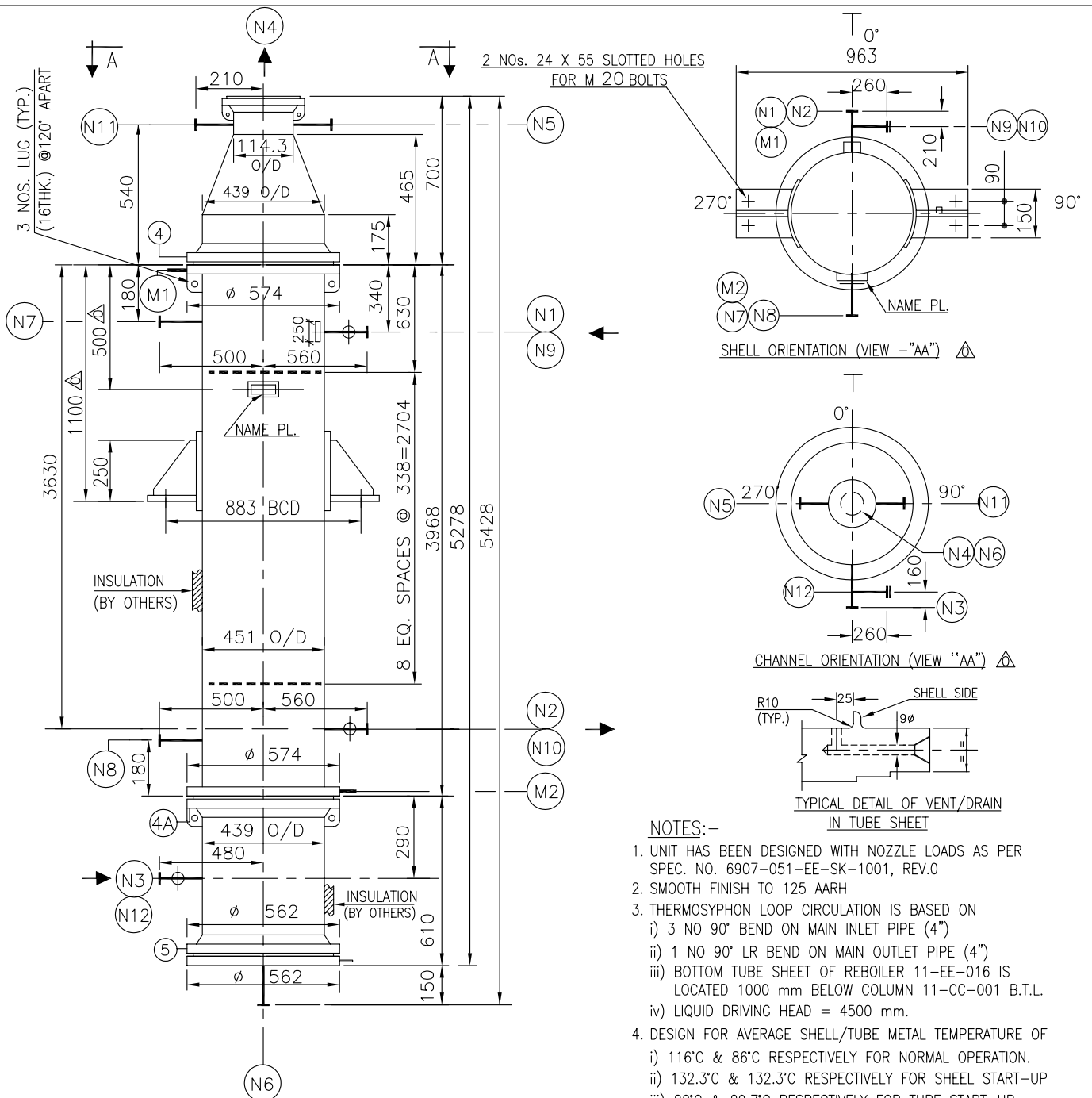


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DEMATHANIZER COLUMN BOTTOMS

TYPE OF EXCH. AEL CONE (V)

