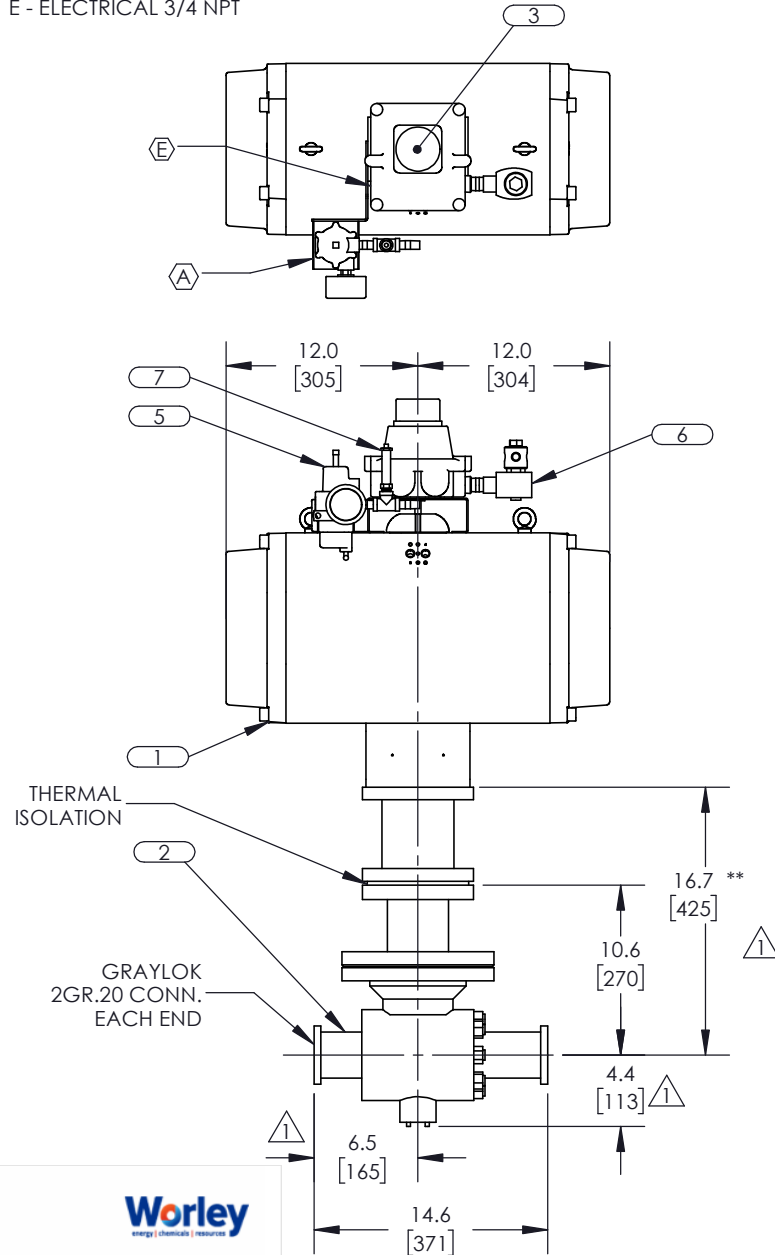


		On/Off Valve / Pneumatic Actuator		DS 14.4 Sht 1 of 1
		Project Title Mahkeses Field Pad Laser T01		
		Location Cold Lake		
		Filled in by HN		
		Date 27-Sep-2019		
		Inst check JV		
		Mech check --		
		Process check HC		
1	Tag Number	P&ID	T01XV-316	073-1151-020-171 01
2	Service	HP Steam Header		
3	Location	Piping Spec	Indoors (Pump Bldg)	QBAG2
4	Vendor	Manufacturer	DNOW	Velan / Rotork
5	Model	CRN No.	BT2 / RCR	OC04281.2
6	SERVICE CONDITIONS			
7	Fluid	Sour Service	Steam + Diluent	No
8	Pressure (kPag)	Min / Normal	12000	14700
9		Max / Design		17200
10	Temperature (C)	Min / Normal	325	342
11		Max / Design		-29 / 355
12	Ambient Temperature		5 to 35 °C	
13	Max Shutoff DP (kPag)		17200	
14	VALVE	Type	Ball	
15	Manufacturer	Model	Velan	BT202A7HH-1904021
16	Style		Trunnion	
17	Body Size	Port Size	2"	Full Port
18	Flange Rating & Type		1500# (Note 4 & 5)	
19	Body Materials	Body / Bonnet	A350 LF2 CL.1	
20		Ball / Plug / Gate	A479 S41000 + CCC	
21		Seat	A479 S41000 + CCC	
22		Stem / Shaft	UNS N07718	
23	Packing / O-Rings		Graphoil	
24	Torque Rating Design		Break : 6107 / Seat : 4735 / Run : 1832 lbf-inch	
25	Fire Safe	Leakage Class	Yes, per API 607, 5th Edition	API-598
26	Testing Requirements		Hydrotest to ASME B16.34, Seat Leakage Test, Assembled Functional (Stroke) Test	
27	Other		N/A	
28	Bolting Material		A320 L7 / A194 GR7	
29	ACTUATOR	Type	Pneumatic rack & pinion spring return	
