Sub-Vendor:	Vendor:	-	Ĩ	Contractor:	Owner/Purchaser:
	đ	Hydrostatic test & perform general va			
	— Arya Mabna Payeah	Vendors Doc: No::	Rev. :00		
	Company		Rev. to		

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1 Pressure test

1.1 Scope

Inspection shall be in accordance with API 598. Examination by the manufacturer shall be as specified in API 598.

1.2 General

1.2.1 Valves designed to permit emergency or supplemental introduction of an injectable sealant to the seat area shall be tested with the injection system empty and not in use, except for lubricated plug valves.

1.2.2 When a liquid is used as the test fluid, the valve shall be essentially free from trapped air during the test.

1.2.3 Required protective coatings, such as paint, which can mask surface defects, shall not be applied to any surface before inspection or pressure testing. (Phosphatizing and similar chemical conversion processes used to protect valve surfaces are acceptable even if applied before the tests, provided that they will not seal off porosity.)

1.2.4 When closure testing valves, the valve manufacturer's test procedure shall ensure that excessive force is not used to close the valve. The applied force may be determined from the appropriate figures in MSS SP-91[12] and shall be made available to the purchaser or testing facility upon request. The use of a supplemental leveraging device to aid in achieving a passing leakage rate is acceptable provided that the applied force does not exceed the manufacturer's documented value. Where the manufacturer does not document or otherwise make available the maximum permissible force for valve closure, the test procedure shall restrict the use of supplemental leveraging devices.

1.3 Test location

Pressure test perform in the shop valve manufacturer.

1.4 Test equipment

The equipment used to perform the required pressure test shall not apply external forces that affect seat leakage.

1.5 Test required

The pressure tests listed in Table 1 shall be performed on each valve in accordance with written procedures that comply with this standard.

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Table1 REQUIRED ORESSURE TEST

					Valv	e Type			
Test Description	Size	ASME Class	Gate	Globe and Parallel Slide Gate	Plug	Check	Floating Ball	Butterfly and Trunnion Mounted Ball	
Shell	All	All	All Required		Required	Required	Required	Required	
Backseat*	All	All	Required	Required	NA	NA	NA	NA	
Low-pressure	DN (NPS) ≤ DN	Class ≤ 1500	Required		Required				Required
	100 (NPS 4)	Class > 1500	Optional [®]	Optional*	Optional ^b	Optional ^b	Required	Optional [®]	
closure	DN (NPS) > DN	Class ≤ 600	Required	Chioug	Required ¹	Optional	required	Required	
	100 (NPS 4)	Class > 600	Optional [®]		Optional [®]]		Optional [®]	
	DN (NPS) ≤ DN	Class ≤ 1500	Optional **		Optional ***		Optional**	Optional**	
High-pressure	100 (NPS 4)	Class > 1500	Required	Print Court	Required	Required		Required	
closure ^c	DN (NPS) > DN	Class ≤ 600	Optional h*	Required *	Optional**1			Optional **	
	100 (NPS 4)	Class > 600	Required		Required	1		Required	

NA Not applicable

* The backseat test is required for all valves that have the backseat feature, except for belows seal valves.

When an "optional" test is specified by the purchaser, the test shall be performed in addition to the required tests.

The high-pressure closure test of realient-seated valves may degrade subsequent sealing performance in low-pressure service.

For power-operated and manually operated gear actuated globe valves, including nonreturn type globe valves, the high-pressure closure test shall be performed at 110 % of the design differential pressure used for signing of the operator.

 A high-pressure closure test is required for all valves specified to be double block and bleed (DBB) valves, unless specified otherwise by the purchaser.

For lubricated plug valves, the high-pressure closure test is mandatory and the low-pressure closure fest is optional.

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1.6 High & low-pressure Closure Test 1.6.1 Material selection is according to (table2).

