 6 SERIES 27.
 DN150 & DN200: DIN3202 COLUMN F5, BS EN 558-1 TABLE 6 SERIES 27.
54 SERIES:
 DN65 - DN100: DIN3202 COLUMN F1, BS EN 558-1 TABLE 6 SERIES 1.

FLANGES CONNECTIONS:
 53 SERIES: BS EN 1092-1 PN16
 54 SERIES: BS EN 1092-1 PN40

TESTING SPECIFICATIONS:
 PRESSURE TEST: BS EN 12266-1
 FIRE TEST: BS6755 PART 2 & ISO 10497

NOTES:
 1. DRAWING SHOWS A DN80, F53 SERIES VALVE WITH PN16 FLANGES.
 2. FOR ACTUATED VALVES EXCLUDE ITEMS 12, 15, 16, 17, & 18.
 3. WRENCH MAY BE FITTED IN MID-POSITION.

ITEM No	DESCRIPTION	MATERIAL	QTY	REPAIR KIT
1	BODY	STAINLESS STEEL ASTM A351 CF8M (UNS J92900)	1	
		CARBON STEEL ASTM A352 LCB (UNS J03003)	1	
2	CONNECTOR	STAINLESS STEEL ASTM A351 CF8M (UNS J92900)	1	
		CARBON STEEL ASTM A352 LCB (UNS J03003)	1	
3	BALL	DN65 - DN100 DN150 & DN200	1	
		STAINLESS STEEL ASTM A351 CF8M (UNS J92900) STAINLESS STEEL ASTM A240 316L (UNS S31603) OR ASTM A312 TP316L (UNS S31603)	1	
4	STEM	STAINLESS STEEL AISI TYPE 316	1	
5	SEAT RING (STANDARD VARIATIONS)	T PTFE VIRGIN	2	2
		R PTFE 15% GLASS FILLED		
		H PTFE 25% GLASS FILLED		
		P FLUOROFILL: PTFE 10% GLASS, 15% CARBON FILLED		
6	BODY SEAL PRIMARY	PTFE VIRGIN	1	1
7	BODY SEAL SECONDARY	FLEXIBLE GRAPHITE	1	1
8	THRUST SEAL	PTFE 25% GLASS FILLED	1	1
9	LOCATION RING (NOT IN 65MM)	STAINLESS STEEL	1	
10	GLAND PACKING	FLEXIBLE GRAPHITE	1	2
		DN65 DN80 - DN200	2	
11	GLAND	STAINLESS STEEL	1	1
12	STOP PLATE	STAINLESS STEEL	1	
		CARBON STEEL	1	
13	GLAND NUT	STAINLESS STEEL Gr. A2-70 OR A4-70	1	1
		CARBON STEEL Gr. 1.0407	1	
14	LOCKING CLIP (65MM ONLY)	CARBON SPRING STEEL	1	1
15	WRENCH HEAD	S.G. IRON	1	
16	WRENCH	CARBON STEEL	1	
17	HEXAGON HEADED BOLT	STAINLESS STEEL	1	
		CARBON STEEL	2	
18	STOP PIN	STAINLESS STEEL	2	
		CARBON STEEL	2	
19	ANTI-STATIC BALL	STAINLESS STEEL	2	
20	ANTI-STATIC SPRING	STAINLESS STEEL	2	
21	BODY STUD (DN65 ONLY)	STAINLESS STEEL BS EN ISO 3506-1 Gr. A4-80 OR BS 1506 Gr. MB8MX OR ASTM A193M Gr. B8M CL.2	6	
		STAINLESS STEEL BS EN ISO 3506-2 Gr. A4-80 OR BS 1506 Gr. M8MX OR ASTM A194M Gr. 8M	6	
22	BODY NUT (DN65 ONLY)	STAINLESS STEEL BS EN ISO 3506-1 Gr. A4-80 OR BS 1506 Gr. MB8MX OR ASTM A193M Gr. B8M CL.2	8	
		DN80	12	
		DN150	12	
		DN200	16	
23	HEXAGON SOCKET HEAD CAP SCREW (DN80 - DN200)	STAINLESS STEEL BS EN ISO 3506-1 Gr. A4-80 OR BS 1506 Gr. MB8MX OR ASTM A193M Gr. B8M CL.2	1	
24	IDENTITY PLATE	STAINLESS STEEL	1	



PROFILE OF HOLLOW FORMED BALL
 SIZES DN150 & DN200 ONLY

DETAIL 'Y'

C	77009	AFB	15/10/2003	EP	 COPYRIGHT © FLOWSERVE FLOW CONTROL UK, BURRELL Rd. HEYWARDS Heath, WEST SUSSEX, RH16 1TL, ENGLAND, UK DATED WORCESTER CONTROLS (UK) LTD <small>Confidentiality Notice: This drawing, specification and details of design embodied herein are and shall remain the exclusive and confidential property of Flowserve Corporation. They shall not be communicated, disclosed, reproduced or used in any way outside the Company except as previously authorized in writing by Flowserve. If provided to organisations or individuals outside the Company, this drawing shall be returned and all copies thereof destroyed upon request by Flowserve.</small>	SIZE A1	TITLE DN65-200 F53 & F54 BALL VALVES FIRESAFE, REDUCED BORE
REV	C/N	SIGN	DATE	CHK		DRAWING NUMBER F5354-2580-004	SHEET 1 OF 1

DIMENSIONS MM UNDEFINED TOLS SCALE FOR FINISH REFER TO WORCESTER SPEC 300033/IF
 DIMENSIONS: - ± ANGLES: - ±
 DRAWN: JH DATE: 06/01/2003
 CHK: MH DATE: 13/05/2003
 APP: EP DATE: 13/05/2003