SERVICE:- DEMATHANIZER REBOILER

SHELL PER UNIT- ONE
NO. OF UNIT- ONE

DESIGN DATA				NOZZLE DATA							
	SHELL SIDE	TUBE SIDE	NOZZLE MARK	SIZE N.B./O.D.	RATING	SCH / THK	TYPE FACING	PAD W X T	FLG. FACE FINISH	DESIGNATION	
DESIGN PRESSURE Kg/cm ² g	64.0	26.0	N1	8.0"	600	SRN (REFER SHT.30F3)	WNRF	-	NOTE2	SHELL INLET	
DESIGN TEMPERATURE °C	160.0	65.0	N2	8.0"	600		WNRF	-	NOTE2	SHELL OUTLET	
HYD. TEST PRESSURE Kg/cm ² g	83.2	33.8	N3	4.0"	300	120	WNRF	40X10	NOTE2	CHANNEL INLET	
FLUID CIRCULATED	FEED GAS	#	N4	4.0"	300	120	WNRF	--	NOTE2	CHANNEL OUTLET	
NO. OF PASSES	ONE	ONE	N5	1.5"	300	160	WNRF	--	NOTE2	CHANNEL VENT + BF	
WORKING PRESSURE Kg/cm ² g	45.0	21.4	N6	1.5"	300	160	WNRF	--	NOTE2	CHANNEL DRAIN + BF	
WORKING TEMP. (IN/OUT) °C	132.3/100	29.7/40.9	N7	38.1 I.D	600	15.875	LWNRF	--	NOTE2	SHELL VENT+BF	
CORROSION ALLOWANCE mm	3.0	3.0	N8	38.1 I.D	600	15.875	LWNRF	--	NOTE2	SHELL DRAIN+BF	
STRESS RELIEVING	-	-	N9-10	38.1 I.D	600	15.875	LWNRF	--	NOTE2	MP CONN. + BF	
RADIOGRAPHY	FULL	FULL	N11-12	1.5"	300	160	WNRF	--	NOTE2	MP CONN. + BF	
JOINT EFFICIENCY	1.0	1.0	M1,M2	3/4"	6000				NPT	COUPLING WITH PLUG	
INSULATION (MW) mm	125 (PUF)	90 (PUF)									
O	08.07.2010	ISSUED FOR PURCHASE	A.R	RR/PB	AKG						
A	15.12.2009	ISSUED FOR BIDS/ENGG.	A.ROY	RR/PB	AKG					EMPTY WEIGHT (Kg.)	~2500
NO.	DATE	REVISION	BY	CHKD.	APPD. BY					WT. FULL OF WATER (Kg.)	~3100