-			Tablez MATERIAL	
L	ASME B16.34 GROUP		Material	
1	3.3	B 160 Gr. No.2201	B 162 Gr 2201	
2	3.2	B 160 Gr. No.2200 B 163 Gr. No.2200	B 161 Gr. No. 2200	B 162 Gr .NO. 2200
		A 355 Gr. Pl	A 387 Gr. 12CL 1	A 387 Gr.2CL2
3	1,6	A 691 Gr1/2 CR	A 369 Gr EPA	A 387 Gr 2CL1
		A 182 Gr. F 304 L	A 240 Gr 304 L	A 312 Gr TP 304L
	2.3	A 479 Gr. 304 L	A 182 Gr. 316L	A 240 Gr. 316L
		A 312 Gr IP 316 L	A 479 Ge 316 L	
		A 351 Gr. CN 751	B 463 Gr. NO. 8020	18 468 Gr. NO. 8020
ŧ	3.1	B 473 Gr. NO. 8020	B 462 Gr. NO 8020	B 464 Gr. NO. 8020
		B 127 Gr NO 4400	B 164 Gr.NO 4400	B 165 Gr. NO 4400
	3.4	B 564 Gr. NO 4400	B 163 Gr.NO 4400	8 164 Gr. NO 4400
		B 407 Gr NO 8810	B 408 Gr.NO 8810	B 409 Gr. NO 8810
	3.15	B 564 Gr. NO 8810	A 494 Gr. N- 12 MV	A 494 Gr. CW 12 MV
1		A 100 Gr. B	A 515 Gr. 60	A 675 Gr. 60
	1.4	A 6 2 Gr. B 60	A 350 Gr. LF 1	A 516 Gg 60
		A 696 Gr. B	A 672 Gr. C 60	
		A 335 Gr. P11	A 369 Gr. FP 11	A 387 Gr. 11CL1
5	1.2	A 691 Gr. ICR	A 335 Gr. P12	A 369 Gr. FP 12.
	1.8	A 387 Gr.12 CL.2	A 691 Gr. 1 1/4 CR	A 335 Gr. P5B
		A 369 Gr.FP 22	A387 Gr. 22 CL 1	A 691 Gr. 2 ¹ / ₄ CR
	1.10	A 355 Gr. PS	A 369 Gr. FPS	A 387 Gr. 5CL2
	1.12	A 691 Gr. 5 CR	A 335 Gr. P5B	A 387 Gr. CL.1
6	3.11	B 625 Gr. NO 8904	B 649 Gr. NO 8904	B 677 Gr. NO 8904
	2.4	A 240 Gr. 309S	A 351 Gr. CH 8	A 351 Gr.CH 20
	2.6	A 358 Gr. 309H	A 312 Gr. TP 309H	A 240 Gr. 309H
	1	A 182 Gr. F 310H	A 312 Gr. TP 310H	A 358 Gr.310H
ŧ	2.7	A 479 Gr .3105	A 240 Gr. 310S	A 351 Gr. CK 20
		A 240 Gr. 310H	A 479 Gr. 310H	
	1656	B 581 Gr. NO 6985	B 582 Gr.NO 6985	B 620 Gr.NO 8320
	2.12	B 622 Gr. NO 6985	B 622 Gr.NO 8320	B 621 Gr.NO 8320
	1.3	A 672 Gr. B 62 A	515 Gr. 65 A 675 GR. 65	A 672 Gr.C 65
8	1.2	A 203 Gr. A	A 352 Gr. LCB	A 518 Gr.65
0.1	1.5	A 182 Gr.F1	A 204 Gr.A	A 352 Gr. LC 1
	447	A 691 Gr.CM-70	A 204 Gr.A	A 217 Gr. WC 1