30	Manufacturer	Model	Rotork	RCR-254-FC10-W-ST-RA-0-A-0016-46-30-C
31	Size	Fail Position	254	Close
32	Handwheel		Not Required	
33	Instrument Air Pressure		690 kPa-g nominal, actuator to be sized for 550 kPa-g and safety factor of 1.5	
34	Other		N/A	
35	Temperature Range		The valve and accessories must be suitable for low temp ambient conditions (-40°C)	
36	ACCESSORIES			
37	SOLENOID	Tag	Low Ambient	T01XY-316
38	Manufacturer	Model	ASCO	EF8320G202
39	Type	Voltage	3-way	120 VAC
40	Other			
41	SWITCHES	Tag	Discrete Valve Controller	T01ZSC-316 & T01ZSO-316
42	Manufacturer	Model	Topworx	DXP-L21GNEB
43	Type	Voltage	Proximity, SPDT	4A @ 120 VAC / 3A @ 24 VDC
44	Area Classification		Class 1, Zone 2, Group IIA	
45	Other		Ingress protection shall be NEMA 4X for the actuator & accessories	
46	Other		Note 6	
47	Notes :			
48	1 Complete with SST tag permanently attached.			
49	2 Vendor to supply dimensional drawings of complete assembly.			
50	3 Tube fittings shall be 316SS Parker. Tubing shall be 3/8" 316SS Seamless.			
51	4 Grayloc connection machined into each end cap.			
52	5 Hub end Grayloc type : 2GR20			
53	6 Set containing butt welded hub (x2), clamp (x2) and seal ring (x2) to be provided loose.			
54	Document Number	0	27-Sep-2019	Issued for Purchase
55	073-1151-ITDS-T01XV-316	A	15-Jul-2019	Issued for Quote
56		Rev	Date	Description

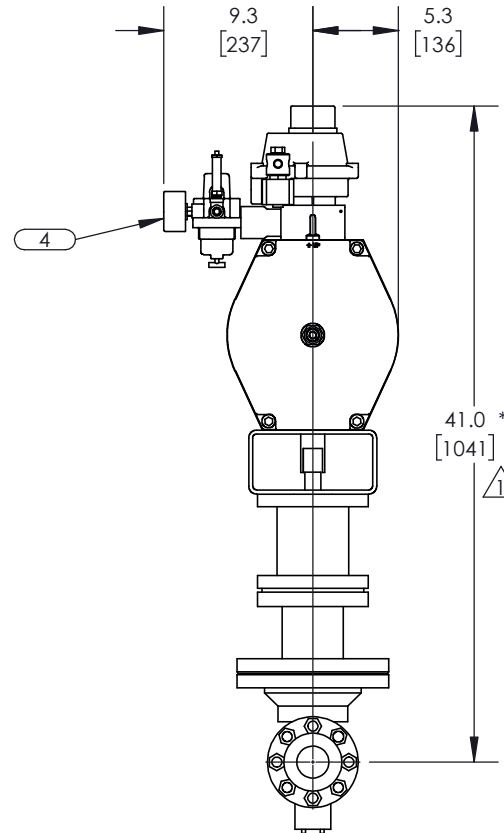
CONNECTIONS:

A - INSTRUMENT AIR 1/4 NPT

E - ELECTRICAL 3/4 NPT



ITEM NO.	Component	DESCRIPTION	QTY.
1	ACTUATOR	ROTORK RCR-254-FC10	1
2	BALL VALVE	VELAN BALL VALVE, 2IN CL1500 BT2, GRAYLOK 2Gr.20	1
3	LIMIT SWITCH	LIMIT SWITCH TOPWORX DXP-L21GNEB	1
4	GAUGE	GAUGETECH GTG2518D-14, 2-1/2 DIA.	1
5	FILTER/REGULATOR	FILTER/REGULATOR - FISHER 67CFR	1
6	SOLENOID OPERATED VALVE	ASCO EF8320G202 - 120 VAC	1
7	PRESSURE RELIEF VALVE	KINGSTON 115CR-2-90	1



PO: CLB-CS201872532-IN-POD-010

TAG NUMBERS:

WO 63655:
T03XV-316, T04XV-316, T05XV-316, T06XV-316

WO 63656:
T01XV-316, T02XV-316, T07XV-316, T08XV-316, U01XV-316,
U02XV-316, U03XV-316, U04XV-316, U05XV-316,
U07XV-316, U08XV-316, U09XV-316, V01XV-316,
V02XV-316, V03XV-316, V04XV-316, V05XV-316,
V08XV-316, V09XV-316, V10XV-316, V28XV-316

WO 64181:
V13XV-316, U06XV-316

GENERAL NOTES:

1. VALVE FACE-TO-FACE DIMENSIONS TO API 6D TABLE C.3 FOR RING JOINT BALL VALVES
2. VALVE FLANGES TO GRAYLOK MANUFACTURER STANDARD
3. REFER TO DRAWING WD100-0100 FOR WIRING
4. PARKER TUBE FITTINGS TO BE USED FOR PNEUMATIC TUBING.
5. DIMENSIONS MARKED "****" MAY VARY IN FINAL CONSTRUCTION DUE TO ADAPTION HEIGHT

2	JUN09-20	ECR-432-UPDT SOV VOLTAGE	SAR	WJG
1	DEC17-19	ECR-371-UPDT VLV;ADD TAGS	WJG	WJG
0	OCT28-19	FIRST ISSUE	WJG	SAR
ISS.	DATE	RELEASE NOTES	BY	APPR.

Wgt.(kg): N/A

GENERAL ARRANGEMENT TOLERANCES TYPICAL TOLERANCE: XX[Y(mm)]±0.25[6mm] ANGULAR DIMENSIONS: ± 1.0° ASSEMBLY WEIGHT: ± 10% VALVE LEN. TOLERANCE: PER ASME B16.10 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DISTRIBUTION NOW AND IS LOANED TO THE USER FOR LIMITED PURPOSE. REPRODUCTION OR DISTRIBUTION IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF DISTRIBUTION NOW IS PROHIBITED.	
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WO / FILE:	WO63655/63656 SI-1314
Customer:	WORLEY
Cust.PO:	SEE NOTES
Drawn By:	WJG
Approved By:	SAR
Paper:	A
Scale:	1:12
Units:	IN
Material:	N/A
Finish:	N/A
Cut.Len.:	N/A

DISTRIBUTION
NOW

TOTAL VALVE SOLUTIONS 3917-81 AVENUE LEDUC, AB, T9E 8S6		
DIMENSIONAL DRAWING		
VELAN 2IN CL1500 BALL VLV, GRAYLOK ENDS TO ROTORK RCR-254-FC10		
DWG. No.	Issue No.	Sheet
DM100-0729	2	01 of 01

Worley
energy | chemicals | resources

Document Number
CLB-CS201872532-IN-POD-010-J01-0001

Revision C

1 - Approved

Mr John Valdes - Worley
Jun 24, 2020, 8:34 AM GMT-6:00