

Control Valve Specification
Prepared By :

Customer :
PO # :
Quote # :
Rev/By : 0.0 / rcsehi
Application : HP Feedwater Line

Project : -
Proj Num :
Q. ID : rcsehi_JKBS4707PNXT_5920
Alternate :

Valve Tag # : 13LAB30AA902
Page # : 3
P&ID :
Line :
Date / Ver : 10-Mar-2022 / 12.7370

Process Data For Control Valve Selection	1	Pipe Size, Up/Down	3.000 / 3.000				Actuator	51	Act. Type/Matl	VL Cylinder / Aluminum			
	2	Pipe Sch, Up/Down	80 / 80					52	Act. Size/Instr. Sup.	100 / Air			
	3	Allow Noise/Add Attn/Type	85 / 10 /					53	Stroke/Spring	2.50 / Standard			
	4	Process Fluid	WATER					54	Fail/Air-To	In Place / Open			
	5	Design Press./Temp.	0.00 / 134.00 bar (g) / 0.00 / 180.00 °C					55	Vol Tank/Orient/Mtg	/ /			
	6	Driving Cond.	Cond1	Cond2	Cond3	Cond4		56	Tubing Size/Mtl	3/8" / 316 SS			
	7	Temperature (°C)	140.000	140.000	140.000			57	Fitting Mfg/Mtl	Swagelok / 316 SS			
	8	Inlet Press (bar (g))	124.900	124.900	124.900			58	Pos. Ornt./HW	HVR / Top Mnt/Side Operated			
	9	Outlet Press (bar (g))	50.700	50.400	0.700			59	Act O-Rings	Buna-N			
	10	Liq Flow Rate (1000 kg/h)	61.320	42.920	10.220			60	Spud	3.38 / 1.31-12 UN			
	11	Gas Flow Rate (kg/h)	0	0	0			61					
	12	Viscosity (cP)	0.000	0.000	0.000			Positioner	62	Model	BETA		
	13	Vapor Press (bar (g))	2.603	2.603	2.603				63	Model #	L3W1L11B1200-NT3002282SN1W00		
	14	SG-MW	0.93	0.93	0.93				64	Material Paint	Aluminum, White		
15	Max Shutoff / Shutoff Class	134.000 bar / Class IV					65		Venting	Non-Vented			
16	Min Supply Pressure / Max Supply Pressure	8.800 / 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)	8.546	5.969	1.121		69	Spool Valve		High flow				
20	Est Stroke (% Lift)	64.000	45.000	8.000		70	Pos Tag/Mounting		/				
21	Pressure Drop (bar)	74.200	74.500	124.200		71	Transducer		NT 3000 / Direct Mounted				
22	Choke Drop (bar)	119.647	119.647	119.647		72	Conduit Conn.		1/2" NPT / Std Alum w/ Mylar Cert Sticker				
23	Noise [IEC] (dBA)	<70	<70	Flashing		Pos Ind Sw	73		Model	Pos. Pac TX (analog)			
24	Valve Vel (m/s)	4.788	3.351	39.093			74		Switch Model#				
25	Pipe Vel (m/s)	4.305	3.013	35.154			75		Indicate				
Valve Body Assembly	26	Model / Body Type / Trim Type	Mark One / Globe / ChannelStream					76	Mounting				
	27	Size/Pressure Class/Body Form	3.00 / CL 1500 / Cast					77	Tag				
	28	Trim # - Cv / Characteristic	1.69O Cv:13.0 (6stg) / Linear					78					
	29	Stages/DWG/Ret Guiding	2 Stage / / CD_3750 /					79					
	30	Flow Direction	Flow Over					80					
	31	Body Matl / Bonnet Matl	Carbon Steel (WCC) / Carbon Steel					Solenoid	81				
	32	End Conn/Sch/Face to Face	Butt Weld / 40 / ISA S75.08.05						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.	P/B O-Ring / Viton/Peek						85	Body/Housing Mtl	/		
	36	Plug Mtl/ Facing Treatment / Stem Cvr	1.4122 HT / /						86	Body/Elect Conn	/		
	37	Stem Mtl/ Facing Treatment / Pilot Spr	1.4122 HT / /						87	Port Size/Mtg	/		
	38	Seat Ring Mtl/ Facing Treatment	1.4122 HT (~440C) /					Others	88	Tag/Reset-Override	/ / /		
	39	Soft Seat Material	/ /						89	Air Filter/Mnting	/		
	40	Seat Retainer Mtl/ Facing Treatment	1.4122 HT (~440C) / Boronized						90	Filter-Reg/Mnting	FR 04411S00ALLT2 AI / Nipple Mtd		
	41	Sleeve Mtl/ Facing Treatment	/						91	Flow Booster / Mtg.	/		
	42	Guides Upper/Lower	Bronze C93200 / Bronze C93200						92	Booster Config	/		
	43	Packing Matl / Style / Vac / Fire / Cert AFPI / 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	Carbon Steel						99	Pwr. Sup.			
	50	Gland Flange Bolting	Carbon Steel, Zinc Plated					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 /		
Customer Spec	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	29	SEAT RET, MK1, CHNLSTRM, 3", CL 900/1500, LIN, TN 2.50, CV 13, 2 STAGE, 2.50 STROKE, A-582-416, HEAT TREAT PER SPP-929 (HRC 34-43) (ECO 153 11-8-02) as per 192296.158.000
C	72	we will supply to electrical conn 1/2" 3/4" NPT(F) with adaptor.
C	90	Connection 1/4" NPT

