Control Valve Specification Sheet

Date	12/14/2018	**Quotation Ref**	-	**Prepared By**	Brock Smith
Sheet	-	**Revision No**	-	**Email**	brock.smith@us.spiraxsarco.com
Quantity	-	**AO Number**	-	**Telephone**	317-778-6314
Customer	-			**Order Number**	-
Project Type	-			**Location**	-
Project Name	-	**Project Ref**	-	**Job Name**	-
Model Code	2" LEA63PSSUSS.2 Cv 42 ANSI 150 + PN9123E + SP5000R00000G7			**Tag No**	-

CONTROL VALVE SELECTION

1	**Service Application**	-	5	**Max Safe Working Pressure**	-
2	**Hazard Area Class**	-	6	**Pipe Material / Standard**	- / ASME B36.10 (BS1600)
3	**Ambient Air Temperature**	-	7	**Valve Type**	2 Port
4	**Site Noise Limit**	85 dB(A)	8	**Design Standard**	ANSI

DESIGN CONDITIONS

9	**Maximum Pressure**	-
10	**Minimum Temperature**	-
11	**Maximum Temperature**	-

SELECTED PIPE SIZE AND VALVE INSULATION

12	**Pipe Inlet / Designation**	2" DN50 / Schedule 40 (Pipe)
13	**Pipe Outlet / Designation**	2" DN50 / Schedule 40 (Pipe)
14	**Insulation**	-

PROCESS DATA

15	**Media**	Dry Saturated Steam			
16	**Process Condition**	**1**	**2**	**3**	**4**
17	**Name**	Normal Flow	Maximum Flow	-	-
18	**State**	Gas	Gas	-	-
19	**Mass Flow**	552.00 lb/h	772.00 lb/h	-	-
20	**Volumetric Flow**	412.24 gallon/min (US)	576.54 gallon/min (US)	-	-
21	**Inlet Pressure**	58.00 psi gauge	58.00 psi gauge	-	-
22	**Outlet Pressure**	24.00 psi gauge	24.00 psi gauge	-	-
23	**Differential Pressure**	34.00 psi	34.00 psi	-	-
24	**Temperature**	305.46 °F	305.46 °F	-	-
25	**Normal Temperature**	-	-	-	-
26	**Fluid SG**	-	-	-	-
27	**Vapour Pressure**	58.00 psi gauge	58.00 psi gauge	-	-
28	**Viscosity**	0.0000141 Pa s	0.0000141 Pa s	-	-
29	**Critical Pressure**	3,185.42 psi gauge	3,185.42 psi gauge	-	-
30	**Critical Temperature (Tc)**	705.10 °F	705.10 °F	-	-
31	**Specific Heat Ratio**	1.30	1.30	-	-
32	**Compressibility (Z1)**	0.95540	0.95540	-	-
33	**Required Capacity**	4.63 Cv	6.48 Cv	-	-
34	**Percent Open**	43%	52%	-	-
35	**Noise Prediction**	78.55 dB(A)	82.55 dB(A)	-	-
36	**Power Ratio**	0.05	0.07	-	-
37	**Sigma**	-	-	-	-
38	**SigmaMR**	-	-	-	-
39	**Cavitation**	None	None	-	-
40	**Outlet Velocity**	81.56 ft/s	114.07 ft/s	-	-
41	**Outlet Mach**	0.05	0.07	-	-
42	**Upstream Pipe Velocity**	39.41 ft/s	55.12 ft/s	-	-
43	**Downstream Pipe Velocity**	73.97 ft/s	103.45 ft/s	-	-

VALVE BODY ASSEMBLY

44	**Model Code**	2" LEA63PSSUSS.2 Cv 42 ANSI 150	52	**Plug Material**	St.St.316L
45	**Valve Range**	Spira-Trol	53	**Seat Material**	St.St.316L
46	**Flow Direction**	Under	54	**Seating Type**	316L Stainless Steel
47	**Characteristic**	EQ	55	**Packing Material**	PTFE
48	**End Connections**	ANSI 150	56	**Balancing**	Unbalanced
49	**Body Material**	Stainless Steel	57	**Bonnet Studs/Nuts**	ASTM A193 Gr B8 M2 / ASTM A194 Gr 8M
50	**Bonnet Style**	Standard	58	**Finish**	Standard
51	**Trim Type / Reduction**	Standard / Full Port	59	**Shut Off Class**	Class IV

ACTUATOR

60	**Actuator Model**	PN9123E	74	**Finish**	Standard / Standard
61	**Actuator Type**	Pneumatic	75	**Hand Wheel**	No
62	**Control**	Single Acting	76	**Mounting Flange**	-
63	**Travel**	0.79 in	77	**Valve Adapter**	-
64	**Fail Position**	Extend	78	**Positioner Card**	-
65	**Spring Range**	2.0 - 4.0 bar	79	**Position Transmitter**	-
66	**Thrust Available**	431.63 lbf	80	**Local Controller**	-
67	**% Thrust Used**	75.15 %	81	**3 Way Issolation**	-
68	**Required Force To Close**	324.37 lbf	82	**Fault Indicator Relay**	-
69	**Required Force To Open**	22.48 lbf	83	**Communication Software PSCS**	-
70	**Required Shut Off Differential**	58.00 psi	84	**Potentiometer**	-
71	**Air (Available / Allowable)**	85.00 psi gauge / 84.99 psi gauge	85	**Auxiliary Switch**	-
72	**Advised Max Differential**	101.51 psi	86	**Anti-Condensate Heater**	-
73	**% Safety Factor**	0	87	**High Temperature Kit**	-

POSITIONER

88	**Positioner Model**	SP5000R00000G7	92	**Gauge Type / Part Number**	0 - 7 bar / -
89	**Product Number**	3439959	93	**Mounting Kit**	-
90	**Control Signal**	4 - 20 mA	94	**Mounting Kit Part Number**	-
91	**Enclosure Rating**	IP65	95	**Other : -**	

OTHER ACCESSORIES

96	**Air Instrument Connections**	No	101	**Lockup Valve / Solenoid Valve**	No / No
97	**Volume Tank**	None	102	**IP Converter**	No
98	**Tank Capacity**	-	103	**Limit Switch**	No
99	**Min Volume Required**	-	104	**Quick Exhaust / Booster**	No / No
100	**Filter Regulator / Tubing**	MPC2M + Metal Bowl / Plastic	105	**Other : -**	

CERTIFICATES AND SPECIAL REQUIREMENTS

106	**Material Certs Body Bonnet**	None	112	**Nace**	No
107	**Material Certs Bonnet Bolting**	None	113	**Control Loop Hysteresis**	No
108	**Material Certs Trim**	None	114	**Control Loop Dead Band**	No
109	**Drawings Outline**	No	115	**Paint Report**	No
110	**Drawings GA**	No	116	**ATEX + CE**	No
111	**Drawings Hook Up**	No	117	**Other : -**	

STANDARD TEST CERTIFICATION

118	**Hydrostatic Test**	No	120	**Seat Leakage Test**	No
119	**Functional Test**	No	121	**Positioner Calibration**	No

MESSAGES AND NOTES

122	**The Actuator air supply must be regulated to not exceed the allowable pressure stated above.**
123	-
124	-
125	-
126	-