

Control Valve Specification  
Prepared By :

Customer :  
PO # :  
Quote # :  
Rev/By : 0.0 / rcsehi  
Application : 1.3MPa Steam Header to Aux.Steam Pressur

Project : -  
Proj Num :  
Q. ID : rcsehi\_JKBS4707PNXT\_5919  
Alternate :

Valve Tag # : 10LBD55AA901  
Page # : 2  
P&ID :  
Line :  
Date / Ver : 10-Mar-2022 / 12.7370

Process Data For Control Valve Selection	1	Pipe Size, Up/Down	8.000 / 8.000				Actuator	51	Act. Type/Matl	VL Cylinder / Aluminum		
	2	Pipe Sch, Up/Down	40 / 40					52	Act. Size/Instr. Sup.	100 / Air		
	3	Allow Noise/Add Attn/Type	85 / 10 /					53	Stroke/Spring	3.00 / Standard		
	4	Process Fluid	STEAM					54	Fail/Air-To	In Place / Open		
	5	Design Press./Temp.	0.00 / 16.00 bar (g) / 0.00 / 350.00 °C					55	Vol Tank/Orient/Mtg	/ /		
	6	Driving Cond.	Cond1	Cond2	Cond3	Cond4		56	Tubing Size/Mtl	3/8" / 316 SS		
	7	Temperature (°C)	290.400	290.400	274.800			57	Fitting Mfg/Mtl	Swagelok / 316 SS		
	8	Inlet Press (bar (g))	13.600	13.600	13.600			58	Pos. Ornt./HW	HVR / Side Mnt/Cont Connect		
	9	Outlet Press (bar (g))	3.000	3.000	3.000			59	Act O-Rings	Buna-N		
	10	Liq Flow Rate (kg/h)	0	0	0			60	Spud	3.38 / 1.50-12 UNF		
	11	Gas Flow Rate (kg/h)	29592.000	19440.000	1944.000			61				
	12	Viscosity (cP)						62	Model	BETA		
	13	Vapor Press (bar (g))	73.275	73.275	58.053			63	Model #	L3W1L11B1200-NT3002282SN1W00		
	14	SG-MW	18.020	18.020	18.020			64	Material Paint	Aluminum, White		
Calculated Data	15	Max Shutoff / Shutoff Class	16.000 bar / Class IV					65	Venting	Non-Vented		
	16	Min Supply Pressure / Max Supply Pressure	7.500 / 10.340 bar (g)					66	Base Soft Goods	Buna-N		
	17	Valve Function / Amb Temp Min/Max	Throttling / °F					67	Gauges	2 SS-Brass PSI/BAR/KPA		
	18	Driving Cond.	Cond1	Cond2	Cond3	Cond4	68	Signal	4 - 20 mA			
	19	Flow Coeff. (Cv)	211.402	138.522	13.009		69	Spool Valve	High flow			
	20	Est Stroke (% Lift)	76.000	63.000	7.000		70	Pos Tag/Mounting	/			
	21	Pressure Drop (bar)	10.600	10.600	10.600		71	Transducer	NT 3000 / Direct Mounted			
	22	Choke Drop (bar)	10.410	10.378	11.384		72	Conduit Conn.	1/2" NPT / Std Alum w/ Mylar Cert Sticker			
	23	Noise [IEC] (dBA)	85	76	<70		73	Model	Pos. Pac TX (analog)			
	24	Valve Vel (m/s)	284.690	187.022	18.140		74	Switch Model#				
	25	Pipe Vel (m/s)	160.901	105.702	10.252		75	Indicate				
Valve Body Assembly	26	Model / Body Type / Trim Type	Mark One / Globe / MegaStream					76	Mounting			
	27	Size/Pressure Class/Body Form	6.00 / CL 300 / Cast					77	Tag			
	28	Trim # - Cv / Characteristic	5.00 Cv:371 / Equal Percent					78				
	29	Stages/Hole Size/Ret Guiding	1 Stage / S / / Standard					79				
	30	Flow Direction	Flow Under					80				
	31	Body Matl / Bonnet Matl	Carbon Steel (WCC) / Carbon Steel					81				
	32	End Conn/Sch/Face to Face	Butt Weld / 40 / ISA S75.08.05					Solenoid	82	Model/Qty	/	
	33	Flange Finish							83	Cv-Kv/De-en	/	
	34	Bonnet / Drip Plate / Cryo Type	Standard / /						84	Volt/Watt	/	
	35	Balance Type / P/B Seal Matl.	Unbalanced /						85	Body/Housing Mtl	/	
	36	Plug Mtl/ Facing Treatment /Stem Cvr	316 SS / Full Cont. Alloy 6 /						86	Body/Elect Conn	/	
	37	Stem Mtl/ Facing Treatment /Pilot Spr	316 SS / /						87	Port Size/Mtg	/	
	38	Seat Ring Mtl/ Facing Treatment	316 SS / Seat Surf. Alloy 6						88	Tag/Reset-Override	/ / /	
	39	Soft Seat/Pilot Plug	/ /						Others	89	Air Filter/Mnting	/
	40	Seat Retainer Mtl/ Facing Treatment	316 SS /					90		Filter-Reg/Mnting	FR 04411S00ALLT2 AI / Nipple Mtd	
	41	Sleeve Mtl/ Facing Treatment	/					91		Flow Booster / Mtg.	/	
	42	Guides Upper/Lower	316 SS & Graphite / 316 SS & Graphite					92		Booster Config	/	
	43	Packing Matl / Style / Vac / Fire / Cert	AFP / Single / / /					93		Quick Exhaust	/	
	44	Packing - Live-Loaded						94		SupTube/Jctn Box	/	
	45	Bonnet Port / Body Drain	/					95		Lockup/Mnting	Fail-In-Place /	
	46	Bellows Type / Material	/					96		Plate ID		
	47	Body Bolting/Bonnet Flange Matl	B7-2H Zinc Plated / Carbon Steel					97		Plate Type		
	48	Gaskets	Spiral Graphite					98		Packaging	Standard	
	49	Gland Flange Material	Stainless Steel					99		Pwr. Sup.		
	50	Gland Flange Bolting	Stainless Steel					00		Wiring Conn. Type		
T1							Special Req	01	Rad. Exm	/		
T2								02	Drawings	Type I		
T3								03	Assem Hydro	EN 60534-4 / FCI 70-2		
T4								04	Seat leak/Final test cert.	EN 60534-4 / FCI 70-2 /		
01	Certification/Approval Type	ATEX / Intr Safe /						05	PMI/Weld Req	/ ASME BPVC Section IX		
02	Class or Gas Group	IIB+H2						06	Cert of Conf.	DIN 3.1B Seat-Leak & Results		
03	Division or Zone	Zone 1 (2)						07	Clean/Bld/Doc	/ /		
04	Group							08	CMTR	Body & Bonnet / EN 10204 3.1		
05	Ingress / Temperature	IP 65 / T4						09	Special Paint/Test	High temp. stand. V11 /		
06	NACE / Nuclear	NA / NA						10	Diag Test/FM	/		
07	SIL Vlv-Act / Pos	NA / NA						11	Cust. Insp/Witn.	No / No		
08	Oxygen Service/Assy. Lubricant	NA /						12		/		
								13	Cust Furnish	None		
								14	Flow Testing			
								S1				
								S2				