Table2 MATERIAL

	ib-Vendor:	Vendor:	-		Contractor:	Owner/Purchas
		đ		formance procedure for ral valve		
		Arya Mabna Payeah Company	Vendors Doc. No.:	Rev. :00	-	
				38038630.9		
		A 182 Gr. F 304 A 430 Gr. FP 304 H	A 132 Gr.TP 304	A 385 Gr. 304 A 312 Gr. 304 H		
	2.1	A 376 Gr. TP 304	A 182 Gr. F 304 H A 479 Gr. 304	A 240 Gr. 304		
	Co.W	A 351 Gr. CF3	A 376 Gr. TP 304 H			
		A 240 Gr. 304 H	A 351 Gr. CF 8	A 430 Gr. FP 304		
		A 182 Gr. F 316	A 312 Gr. TP 316	A 351 Gr. CF 814		
		A 430 Gr. FP 316	A 182 Gr. F 316 H	A 312 Gr. TP 316 H		
	2.2	A 351 Gr. CF 8M A 312 Gr. TP 317	A 430 Gr. FP 316 H			
	414	A 240 Gr. 316 H	A 358 Gr. 316 A 351 Gr. CF3 A	A 479 Gr. 316 A 376 Gr. TP 316		
		A 479 Gr 316 H	A 240 Gr.317	A 351 Gr. CF3M		
		A 376 Gr. TP 316 H	A 351 Gr.CG8H			
		A 182 Gr. F 321	A 312 Gr. TP 321	A 376 Gr. TP 331		
ÿ	2.4	A 430 Gr. FP 321	A 182 Gr.E 321 H	A:312 Gr.1P 321 H		
		A 376 Gr TP 321H	A 479 Gr.321	A 420 Gr. 323 Gr.EP 321 A 358 Gr 323		
		A 240 Ge 321 H A 182 Gr. F 347	A 4 /9 Gr. 321 H A 139 A 240 Gr. 348	A 351 Gr.CF8C		
		A 430 Gr. FP 347	A 182 Gr. F 347 H	A 240 Gr. 348 H		
		A 358 Gr. 347	A-430 Gr. FP 347 H			
	2.5	A 312 Gr (20547	A 376 Gr. TP 347	A 479 Gr. 347		1
		A 182 Gr. F 348 H	A 312 Gr. TP 347	A 376 Gr. TP347 H		
		A 479/Gr. 347.11 A370 Gr/IP 345 A 479 Gr	A 240 Gr. 347	A 312 Gr. TP 348		
	3.6	and the second se	GENOSSIG B-408Gr NOSS			-
	3.10	B 599 Gr.NO 8700	B 672 Gr, NO 8700	All the state of t	-	
	3.14	B 381 Gr.NQ.6007	B 582 Gr.NO 6007	B-622 Gr.NO 6007		
	3.16	B 511 GONO 8330	B-535 Gr.NO 8330	B 536 OnNO 8330		
		A 105/ A 515 Gr.70	A 675 Gr.70	A 672 Gr. B70		
10	1.1	A 216 Gr. WCB	A 516 GR, 70	A 696 Gr. C		
	_	A672 Gr_C70	A 350 GR, LF2	A537 CL 1		
-		A 105 Gr. C	A-203 Gr. B	A350 Gr. LF3 A 216 Gr. WCC	_	
-	12	A 35 2 6 10 1 1 1 1	3705.04			
	1,2	A 352 Gr. LC3 A 352 Gr. LC3	A203 Gr. B A352 Gr. LCC	LO.419 MR. WSA.	the second se	
1		A 352 Gr LC3 A 352 Gr LC2 A 691 Gr CM-75	A203 Gr. B A352 Gr. LCC A204 Gr.CC	A 217 Gr. WC4		-
	1,2 1,7	A 352 Gr LC2	A352 Gr. LCC			
11 A	1.7	A 352 Gr LC 2 A 691 Gr. CM-75	A352 Gr. LCC A204 Gr.CC			
		A 352 Gr.LC2 A 69/ Gr. CM-75 A 217 Or WC3 A 182 Gr. P44 CL2 A 739 Gr. B 11	A352 Gr. LCC A204 Gr.CC A 182 Gr.F2	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2		
1 1 N	1.7	A 352 Gr LC 2 A 69 / Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL 2 A 739 Gr B 11 A 182 Gr F 22 CL 3	A352 Gr. LCC A204 Gr CC A 182 Gr. F2 A 217 Gr WC6 A 182 Gr. F 12 CL A 217 Gr.WC9 A 387	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr. 22 CL 2 A 739 Gr. B2		
2 2 2 31	1.7	A 352 Gr LC 2 A 69 / Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL 2 A 739 Gr B 11 A 182 Gr F 22 CL 3 A 182 Gr F 21	A 352 Gr. LCC A 204 Gr. CC A 182 Gr. F2 A 217 Gr. WC6 A 182 Gr. F 12 CL. A 217 Gr. WC9 A 387 A 302 Gr. B	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr.22 CL 2 A 739 Gr.B2 A 302 Gr.D		