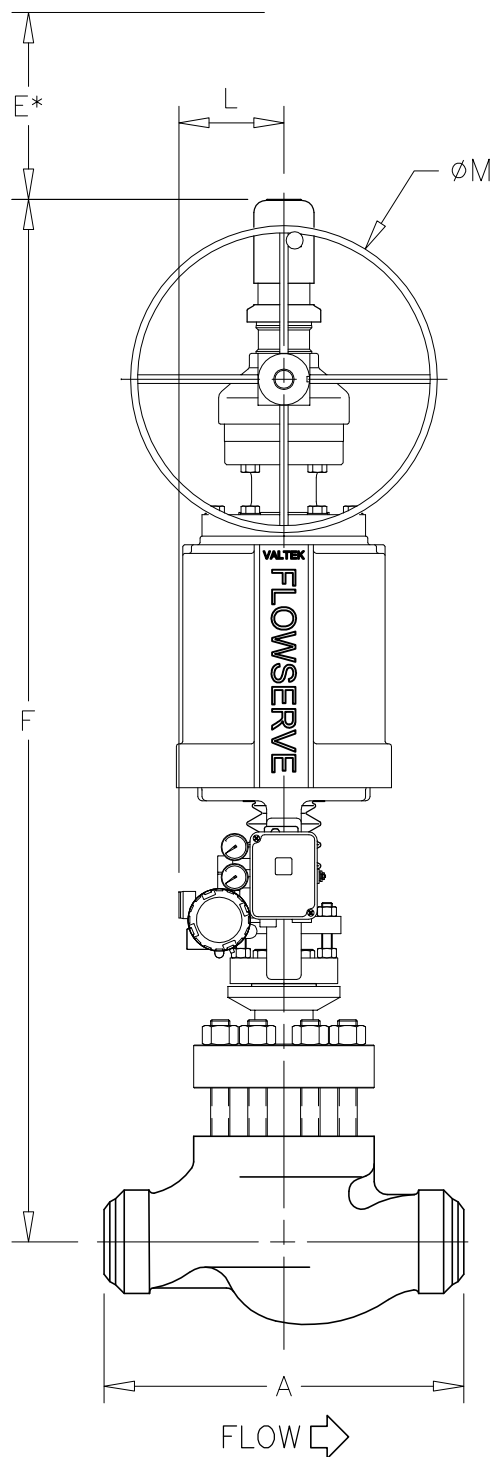
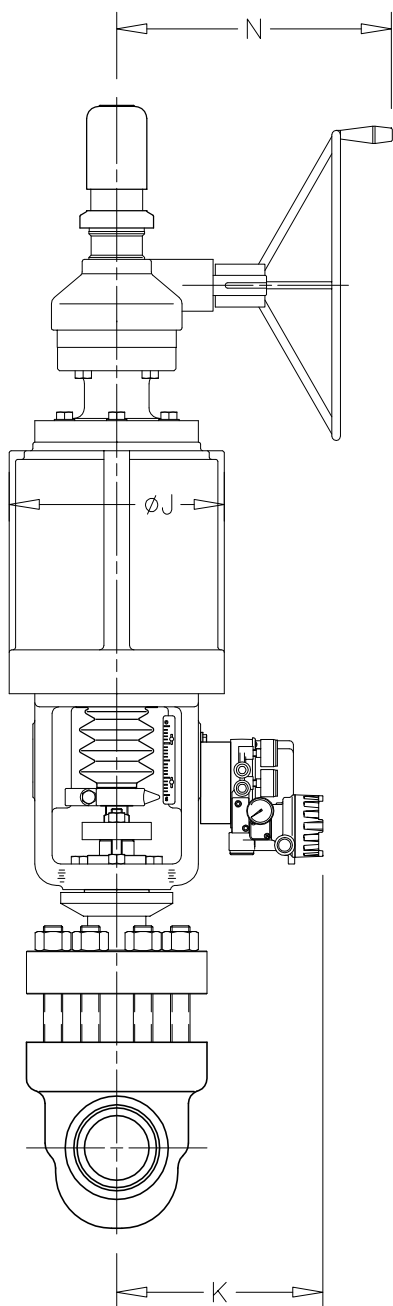
DB Rev - 782 : 19-Jul-2022 : ID = rcsehi_JKBS4707PNXT_5920

