



Punjab Alkalies & Chemicals Limited

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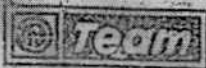
PRESS TENDER : RFQ NO:00783 DTD.29/12/2017

DUE DATE: 09/01/2018

S.NO.	DESCRIPTION OF ITEM	QTY.
1.	MIDDLE PORTION ,SHELL & TUBE BUNDLE ASSEMBLY (32EV-202) FOR FALLING FILM EVAPORATOR. <u>AS PER DETAILS ATTACHED.</u>	1 NO.

Kindly send your Technical Bid by mail and Price Bid only in sealed envelope through speed post/courier which should be reach us on or before 09/01/2018.

Mail id is given above.



TEAM CO. LTD.
Madras India

M/S. PACL

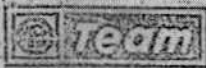
FINAL DIMENSIONAL REPORT

SHEET 1 of 2

JOB NO : 1838

EQPT : 32EV202

SL. NO.	DESCRIPTION	REQUIRED AS PER DRG.	ACTUAL IN JOB	
1.	Main Shell OD x Thick	Ø 600 4.0 thk	Ø 600	4.0
2.	Main Shell Total Length	6700	6700	
3.	Middle part length tube sheet face to T.S. face	6776	6778/6775	
4.	Tube Sheet OD	Ø 640	Ø 640	
5.	Tube Sheet thick	40.0	40.0	
6.	Tube Hole Dia	Ø 48.8 ± 0.5	48.76/ 48.83	
7.	No of tube holes	40 Nos	40 Nos	
8.	Tube Hole Pitch	60	60	
9.	Tube OD x thick	Ø 48.3 x 1.65 thk	Ø 48.3 x 1.65 thk	
10.	Expansion bellow OD x thick	Ø 1000 x 2.5	Ø 1001 2.5	
11.	Expansion Bellow width.	130	180	
12.	Bellow cover OD thick	Ø 1100 x 5.0tk	Ø 1100 5.0 tk	
13.	Bellow cover support thick	2.5	2.5	
14.	Bellow cover width	150	152	
15.	Main shell lifting lug pad size	150 x 100 x 10	150 x 112 x 10	
16.	Lifting lug thick	15	15	
17.	Support bracket projection from shell outer surface	464	464	Major Dimension
18.	Bracket pad size (OD)	Ø 624	Ø 624	Satisfactory
19.	Bracket pad width	405	405	
20.	Bracket base plate size	464x 250 x 15	464 x 250x 15	Satisfactory
21.	Bracket hole size	Ø 100	Ø 100	
22.	Main Shell lose flange size (OD x thick)	Ø 730/55 tk	Ø 730/55 tk	
23.	Shell flange bolt hole size/ quantity	Ø 25.4/24Nos	Ø 25.4/ 24 Nos.	
CHECKED BY:		APPROVED BY:		



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FINAL DIMENSIONAL
REPORT

M/S. PACL

SHEET 2 of 2

JOB NO : 1938

EQPT : 32EV 202

SL. NO.	DESCRIPTION	REQUIRED AS PER DRG.	ACTUAL IN JOB
24.	Upper Part OD x thick	Ø600x4.0	Ø 600 x 4.0
25.	Upper part total length stub end to Nozzle Face	454	455
26.	Upper part flange size	Ø730/65tk	Ø730/65 tk
27.	Flange bolt hole size/quantity	Ø 25.4/24	Ø25.4/24
28.	Flange Stub end dia (OD) x tk	Ø640/4.0tk	Ø640/4.0tk
29.	Lower part OD x thick	Ø600/4.0	Ø600/4.0
30.	Lower part total length	1940	1942
31.	Lower part flange size ODx tk	Ø730/65.0	Ø730/65.0
32.	Flange hole size/quantity	Ø25.4/24	Ø25.4/24
33.	Lower part stub end OD x thick	Ø640/4.0tk	Ø640/4.0tk
34.	N7 Nozzle C.line to N12 Nozzle C.L	750± 1	751
35.	Insulation cleat size	50x 54	50 x 54
36.	Flange stub end to lifting lug C.L	82	82
37.	Flange stub end to T.L.	1406	1406
37A	Equipment Total length (N1 Flg face to N2 Flg face)	9178	9177
37B	Outer circumference	1884	1889
38	Supp. Bracket face to-Exp. Bellow Dist.	1068	1064
39	Supp. Bracket face to name pl. Dist.	650	647
40	Supp. Bracket orientation	0°, 90°, 180°, 270°	OK
41	Supp. Bracket face to N6 Nozzle & Dist.	3970	3967
42	Supp. Bracket face to N4 Nozz. & Dist.	4544	4542
43	Upper part length	454	449
44	Lower part length	1940	1942

FINAL DIMENSIONAL
SATISFACTORY
DATE: 10/11/64
BY: [Signature]

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NOZZLE DETAIL

Page 1 of 1

JOB NO : 183B

EQPT MARK: 32 EV202

FALLING FILM EVAPORATOR

NOZZLES	MATERIAL		ORIENTATION	PROJECTION		LOCATION		DIMENSION	
	NOZZLE	FLANGE		Design.	Diff.	Design	Diff.	Design	Diff.
N1	B424	SA 105	TOP	150	0	Dish	-	2"NB	-
N2	B424	SA105	BOT	400	0	Dish	-	2"NB	-
N3	B424	SA 105	180°	550	-1	1020	-3	16"NB	-
N4	B424	SA 105	0°	550	-2	390	+1	20"NB	-
N5	B424	SA 105	0°	550	+1	396	-3	1"NB	-
N6	B424	SA 105	90°	550	-3	180	+4	3" NB	-
N7	B424	SA 105	270°	200	-3	370	+1	3"NB	-
N10	B424	SA 105	225°	250	-1	120	+1	1½"NB	-
N12	B424	SA 105	270°	250	-1	750	+1	3" NB	-

Checked

 KUMAR 11/14/96

NOTES:

1. ALL DIMENSIONS ARE IN M.M. U.O. SPECIFIED.

CHECKED BY :

APPROVED BY :

SHEET OF

MOC & Scope of work for 32-EV-202 Falling Film Evaporator Unit-I

MOC for different part

S.No.	Part Description	Material
1	Shell	SB 162 N02200
2	Tube Sheet	SB 162 N02200
3	Tube	SB 162 N02200
4	Expansion Bellow	SB 162 N02200
5	Demister / Internals	SB 162 N02200
6	Nozzles	SB 162 N02200
7	Nozzles Stub End	SB 162 N02200
8	Shell Flange	SA-181 CL 60/ SA 105 / C-steel
9	Nozzle Flanges(Loose)	SA-181 CL 60/ SA 105 / C-steel
10	Fasteners	SA-193 Gr. B7/ SA 194 Gr.2H
11	Supports	SA 516 Gr. 60

Scope of Work

1	Fabrication Drawing
2	Third party inspection
3	IBR Approval
4	Procurement of raw material
5	Material Test certificates
6	Startup & Commissioning Spares
7	Hydrotesting
8	Radiography(100%)
9	DP test
10	Painting as per standard