







## HAI PHONG 2 PROJECT





### MTO FOR MANUAL VALVE

**HPTP-00-PI-MTO-0003**



A	26-Oct-23	Issued for Review		H.D.T	T.Q.T	N.T.S	V.L.T
REV. NO.	DATE	DESCRIPTION		PREP'N	CHECK	REVIEW	APPROVAL
REV. NO.	DISCIPLINE	PREPARATION	CHECK	REVIEW		APPROVAL	
A	PIPING						
		H.D.T	T.Q.T	N.T.S		V.L.T	

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	<b>MTO FOR MANUAL VALVE</b>			

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## 1. GENERAL

### 1.1 Purpose of document

This MTO is covered the Manual Valve to be installed on Hai Phong 2 Project and based on up-to-date P&ID.



### 1.2 Definitions and abbreviations

PROJECT                      HAI PHONG 2 PROJECT

OWNER                      The Branch of Top Solvent (Vietnam) Limited Liability Company – Hai Phong Terminal

EPC  
CONTRACTOR              PTSC Thanh Hoa Technical Services Company

## 2. MTO FOR MANUAL VALVE

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					MTO FOR MANUAL VALVE										
No	Class	Valve_Type	Size(in)	Rating	Material Specification Description						Unit	Qty(Net)	Spare	Quantity	Remarks
1	AA21	Ball Valve	6	150#	Ball valve RB floating type, Split Body, 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: SS316, PTFE, Lever OP						EA	12	0	12	Process
2	AA21	Ball Valve	3/4	800#	Ball valve FB floating type, Split Body, 800# SW API 6D/BS 5351 ASTM A105/ASTM A216-WCB, Trim: SS316, PTFE, Lever OP; pup end with length 100mm for each end connection. Pup end material shall be according to piping material specification						EA	6	0	6	Process
3	AA21	Ball Valve	4	150#	Ball valve RB floating type, Split Body, 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: SS316, PTFE, Lever OP						EA	4	0	4	Process
4	AA21	Check Valve	2	150#	Check valve swing type 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	3	0	3	Process
5	AA21	Check Valve	3	150#	Check valve swing type 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	1	0	1	Process
6	AA21	Check Valve	4	150#	Check valve swing type 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	2	0	2	Process
7	AA21	Check Valve	6	150#	Check valve swing type 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	2	0	2	Process
8	AA21	Gate Valve	1	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# SW, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	31	3	34	Process
9	AA21	Gate Valve	1 1/2	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# SW, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	6	0	6	Process
10	AA21	Gate Valve	1/2	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# SW, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	7	0	7	Process
11	AA21	Gate Valve	2	150#	Gate valve OS&Y with rising stem, Bolted bonnet, 150# RF API 600 ASTM A105/A-216 WCB Hand-wheel OP, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	28	2	30	Process
12	AA21	Gate Valve	3	150#	Gate valve OS&Y with rising stem, Bolted bonnet, 150# RF API 600 ASTM A105/A-216 WCB Hand-wheel OP, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	9	0	9	Process
13	AA21	Gate Valve	3/4	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# SW, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	41	10	51	Process
14	AA21	Gate Valve	4	150#	Gate valve OS&Y with rising stem, Bolted bonnet, 150# RF API 600 ASTM A105/A-216 WCB Hand-wheel OP, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	10	0	10	Process
15	AA21	Gate Valve	6	150#	Gate valve OS&Y with rising stem, Bolted bonnet, 150# RF API 600 ASTM A105/A-216 WCB Hand-wheel OP, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	8	0	8	Process
16	AA22	Gate Valve	1	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# NPT-F, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	2	0	2	Compressor Air
17	AA21	Ball Valve	2	150#	Ball valve RB floating type, Split Body, 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: SS316, PTFE, Lever OP						EA	1	0	1	Nitrogen
18	AA22	Ball Valve	2	150#	Ball valve RB floating type, Split Body, 150# RF API 6D ASTM A105/ASTM A216-WCB, Trim: SS316, PTFE, Lever OP						EA	1	0	1	Nitrogen
19	AA21	Gate Valve	2	150#	Gate valve OS&Y with rising stem, Bolted bonnet, 150# RF API 600 ASTM A105/A-216 WCB Hand-wheel OP, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	1	0	1	Nitrogen
20	AA21	Gate Valve	1/2	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# SW, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	2	0	2	Ventilation
21	AA22	Gate Valve	1	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# NPT-F, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	3	0	3	Firefighting
22	AA22	Gate Valve	3/4	800#	Gate valve OS&Y with rising stem, Bolted bonnet, 800# NPT-F, API 602/BS5352 ASTM A105, Hand-wheel OP, Trim: A-410/A-316, Stellite 6 in compliance with ASME B16.34						EA	5	0	5	Firefighting
23	AA22	Gate Valve	4	150#	Gate valve OS&Y with rising stem, Bolted bonnet, 150# RF API 600 ASTM A105/A-216 WCB Hand-wheel OP, Trim: A-410/A-316 Stellite 6 in compliance with ASME B16.34						EA	5	0	5	Firefighting

Notes

- 1 Original Certificate of Origin & Original Certificate of Quality issued by manufacturer
- 2 PMI shall be applied for Stainless steel material
- 3 Certificate/ test report requirement:
  - Original Certificate of Origin & Original Certificate of Quality issued by manufacturer.
  - Mill test cert to EN 10204 Type 3.1
- 4 All requirements for Valve will be indicated in doc no.: HP02-00-PI-SPC-001\_Piping Material Specification
- 6 Painting for Valve shall be referred to HP02-00-PI-SPC-002\_Painting Specification

**7. Số lượng các van đảm bảo đầy đủ theo bản vẽ PID cuối cùng được phê duyệt**

Tính tỉ lệ spare như thế nào ; TSV đề xuất tối thiểu là 10% ví dụ 9-10 cái spare 1 cái;

Các valve này nên spare/ tỉ lệ hỏng khá nhiều trong phase 1 do kẹt /xước