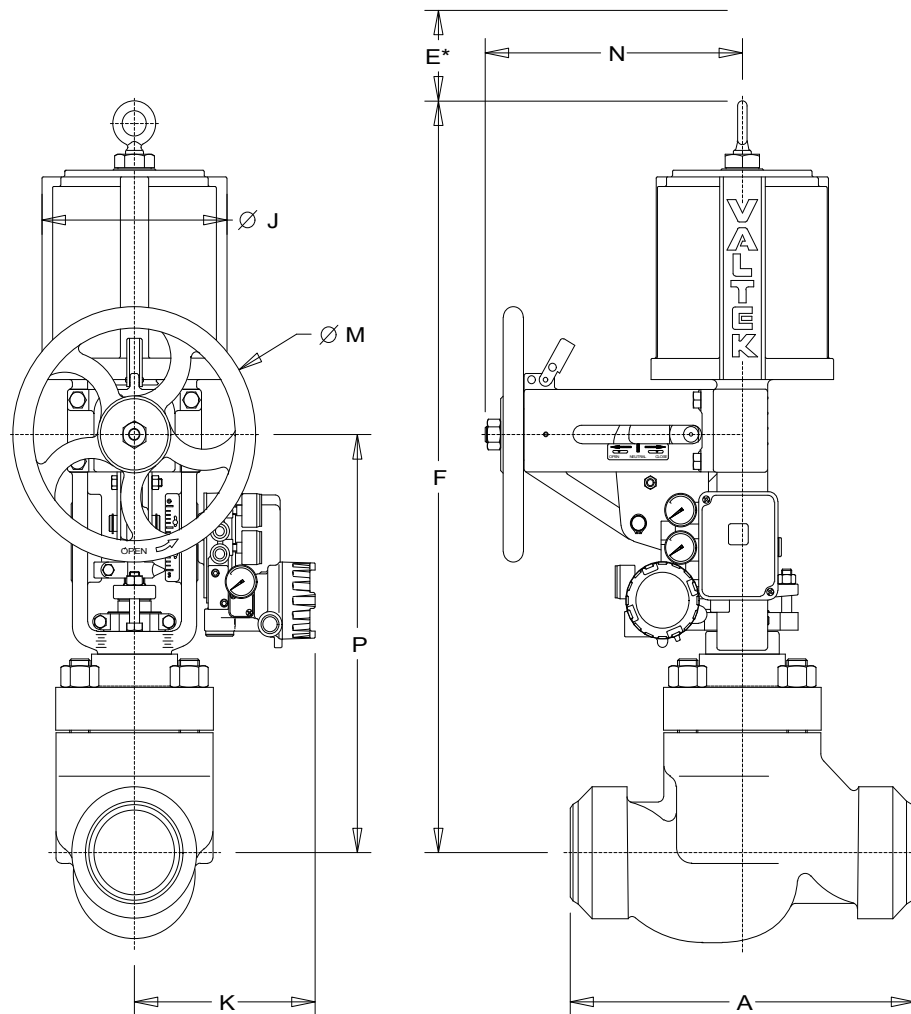
Line # : Remarks :

