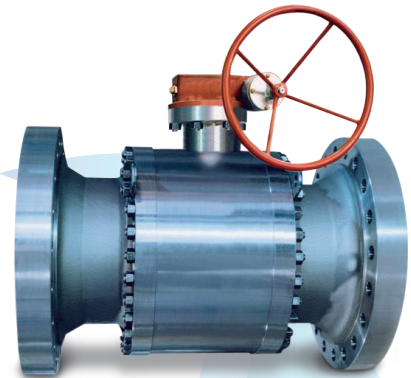


# SFEROVA

## TM3/TM3-L SERIES FORGED SIDE ENTRY BALL VALVE

### DESIGN FEATURES

- Manufactured and tested to API6D
- 3 piece Side Entry type
- Full Bore - Full through conduit - Piggable
- Manual operation - Gear (Rotork)
- Trunnion mounted
- Stem separate from the ball, anti-blow-out design
- No side load on the stem. Bearing blocks absorb the pressure load on the ball
- Triple barrier stem seals
- Anti blow-out stem configuration
- Metal seat retainer complete with soft insert
- O-ring for static (body joints) and dynamic (seat rings and stem) seals. 1500 Class and above c/w PEEK or Nylon or PTFE backing rings behind o-ring.
- All o-rings, seals, seat inserts, gaskets and backing rings are supplied by Gaskets International SRL - Hutchinson's (confirmed on material certificate)
- Self-relieving seat design feature
- Anti-static device
- Sealant injection
- Fire safe certified in accordance with ISO 10497 & API607
- Fugitive emission certified ISO - EN 15848-1



API01-6D



ATEX 94/9/EC



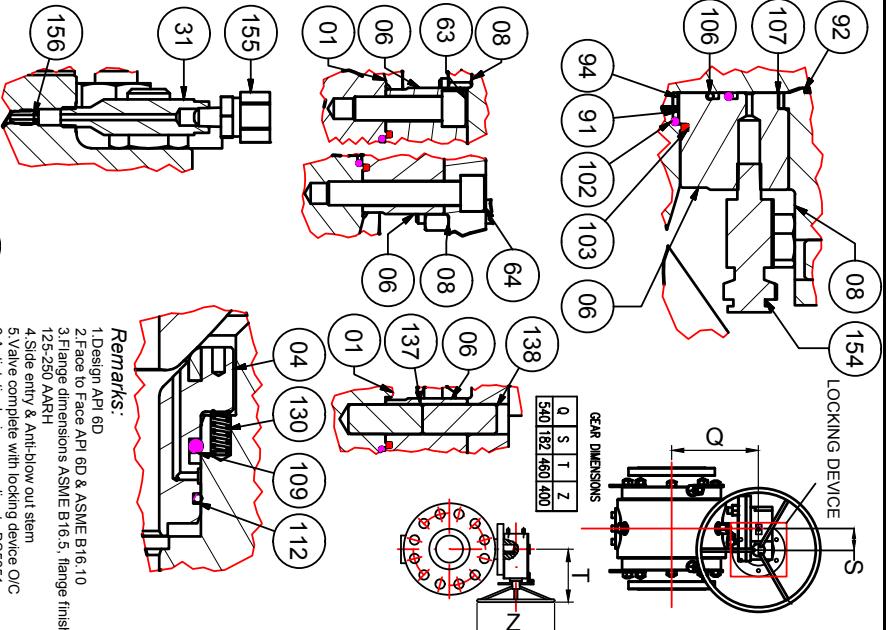
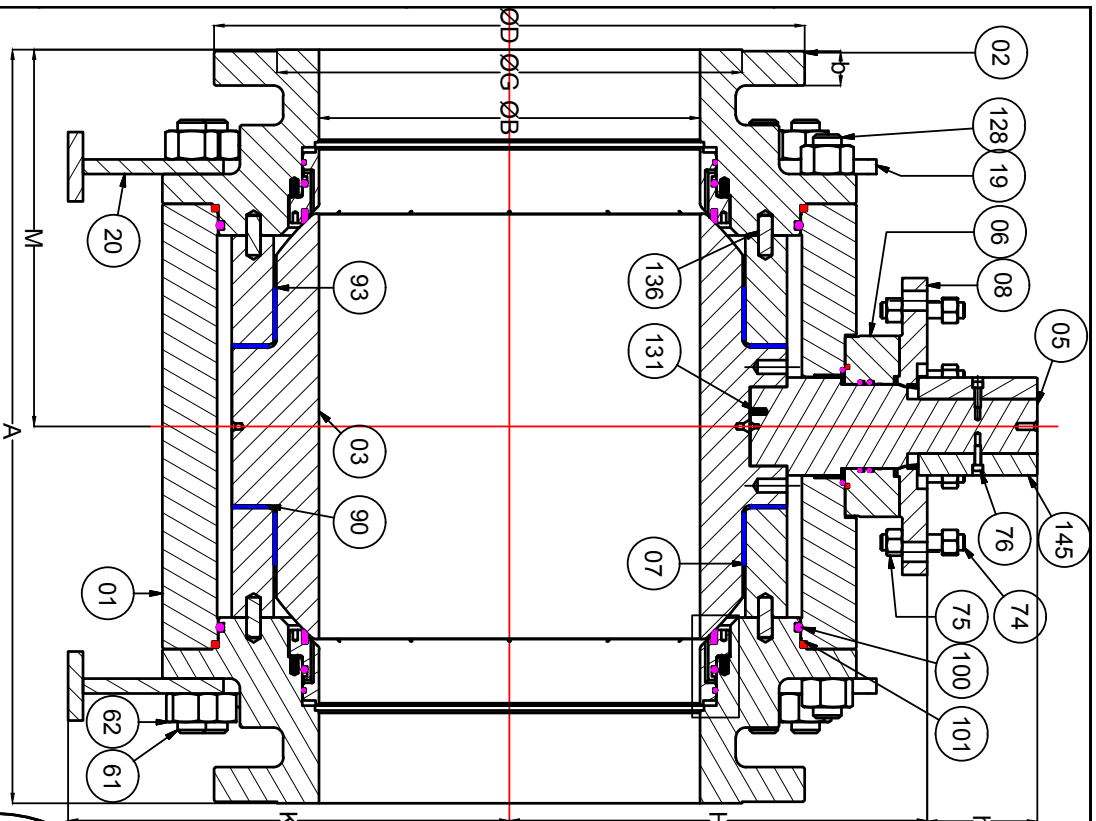
ISO 9001



