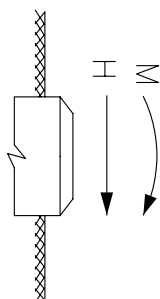


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NOZZLES AND CONNECTIONS

MARK	QTY	NOM DIA.	SCH/ THK.	FLANGES			PROJECTION (NOTE-4)	PAD W X T	SERVICE
				CLASS	TYPE	FACING			
F1	1	300	16	600	WN	RF	830	160X32	FEED
F2	1	50	XXS	600	WN	RF	730	-	FEED
B	1	50	XXS	600	WN	RF	SEE DRG.	-	BOTTOM OUTLET
T	1	300	16	600	WN	RF	SEE DRG.	160X30	TOP OUTLET
H 1-2	2	300	16	600	WN	RF	830	160X32	HANDHOLE+BF
V	1	50	XXS	600	WN	RF	SEE DRG.	-	VANT+BF
UC	1	50	XXS	600	WN	RF	730	-	UTILITY CONNECTION+BF
LT 1-2	2	38.1 I/D	15.785	600	LWN	RF	780	-	LEVEL TRANSMITTER
LT 5-6	2	50	XXS	600	WN	RF	730	-	LEVEL TRANSMITTER
SP 1-4	4	50	XXS	600	WN	RF	730	-	STAND PIPE
MH 1-3	3	500	18	600	WN	RF	880	250X32	MANHOLE+DAVT+BF
SD	1	50	XXS	600	WN	RF	730	-	SIDE DRAW OFF
PDT 1-2	2	38.1 I/D	15.785	600	LWN	RF	780	-	DIFF. PRESURE TRANSMITTER
AO	1	450	14	AS PER EIL STD.			225X14	ACCESS OPENING	
SKV 1-3	2	100	40	AS PER EIL STD.			-	SKIRT VENT	

COLUMN TO BE DELIVERED TO BCPL, LAKWA

					FOUNDATION LOADING DATA (OPERATING CONDITION)				
TYPE		MAX. MOMENT AT BASE (M)		MAX. SHEAR FORCE AT BASE (T)					
SEISMIC	DBE	234300		DBE	24100				
	MCE	350200		MCE	36900				
WIND		59100		5700					

GENERAL NOTES

- UNLESS STATED OTHERWISE.
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED.
 - ALL ANCHOR BOLT HOLES TO STRADDLE N/S CENTER LINE.
 - NORTH DIRECTION WHEREVER SHOWN IS WITH RESPECT TO PLAN VIEW.
 - a) FOR NOZZLES ON SHELL PROJECTIONS ARE REFERRED TO FROM VESSEL CENTER LINE TO FLANGE CONTACT FACE.
b) FOR NOZZLES ON HEAD PROJECTIONS ARE REFERRED TO FROM HEAD T.L. TO FLANGE CONTACT FACE.
 - THE INDICATED THICKNESS IS THE MINIMUM ACCEPTABLE AFTER CONSTRUCTION.
 - FLANGE GASKET FACE SHALL HAVE 125 AARH FINISH.
 - DIMENSIONS OF FLANGES SHALL BE AS PER ANSI B16.5 UNLESS OTHERWISE STATED.
 - ID OF WELD NECK FLANGES SHALL MATCH WITH CORRESPONDING ID OF NOZZLE PIPE/SHELL.
 - NOZZLES 50NB AND BELOW SHALL BE STIFFENED WITH 2NOS.40X6THK. FLATS 90° APART.
 - VESSEL IS SUBJECTED TO STEAM OUT CONDITIONS OF 0.5 KG/CM²(G) @190C.
 - VENDOR SHALL PROVIDE PERMANENT SLOPING STEEL MONKEY LADDER (2 NOS.) INSIDE THE SKIRT OF COLUMN TO APPROACH BOTTOM DISH END FOR INSPECTION.
 - ALL INTERNALS SHALL BE SIZED SO AS TO PASS THROUGH MANHOLE.
 - SURFACE CLEANING / PRIMER SHALL BE AS PER JOB. SPEC. 6907-064-PT-107.
 - COMPLETE COLUMN INCLUDING SKIRT SHALL BE PWHT AND HARDNESS AFTER FINAL PWHT SHALL NOT EXCEED 200BHN FOR PARENT METAL, HAZ AND WELD METAL.
 - ALL BUTT WELDS IN THE PRESSURE PARTS SHALL BE FULLY RADIOGRAPHED.
 - PIPE TO PIPE, PIPE TO FLANGE AND FITTING TO FLANGE JOINT SHALL BE WELDED WITH SAME TECHNIQUE USE FOR MAIN EQUIPMENT TECHNIQUE.
 - VENDOR SHALL CARRYOUT LOCAL LOAD ANALYSIS DUE TO NOZZLE LOADING FOR ALL PROCEES NOZZLES. AS PER ALLOWABLE NOZZLE LOAD SPEC. 6907-112-16-46-ST-0038. AND SUBMIT THE SAME FOR EIL REVIEW. VENDOR SHALL INCREASE NOZZLE PAD THK./DIMENSIONS OR PROVIDE INSERT PLATES IF REQUIRED AS PER CALCULATION.