1 2 2 2 2 2	1.7 1.9 1.10 1.11	A 351 Gr. LC2 A 69/ Gr. CM-75 A 217 Gr. WC5 A 182 Gr. P4L CL2 A 739 Gr. B 11 A 182 Gr. F21 A 182 Gr. F21 A 537 CL2 A.	A 352 Gr. LCC A 204 Gr. CC A 182 Gr. F2 A 217 Gr. WC6 A 182 Gr. F 12 CL. A 217 Gr. WC9 A 302 Gr. B 302 Gr. A A 302	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr. 22 CL 2 A 739 Gr. B2 A 302 Gr. D Gr. C A 387 Gr. 21 J		
1 2 2 2 3	1.7 1.9 1.10 1.11 1.13	A 352 Gr.LC2 A 69/ Gr. CM-75 A 217 Gr.WC3 A 182 Gr.P44 CL2 A 739 Gr.B 11 A 182 Gr.F 22 CL3 A 182 Gr.F21 A 537 CL 2 A A 182 Gr.F5	A 352 Gr. LCC A 204 Gr.CC A 182 Gr.F2 A 217 Gr.WC6 A 182 Gr.F12 CL: A 217 Gr.WC9 A 387 A 302 Gr. B 302 Gr. A A 302 Gr. F5A	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr.22 CL 2 A 739 Gr.B2 A 302 Gr.D		
	1.7 1.9 1.10 1.11	A 352 Gr.LC2 A 69/ Gr. CM-75 A 217 Or. WC5 A 182 Gr. P44 CL2 A 739 Gr. B 11 A 182 Gr.F 22 CL3 A 182 Gr.F21 A 537 CL 2 A A 182 Gr.F5 A 182 Gr.F5 A 182 Gr.F9	A 352 Gr. LCC A 204 Gr.CC A 182 Gr. F2 A 217 Gr WC6 A 182 Gr. F 12 CL. A 217 Gr.WC9 A 387 A 302 Gr. B 302 Gr. A A 182 Gr. F5A A 217 Gr. C12	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr.22 CL 2 A 739 Gr.B2 A 302 Gr.D Gr. C A 387 Gr.21 J A217 Gr. C5	СL.	
	1.7 1.9 1.10 1.11 1.13	A 352 Gr.LC2 A 69/ Gr.CM-75 A 217 Gr.WC5 A 182 Gr.P44 CL2 A 739 Gr.B 11 A 182 Gr.F 22 CL3 A 182 Gr.F 21 A 337 CL 2 A. A 182 Gr.F5 A 182 Gr.F5 A 182 Gr.F4 A 182 Gr.F4 A 182 Gr.F4	A352 Gr. LCC A204 Gr. CC A 182 Gr. F2 A 217 Gr WC6 A 182 Gr. F 12 CL. A 217 Gr.WC9 A 362 Gr. B 302 Gr. A A362 Gr. B 302 Gr. A A182 Gr. F5A A217 Gr. C12 82GR.F53 A 240GR.S	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr.22 CL 2 A 739 Gr.B2 A 302 Gr. D Gr. C A 387 Gr.21.1 A217 Gr. C5 31254 A 351GR.CK3MC	СL.	
1	1.7 1.9 1.10 1.11 1.13	A 352 Gr.LC2 A 69/ Gr. CM-75 A 217 Or. WC5 A 182 Gr. P44 CL2 A 739 Gr. B 11 A 182 Gr.F 22 CL3 A 182 Gr.F21 A 537 CL 2 A A 182 Gr.F5 A 182 Gr.F5 A 182 Gr.F9	A 352 Gr. LCC A 204 Gr.CC A 182 Gr. F2 A 217 Gr WC6 A 182 Gr. F 12 CL. A 217 Gr.WC9 A 387 A 302 Gr. B 302 Gr. A A 182 Gr. F5A A 217 Gr. C12	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr.22 CL 2 A 739 Gr.B2 A 302 Gr.D Gr. C A 387 Gr.21 J A217 Gr. C5	СL.	
	1.7 1.9 1.10 1.11 1.13 1.14	A 351 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P 44 CL 2 A 739 Gr B 11 A 182 Gr F 22 CL 3 A 182 Gr F 21 A 337 CL 2 A 182 Gr F5 A 382 Gr F51 A 382 Gr F51 A 479 Gr S31254 A 312 Gr S31254	A 352 Gr. LCC A 204 Gr.CC A 182 Gr.F2 A 217 Gr WC6 A 182 Gr.F12 CL. A 217 Gr.WC9 A 387 A 302 Gr. B 302 Gr. A A 302 Gr. F5A A 217 Gr.C12 82GR.F53 A 240 GR.S31803 A 479 GR.S 31803 A 789 GR.S 31803	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr.22 CL 2 A 739 Gr.B2 A 302 Gr. D Gr. C A 387 Gr.21.1 A217 Gr. C5 31254 A 351GR.CK3MC A 240 GR. 532750 A 479 GR. 5 32750 A 789 GR. 5 32750	СL.	
