

3006 Northup Way Bellevue, WA 98004 Phone: 425-828-2400 FAX: 425-828-0526

2.Service:

Control Valve Specification 7450-671

SHEET 3 OF 18

PR NO. 18.0031.10

В

C

MLG

JLD

3.Location:

REV 8Y CKD REVISION DATE GENERAL REVISION. D MLG JLD RELEASED ALL HOLDS 12/23/98 REV TAG FROM FV-0302. MLG Α JLD 10/26/98 SHT 4 REISSUED FOR BIDS

ISSUED FOR PURCHASE

PROJECT:

1.Tag:

Cartonajes Estrella, S.A. de C.V. 4 Effect Evaporator System with Crystallizer RCCI Project No. 745

PV - 0301

PO NO. Y

EVAP E-1 STEAM SUPPLY PRESS

MLG JLD REVEASED HOLD ON AIR SUP 11/30/98

AS-101-CS1-42"

11/03/98

4	ш	Line Size	42"	41		LIQUID Flow Units	724					
5	LINE	Schedule (OD / Wall)		42	_	STEAM Flow Units kg/hr						
6		Line Connections	150# RF FLANGE	_	43	GAS Flow Units		Kg/fir				
17		*Type of Body	BUTTERFLY	44	.]	FLUID		STEAM				
8		*Body Size	24"	45		PRESSURE Units		kPaG				
9		*Port Size	MFR'S STD	46	46	DP Units		kPaD				
10)	*Guiding	MFR'S STD	47	7	TEMPERATURE Units degC						
111		No. of Ports	ONE	48		1 0000						
12		End Conn and Rating	LUGGED	49	_							
13	BODY	Body Material	CARBON STEEL	50	0	VARIABLE	MINIM	IUM	NORMAL	MAXIMUM		
	1111	*Packing Material	PTFE	51	ွ	Flow (See 44)	39909	103176	117906			
15	VALV	Lubricator	NOT REQ'D	52	S	Inlet Pressure	232		232.1	112806		
	5	Isolation Valve	NOT REQ'D	53	CONDITIONS	Delta Pressure	140		42	232.1 14		
17		*Bonnet Type	MFR'S STD	54	ᆁᄫ	Temperature	142		142.5			
18		*Trim Form	EQUAL PERCENT	55		Specific Gravity	0.00	$\overline{}$	0.0017	142.5		
19		*Plug/Ball/Disk Material	316 SS	56] 💆	Viscosity(CP)	0.01		0.014	0.0017		
20		*Shaft Material	17-4PH SS	57	(A)	*CV	202	$\neg \neg$	7291	0.014		
21	- 1	Required Seat Tightness	ANSI CLASS V	58		*Valve Open %	25		50	13316		
22	_	Max. Allowable Sound	85 dBA	59					30	75		
23		*Model Number and Size	FISHER CONTROLS 1031(33)	60	*Valve CV 17818							
24	J	*Type of Actuator	SCOTCH YOKE SR PISTON	61 62		MOL.WT	18					
25	œ۱	*Close At (Bench Set)	193 kPaG			% Superheat 0						
	5	*Open At (Bench Set)	345 kPaG	63		% Flash NA						
27	≥1	*Flow Action To	NA	64		% Solids NA						
28	위	Fail Position	CLOSED	65	65 66 67 68	Vapor Pressure (kPaA) NA						
29		Handwheel and Location	NOT REO'D	66		Critical Pressure (kPaA) 22118						
30	- 1	Actuator Orientation	RH POS 1	67		Maximum Shutoff Press 232.1						
31	-	Response Time_(sec)	FULL OPN TO CLSD: 15	68		*Pred. Sound Level dBA		112/101/87				
32	-1	*MFR and Model No.	FISHER CONTROLS 3720J	69	امرا	Atmospheric Pressure 77.9 k						
33	- 1	*Filter Regulator	YES	70	Ä	Ambient Temperature		0 - 29 degC				
34	œ	Gages	YES	71	ᆀᇙ	Area Classification		NON-HAZARDOUS				
35	8	ByPass	NOT REO'D	72	S							
36	OSITIONER	*Input Signal	4-20 mADC	73	70 71 72 73 74 75 76		1					
	ĕΙ	*Output Signal	0 - 600 kPaG	74								
38		Air Supply Pressure	600 kPaG	75	5							
39		Enclosure Classification	NEMA 3	76	8	Face to Face Dimen	sions	6.06	in			
40	_	Positioner Instrument Tag		77		Total Mass With Actuator 661 kg						

Notes

(* Information supplied by manufacturer unless already specified)

- 1. The Vendor shall provide a stainless steel tag engraved with the inst tag number(s) and permanently affixed to the instrument.
- 2. The Vendor shall provide the instrument with all accessories or options installed, tubed with SS tubing & fittings, and/or wired.
- 3. The degree of corrosion or moisture resistance specified by line 39 shall apply to all component enclosures.
- 4. The F-F dimen's of lugged and wafer style butterfly valves shall comply with API 609.
- 5. Sizing coefficients represent Fisher Controls Cs values.

