



Rev.	By	Check	Approval	Rev. Description	Rev. Date	PROJECT INFORMATION												NOTE #	NOTE			
4	JB/BM	CA/BM/LB	LB/LA	Per Customer Comments	11/20/2013	Customer: DeltaAfrik Customer PO: 10108-1001 End User: Project: IBOT 'A', UFAN 'A', IFURE 'A', IDOHO 'N' - Instrument and Power Gas Systems Skid Tags: NG4A-VMKAK966201 / NG5A-VMKAK966201 / NG6A-VMKAK9662010 / NGBN-VMKAK966201 IFS Job Number: 25046 IFS Document: VL-25046-01													Qty Shown 1 Qty Required 4			
3	BM			Per Customer Comments	10/17/2013																	
2	JB/CA			Added one (1) to Seq. 17-Added Tag #s	4/9/2013																	
1	JB/CA			Included Customer Comments	11/12/2012																	
0	SP/JB			Approved for Construction	8/3/2012																	
A	SP/JB			For Approval	6/8/2012																	
VALVE LIST																						
Seq.	Qty.	Tag Number	Datasheet No. (IFP)	Manual Valve Tag Number	Valve Type	Connections			Body Materials of Construction	Trim Materials of Construction	Seats/ Seals/ Packing	Manual Operator Type	Design Pressure (Max/Min) (PSIG)	Design Temp. (Min/Max) (Min/Max) (Deg F)	Rated Pressure (PSIG)	Rated Temp. (Deg F)	Service	Reference P&ID IFS# / (Deltafrik P&ID#)	Manufacturer	Model Number	Comments	
						Size (Inches)	Type	Class														
1	34	YBAA7(L)	NG00-DA-LTTDS-0062459-001_0	MV-00121,00122,00123,00124,00125,00126	Ball	3/4"	SWxSE	2000#	ASTM A 105N	316SS	RPTFE/ PTFE/ Graphite Packing	Handle	285 / 253		2000 / 1300	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Nutron	T3R07TS20BUZ06	ASME B16.34, Reduced Port, Fire Safe 607 Seal Welded	
2	0	FBAA2(L)	NG00-DA-LTTDS-0065242-001_0	-	Ball	1-1/2"	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Replaced with Valve Tag# EBAA2	
3	0	FBAA2(L)	NG00-DA-LTTDS-0065242-001_0	-	Ball	1"	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Deleted	Replaced with Valve Tag# EBAA2	
4	42	ABAA0(L)	NG00-DA-LTTDS-0065245-001_0	MV965201-01, 02, 03, 04, 05, 08 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 26 MV966201-03, 06, 09, 10, 11, 12, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 29 MV991201-04, 05, 06, 28 MV966201-41, 42 MV965201-46	Ball	2" x 1.5"	FLG,RF	150#	A 105N	ASTM A182-F316	Reinforced Teflon Seat HNBR Seal Graphite Packing	Wrench	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Valbart	A-02-R-R-01-AS-R-H-L	API 6D, Reduced Port, Trunnion Mounted, Fire Safe 607/6FA, Multi Piece, B7M 2HM Bolts with Coating, ASME B16.5 Fine Grain Practice (Closely Scrutinized)	
5	3	ABFA0(L)	NG00-DA-LTTDS-0062471-001_0	MV965201-20, 23, 24	Ball	2"	FLG,RF	150#	A 105N	ASTM A182-F316	Reinforced Teflon Seat HNBR Seal Graphite Packing	Wrench	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Valbart	A-02-F-R-01-AS-R-H-L	API 6D, Full Port, Trunnion Mounted, Fire Safe 6FA, Multi Piece, B7_2H Bolts with Coating, ASME B16.5, Fine Grain Practice (Closely Scrutinized)	
6	10	EBAA2(L)	NG00-DA-LTTDS-0062469-001_0	MV966201-02, 03, 04, 05, 34, 35, 36, 37	Ball	2" x 1.5"	FLG,RTJ	900#	A 105N	ASTM A182-F316 (Ball) ASTM A182 F51 (Stem)	PEEK Seat HNBR Seal Graphite Packing	Gear	2220 / 2011	(-20 to 100) / 225	2220 / 2011	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Pibiviesse	2x1-1/2" 900# RTJ Trunnion Mounted Ball Valve SST-Type E Gear Operated	API 6D, Reduced Port, Trunnion Mounted, Fire Safe 607/6FA, Lockable Handle, Bolting ASTM A193-B7/ASTM A194-2H, Multi Piece, ASME B16.5 Fine Grain Practice (Closely Scrutinized)	