	1.7 1.9 1.10 1.11 1.13 1.14	A 352 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL 2 A 739 Gr B 11 A 182 Gr F 22 CL 3 A 182 Gr F 21 A 537 CL 2 A 3 A 182 Gr F 5 A 182 Gr S 3 A 182 Gr S 3 A 312 Gr S 3 A 358 Gr S 3 A 358 Gr S 3 A 355 Gr S 3	A 352 Gr. LCC A 204 Gr. CC A 182 Gr. F2 A 217 Gr WC6 A 182 Gr. F12 CL. A 217 Gr.WC9 A 387 A 302 Gr. B 302 Gr. A A 302 Gr. B 302 Gr. A A 302 Gr. F5A A 217 Gr. C12 82GR.F53 A 240 GR.S31803 A 479 GR.S 31803 A 789 GR. S 31803 A 790 GR.S 31803	A 217 Gr. WC4 A 387 Gr. 11 CL 2 Gr 22 CL 2 A 739 Gr.B2 A 302 Gr.D Gr.C A 387 Gr.21 J A 217 Gr. C5 31254 A 351 GR.CK3MC A 240 GR, \$32750 A 479 GR \$ 32750 A 789 GR \$ 32750 A 790 GR \$ 31750	СL.	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.7 1.9 1.10 1.11 1.13 1.14	A 351 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL 2 A 739 Gr B 11 A 182 Gr F 22 CL 3 A 182 Gr F 21 A 537 CL 2 A 3 A 182 Gr F5 A 182 Gr S1254 A 312 Gr S31254 A 358 Gr S31254 B 163 Gr NO 6600	A 352 Gr. LCC A 204 Gr.CC A 182 Gr.F2 A 217 Gr WC6 A 182 Gr.F12 CL. A 217 Gr.WC9 A 387 A 302 Gr. B 302 Gr. A A 302 Gr. F5A A 217 Gr.C12 82GR.F53 A 240 GR.S31803 A 479 GR.S 31803 A 789 GR.S 31803	A 217 Gr. WC4 A 387 Gr. 11 CL 2 Gr 22 CL 2 A 739 Gr.B2 A 302 Gr.D Gr.C A 387 Gr.21 J A 217 Gr. C5 31254 A 351 GR.CK3MC A 240 GR, \$32750 A 479 GR \$ 32750 A 789 GR \$ 32750 A 790 GR \$ 31750	СL.	
II	1.7 1.9 1.10 1.11 1.13 1.14 2.8 3.5	A 351 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL 2 A 739 Gr B 11 A 182 Gr F 22 CL 3 A 182 Gr F 22 CL 3 A 182 Gr F 21 A 537 CL 2 A A A 182 Gr F5 A 182 Gr F5 A 182 Gr F5 A 182 Gr F5 A 182 Gr F51 A 479 Gr S31254 A 312 Gr S31254 A 358 Gr S31254 B 163 Gr NO 6600 B 166 Gr NO 6600	A 352 Gr. FCC A 204 Gr.CC A 182 Gr.F2 A 217 Gr.WC6 A 182 Gr.F12 CL. A 217 Gr.WC9 A 302 Gr. B 302 Gr. A A 302 Gr. B 302 Gr. A A 302 Gr. F5A A 217 Gr. C12 82GR.F33 A 240 GR.S31803 A 479 GR.S 31803 A 789 GR.S 31803 B 167 GR.NO 6600	A 217 Gr. WC4 A 387 Gr. 11 CL 2 Cr. 22 CL 2 A 739 Gr. B2 A 302 Gr. D Gr. C A 387 Gr. 21.0 A 217 Gr. C5 31254 A 351 GR. CK3MC A 240 GR. S32750 A 479 GR. S 32750 A 789 GR. S 32750 A 789 GR. S 31250 B 564 GR. NO 6600	СL.	
T T T T T T T T T T T T T T T T T T T	1.7 1.9 1.10 1.11 1.13 1.14 2.8	A 351 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL2 A 739 Gr B 11 A 182 Gr F 22 CL3 A 182 Gr F 22 CL3 A 182 Gr F 21 A 537 CL 2 A A 182 Gr F5 A 182 Gr F5 A 182 Gr F5 A 182 Gr F4 A 182 Gr F51 A 479 Gr S31254 A 312 Gr S31254 A 358 Gr S31254 B 163 Gr NO 6600 B 166 Gr NO 6600 B 333 Gr NO 10665	A 352 Gr. LCC A 204 Gr.CC A 182 Gr. F2 A 217 Gr.WC6 A 182 Gr. F12 CL. A 217 Gr.WC9 A 302 Gr. B 302 Gr. A A 302 Gr. B 302 Gr. A A 302 Gr. F5A A 217 Gr. C12 82GR.F53 A 240 GR.S 31803 A 789 GR.S 31803 A 789 GR.S 31803 B 167 GR.NO 6600 B 355 Gr.NO 10665	A 217 Gr. WC4 A 387 Gr. 11 CL 2 Cr. 22 CL 2 A 739 Gr. B2 A 302 Gr. D Gr. C A 387 GR. 210 A 217 Gr. C5 31254 A 351 GR. CK3MC A 240 GR. 53 2750 A 479 GR. 5 32750 A 789 GR. S 32750 A 789 GR. S 31250 B 564 GR. NO 6600 B 622 Gr.NO 10663	UN	