97/23/EC/PED

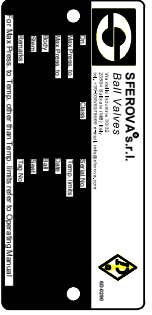
TECHNICAL OVERVIEW SHEET		PROJECT	Stock Order
		PURCHASER	Global Supply Line
		END USER	Australia
LINE		<b>SPECIFICATIONS</b>	
1	<b>VALVE DESCRIPTION</b>	3-Piece Ball Side Entry Trunnion Bolted Bonnet	
2	VALVE MODEL NO.	TM3/TM3-L Series Ball Valve Side Entry	
3			
4			
5			
6	PRESSURE CLASS	Refer to drawing	
7	BORE (FULL/REDUCED)	Refer to drawing	
8	END CONNECTIONS	Refer to drawing	
9	OPERATION (MANUAL/ACTUATED)	Refer to drawing	
10	GEARBOX (WHERE APPLICABLE)	Rotork/Mastorgear	
11	SEAT CONFIGURATION	Self-Relieving	
12	ANTI BLOWOUT STEM DESIGN (YES/NO)	Yes	
13	ANTI STATIC DEVICE (YES/NO)	Yes	
14	VENT/DRAIN FITTING	NPT Plug and Bleed Valve - as per API 6D	
15	FIRE SAFE DESIGN & TESTING (YES/NO - SPEC)	Yes - ISO 10497	
16			
17	<b>VALVE MATERIALS OF CONSTRUCTION</b>		
18	BODY	Refer to drawing	
19	CLOSURE	Refer to drawing	
20	STEM	Refer to drawing	
21	BALL	Refer to drawing	
22	SEATS	Refer to drawing	
23	SEAT INSERT	Refer to drawing	
24	SEAT SPRINGS	INCONEL X750	
25	OTHER SEALS	Graphite/Viton AED (Norsok certified M710) FR58-90*	
26	BOLTING	Refer to drawing	
27	STEM GREASE FITTING	Yes	
28	SEAT SEALANT INJECTION FITTING	Yes	
29	* Gaskets International SRL (Hutchinsons) Equivelant to FR58/90:- AED/T57/VED (Norsok M710 certified). AED LF2 Body valves use Viton GLT AED		
30	Gaskets International SRL GLT/ED Sha98. 1500 Class and over are also fitted with Gaskets International SRL (Hutchinsons) backing rings behind o-rings.		
31	<b>VALVE DESIGN LIMITS</b>		
32	TEMPERATURE	Refer to drawing	
33	PRESSURE	Refer to drawing	
34	DIFFERENTIAL PRESSURE (MAX.)	Not Available	
35			
36	<b>TESTING</b>		
37	REFERENCED SPECIFICATION	API6D (ISO 14313 Rate A)	
38	OTHER TEST/INSPECTION CONDUCTED	PMI/CT/MPI as required	
39			
40	<b>CERTIFICATION</b>		
41	PRESSURE RETAINING PARTS		
42	- BODY, BONNET, CLOSURE	EN 10204 3.1	
43	- STEM	EN 10204 3.1	
44	- BOLTING <sup>†</sup>	EN 10204 3.1	
45	PRESSURE CONTROLLING PARTS		
46	- SEATS	EN 10204 3.1	
47	- BALL	EN 10204 3.1	
48			
49	<sup>†</sup> ALL B7, B7M, L7, L7M BOLTING IS GALVANISED.		
50	<b>CLARIFICATIONS/QUALIFICATIONS:</b>		
51			
52	1) All valves are provided with locking devices on their individual operators.		
53	2) Valves are designed with capability for double block and bleed operation/function.		
54	3) Vent and drain connections include bleed valve.		
55	4) Valve body cavity pressure can be released during open and close position.		
56	5) Gear box's cover screw shall be accessible from the top.		
57	6) Firesafe ISO 10497 certification is equivalent to API 6FA/API607 v5/BS 6755 Pt. 2.		
58	7) All external fixtures, i.e. seal injection, drain & bleed plug are full 316SS.		
59			
60			
	PREPARED BY	CHECKED BY	REV. NO.
	BT	AS	03