7	3	ABAA0(L)	NG00-DA-LTTDS-0065246-001_0	MV966201-07, 13, 20	Ball	3" x 2"	FLG,RF	150#	A 105N	ASTM A182-F316	Reinforced Teflon Seat HNBR Seal Graphite Packing	Wrench	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Valbart	A-03-R-R-01-AS-R-H-L	API 6D, Reduced Port, Trunnion Mounted, Fire Safe 6FA, Multi Piece, B7_2H Bolts with Coating, ASME B16.5 Fine Grain Practice (Closely Scrutinized)	
8	2	ABFA0(L)	NG00-DA-LTTDS-0065243-001_0	MV616201-21, 25	Ball	3"	FLG,RF	150#	A 105N	ASTM A182-F316	Reinforced Teflon Seat HNBR Seal Graphite Packing	Wrench	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Valbart	A-03-F-R-01-AS-R-H-L	API 6D, Full Port, Trunnion Mounted, Fire Safe 6FA, Multi Piece, B7_2H Bolts with Coating, ASME B16.5 Fine Grain Practice (Closely Scrutinized)	
9	2	ABFA0(L)	NG00-DA-LTTDS-0065244-001_0	MV966201-26, 30	Ball	4"	FLG,RF	150#	A 105N	ASTM A182-F316	Reinforced Teflon Seat HNBR Seal Graphite Packing	Wrench	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Valbart	A-04-F-R-01-AS-R-H-L	API 6D, Full Port, Trunnion Mounted, Fire Safe 6FA, Multi Piece, B7_2H Bolts with Coating, ASME B16.5 Fine Grain Practice (Closely Scrutinized)	
10	2	ABFA0(L)	NG00-DA-LTTDS-0065276-001_0	MV616201-27, 31	Ball	6"	FLG,RF	150#	A 105N	ASTM A182-F316	Reinforced Teflon Seat HNBR Seal Graphite Packing	Manual Gear	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Valbart	B-06-F-R-01-AS-R-H-G	API 6D, Full Port, Trunnion Mounted, Fire Safe 6FA, Multi Piece, B7_2H Bolts with Coating, ASME B16.5 Fine Grain Practice(Closely Scrutinized)	



Rev.	By	Check	Approval	Rev. Description	Rev. Date	PROJECT INFORMATION												NOTE #	NOTE			
4	JB/BM	CA/BM/LB	LB/LA	Per Customer Comments	11/20/2013	Customer: DeltaAfrik Customer PO: 10108-1001 End User: Project: IBOT 'A' , UFAN 'A', IFURE 'A', IDOHO 'N' - Instrument and Power Gas Systems Skid Tags: NG4A-VMAK966201 / NG5A-VMAK966201 / NG6A-VMAK9662010 / NGBN-VMAK966201 IFS Job Number: 25046 IFS Document: VL-25046-01													Qty Shown 1 Qty Required 4			
3	BM			Per Customer Comments	10/17/2013																	
2	JB/CA			Added one (1) to Seq. 17-Added Tag #s	4/9/2013																	
1	JB/CA			Included Customer Comments	11/12/2012																	
0	SP/JB			Approved for Construction	8/3/2012																	
A	SP/JB			For Approval	6/8/2012																	
VALVE LIST																						
Seq.	Qty.	Tag Number	Datasheet No. (IFP)	Manual Valve Tag Number	Valve Type	Connections			Body Materials of Construction	Trim Materials of Construction	Seats/ Seals/ Packing	Manual Operator Type	Design Pressure (Max/Min) (PSIG)	Design Temp. (Min/Max) (Min/Max) (Deg F)	Rated Pressure (PSIG)	Rated Temp. (Deg F)	Service	Reference P&ID IFS# / (Deltafrik P&ID#)	Manufacturer	Model Number	Comments	
						Size (Inches)	Type	Class														
11	1	FCAA2	NG00-DA-LTTDS-0065249-001_0	FS-00081	Check	1"	FLG,RTJ	1500#	ASTM A350-LF2-CL. 1	API Trim No 8	Hard Face Seat	-	3705 / 3375	(-20 to 100) / 225	3705 / 3375	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	OMB	F9-T-960-RJ	API 602, Swing Check, ASME B16.5, Bolted Cover, Bolting ASTM A193-B7/ASTM A194-2H	