II	1.7 1.9 1.10 1.11 1.13 1.14 2.8 3.5	A 351 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL2 A 739 Gr B 11 A 182 Gr F 22 CL3 A 182 Gr F 22 CL3 A 182 Gr F 21 A 537 CL 2 A A 182 Gr F 5 A 182 Gr S 31254 A 312 Gr S 31254 A 358 Gr S 31254 B 163 Gr NO 6600 B 166 Gr NO 6600 B 333 Gr NO 10665 8 313 Gr NO 10665	A 352 Gr. LCC A 204 Gr.CC A 182 Gr.F2 A 217 Gr.WC6 A 182 Gr.F12 CL. A 217 Gr.WC9 A 302 Gr. B 302 Gr. A A 302 Gr. B 302 Gr. A A 302 Gr. B 302 Gr. A A 302 Gr. C12 82GR.F33 A 240 GR.S31803 A 479 GR.S 31803 A 789 GR.S 31803 A 789 GR.S 31803 B 167 GR.NO 6600 B 355 Gr.NO 10665 434 Gr.NO 10003 B 564	A 217 Gr. WC4 A 387 Gr. 11 CL 2 Cr. 22 CL 2 A 739 Gr. B2 A 302 Gr. D Gr. C A 387 Gr. 21.0 A 217 Gr. C5 31254 A 351 GR. CK3MC A 240 GR. S32750 A 479 GR. S 32750 A 789 GR. S 32750 A 789 GR. S 31250 B 564 GR. NO 6600	UN 10276	
	1.7 1.9 1.10 1.11 1.13 1.14 2.8 3.5	A 352 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P44 CL 2 A 739 Gr B 11 A 182 Gr F 22 CL 3 A 182 Gr F 22 CL 3 A 182 Gr F 21 A 537 CL 2 A 182 Gr F 5 A 182 Gr F 5 B 163 Gr NO 6600 B 166 Gr NO 6600 B 333 Gr NO 10665 8 313 Gr NO 10665 8 313 Gr NO 10001 B 335 Gr NO 10001 B 335 Gr NO 10001 B 343 Gr NO 10001 B 343 Gr NO 10001 B 343 Gr NO 10001 B 343 Gr NO 10001 B 345 Gr NO 10001	A 352 Gr. LCC A 204 Gr.CC A 182 Gr.F2 A 217 Gr.WC6 A 182 Gr.F12 CL. A 217 Gr.WC9 A 387 A 302 Gr. B 302 Gr. A A 302 Gr. B 302 Gr. A A 302 Gr. F5A A 217 Gr. C12 R2GR.F53 A 240 GR.S31803 A 479 GR.S 31803 A 479 GR.S 31803 A 789 GR.S 31803 A 789 GR.S 31803 B 167 GR.NO 6600 B 355 Gr.NO 10665 434 Gr.NO 10003 B 554 443 Gr.NO 6625 B 577 446 Gr.NO 6625 B 577	A 217 Gr. WC4 A 387 Gr 11 CL 2 2 Gr 22 CL 2 A 739 Gr B2 A 302 Gr D Gr C A 387 GR 21.0 A 217 Gr C5 31254 A 351GR CK3MC A 240 GR S 32750 A 479 GR S 32750 A 789 GR S 32750 A 789 GR S 32750 A 790 GR S 32750 B 564 GR. NO 6600 B 622 Gr.N0 10665 Gr.N0 10276 B 375 Gr.N0 Gr.N0 10276 B 375 Gr.N0 Gr.N0 10276 B 375 Gr.N0 Gr.N0 10276 B 372 Gr.N0 Gr.N0 545 B B 564	UN 10276 6455 10001	
н 1	1.7 1.9 1.10 1.11 1.13 1.14 2.8 3.5 3.7	A 351 Gr L C 2 A 69/ Gr CM-75 A 217 Gr WC5 A 182 Gr P 44 CL2 A 739 Gr B 11 A 182 Gr F 22 CL3 A 182 Gr F 22 CL3 A 182 Gr F 21 A 337 CL 2 A. A 182 Gr F5 A 182 Gr F5 B 182 Gr S 31254 A 312 Gr S 31254 A 358 Gr S 31254 B 163 Gr NO 6600 B 166 Gr NO 6600 B 333 Gr NO 10665 B 133 Gr NO 10665 B 133 Gr NO 10665 B 133 Gr NO 10001 B 355 Gr NO 10001 B 342 Gr NO 10001 B	A 352 Gr. LCC A 204 Gr.CC A 182 Gr.F2 A 217 Gr.WC6 A 182 Gr.F12 CL. A 217 Gr.WC9 A 387 A 302 Gr.B 302 Gr.A A 302 Gr.B 302 Gr.A A 302 Gr.F5A A 240 GR.S31803 A 479 GR.S 31803 A 479 GR.S 31803 A 789 GR.S 31803 B 167 GR.NO 6600 B 355 Gr.NO 10665 434 Gr.NO 6625 B 570 445 Gr.NO 6625 B 570 570 570 570 570 570 570 570	A 217 Gr. WC4 A 387 Gr. 11 CL 2 2 Gr. 22 CL 2 A 739 Gr. B2 A 302 Gr. D Gr. C A 387 Gr. 21 J A 217 Gr. C5 31254 A 351 GR. CK3MC A 240 GR, \$32750 A 479 GR, \$32750 A 479 GR, \$32750 A 789 GR, \$32750 A 790 GR, \$312750 B 594 GR. NO 6600 B 622 Gr.N0 10665 Gr. N0 10276 B 373 Gr.N0 Gr. N0 10276 B 373 Gr.N0 Gr. N0 1003 B 622 Gr.N0	UN 10276 6455 10001	
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Sub-Vendor:	Vendor:			Contractor:	Owner/Purchaser
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	Arya Mabna Payeah	Vendors Doc. No.:	Rev. :00		
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1.6.2 The high and low-pressure closure test for all ball valves (see Table3.) 1.7 Test fluid

