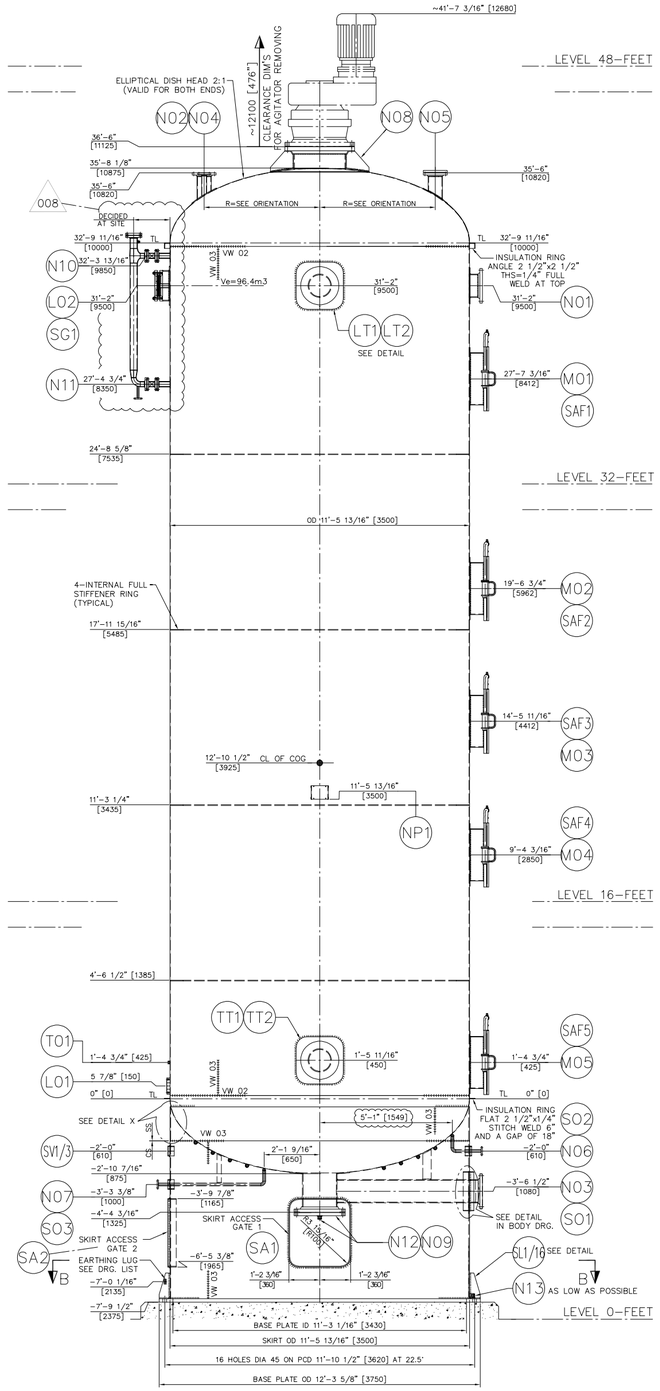
ACCORDING THE LAW OUR SURVEYS AND DRAWINGS ARE OUR EXCLUSIVE PROPERTY AND MAY NEITHER BE REPRODUCED NOR EXPOSED TO THIRD PARTIES, EVEN AFTER MODIFICATIONS WITHOUT OUR WRITTEN CONSENT

DE CONFORMIDAD CON LA LEY, NUESTROS ESTUDIOS Y DIBUJOS SON PROPIEDAD EXCLUSIVA DE NUESTRA FIRMA Y NO PUEDEN SER REPRODUCIDOS NI COMUNICADOS A TERCEROS, AUN DESPUES DE MODIFICACIONES SIN NUESTRA AUTORIZACION PREVIA, AUNQUE HAYAN SIDO MODIFICADOS

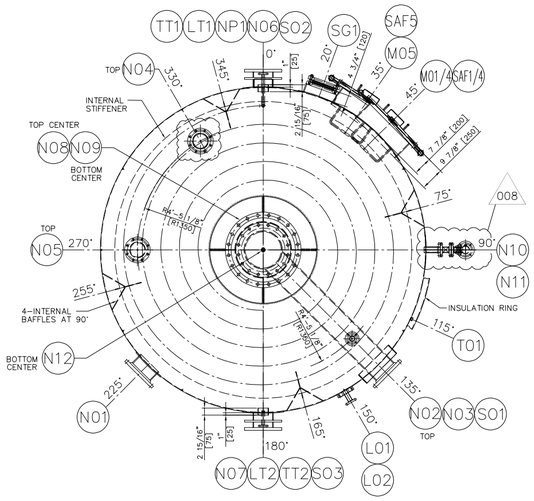
CONFORMEMENT A LA LOI NOS ETUDES ET DESSINS SONT NOTRE PROPRIETE EXCLUSIVE ET NE DOIVENT ETRE REPRODUITS NI COMMUNIQUES A DES TIERS MEME APRES MODIFICATIONS SANS NOTRE AUTORISATION ECRITE

IF IN DOUBT, ASK – DO NOT SCALE !