SPECIFICATIONS

×	DENOTES APPLICABILITY
×	GENERAL SPEC. FOR PRESSURE VESSELS
×	SUPP. SPEC. FOR CS VESSELS
×	STD. SPEC. FOR BOCS PLATES
×	STD. SPEC. FOR STRUCTURAL QUALITY PLATES
×	STANDARD SPEC. FOR STAINLESS STEEL PLATES
×	JOB. SPEC. FOR SHOP & FIELD PAINTING
×	JOB. SPEC. FOR KNITTED WIREMESH DEMISTER

STANDARDS

×	VESEL TOLERANCES	7-12--0001
×	SUPPORT FOR HORIZONTAL VESSEL	7-12--0002
×	WOODEN PILLOWS FOR SADDLE SUPPORT	7-12--0003
×	SKIRT BASE DETAILS	7-12--0004
×	SKIRT OPENING DETAILS	7-12--0005
×	ANGLE LEG SUPPORT	7-12--0006
×	PIPE LEG SUPPORT	7-12--0007
×	BRACKET SUPPORT FOR VERTICAL VESSEL	7-12--0008
×	MANHOLE WITH HINGED COVER	7-12--0009
×	MANHOLE WITH DAVIT	7-12--0010
×	LADDER RUNGS FOR MANHOLE/DEMISTER	7-12--0011
×	RETAINING PLATE	7-12--0012
×	NOZZLE REINFORCEMENT AND PROJECTION	7-12--0013
×	PAD NOZZLES FOR VESSELS	7-12--0014
×	STANDARD BOLT HOLE ORIENTATION	7-12--0015
×	ALLOY LINER DETAILS	7-12--0016
×	SIGHT GLASSES FOR PRESSURE VESSELS	7-12--0017
×	INTERNAL FLANGES	7-12--0018
×	VORTEX BREAKERS	7-12--0019
×	INLET DEFLECTOR BAFFLE	7-12--0020
×	SUPPORT RING & BOLTING BAR	7-12--0021
×	SUPPORT RING SIZES FOR PACKED TOWERS	7-12--0022
×	PIPE DAVIT	7-12--0023
×	LIFTING LUG TOP HEAD TYPE	7-12--0024
×	FIRE PROOFING AND INSULATION SUPPORTS	7-12--0025
×	EARTHING LUG	7-12--0026
×	NAME PLATE	7-12--0027
×	MANUFACTURER NAME PLATE	7-12--0028
×	BRACKET FOR NAME PLATE	7-12--0029
×	NAME PLATE FOR SMALL EQUIPMENT	7-12--0030
×	DETAILS OF FORGED NOZZLES	7-12--0031
×	SUPPORTS FOR INTERNAL FEED PIPE	7-12--0032
×	HOT INSULATION SUPPORTS FOR HORIZONTAL VESSEL	7-12--0033
×	PIPE DAVIT SUPPORT FOR COLD INS. VESSELS	7-12--0034
×	TP.DETAILS OF WIRE MESH DEMISTER SUPPORTS (FOR GUIDANCE)	7-12--0036
×	S.R. NOZZLE NECK	7-12--0037
×	ALLOWABLE NOZZLE LOAD	6907-112-16-46-ST-0038

DESIGN DATA

CODE	ASME SEC. VIII DIV.1(LATEST) + ADDENDA
WORKING PRESSURE	(Kg/Cm ²) INT 53.1(TOP)/53.4(BOTTOM)
DESIGN PRESSURE	(Kg/Cm ²) INT 65.1(TOP)/65.5(BOTTOM)
WORKING TEMPERATURE	(°C) 58.9(TOP)/59(BOTTOM)
DESIGN TEMPERATURE	(°C) 75
MDMT	(°C) 4
CORROSION ALLOWANCE	(mm) 3.0
TYPE OF HEADS	2:1 ELLIPSOIDAL
JOINT EFFICIENCY	SHELL 1.0 HEAD 1.0
RADIOGRAPHY	SHELL FULL HEAD SINGLE PIECE
POST WELD HEAT TREATMENT	YES (COMPLETE VESSEL) (NOTE-14)
HEAT TREATMENT	HEAD AS PER SPEC.
WIND SPECIFICATION	IS : 875
EARTH-QUAKE SPECIFICATION	SITE SPECTRA
OPERATING MEDIUM	SWEET GAS SP. GRAVITY 0.984
CAPACITY	(M ³) 8.5
PAINTING / CLEANING	AS PER JOB SPEC. (NOTE-13)
INSULATION THICKNESS (mm) NIL	☐ HOT ☐ COLD
FIRE PROOFING	☒ YES ☐ NO
HYDROSTATIC TEST (Kg/Cm ² g)	HORIZONTAL VERTICAL
PRESSURE (NEW & COLD)	85.15 (AT TOP)
INSPECTION BY	☒ EIL ☐ CIB ☐ LLOYDS