Quantity: 1

MK1|D|W|X|NN4|XX|3"|1500|A216WCC|O|D|X|X|I|2|N|P|X|L|I|1,69|X|A|N4|100|X|S|H|S|P|N|


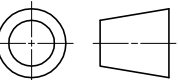
Additional Remarks

Valve Model : Mark One / Globe / ChannelStream		Tag Number : 13LAB30AA902	Page Number : 3
Customer :		Project : -	
C	201	Rev2.: Comment on Minimum Condition - It will not operate for ling time	
		Rev2.: Change CV from 10.2 to 13.	
C	202	Replacement to SN 708872.033	



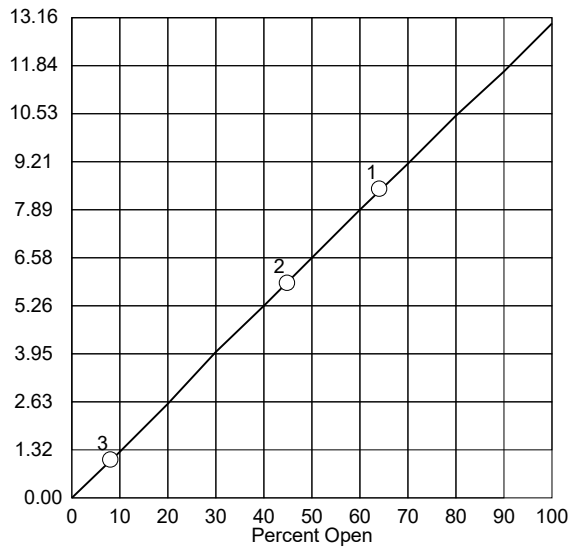
	A	E	F	J	K	L	M	N	APPROXIMATE WEIGHT
INCH	18.12	8.4	60.5	12.5	11.7	6.5	18.0	16.0	500 LBS
mm	460	214	1537	318	297	165	457	406	227 KG

NOTE: DIMENSIONS ARE CERTIFIED CORRECT PER ASSOCIATED SPECIFICATION SHEET. END CONNECTIONS AND SCALING MAY NOT BE ACTUAL. FOR ACCESSORY INFORMATION, SEE ASSOCIATED SPECIFICATION SHEET.