1.7.1 For shell, high-pressure closure tests, the test fluid shall be air and water liquid, the test fluid temperature shall be within the range 5°C to 40°C.

1.7.2 For the low-pressure test fluid shall be air or inert gas.

1.7.3 For testing of austenitic stainless steel valves, water with chloride content not exceeding 50 ppm shall be used.

	Citer		(90)		U.I.		10				500		9141
NIIO	Test	Sani ase	Lengate	shal son	14kpare	Shellmt	Linkspitor	Shell terr	Longe and	Shelani	Cologa see	Shilling ?	Lonogra
	Tope	Pei Hat	Zž	Pai Bac	Pal Bat	Pal Dor	23	Poi Bar	Pri- Dier	Pil Bar	9a Bar	1	Ps. Hor
	API 598 ASME B 16.54	110	110	115	218 19	112 200	150 21	1100 15	809	1800 125	1326 12	3001	2200 152
<i>k</i>	API SD	425	21	tine Te	9994 85	2175	110 110	3299 324	3400 166	5490 512		421	455
	API 598 ASMEB 16,34	124	19	850 38	409	1100	990 35	3425 112	1219 83	2794 187	2900 137	4587	3300 228
9	API 6D	429 27	- 309 31	11HH Te	800 22	2125	3800 138	3256 224	5400 106	5490 312	-8000 178	9900-0 1021	6600 455
	APT 588 ASMEE 16.34	.1911 -24	229.) 10	900 92	10.74) 415	1900 123	1325 90	299729 1094	1973 136	6490 306	.3178 318	710-0	\$415 354
×.	APL 6D	425	21	1000 76	800 68	3175 888	3600 130	325W 134	3389 366	5400 371	-2008 276	9600 621	9600 455
	API 598 ASMEB 16.34	350 34	25 15	940 43	676 64	1304	8.325 105	2199 187	2040 137	4596 311	15000 22.9	154v 921	5500 380
â.,	API 4D	425 39	3/0	1198 76		2178	9400 118	3150 334	2480 100	5400 172	-8900 17k	421	455
E.	API 508 ASSTER 16.34	278	275 10		2001 67	1028	1378. 74	185 21.48	2010 907	4850 370	3109 351	1719 203	8575 291
	API-1D	424	70.8 21	1766 76	890 55	3115 159	100 100	3389 524	3400	6400 312	-800 376	1000 1023	6400 455
	API 598 ASME B 16.34	375 28	175 19	875 67	729 85	1125 133	1425 ME	2909 198	2125 146	4825 112	355W 244	8829 883	5875 496
	APERD	42.8	508	1100	854	111	3000	3254	3480	74981	4944	921	6600
	AP1 518	148.0	309	HQE.	789	3825	1590	3624	1119	248.00	3104	8490	0175
*	ASME B 14.34	411	309	10	81	248	183	744	2480	348	4904	1000	425
_	API 508	460	309	1058	775	168	110	3156	100	5215	136	821	458
10	ASMEB 16.34	28	21	72	- 13	244	106	216	159	260	364	688	438
	API SD	425	309	1106	800	3175	110	3258	2480	5.690	3868	9696	6600
	APL598	425	315	1106	600	23.75	1600	3259	2480	5400	4808	9690	6600
0.	A550EB 16,34	- 29 - 425	21	1100	55	2175	110	224	104	3.13	274	121	456
	API 6D	29	21	16	55	194	110	124	109	ATE	276	621	455
	API 598 ASMEE 16.34	454	315	4125	824 57	3118	1050	3356	3450	5875 384	4308	9275	6800
00	APT SD	425	309	1198	864	2175	1689	3258	2460	5490	-4008	9604	5600
_	API SM	29	21	1125	85	194	110	3375	205	1415	376	621	455
íí.	ASMER 16.34		22	170	37	256	114	233	171	366	285	647	415
÷.	API SD	425	21	1000 T6	1966) 55	2179 194	110	3258	2480	5480	4000 276	%#0# %21	455
					Le	w pressure e	losure test						
	VAL	ŶE.				API	396				40	60	
	All stor in	and the second				CHARLES AND	90-100 (pai)				1.2 × 0.7 (bar)	and the second second	11

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1.8 Test Duration

For each type of test, the required test pressure shall be maintained for at least the minimum time specified in (Table 4).

