

KHIMJI FLOW EQUIPMENTS PVT. LTD.

Block No. 67/E, 67/F, Tarihal - Revadihal Road,

REVADIHAL VILLAGE - 580 026

Karnataka, India



FIRE SAFE TEST CERTIFICATE

According to API-607-7th Edition, June 2016

Report NO: 008

Customer Name : Flow link systems (P) Ltd, Coimbatore
Test Location : Khimji flow equipments Pvt. Ltd.
Date of testing : 23rd March 2021
Valve Description : Ball valve
Size & Rating : Full port 6" Class 300 RF
Valve Drawing : 10303052001 Rev. 0

Valve Material:

Body and Adapter : ASTM A352 Gr.LCC
Trim : ASTM A479 Gr.316 & ASTM A182-F316
Seals : SOFT SEALS
Valve Serial No : 20008504001

The above valve was tested in accordance with the standard API-607-7th Edition June 2016, the test equipment and Testing procedures are confirming to the required specifications.

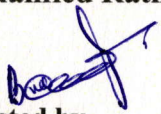
All the tests conducted as per API-607-7th Edition June 2016, requirements and found accepted.

Range Qualified:

This valve qualifies following sizes and class rating as per API-607-7th Edition June 2016,

Qualified sizes : NPS 6", 8", 10" & 12" (DN 150, 200, 250 & 300)

Qualified Ratings : 300 & 600 (PN 50 & 110)


Tested by

M.E.BHUTE


Approved by

R.BASKARAN

Witnessed by

KRISHNA KALWAD





**FIRE SAFE TEST CERTIFICATE
REPORT NO: 008**

Customer: Flow link systems (P) Ltd, Coimbatore
Test Standard: API-607-7th Edition, June 2016

Place: KHIMJI FLOW EQUIPMENTS PVT. LTD. Hubli , Karnataka, India	Test SL. NO :008	Date : 23-03-2021
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OBSERVATIONS

1	Water level in water vessel before Fire Test (h1) mm	915
2	Water level after Cooling (h2) mm	840
3	Seat Leakage during	
	a) Burn period (HP) – (V1)ml	6150
	b) Cooling down period (HP) – (V2)ml	1400
	c) After Cool down period (LP) – (V3)ml	1050
4	External leakage :	
	a) After cool down period (LP) – (V4)ml	620
	b) External during burn & cool down period (HP)- (V5)ml [Total Volume consumed i.e., Difference in water level H * Water level constant – V1+V2+V3+V4]	4880
	External leakage after operation test (HP) – (V6)ml	560
5	Test durations:	
	a) Burn period – (t1) min	30
	b) Fire test period (up to cool down) – (t2) min	35
	c) Low pressure test period – (t3) min	5
	d) External HP test period after operational – (t4) min	5
6	Water Vessel Calibration constant – (K) ml/min	188
7	Cavity Volume(initially measured) – (V7) ml	7190
8	Difference in Water Lever – (H=h1-h2)mm	75
9	Total Volume Consumed – H*188	14100

TEST RESULTS

Leakage	Test Condition	Formula	Leakage Rate Actual (ml/min)	Allowable Max (ml/min)	
1	Seat	Burn Period	V1/t1	205	2400
2	Seat	After Cool down period	V3/t3	210	240
3	External	Fire test period	V5/t2	139.4	600
4	External	After Cool down period	V4/t3	124	150
5	External	After Operational test	V6/t4	112	150

Test Result: PASSED


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FLOW LINK SYSTEMS (P) Ltd, Coimbatore

FIRE SAFE TEST CERTIFICATE

FIRE SAFE TEST REPORT NO : 008

1. TEST CONDUCTED AT	: KHIMJI FLOW EQUIPMENTS PVT LTD	7. WEIGHT OF THE VALVE	: 106.2 kgs
2. DESIGN STANDARD OF VALVE	: API-6D & API 608	8. VALVE SERIAL NO	: 20008504001
3. TESTING STANDARD	: API-607 & API-598	9. TEST DATE	: 23-03-2021
4. TEST VALVE	: NPS 6" CLASS 300 : RF FLANGE ENDS BALL VALVE FP	10. MATERIAL OF CONSTRUCTION OF TEST VALVE	
5. RANGE OF VALVES COVERED	: NPS 6", 8", 10" & 12" : CLASS 300 & 600	a) BODY & ADAPTER	: ASTM A352 Gr. LCC
6. TEST VALVE DRAWING NO	: 10303052001 REV 0	b) BALL & STEM	: F316 & 316
		c) SEAT	: SOFT SEALS
		d) BODY SEAL	: SOFT SEALS
		e) STUD	: ASTM A320 Gr. L7M
		f) NUT	: ASTM A194 Gr. 7M