MATERIAL OF CONSTRUCTION

(AS PER ASME /IS OR EQUIVALENT)

SHELL	SA 516 GR.70
REINFORCEMENT PAD	SA 516 GR.70
HEADS	SA 516 GR.70
SHELL FLANGES	-
NOZZLE FLANGES/LWN	SA 105
-S-R- NOZZLE NECK	SA 106 GR.B
PIPE FITTINGS	SA 234 GR.WPB
GASKETS EXTERNAL	SPIRAL WOUND GASKET WITH SS 316 METAL WINDING AND GRAFOIL FILLER MATERIAL WITH CS OUTER RING AS PER ASME B16.20
GASKETS INTERNAL	CORRESSED FIRE ASESTOS FREE
EXTERNAL STUDS/BOLTS/NUTS	SA 193 GR.B7/SA 194 GR.2H
INTERNAL STUDS/BOLTS/NUTS	SS 304
SKIRT /SUPPORT	SA 516 GR.70 / IS 2062 GR.B
SKIRT /SUPPORT BASE	IS 2062 GR.B
INTERNAL PARTS	SA 516 GR.70/SA 106 GR.B
CLIPS & ATTACHMENTS DIRECTLY WELDED (EXTERNAL)	SA 516 GR.70
CLIPS & ATTACHMENTS WELDED OVER PAD (EXTERNAL)	IS 2062 GR.B
WRAPPER PLATE	-
DEMISTER / GRID / BOLTING	SS 304L
PAD FOR EXTERNAL ATTACHMENTS	SA 516 GR.70
PIPE DAVIT	SA 106 GR.B / SA 53

STATUTORY REGULATIONS

INDIAN BOILER REGULATIONS (IBR)
DEPARTMENT OF EXPLOSIVES, NAGPUR (CCOE)

APPROXIMATE WEIGHT (KGS)

ERECTION WEIGHT	13500	OPERATING WEIGHT	46200
HYDROTEST WEIGHT	22100	HYDROTEST WEIGHT	31400
(SHOP)		(FIELD)	
NUMBER OF ITEMS :	ONE		

HOLD UPS

NOZZLE ORIENTATIONS	SIZE OF NOZZLES (LI-6,SP-2 & PDT1-2)
NOZZLE ELEVATIONS	PIPE SUPPORT CLEATS
SUPPORT HEIGHT	LADDER / PLATFORM CLEATS
DETAIL OF INTERNALS	TRAY SUPPORTS/ BOLTING BARS
REROLLER CLIPS	PIPE DAVIT

REFERENCE DRAWINGS

×	NOZZLE ORIENTATIONS	6907-051-16-43-3104, REV.1
×	LADDERS / PLATFORM CLEATS	6907-051-16-48-0703, REV.B
×	PIPE SUPPORT CLEATS	6907-051-16-43-3052, REV.1
×	TRAY SUPPORT AND BOLTING BARS	6907-051-16-46-4048, REV.0
×	DEMISTER DATA SHEET	6907-051-02-DS-1906, REV.0

DRAWING NO.



FILE NAME: 6907-051-16-46-3006-A-2

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JOB NO.:	6907					VESSEL DESIGN DATA	वेसेल डिजाइन डाटा	DRAWING NO.	REV.
CLIENT:	BCPL, ASSAM	1	23.04.2010	REVISED AS MARKED	A.R.OY	SWEET GAS WATER	स्वीट गैस वाटर	6907-051-16-46-3006	1
		0	27.01.2010	ISSUED FOR PURCHASE	A.R.OY	WASH COLUMN	वॉश कॉलम		
PLANT:	GAS SWEETING UNIT, LAKWA	A	27.05.2009	ISSUED FOR BIDS	A.R.OY		आइएम नम्बर 051-सीसी-103		
		REV.	DATE	REVISION	BY	CHK	APPROVED	SHEET 2 OF 2	