RCC Instrument FORM CV671_FRP

Conservation Co. International

PROJECT:

1.Tag:

3006 Northup Way Bellevue, WA 98004 Phone: 425-828-2400 FAX: 425-828-0526

2.Service:

Control Valve Specification 7450-671

REV BY CKD REVISION DATE ISSUED FOR BIDS GRJ Orig MLG 12/08/98 ISSUED FOR PURCHASE

02/10/99

Cartonajes Estrella, S.A. de C.V.

RCCI Project No. 745

Line Size

PV - 0320

4 Effect Evaporator System with Crystallizer

PR NO. 18.0031.13

SHEET 20 OF 20

PO NO. Y

TURBINE EXH STM TO AIR CLD CONDENSER 3.Location: AS-later-CS1-36" 41 LIQUID Flow Units STEAM Flow Units kg/hr **GAS Flow Units**

PRESSURE Units

TEMPERATURE Units

FLUID

DP Units

Α

MLG

JLD

14	l w	Line Size	36"	41	
5		Schedule (OD / Wall)	40	42	1
6		Line Connections	150# RF FLANGE	43	1
7		*Type of Body	BUTTERFLY	44	1
8		*Body Size	18"	45	1
9		*Port Size	MFR'S STD	46	1
10		*Guiding	MFR'S STD	47	1
11		No. of Ports	ONE	48	1
12		End Conn and Rating	LUGGED	49	1
13	BODY	Body Material	CARBON STEEL	50	1
14	14 8	*Packing Material	PTFE	51	1
15	VALVE	Lubricator	NOT REO'D	52 53 54	SERVICE CONDITIONS
16	\$	Isolation Valve	NOT REQ'D		1Ē
17		*Bonnet Type	MFR'S STD		1봉
18		*Trim Form	55	15	
19		*Plug/Ball/Disk Material	56	15	
20	111111111111111111111111111111111111111		17-4PH SS	57	11
21		Required Seat Tightness	ANSI CLASS V	58	S
22		Max. Allowable Sound	85 dBA	59	1
23		*Model Number and Size	FISHER CONTROLS 1031(26)	60	1
24		*Type of Actuator	SCOTCH YOKE SR PISTON	61	1
25	-	*Close At (Bench Set)	352 kPeG	62	1
26	CTUATOR	*Open At (Bench Set)	186 kPaG	63	1
27	اجًا	*Flow Action To	NA	64	1
28	2	Fail Position	OPEN	65	
29		Handwheel and Location	NOT REO'D	66	
30		Actuator Orientation PARALLEL TO VALVE		67	
31				68	
32		*MFR and Model No.	FISHER CONTROLS 3720	69	
33		*Filter Regulator	YES	70	띭
34	æ	Gages YES ByPass NOT REO'D		71	ĕ
35	ä			72	ES
36	읩	*Input Signal	4-20 mADC	73	ပ္ပ
37	POSITIONER	*Output Signal	0 - 600 kPaG	74	S
38	۱-	Air Supply Pressure			8
39		Enclosure Classification NEMA 3		75 76	OPTIONS/ACCESSORIES
40	. 1	Positiones Instrument Tex			9

VARIABLE	MINIMUM	NORMAL	MAXIMUM	
Flow (See 44)		122,924	144,242	
Inlet Pressure		232	232	
Delta Pressure		234	165	
Temperature		142.5	142.5	
Specific Gravity			1127	
Viscosity(CP)				
•cv		6085	7163	
*Value Ones of				

STEAM

kPaG

kPaD

deaC

		0000	/163				
*Valve Open %		71	79				
*Valve CV	9688	E.					
MOL.WT	18	18 8.1					
% Superheat	8.1						
% Flash	NA						
% Solids	NA.						
Vapor Pressure (kPaA)	NA						
Critical Pressure (kPaA)	22118						
Maximum Shutoff Press	222.1						
*Pred. Sound Level dBA	114/112						
Atmospheric Pressure	77.9	kPaA	2 (1.0.00				
Ambient Temperature	0 - 2	9 degC					
Area Classification	NON-	HAZARDOUS	-				

4.5 in

Positioner Instrument Tag

Total Mass With Actuator 329 kg (* Information supplied by manufacturer unless already specified)

- 1. The Vendor shall provide a stainless steel tag engraved with the inst tag number(s) and permanently affixed to the instrument.
- 2. The Vendor shall provide the instrument with all accessories or options installed, tubed with SS tubing & fittings, and/or wired.
- 3. The degree of corrosion or moisture resistance specified by line 39 shall apply to all component enclosures.
- 4. The F-F dimen's of lugged and wafer style butterfly valves shall comply with API 609.