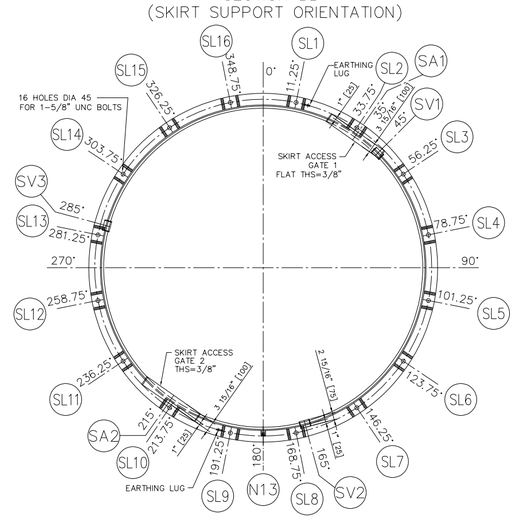
DIMENSIONAL DRAWING
NOT VALID FOR ORIENTATION



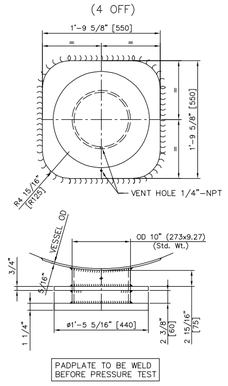
PLAN–ORIENTATION



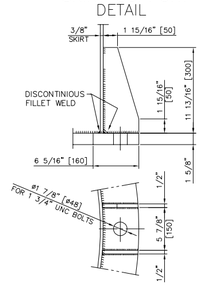
SECTION BB
(SKIRT SUPPORT ORIENTATION)



DETAIL POS. LT1/LT2–TT1/TT2
(4 OFF)



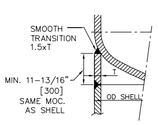
SKIRT SUPPORT DETAIL



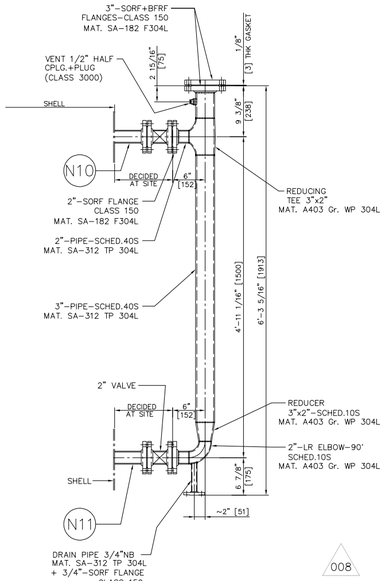
WARNING PLATE (TYPE–4)