# SAMPLE DRAWING



POS.	DESCRIPTION	MATERIAL	NOTE
01	BODY	ASTM A105N	
02	CLOSURE	ASTM A105N	
03	BALL	ASTM A105N	
04	SEAT	ASTM A105N+EN17500**	Δ
05	STEM	ASTM A105N+EN17500+EN10203	
06	GLAND PLATE	ASTM A105N+ENP	
07	SUPPORT PLATE	ASTM A105N+ENP	
08	ADAPTER FLANGE	ASTM A105N	
19	LIFTING LUG	CARBON STEEL	
20	SUPPORT FEET	CARBON STEEL	
31	EXTENSION	316SS	
61	BODY STUD	ASTM A193 B7M+ZINC	
62	BODY NUTS	ASTM A194 2HM+ZINC	
63	CAP SCREW	ASTM A193 B7M+ZINC	
64	CAP SCREW	ASTM A193 B7M+ZINC	
74	STUD (GEAR)	ASTM A193 B7M+ZINC	
75	NUT (GEAR)	ASTM A193 B7M+ZINC	
76	CAP SCREW	A470	
90	BEARING	DU-DRY	
91	BEARING	DU-DRY	
92	BEARING	DU-DRY	
93	WASHER	DU-DRY	
94	WASHER	DU-DRY	
100	O RING	VITON AED/FS8/90*	
101	O RING	VITON AED/FS8/90*	
102	O RING	VITON AED/FS8/90*	
103	GASKET	GRAPHITE	
106	O RING	VITON AED/FS8/90*	
107	GASKET	GRAPHITE	
109	O RING	VITON AED/FS8/90*	
112	O RING	VITON AED/FS8/90*	
130	SPRING	INCONEL X750	
131	SPRING	INCONEL X750	
136	PIN	COMMERCIAL	
139	PIN	COMMERCIAL	
145	STEM KEY	316SS	
146	DRAIN PLUG	316SS	
151	VENT BLEEDER	316SS	
154	STEM GREASE INJECTION	316SS	
155	SEAT GREASE INJECTION	316SS	
156	CHECK VALVE STOP PIN	COMMERCIAL	
128	BODY STUD	ASTM A193 B7M+ZINC	

- Remarks:**
- Design API 6D
  - Face to Face API 6D & ASME B16.10
  - Flange dimensions ASME B16.5, flange finish 12.5-250 AARRH
  - Side entry & Anti-blow out stem
  - Valve complete with locking device O/C
  - Antistatic device according to BS55351
  - Fire Safe API 607, API 6FA
  - Painting: std SFEROVA SA250+inorganic zinc prime RAL 5015, blue top coat
  - Conform to name Mfr-01-75 or Gasstas International SRL equivalent AED/FS/VED
  - Minimum hardness 67RC (900VHN)

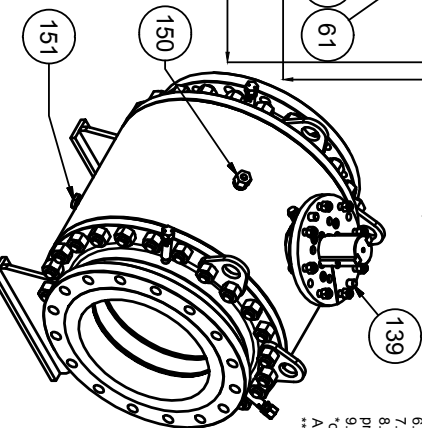


**DESIGN & TEST LIMIT TABLE**

CLASS	ANSI 50
Working pressure	51.7 Bar
Hydrostatic test pressure	76.7 Bar
Hydrotest seat test pressure	59.2 Bar
Pressure seat test pressure	6 Bar

\* As per ASME B16.34 for related group 1  
 \*\* Temperature scope  
 - Temperature scope (max) 31 MPa (450°)

ITEM	CODE	SIZE	A (RF)	B	M	D	b	G	K	H	h	W (kg)
234	BV876	16"	762	385	381	597	34.9	470	446	422	111	1282



3	UPDATE DRAWING AFTER COMMENTS	DATE	25/11/15	SCALE	NTS	DATE	5/12/8
4	REVISION	DATE	25/11/15	SCALE	NTS	DATE	5/12/8

**ASSEMBLY DRAWING**

GLOBAL SUPPLY LINE

PO 5000238BT

SFEROVA S.R.L.

PO 5000238BT

SF-2015-0012

**SFEROVA**

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