PY-0320

5. Sizing coefficients represent Fisher Controls Cs values.

MANUFACTURER: FISHER CONTROLS

MODEL NO.

18" - A31A / 1031(26) / 3720

Face to Face Dimensions

FORM CV671.FRP Instrument



3006 Northup Way Bellevue, WA 98004 Phone: 425-828-2400 FAX: 425-828-0526

2.Service:

Control Valve Specification 7450-671

SHEET 16 OF 18

EVAP E--1 START UP STEAM

PR NO. 18.0031.10

 REV
 BY
 CKD
 REVISION
 DATE

 Orig
 MLG
 JLD
 ISSUED FOR BIDS
 10/26/98

 A
 MLG
 JLD
 ISSUED FOR PURCHASE
 11/03/98

REV TOTAL No OF SHTS.

GENERAL REVISION.

RELEASED ALL HOLDS.

RELEASED HOLD ON AIR SUP

PROJECT:

1.Tag:

Cartonajes Estrella, S.A. de C.V. 4 Effect Evaporator System with Crystallizer RCCI Project No. 745

HV - 0302

PO NO. Y

3.Location:

JLD

JLD

MLG

MLG

С

AS-I101-CS1-10"

11/30/98

12/23/98

1.709	. 117-0002	EVAP E-131A			CAN J.L	ocation:		AS-I101-C	\$1-10"	
4	Line Size	10"	41	41	LIQUID Flow Units					
5 3	Schedule (OD / Wall)	40	42		STEAM Flow Units		kg/hr			
6	Line Connections	150# RF FLANGE	43		GAS Flow Units			KQ/III		
긔	*Type of Body	BUTTERFLY	44	.]	FLUID		STEAM			
<u>8</u>]	*Body Size	6	45]	PRESSURE Units		kPaG			
9	*Port Size	MFR'S STD	46	46 47	DP Units		kPaD			
10	*Guiding	MFR'S STD	47		TEMPERATURE Units			degC		
11	No. of Ports	ONE	48	1			uou.			
12	End Conn and Rating	LUGGED	49	50 51 52 53 54 55 56 56 57		+				
13 A 14 A 14 B	Body Material	CARBON STEEL	50		VARIABLE	MININ	NUM	NORMAL	MAXIMUN	
	*Packing Material	PTFE	51		Flow (See 44)	90	7	11340	19883	
15 🖔	Lubricator	NOT REQ'D	52		Inlet Pressure	232		232.1	232.1	
16 \$	Isolation Valve	NOT REQ'D	53		Delta Pressure	222		193	183	
17	*Bonnet Type	MFR'S STD	54		Temperature	142		142.5	142.5	
18	*Trim Form	LINEAR	55		Specific Gravity	0.00		0.0017	0.0017	
19	*Plug/Ball/Disk Material	316 SS			Viscosity(CP)	0.0		0.0017	0.0017	
20	*Shaft Material	17-4PH SS	57	出	*CV	44.		561	1008	
21	Required Seat Tightness	ANSI CLASS IV	58	~ (A)	*Valve Open %	11		54	1008	
22	Max. Allowable Sound	85 dBA	59							
23	*Model Number and Size	FISHER CONTROLS 1051(60)	60		*Valve CV 1008					
24	*Type of Actuator	SR DIAPHRAGM	61	61 62	MOL.WT		18			
25 ~	*Close At (Bench Set)	37 kPaG	62		% Superheat		0			
CTUATOR	*Open At (Bench Set)	187 kPaG	63]	% Flash NA					
끄칠	*Flow Action To	NA	64]	% Solids NA					
18 일	Fail Position	CLOSED	65	66	Vapor Pressure (kPaA)			NA		
29	Handwheel and Location	NOT REO'D	66		Critical Pressure (kPaA)			22118		
30	Actuator Orientation	RH POS 1	67		Maximum Shutoff Press		232.1			
31			68	Ш	*Pred. Sound Level dBA		96/105/107			
32	*MFR and Model No.	FISHER CONTROLS 3620J	69		Atmospheric Pressure		77.9 kPaA			
33	*Filter Regulator	YES	70	E	Ambient Temperature		0 - 29 degC			
34 ლ	Gages	YES	71	S	Area Classification		NON-HAZARDOUS			
5 2	ByPass	NOT REO'D	72	ES						
TIONER	*Input Signal	4-20 mADC	73	3						
37 S	*Output Signal	0 - 600 kPaG	74	1/5			1			
88	Air Supply Pressure	600 kPaG	75	TIONS/ACCESSORIES			<u> </u>			
39	Enclosure Classification	NEMA 3	76		Face to Face Dime	nsions	2 25			
0	Positioner Instrument Tag	A STATE OF THE STA	77	9	Total Mass With A					

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RCC Instrument FORM CV671.FRP

MANUFACTURER: FISHER CONTROLS

MODEL NO.

6"-8560 / 1051(60) / 3620J