12	1	ACAA0	NG00-DA-LTTDS-0065250-001_0	FSV991201-01	Check	2"	FLG,RF	150#	A 105N	API Trim No 8	Hard Face Seat	-	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	SWI	2.00 ADB-11AB-RA1A	API 602, Swing Check, ASME B16.5, Bolted Cover, Bolting ASTM A193-B7/ASTM A194-2H Fine Grain Practice (Closely Scrutinized)	
13	3	ECAA2	NG00-DA-LTTDS-0062457-001_0	FSV966201-01, 02, 04	Check	2"	FLG,RTJ	900#	ASTM A350-LF2-CL. 1	API Trim No 8	Hard Face Seat	-	2220 / 2011	(-20 to 100) / 225	2220 / 2011	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	OMB	F9-T-960-RJ	API 602, Swing Check, ASME B16.5, Bolted Cover, Bolting ASTM A193-B7/ASTM A194-2H	
14	1	FTAA2(L)	NG00-DA-LTTDS-0065248-001_0	-	Globe	1-1/2"	FLG,RTJ	1500#	A 105N	API Trim No 8	Hard Face Seat Flexible Graphite Packing	Handwheel	2220 / 2011	(-20 to 100) / 225	2220 / 2011	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	SWI	1.50 ABH-11AB-TA1A	API 602, Bolted Bonnet, ASME B16.5, Reduced Port, Lockable Handle, OS&Y Stem, Bolting ASTM A193-B7/ASTM A194-2H Fine Grain Practice (Closely Scrutinized)	
15	6	ATAA0(L)	NG00-DA-LTTDS-0065247-001_0	MV965201-07,22,27 MV-966201-25,28 MV-991201-20	Globe	2"	FLG,RF	150#	A 105N	API Trim No 8	Hard Face Seat Flexible Graphite Packing	Handwheel	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	SWI	2.00 ABB-11AB-RA1A	API 602, Bolted Bonnet, ASME B16.5, Reduced Port, Lockable Handle, OS&Y Stem, Bolting ASTM A193-B7/ASTM A194-2H Fine Grain Practice (Closely Scrutinized)	
16	5	ABSA7(L)	NG00-DA-LTTDS-0065253-001_0	-	Double Block & Bleed	3/4"x3/4"	SWxFNPT	3000 psig	A350 LF2	316 SS	PTFE Seat Graphite Seal Graphite Packing	Locking Handle (2)	283/253	(-20 to 100) / 225	3000	446	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	AGCO	P63VLS-062D-067B-AL-BD-BVL(2)-PV-ST-316T	ASME B16.34, 1/2" NPT Plugged Vent, Fire Safe API 607	
17	12	FBSA7(L)	NG00-DA-LTTDS-0065261-001_0	-	Double Block & Bleed	3/4"x3/4"	SWxFNPT	3000 psig	A350 LF2	316 SS	PTFE Seat Graphite Seal Graphite Packing	Locking Handle (2)	2220 / 2011	(-20 to 100) / 225	3000	446	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	AGCO	P63VLS-062D-067B-AL-BD-BVL(2)-PV-ST-316T	ASME B16.34, 1/2" NPT Plugged Vent, Fire Safe API 607	
18	5	ABSA10(L)	NG00-DA-LTTDS-0065251-001_0	-	Double Block & Bleed	2"x3/4"	FLG,RFxFNPT	3000 psig	A350 LF2	316 SS	PTFE Seat Graphite Seal Graphite Packing	Locking Handle (2)	285 / 253	(-20 to 100) / 225	3000	446	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	AGCO	F63VLS-161A-067B-AL-BD-BVL(2)-PV-ST-316T	ASME B16.34, 1/2" NPT Plugged Vent, Fire Safe API 607	
19	10	V-01	-	-	Gauge Valve	3/4"x1/2"(3)	MNPTxFNPT	6000 psig	A479-316	316 SS	Metal Seat Grafoil Packing	Handle	2220 / 2011	(-20 to 100) / 225	6000	230	Instrument	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	AGCO	M5HIS-46	3/4" MNPT x (3)1/2" FNPT Gauge Valve For Pressure Instruments	
20	10	V-02	-	-	Needle Valve	1/2"x1/2"	MNPTxFNPT	6000 psig	316 SS	316 SS	Delrin Teflon Packing	Handle	2220 / 2011	(-20 to 100) / 225	6000	230	Instrument	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG6A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	AGCO	H1VDS-44Q	1/2" MNPT x 1/2" FNPT Hand Valve For Pressure Instruments	

Rev.	By	Check	Approval	Rev. Description	Rev. Date	PROJECT INFORMATION										NOTE #	NOTE				
