



FIRE TEST REPORT

F.T.R. N.: **9512**

The fire safe test was performed in accordance with:

- * BS 6755 : Part 2 : edition 1987
- * API STD 607 III Edition Nov. 1985
- * API Spec. 6 FA II Edition Feb., 15 1994

SITE : Casorezzo (MI) - Italy

DATE **16 MAR. 1996**

VALVE TYPE: Ball Valve

MANUFACTURER'S NAME : PENTA s.r.l.
 Via Torricelli 25,27
 25080 Molinetto (BS)
 Italy

The valve subject to fire test is representative of the type and size here below described.

VALVE TYPE : SAT2 **RATING :** ANSI 300

NOMINAL SIZE : 6" **FULL | X | REDUCED | | BORE**

BODY MATERIAL : ASTM A105 **BALL MATERIAL :** AISI 316

MARKING : _____

DRAWING N. : 69700-DPL **Rev. : 0 Date 21-09-92**

The valve, before fire testing, has passed all the required hydrostatic and air type and production pressure tests required by the standard to which the valve was manufactured, and is compliant with the drawings and the parts list supplied by the manufacturer.

ENCLOSURE : Assembly drawing with bill of materials



- Witnessed
- Monitoring
- Reviewed

Signed G. Renier

**FIRE TEST REPORT****F.T.R. N.: 9512****VALVE TYPE : SAT2****NOMINAL SIZE : 6"****BODY MATERIAL : ASTM A105****MARKING :****RATING : ANSI 300****FULL | X | REDUCED | | BORE****BALL MATERIAL : AISI 316****TEMPERATURES RECORDING**

TIME (min)	PRES. (BAR)	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)
start	37,5	706	800		
2	37,5	850	870	420	419
4	37,5	889	890	448	455
6	37,5	900	905	478	470
8	37,5	905	915	500	501
10	37,5	910	920	550	561
12	37,5	916	931	590	599
14	37,5	918	935	630	640
16	37,5	920	940	650	660
18	37,5	921	940	670	673
20	37,5	926	949	675	680
22	37,5	927	950	685	699
24	37,5	930	951	690	701
26	37,5	931	950	695	703
28	37,5	929	950	697	704
30	37,5	928	951	698	705



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VALVE TYPE : SAT2

NOMINAL SIZE : 6"

BODY MATERIAL : ASTM A105

MARKING :

RATING : ANSI 300

FULL | X | REDUCED | | BORE

BALL MATERIAL : AISI 316

LEAKAGES RECORDING

	Actual (c.c. / min)	allowed leakage 6" ANSI 300 (c.c. / min.)	allowed leakage (c.c. / min. / inc.)
Seat leakage at the high test pressure during the burn period	150	2400	400
External leakage during burn cool-down period with valve in high pressure test	14	600	100
Time required for valve to cool-down to 100°C	32	minutes	
Seat leakage at the low test pressure after cool-down for the test period of 5 min.	2	240	40
External leakage at the low test pressure of 3.5 BAR after cool-down for the test period of 5 min.	2	120	20
Maximum force to operate	500	Nm	Method used: Torque Wrench
External leakage at high test pressure after cool-down, with valve in fully open position for the test period of 5 min.	28	1200	200

Observations :