ENGINEERS INDIA LTD.
STATIC EQUIPMENT DEPT.
KOLKATA

SETTING PLAN FOR
ITEM NO.: 11-EE-016
PROJECT:- BCPL, LAKWA UNIT:- C2+RECOVERY

DRAWING NO. REV.
6907-11N-16-46-4026 0
SHT 1 OF 3

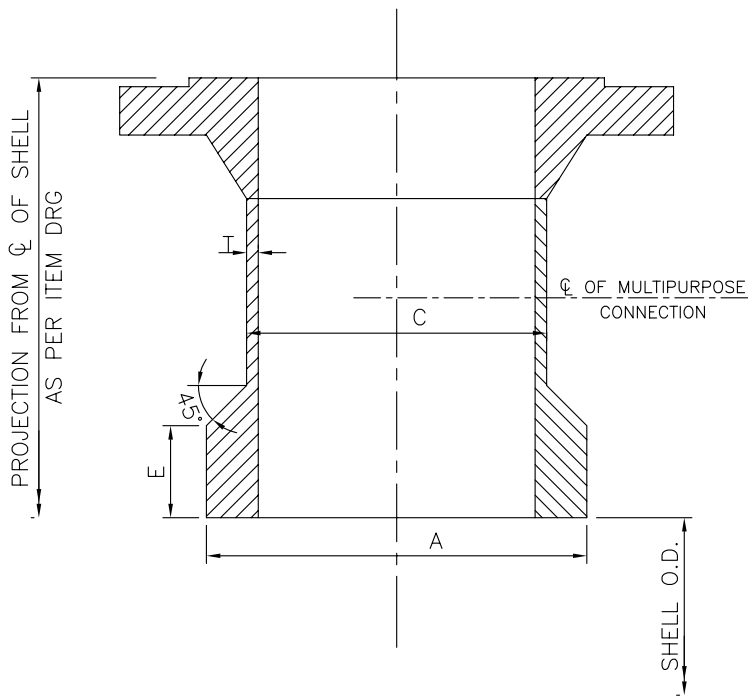
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MECHANICAL DETAILS																		
ITEM NO 11-EE-016 TEMA CLASS R 9TH EDITION. ASME SEC.VIII DIV.1 (2007) EDITION+ADDENDA																1		
SIZE 419 X 4000 TYPE AEL (V) ; CONNECTED IN - STACKING NO																2		
DUTY/UNIT 0.4940*1.10 MMKcal/hr SURFACE AREA / SHELL 37.0 Sqm NO. OF UNITS- ONE SHELLS/UNIT ONE																3		
DESCRIPTION		MATERIAL	DETAILS												Wt(Kg)	4		
SHELL		SA516Gr60	O.D. = 451.00 ; THK = 16.00													5		
SHELL COVER BARREL		-	O.D. = - ; THK = -													6		
SHELL COVER BONNET		-	O.D. = - ; THK = - (MIN -) SF = -													7		
CHANNEL		SA516Gr60	O.D. = 439.00 ; THK = 10.00 (0. OD X SCH)													8		
CHANNEL CONE		SA516Gr60	O.D. = 439.0/114.3 ; THK = 10.00													9		
TUBES		SA179	O.D. = 25.00 ; THK = 2.50MIN. LENGTH = 4000 NO=120 PITCH(NOTE4)													10		
TUBE SHEET		SA266CL4	DETAIL = 9 ; THK = 60 F =25 F1 = 0.													11		
BAFFLES		IS2062	TYPE= SINGLE SEGMENTAL; THK= 8. ; NO REQD.= 9 ; CUT = (NOTE4)													12		
FLOATING HEAD DISH		-	INSIDE RADIUS = - ; THK = - (- MIN)													13		
FLANGE NO.	TYPE	MATERIAL	A	BCD	B	Go	G1	H	T	GASKET DATA			BOLT DATA			Wt (Kg)		
										O.D.(D)	WIDTH	TYPE	NO	BOLT DIA				
4 & 4A	2	SA266CL4	574.0	526.0	419.0	10.0	15	25	50	486	10	1	20	M20			14	
5	2	SA266CL4	562.0	514.0	419.0	10.0	15	25	46	474	10	1	20	M20			15	
		-															16	
		-															17	
		-															18	
		-															19	
DESCRIPTION		GASKET MATL.	BOLTING MATERIAL.		DESCRIPTION		MATERIAL		REMARKS					Wt(Kg)				
FLANGE 1-2		-			CHANNEL COVER		SA516Gr60		DETAIL- 7 ; THK,T1 = 60.00							20		
FLANGE 3		-			BACKING RING		-		DETAIL-1 ; T1= - E= -							21		
FLANGE 4		(4.5) SP.WD (NOTE-6)	SA193GrB7/SA194Gr2H		CONN. PIECE		-		DETAIL-13 T2 = -							22		
FLANGE 5		(4.5) SP.WD (NOTE-6)	SA193GrB7/SA194Gr2H		PARTITION PL.		-		THK = - T1= - T2= - DETAIL-15							23		
FL.HD. FLANGE		-			IMP. PLATE		SA516Gr60		THK = 8.							24		
SHELL NOZZLES.		SS316SP.WD. NOTES	SA193GrB7/SA194Gr2H		SUPPORT PL.		-		THK = -							25		
CHANNEL NOZZ.		SS316SP.WD. NOTES	SA193GrB7/SA194Gr2H		TIE RODS		IS2062		DIA = (NOTE4) NOS.= (NOTE4)							26		
		SHELL SIDE.	CHANNEL SIDE.	Wt(Kg)	SPACERS		IS1239		O.D. = (NOTE 4) THK.= (NOTE 4)							27		
NOZZLE NECK		SA105	SA106GrB		SEALING STRIPS		IS2062		WIDTH = (NOTE4) THK = (NOTE4) NO = (NOTE4)							28		
NOZZLE FLGS.		SA105	SA105		SLIDING STRIPS		--		WIDTH = (--) THK = (--) NO = (--)							29		
PAD/WRAPPER PL.		SA516Gr60	SA516Gr60		SUPPORT PLATE		IS2062		DETAIL AS PER EIL STD 7-15-0003							30		
GUSSET/LUGS		SA516Gr60	SA516Gr60		NAME PL /BKT.		SS/SA516Gr60		DETAIL AS PER EIL STD 7-15-0017							31		
COUPLING/PLUGS		SA 105	-		EYEBOLT/PLUG.		-		SIZE: (NOTE4) NOS.= (NOTE4)							32		
																33		
																34		
TEST RING- NO			TEST FLANGE- NO			TUBE TO TUBE SHEET JOINT- WELDED AS PER FIG. 2 OF 6-15-0003												
NOTES:-																		
1 ALL DIMENSIONS ARE IN mm. UNLESS OTHERWISE STATED																		
2 FOR CONSTRUCTIONAL DETAIL AND NOMENCLATURE REFER STD.. 7-15-0001,7-15-0002																		
3 ALL OVER ▽ FINISH REQUIRED UNLESS OTHERWISE STATED.																		
4 REFER GUIDELINES FOR PREPARING TUBE LAYOUT AND TUBE LAYOUT DRG NO. 6907-11-05-45-4016, REV.0																		
5 SPIRAL WOUND GASKETS FOR NOZZLES SHALL BE 4.5 THK WITH GRAFIL FILLER AND 3.2 THK CS INNER/OUTER RING. DIMENSIONS AS PER ANSI B16.20.																		
6 SS304L SPWD GASKET WITH GRAFOIL FILLER AND SS304L INNER CENTERING RING.																		
0	08.07.2010	ISSUED FOR PURCHASE					A.R	RR/PB	AKG									
A	15.12.2009	ISSUED FOR BIDS/ENGG.					A.ROY	RR/PB	AKG									
NO.	DATE	REVISION					BY	CHKD	APPROVALS									
ENGINEERS INDIA LTD.					SECTION DRAWING FOR					DRAWING NO.					REV			
STATIC EQUIPMENT DEPARTMENT					ITEM NO.: 11-EE-016					6907-11N-16-46-4026					0			
KOLKATA					PROJECT: BCPL,LAKWA UNIT: C2+RECOVERY					SHT 2 OF 3								

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F-0540-101 REV/2 A4-210X297

NO.	DATE	REVISIONS	BY	CHK'D	APPROVAL	
0	08.07.10	ISSUED FOR PURCHASE	A.R	RR/PB	AKG	

DETAIL OF SELF REINFORCED NOZZLE



NOZZLE MARK	SIZE (INCH)	A (MM)	C (MM)	E (MM)	T (MM)
N1,N2	8	275	219	59.0	14.0