TEST VALVE PASSED HYDROSTATIC SHELL & SEAT TEST BEFORE FIRE SAFE TEST

TABULATION

FIRE TEST TEMPERATURE / PRESSURE MEASUREMENT DETAILS

SL.NO:	TIME (MIN)	GAUGE PRESSURE Bar		FLAME THEROCOUPLE TEMPERATURE (°C)			BODY AND ADAPTER THEROCOUPLE TEMPERATURE (°C)		CALORIMETER CUBE THEROCOUPLE TEMPERATURE (°C)				REMARKS
		UPSTREAM	CAVITY	BELOW BODY	NEAR STEM	AVG (T1)	BODY (T2)	ADAPTER (T3)	BELOW BODY	NEAR END PIECE	NEAR STEM	AVG (T4)	
1	0.0	2	2	114	184	149	128	135	203	224	160	195.7	
2	0.5	2	2	128	199	163.5	158	154	245	256	178	226.3	
3	1.5	2	2	156	215	185.5	166	169	298	284	212	264.7	
4	2.0	2	2	184	253	218.5	174	178	385	312	235	310.7	
5	2.5	2	2	205	260	232.5	189	199	445	328	280	351.0	
6	3.0	2	2	225	284	254.5	215	208	476	336	310	374.0	
7	3.5	2	2	236	290	263	223	248	542	345	340	409.0	
8	4.0	2	2	254	301	277.5	236	266	581	356	368	435.0	
9	4.5	2	2	289	315	302	258	290	605	368	390	454.3	
10	5.0	2	2	305	328	316.5	289	325	642	384	513	513.0	
11	5.5	2	2	345	346	345.5	308	346	661	405	450	505.3	
12	5.0	2	2	368	368	368	316	354	674	428	551	551.0	
13	6.0	2	2	391	387	389	308	368	692	435	564	563.5	
14	6.5	2	2	405	405	405	325	379	694	488	591	591.0	
15	7.0	2	2	418	419	418.5	345	399	698	508	521	575.7	
16	7.5	2	2	458	445	451.5	368	408	700	528	530	586.0	
17	8.0	2	2	469	489	479	390	419	299	545	546	463.3	
18	8.5	2	2	620	504	562	408	425	694	568	568	610.0	
19	9.0	2	2	645	516	580.5	429	429	698	574	636	636.0	
20	9.5	2	2	684	527	605.5	478	436	695	584	640	639.5	
21	10.0	2	2	689	538	613.5	548	458	702	590	646	646.0	
22	10.5	2	3	704	562	633	598	467	700	610	655	655.0	
23	11.0	2	4	715	580	647.5	615	470	700	625	663	662.5	
24	11.5	2	5	724	588	656	628	478	706	638	672	672.0	
25	12.0	2	4	735	599	667	634	489	708	649	528	628.3	
26	12.5	2	5	740	604	672	645	506	698	658	534	630.0	
27	13.0	2	6	758	614	686	654	518	692	668	555	638.3	
28	13.5	2	4	766	628	697	663	523	689	690	690	689.5	
29	14.0	2	6	770	632	701	670	556	694	704	580	659.3	
30	14.5	2	4	784	645	714.5	678	568	692	725	709	708.5	
31	15.0	2	2	786	667	726.5	684	577	690	735	625	683.3	
32	15.5	2	2	790	690	740	690	615	682	740	635	685.7	
33	16.0	2	2	795	699	747	698	624	680	745	668	697.7	
34	16.5	2	2	798	715	756.5	714	638	680	751	671	700.7	

WITNESS BY:

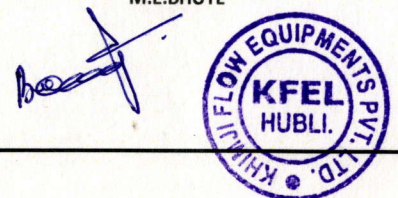
INSPECTOR TUV NORD
KRISHNA KALWAD



APPROVED BY
R. BASKARAN



TESTED BY KFEL HUBLI
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35	17.0	2	2	798	714	756	718	645	680	758	695	711.0	
36	17.5	2	2	790	710	750	725	668	694	760	699	717.7	
37	18.0	2	2	798	708	753	730	675	715	768	705	729.3	
38	18.5	2	2	795	710	752.5	735	680	728	769	712	736.3	
39	19.0	2	2	799	709	754	748	689	716	768	706	730.0	
40	19.5	2	2	805	711	758	740	694	719	772	708	733.0	
41	20.0	2	3	814	712	763	748	699	728	775	706	736.3	
42	20.5	2	3	821	718	769.5	730	701	732	778	709	739.7	
43	21.0	2	4	826	720	773	739	712	738	780	710	742.7	
44	21.5	2	4	830	715	772.5	740	718	745	785	714	748.0	
45	22.0	2	4	834	716	775	745	723	751	784	712	749.0	
46	22.5	2	5	836	708	772	745	746	756	786	705	749.0	
47	23.0	2	5	839	709	774	760	751	759	789	718	755.3	
48	23.5	2	6	840	712	776	764	765	759	790	720	756.3	
49	24.0	2	9	846	724	785	768	770	760	799	730	763.0	
50	24.5	2	10	857	735	796	769	774	765	801	734	766.7	
51	25.0	2	12	856	740	798	772	780	780	815	754	783.0	
52	25.5	2	12	852	745	798.5	775	789	784	819	754	785.7	
53	26.0	2	12	848	751	799.5	778	790	790	825	764	793.0	
54	26.5	2	10	850	758	804	785	798	799	823	774	798.7	
55	27.0	2	9	857	764	810.5	786	802	818	832	745	798.3	
56	27.5	2	8	848	769	808.5	789	815	824	835	732	797.0	
57	28.0	2	7	829	778	803.5	784	824	826	838	730	798.0	
58	28.5	2	6	850	782	816	799	831	828	840	724	797.3	
59	29.0	2	2	855	791	823	805	812	830	821	714	788.3	
60	29.5	2	2	864	790	827	701	786	835	789	712	778.7	
61	30.0	2	2	821	784	802.5	640	745	815	752	700	755.7	
62	30.5	2	2	780	711	745.5	600	701	810	604	602	672.0	
63	31.0	2	2	712	654	683	524	681	768	548	556	624.0	
64	31.5	2	2	650	605	627.5	450	642	725	521	482	576.0	
65	32.0	2	2	524	528	526	382	521	650	488	406	514.7	
66	32.5	2	2	435	456	445.5	335	480	601	450	368	473.0	
67	33.0	2	2	384	380	382	288	422	542	426	325	431.0	
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WITNESS BY:

INSPECTOR TUV NORD INDIA
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R. BASKARAN



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