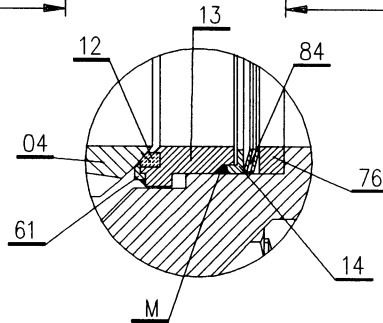
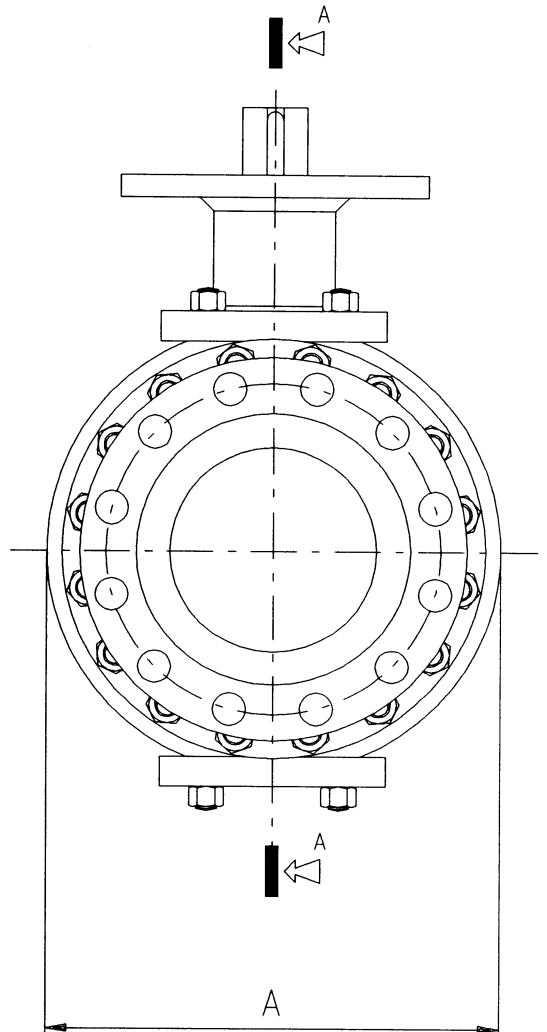
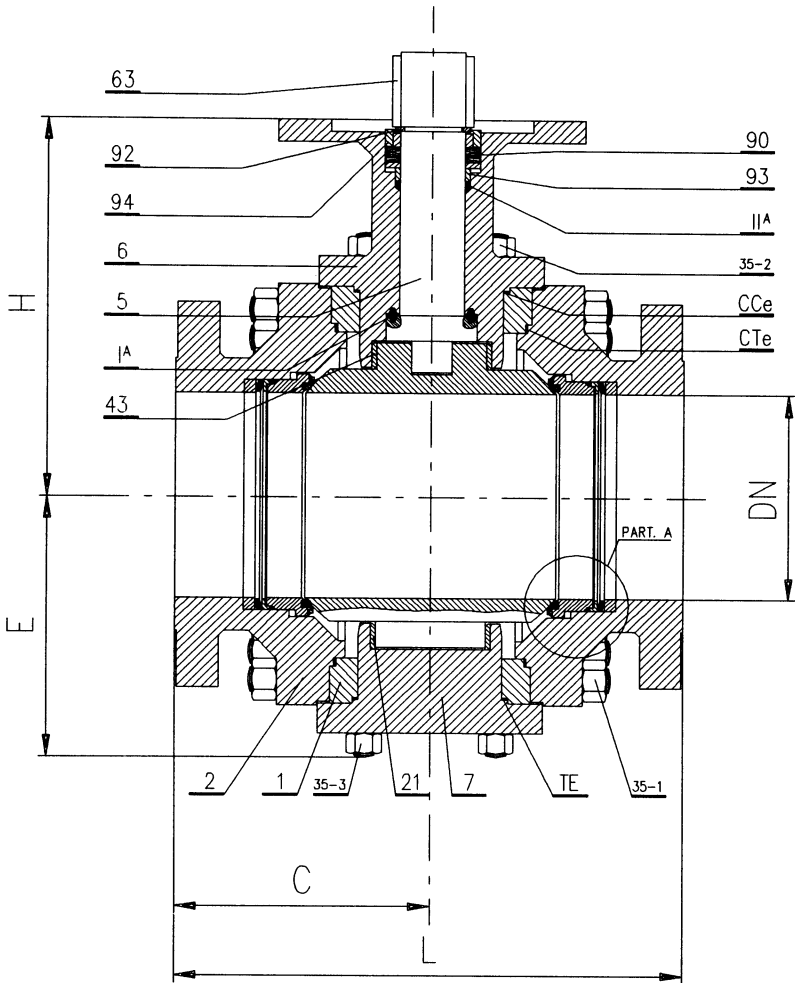
Witnessed

Monitoring

Reviewed

Signed G. Renier

SEZ. A-A



PART. A

Pieces	Part Name	Part	Material	Notes
1	Body	1	A105	
2	Body connector	2	A105	
1	Ball	4	316	
1	Stem	5	316	Lubricated
1	Upper cover	6	A105	
1	Lower cover	7	A105	
2	Seat insert	12	PENTAFITE	
2	Seat holder	13	316	
2	Compression ring	14	316	
1	Trunnion plain bearing	21	316	Lubricated
-	Body connector bolt	35-1	B7-2H	
-	Upper cover bolt	35-2	B7-2H	
-	Lower cover bolt	35-3	B7-2H	
1	Stem gland	43	316	Lubricated
2	Seat support	61	316	
2	Feather key	63	C40	
2	Distance	76	316	
-	Seat spring	84	X-750	
-	Stem spring	90	X-750	
1	Stem retaining ring	92	316	
1	Gland	93	316	Lubricated
1	Stem plain bearing	94	316	Lubricated
1	Primary stem seal	II A	Grafoil	
1	Secondary stem seal	II A	Grafoil	
2	Seat gasket	M	Grafoil	
2	Body connector gasket	CTe	Grafoil	
1	Upper cover gasket	CCe	Grafoil	
1	Lower cover gasket	Te	Grafoil	

DN	ANSI	A mm	C _{RF} mm	E mm	H ₁ mm	L _{RF} mm			WITHOUT ACTUATOR Kg
6"	300	334	201.5	197	285	403			

	COMMESSA No. Production Order		MATERIALE Material		PEZZI No. Pieces		
	DESCRIZIONE Description Valvola a sfera modello "SAT2" Ball valve type "SAT2"				DISEGNO No. Drawing 69700-DPL		
Note			Revision 0	Date 21-09-92	Description ISSUE	Drawn F.ROSSI	Checked
					<input type="checkbox"/> Witnessed <input type="checkbox"/> Monitoring <input type="checkbox"/> Reviewed		
			Signed G. Renier				