C	72	we will supply to electrical conn 1/2" 3/4" NPT(F) with adaptor.
C	201	Replacement to SN 708155.005

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Quantity: 1


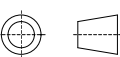
MK1|D|W|V|NN5|XX|6"|300|A216WCC|O|D|X|X|E|1|K|P|2|R|G|5,00|316SS|A|N5|100|X|S|S|D|N|



\* - DISASSEMBLY / MAINTENANCE CLEARANCE

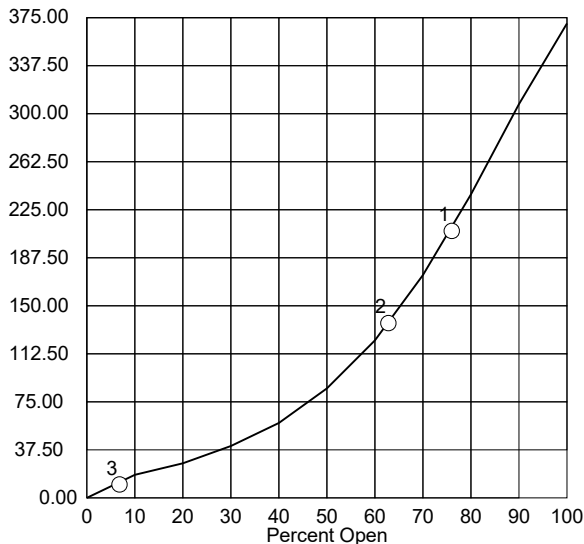
	A	E	F	J	K	M	N	P	WT
INCH	20.00	10.0	47.4	12.5	12.6	24.0	19.5	27.4	610 LBS
MM	508.0	254	1203	318	320	610	495	697	276 KG

Note: Dimensions are correct per associated specification sheet. End connections and scaling may not actual. For accessory information, see associated specification sheet.

