



NOZZLE MARK	Q'TY	SIZE	FLANGE	SERVICE	PROJECTION	REMARK
N7	1	2	ASME 150# WN,RF	80S DRAIN	620	W/B.F
N6	1	2	ASME 150# WN,RF	80S DRAIN	520	W/B.F
N5	1	4	ASME 150# WN,RF	40S TUBE BUNDLE OUTLET	550	
N4	1	4	ASME 150# WN,RF	40S TUBE BUNDLE INLET	550	
N3	1	8	ASME 150# WN,RF	40S SHELL VAPOR OUTLET	570	
N2	1	4	ASME 150# WN,RF	40S SHELL LIQUID OUTLET	550	
N1	1	12	ASME 150# WN,RF	40S SHELL VAPOR INLET	700	

DESCRIPTION	ASME STAMP	YES	CODE	ASME SEC.VIII DIV.1 2010 ED. & API 660 7th ED.
SHELL / PAD	SA240-316L/SA240-316L	FLANGE		
CHANNEL / PAD	SA240-316L/SA240-316L	- SHELL SIDE		
CHANNEL COVER	-	- TUBE SIDE	SA182-F316L	
TUBESHEET	SA182-F316L	- FLOATING		
FLOATING HEAD COVER	-	- SHELL SIDE NOZZLE	SA182-F316L	
BACKING DEVICE	-	- TUBE SIDE NOZZLE	SA182-F316L	
TUBE	SA213-TP316L	STUD BOLT & NUT		
BAFFLE OR SUPPORT	SA283-C	- SHELL COVER		
IMPINGEMENT BAFFLE	SA283-C	- STATIONARY	SA193-B8/SA194-B	
PASS PARTITION PLATE	SA240-316L	- CHANNEL COVER		
TIE ROD	SA36	- FLOATING		
BAFFLE SPACER	SA53-B	- SHELL SIDE NOZZLE	SA193-B8/SA194-B	
SADDLE / PAD	SA283-C / SA240-316L	- TUBE SIDE NOZZLE	SA193-B8/SA194-B	
NOZZLE NECK		GASKET		
- SHELL SIDE	SA312-TP316L	- SHELL COVER		
- TUBE SIDE	SA312-TP316L	- SHELL		
LIFTING LUG	SA240-316L	- CHANNEL	TEALON 1590 OR EQ.	
PULLING PLUG	-	- CHANNEL COVER		
EXPANSION JOINT	-	- FLOATING		
SLIDING PLATE	A283-C	- SHELL SIDE NOZZLE	TEALON 1590 OR EQ.	
BOSS & PLUG	-	- TUBE SIDE NOZZLE	TEALON 1590 OR EQ.	
LINER PLATE	-	SETTING BOLT/NUTS	SA193-B7/SA194-2H	

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TEMA STANDARD	TEMA CLASS "R" '99 8th ED.	LOCAL REGULATION	KSA
CORR. ALLOW. (mm)	0.1	BUNDLE WEIGHT (kg)	-
JOINT EFF. (S/H) (%)	100/-	LIFT WEIGHT (kg)	2800
P.W.H.T.	NO	EMPTY WEIGHT (kg)	2900
STRESS RELIEF	NO	OPER. WEIGHT (kg)	4400
RADIOGRAPH (S/H)	FULL/-	TEST WEIGHT (kg)	4600
PNEUM.TEST PRESS. (bar G)	-	FIRE PROOF. (mm)	NONE
HYDRO.TEST PRESS. (bar G)	15.4	INSULATION(PF)/(HC) (mm)	25.4 38.1
M.A.W.P. / M.A.P. (bar G)	11.56/15.9	PAINT (C.S/ PART)	SEE NOTE "15"
DESIGN TEMP. (°C)	172	TYPE	H-BEM
DESIGN PRESS. (bar G)	4/F.V	SEISMIC ZONE	SITE CLASS "D" (ASCE 7-05)
OPER. TEMP. (IN/OUT) (°C)	75.5/74	WIND VELOCITY (m/sec)	42.7 m/sec (ASCE 7-05)
OPER. PRESS.(IN/OUT)(bar A)	1.2/1.1	Sp. Gr.	0.85 0.92
SPECIAL SERVICE	NO	NO. OF PASS	1 (ONE) 8 (EIGHT)
MEAN METAL TEMPERATURE	73.88	SURFACE AREA (EFF.) (m <sup>2</sup> )	51.5
FLUID	ORGANICS (22-1-1301 TOP) (22-1-1301 FEED)	VOLUME (m <sup>3</sup> )	0.883 0.722
M.D.M.T. (°C @ barG)	-5°@11.57	M.A.E.W.P. (°C @ barG)	2.09°@172 4.27°@100
		IMPACT TEST	NO

GENERAL NOTES
1. ALL DIMENSIONS ARE IN MILLIMETERS EXCEPT AS NOTED.
2. ALL WELDS ARE CONTINUOUS EXCEPT AS NOTED.
3. ALL FLANGE BOLT HOLES SHALL FLANGE STRADDLE NATURAL CENTER LINE OF EQUIPMENT.
4. VENDOR SHALL CHECK AND GUARANTEE THICKNESS OF EACH PART BY STRENGTH CALCULATION.
5. ALL RECTANGULAR PADS WELDED TO BODY SHALL HAVE 25MM MINIMUM CORNER RADIUS.
6. NOZZLE REINFORCEMENT PAD SHALL BE PROVIDED WITH AT LEAST 1(OE)-1/4" NPT THREADED TELLTALE HOLES WITH S.S PLUGS. THE TELLTALE HOLE SHALL NOT BE LOCATED ON THE LONGITUDINAL CENTERLINE OF THE EQUIPMENT.
7. HEAD THICKNESS MEANS AFTER FORMING OF HEAD.
8. GASKET MATERIAL
- SHELL SIDE :-
- TUBE SIDE : TEALON 1590 or EQ.
9. PAINTING
* AS PER SPEC.
10. ASME "U" STAMP WITH NATIONAL BOARD REGISTRATION SHALL BE REQUIRED.

REV.	DESCRIPTION	DATE	PRE'D	CH'D	APP'D (ENG)	APP'D (SPEC)