		Shell test		Backse	at test	Lea		
Valve size	API 598		AP1 59	8				
(NPS)	000000000000000000000000000000000000000	other valves FD 594)	API 6D	API 598	API 6D	Check valve (API STD 594)	Other valves	API 6D
4	60	15	1	15		60	15	1.0
2	60	15	120	15	120	640	15	120
23/2 - 4	60	60	120	60	120	60	60	120
6	60	60	300	60	300	60	60	300
8-10	60	E20	300	60	300	60	120	300
12	60	120	900	60	300	60	120	300
14-18	60	300	900	60	300	120	120	300
>20	60	300	1800	60	300	E20	120	300

1.9 Test Leakage

1.9.1 For shell tests, visually detectable leakage through the pressure boundary walls and any fixed body joint is not permitted.

1.9.2 For both the low-pressure closure test and the high-pressure closure test, visual evidence of leakage through the disc, behind the seat rings, or past the shaft seals (of valves that have this feature) is not permitted and structural damage is not permitted. (Plastic [permanent] deformation of resilient seats and seals is not considered structural damage.) The allowable rate for leakage of test fluid at the seat-sealing surface interface, for the duration of the tests, is listed in (Table5.)

Valve size (NPS)	Shell test			Backscat test		Leukage test		
	API 598		API 6D	API 598	API 6D	API 598		-
	Check valve other valves (API STD 594)					Check valve (API STD 594)	Other valves	API 6D
<2	60	1.5	10 A	15	1. Contract (1. Contract)	60.	15	
2	60	15	120	15	120	60	15	120
21/2-4	60	60	120	60	120	60	60	120
6	60	60	300	60	300	60	60	300
8-10	60	120	300	60	300	60	120	-300
12	60	120	900	60	300	60	120	300
14-18	60.	300	900	60	300	120	120	300
>20	60	300	1800	60	300	120	120	300

C: The maximum permissible leakage rate shall be 48 drop per minute per inch of nominal pipe size

D: The maximum permissible leakage rate shall be 1.5 standard cubic feet (0.042 cubic meters) of gas per hour per inch of nominal pipe size.

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1.10 cleaning after test

- Cleaning shell and flange

- Half opening of valve
- Cleaning with pressure air.

2 Repairs of Defects

2.1 Defects in the shell of a cast or forged, carbon or alloy steel valve that are revealed by inspection or testing shall be repaired as permitted by the most nearly applicable ASTM cast or forged material specification listed in ASME B16.34.

2.2 Excessive standard leakage is eliminated by re-lapping of ball with seats in to shop vendor.

3 Valve Certification and Retesting

3.1 Certificate of Compliance

When specified by the purchaser, the valve manufacturer shall submit to the purchaser a certificate of compliance as required in the purchase order or testing in the presence of the ordering agent.

3.2 Retesting

A completed valve does not require retesting unless inspection by the purchaser is specified in the purchase order. This retesting may be waived by the purchaser's inspector upon written certification by the manufacturer that the valve has been inspected, tested, and examined for conformance with the requirements of this standard.

Painted valves need not have paint removed for retesting. Stored valves shall be commercially cleaned before retesting and before shipment.

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THE PROCEDURE TESTS CERTIFICATE

F	Pressure tests certificat	ARYA MABNA PAYESH	atp
Valve Description :	Size and class :	QTY:	Date :
Order NO :	Contract NO :	TAG NO :	
Serial NO :	Drawing N	0:	
tests	acceptance criteria	test results	comments
Hydrostatic shell to pressure Duration Body leak Bonnet-cover leak Stem leak		P =bar t =min OX OX OX	
Operational torque (Valve differential pressure (Break to open case) Side A pressurtized Side B pressurized Without pressure		Δ ^p =bar Nm Nm	
High pressure closure tes Pressure Duration Side A Side II		P =bar t =mn Leak rate: Leak rate:	
Low pressure closure te Pressure Duration Side A Side B		P =har t = Leak rate Leak rate	
High pressure closure to Pressure Duration Side A		P=bar t=mn Leak rate: Leak rate:	
Satisfactory: Ok			
Manufacturer In Name And signature :	spection Name And	Customer Inspect signature :	en.
	I		