MODEL Mark One	ACTUATOR 100 SQ IN	 <b>DIMENSIONAL DRAWING</b>		
SIZE 6 INCH	AIR TO OPEN	BY rcsehi	CUSTOMER	ITEM 2
RATING / F/F STD CL 300 / S75.08.05	FAIL In Place	DATE 10-Mar-2022	VALVE TAG 10LBD55AA901	SHEET 1
END CONNECTION BW SCH	SPRING STANDARD	THIRD ANGLE PROJECTION	P.O. NUMBER	REVISION 0.0
TRIM TYPE MGSTRM	TRIM / CV 5.00 /Cv:371		PROJECT -	SERIAL NUMBER .002

6.00 in (Trim: 5.00 Cv:371) CL 300 Mark One MegaStream Globe

	Cond1	Cond2	Cond3							
<b>Process Data</b>										
Temp (°C)	290.400	290.400	274.800	---	---	---	---	---	---	---
P1 (bar (g))	13.600	13.600	13.600	---	---	---	---	---	---	---
P2 (bar (g))	3.000	3.000	3.000	---	---	---	---	---	---	---
Liq Flow (kg/h)	---	---	---	---	---	---	---	---	---	---
Gas Flow (kg/h)	29592.000	19440.000	1944.000	---	---	---	---	---	---	---
Visc (cP)	---	---	---	---	---	---	---	---	---	---
VP (bar (g))	73.275	73.275	58.053	---	---	---	---	---	---	---
DP (bar)	10.600	10.600	10.600	---	---	---	---	---	---	---
DpC (bar)	10.410	10.378	11.384	---	---	---	---	---	---	---
Vel (m/s)	284.690	187.022	18.140	---	---	---	---	---	---	---
Pipe Vel (m/s)	160.901	105.702	10.252	---	---	---	---	---	---	---
Noise (dBA)	85.000	76.000	< 70.0	---	---	---	---	---	---	---
Flow Cap (Cv)	211.402	138.522	13.009	---	---	---	---	---	---	---
Stroke (% Lift)	76	63	7	---	---	---	---	---	---	---
Info (l)	---	---	---	---	---	---	---	---	---	---
<b>Detailed Miscellaneous Information</b>										
FP	0.993	0.997	1.000	---	---	---	---	---	---	---
FL	---	---	---	---	---	---	---	---	---	---
FR	1.000	1.000	1.000	---	---	---	---	---	---	---
Sg	---	---	---	---	---	---	---	---	---	---
K	1.330	1.330	1.330	---	---	---	---	---	---	---
Xt	0.756	0.750	0.820	---	---	---	---	---	---	---
Z	0.977	0.977	0.975	---	---	---	---	---	---	---
FD	0.047	0.047	0.047	---	---	---	---	---	---	---
MWT	18.020	18.020	18.020	---	---	---	---	---	---	---
<b>Detailed Cavitation (Sigma) Information</b>										
Sigma	---	---	---	---	---	---	---	---	---	---
Sigma MR	---	---	---	---	---	---	---	---	---	---
PSE	---	---	---	---	---	---	---	---	---	---
SSE	---	---	---	---	---	---	---	---	---	---
Sigma V	---	---	---	---	---	---	---	---	---	---
Sigma P	---	---	---	---	---	---	---	---	---	---



Fluid: STEAM  
Type: Full  
Owner: EVERYONE Fluid List: STANDARD  
Vp Equation: Antoine

Critical Pressure (psi (a)/bar (a)) : 3208.200 / 221.255  
Critical Temperature (°F/°C) : 705.430 / 374.128  
Reference Specific Gravity: 0.998  
Molecular Weight: 18.020  
Specific Heat Ratio: 1.330  
Reference Temperature (°F/°C) : 67.730 / 19.850  
Vp-A: 14.358 Vp-B: 6869.520  
Vp-C: -83.030

Minimum Temperature (°F/°C) : 35.330 / 1.850  
Maximum Temperature (°F/°C) : 704.930 / 373.850  
Bulk Modulus ((lbf/in²)/(kg/cm²)) : 340000.000 / 4835820.000

Flow Direction : Flow Under  
Trim Characteristic : Equal Percent  
Balance Type: Unbalanced  
Trim Type : MegaStream

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