MODEL MARK ONE/GLOBE	ACTUATOR 100 SQ IN	 CERTIFIED DIMENSIONAL DRAWING		
SIZE 3.00 INCH	AIR TO OPEN	DRAWN / CHECKED TD / CWK	CUSTOMER SEO	ITEM
RATING / F/F STD 1500/S75.08.05	FAIL IN PLACE	DATE 02-04-09	VALVE TAG 13LAB30AA902	SHEET 1 OF 1
END CONNECTION BW / 80	SPRING STANDARD	THIRD ANGLE PROJECTION 	P.O. NUMBER 117374-KR1	REVISION 1
TRIM TYPE CHNLSTRM	TRIM NUMBER / CV 2.50 / 13.0	PROJECT YCCPP(CASE1)		SERIAL NUMBER 708872.033

3.00 in (Trim: 1.690 Cv:13.0 (6stg)) CL 1500 Mark One ChannelStream Globe

	Cond1	Cond2	Cond3							
Process Data										
Temp (°C)	140.000	140.000	140.000	---	---	---	---	---	---	---
P1 (bar (g))	124.900	124.900	124.900	---	---	---	---	---	---	---
P2 (bar (g))	50.700	50.400	0.700	---	---	---	---	---	---	---
Liq Flow (1000 kg/h)	61.320	42.920	10.220	---	---	---	---	---	---	---
Gas Flow (kg/h)	---	---	---	---	---	---	---	---	---	---
Visc (cP)	0.000	0.000	0.000	---	---	---	---	---	---	---
VP (bar (g))	2.603	2.603	2.603	---	---	---	---	---	---	---
DP (bar)	74.200	74.500	124.200	---	---	---	---	---	---	---
DpC (bar)	119.647	119.647	119.647	---	---	---	---	---	---	---
Vel (m/s)	4.788	3.351	39.093	---	---	---	---	---	---	---
Pipe Vel (m/s)	4.305	3.013	35.154	---	---	---	---	---	---	---
Noise (dBA)	< 70.0	< 70.0	Flashing	---	---	---	---	---	---	---
Flow Cap (Cv)	8.546	5.969	1.121	---	---	---	---	---	---	---
Stroke (% Lift)	64	45	8	---	---	---	---	---	---	---
Info ()	---	---	---	---	---	---	---	---	---	---
Detailed Miscellaneous Information										
FP	1.000	1.000	1.000	---	---	---	---	---	---	---
FL	0.988	0.988	0.988	---	---	---	---	---	---	---
FR	1.000	1.000	1.000	---	---	---	---	---	---	---
Sg	0.930	0.930	0.930	---	---	---	---	---	---	---
K	---	---	---	---	---	---	---	---	---	---
Xt	---	---	---	---	---	---	---	---	---	---
Z	---	---	---	---	---	---	---	---	---	---
FD	---	---	---	---	---	---	---	---	---	---
MWT	---	---	---	---	---	---	---	---	---	---
Detailed Cavitation (Sigma) Information										
Sigma	1.648	1.642	---	---	---	---	---	---	---	---
Sigma MR	1.011	1.011	---	---	---	---	---	---	---	---
PSE	0.867	0.867	---	---	---	---	---	---	---	---
SSE	1.000	1.000	---	---	---	---	---	---	---	---
Sigma V	1.009	1.009	---	---	---	---	---	---	---	---
Sigma P	1.009	1.009	---	---	---	---	---	---	---	---



Fluid: WATER

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: 1.000

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 Over
Trim Characteristic : Linear
Balance Type: P/B O-Ring
Trim Type : ChannelStream

DB Rev - 782 : 19-Jul-2022