4	JB/BM	CA/BM/LB	LB/LA	Per Customer Comments	11/20/2013	Customer: DeltaAfrik Customer PO: 10108-1001 End User: Project: IBOT 'A', UFAN 'A', IFURE 'A', IDOHO 'N' - Instrument and Power Gas Systems Skid Tags: NG4A-VMAK966201 / NG5A-VMAK966201 / NG6A-VMAK9662010 / NGBN-VMAK966201 IFS Job Number: 25046 IFS Document: VL-25046-01											Qty Shown 1 Qty Required 4				
3	BM			Per Customer Comments	10/17/2013																
2	JB/CA			Added one (1) to Seq. 17-Added Tag #s	4/9/2013																
1	JB/CA			Included Customer Comments	11/12/2012																
0	SP/JB			Approved for Construction	8/3/2012																
A	SP/JB			For Approval	6/8/2012																
VALVE LIST																					
Seq.	Qty.	Tag Number	Datasheet No. (IFP)	Manual Valve Tag Number	Valve Type	Connections			Body Materials of Construction	Trim Materials of Construction	Seats/ Seals/ Packing	Manual Operator Type	Design Pressure (Max/Min) (PSIG)	Design Temp. (Min/Max) (Deg F)	Rated Pressure (PSIG)	Rated Temp. (Deg F)	Service	Reference P&ID IFS# / (Deltafrik P&ID#)	Manufacturer	Model Number	Comments
						Size (Inches)	Type	Class													
21	2	3W	-	-	3 Way Manifold	1/2" (4)	FNPT	6000 psig	A479-316	316 SS	316 SS (Integral) Teflon Packing	Handle	2220 / 2011	(-20 to 100) / 225	6000	230	Instrument	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	AGCO	M1HIS-4	3-Way Manifold For Pressure Differential Indicator
22	2	M-1	-	-	Fluid Distribution Header	2" (Inlet)	Flgd (Inlet)	3000 psig	316 SS	316 SS	PTFE Seat	Handle	285 / 253	(-20 to 100) / 225	285 / 253	(-20 to 100) / 225	Instrument	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Swagelok	FDH2-CC-U0-H2-H2-0	2" Flanged Inlet connection with 1/2" Tube Fittings End connection.
23	2	SDV 966201-01 SDV 966201-02	NG4A-DA-ITTDS-CD30026 & 27	SDV 966201-01, 02	Ball	2"	FLG,RTJ	900#	A 105N	A182-F51 Ball (Tungsten Carbide Overlay) A182-F51 Stem (Tungsten Carbide Overlay) Trunnion: ASTM A183-F316	Metal Seat: Astm A182 F51 (Tungstene Carbide Overlay) HNBR Seal (AED) HNBR O-Rings (AED) F316SS 95% Graphite Gaskets	Bare stem for Actuator	2220 / 2011	(-20 to 100) / 225	2220 / 2011	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Pibiviesse	2x1-1/2" 900# RTJ Trunnion Mounted Ball valve SST-Type E Bare Stem	API 6D, Reduced Port, Trunnion Mounted, Fire Safe 607/6FA, Lockable Handle, Bolting ASTM A193-B7/ASTM A194-2H, Multi Piece, ASME B16.5 Bare Stem for Shut Down Valve Fine Grain Practice (Closely Scrutinized) Seat Pockets & stem sealing areas with CRA (Including Liq. Pen and Mag. Particle) MTR's per EN 10204 3.1 for Body & cover Leak Test per API 6D including low pressure gas seal leak test. NDE/PMI tests included
24	4	YBAA5(L)	NG00-DA-LTTDS-0065416-001_0	-	Ball	1"	SW	6000#	ASTM A 105N	316SS	RPTFE/ PEEK/ Graphite Packing	Handle	285 / 253	(-20 to 100) / 225	2000 / 1300	(-20 to 100) / 225	Power Gas	P-25046-01 / (NG4A-CY-VDPID-0050422) P-25046-02 / (NG4A-CY-VDPID-0050423) P1-25046-01 / (NG5A-CY-VDPID-0050449) P1-25046-02 / (NG5A-CY-VDPID-0050450) P2-25046-01 / (NG6A-CY-VDPID-0050360) P2-25046-02 / (NG6A-CY-VDPID-0050361) P3-25046-01 / (NGBN-CY-VDPID-0050412) P3-25046-02 / (NGBN-CY-VDPID-0050413)	Nutron	T3R10WS60SUZ14	ASME B16.34, Reduced Port, Fire Safe 607 Three Piece Threaded Construction Seal Welded