MOUNTED ON MANHOLE TOP COVER WITH SUPPORTS

DETAIL X



LEVEL POT DETAIL
MATCH TO N10 & N11 CONNECTIONS



NOTE : CLIENT SCOPE OF SUPPLY

NOZZLES

POS.	SERVICE	QTY.	NOMINAL DIA	FLANGE RATING	FLANGE TYPE	SCHED. / THK	REINF. PAD ODxTHK	PROJ. LGT.	REMARKS REF. DRG.	WELD TYPE
NO1	OIL INLET	1	10"	CLASS 150	SO–RF	SCH.10S	1'-4 5/16"x5/16"	6'-2 1/2"		SEE BODY FW02
NO2	SYPHON VENT CONNECTION	1	2"	CLASS 150	SO–RF	SCH.40S	5 1/2"x5/16"	7'-8 5/8"		SEE BODY FW02
NO3	OUTLET TO PUMP	1	10"	CLASS 150	SO–RF	SCH.10S		6'-2 1/2"		NW01/FW02
NO4	VENT	1	6"	CLASS 150	SO–RF	SCH.10S	11"x5/16"	7'-8 5/8"		SEE BODY FW02
NO5	SPARE NOZZLE+BLINDED	1	6"	CLASS 150	SO–RF BF–RF	SCH.10S	11"x5/16"	7'-8 5/8"		SEE BODY FW02
NO6	STEAM INLET	1	1"	CLASS 150	SO–RF	SCH.40S		6'-2 1/2"		FW02/WD16
NO7	CONDENSATE OUTLET	1	1"	CLASS 150	SO–RF	SCH.40S		6'-2 1/2"		FW02/WD16
N08	SEAT FOR AGITATOR	1	24"	CLASS 150	SO–RF	SCH.40S	3'-9 1/4"x5/16"	5'-8 5/8"		SEE BODY FW02
N09	SEAT FOR BOTTOM BEARING	1	16''	CLASS 150	SO–RF BF–RF	SCH.80S	7'-7 1/2"x5/16"	4'-4 3/16"	SEE DRG. LIST	NW10/FW02
N10	LT CONNECTION	1	2"	CLASS 150	SO–RF	SCH.40S		6'-2 1/2"		NW02/FW02
N11	LT CONNECTION	1	2"	CLASS 150	SO–RF	SCH.40S		6'-2 1/2"		NW02/FW02
N12	DRAIN WITH PLUG	1	1"–NPT	CLASS 3000		FULL COUPLING				SEE DRG. LIST
N13	SKIRT DRAIN WITH PLUG	1	1"–NPT	CLASS 3000		FULL COUPLING				
T01	SEAT FOR TT	1	3/4"–NPT	CLASS 3000		HALF COUPLING				NW01/ SEE BODY
L01	SEAT FOR LEVEL TRANSMITTER	1	3"	CLASS 150	PAD FLANGE					NW01/ SEE BODY
L02	SEAT FOR LEVEL SWITCH (HLL)	1	1 1/2"	CLASS 150	SO–RF	SCH.40S		6'-2 1/2"		NW02/FW02
SG1	SIGHTGLASS SIZE 6	1	14"			SCH.40S	1'-5 11/16"x5/16"		00454364	NW10
MO1 / MO5	MANHOLE DIA 24" WITH VERTICAL DAVIT ARM	5	24"			2'-0"x5/16"	2'-5 1/8"x5/16"		100177321	NW11/FW01
SO1	SKIRT OPENING	1	18"			1'-6"x1/4"			SEE BODY	NW03
SO2/3	SKIRT OPENINGS	2	4"			Std.Wt.				NW03
SV1/3	SKIRT VENTS	3	4"			Std.Wt.				NW03
SA1/2	SKIRT ACCESS	2	4"			Std.Wt.				NW03

ACCESSORIES

LT1/LT2	LIFTING TRUNNIONS	2					SEE DETAIL	
TT1 / TT2	TAILING TRUNNIONS	2					SEE DETAIL	
SL1 / SL16	SKIRT SUPPORTS	16					SEE DETAIL	
NP1	NAMEPLATE	1					SEE DWG	
SAF1–SAF5	WARNING PLATE TYPE–4	5					00430529	

MATERIALS / CERTIFICATES

ITEM	MATERIAL	CERT.	ITEM		MATERIAL	CERT.
SHELL/DISHEND	SA–240 304L		SKIRT / SUPPORTS		SA–240 304/SA–36	
NOZZLE NECKS	SA–312 TP304L		TRUNNIONS	PAD PLATE	SA–240 304	
NOZZLE FLANGES	SA–182 F304L			PIPE/PLATE	SA–106 B/SA–36	
MANHOLE NECKS	SA–240 F304L		EXTERNAL STIFFENERS		SA–240 304L	
MANHOLE FLANGES	SA–240 F304L		GASKETS		GARLOCK 3500	
EXTERNAL COIL	SA–312 TP304		INTERNAL BOLTS/NUTS(UNC)		SA–193 B8/SA–194 8	
EXTERNAL COIL FLANGE	SA–182 F304		EXTERNAL BOLTS/NUTS(UNC)		SA–193 B7/SA–194 2H	
EXTERNAL COIL SUPPORT	SA–240 304		SUPPORT FOR NAMEPLATE		SA–240 304	
INTERNAL STIFFENERS	SA–240 TP304L		SUPPORT FOR WARNING PLATE		SA–240 304	
SEAT FOR SIGHTGLASS	SA–312 TP304L/SA–240 304L		REINFORCING PADS		SA–240 304	
VENT HOLES	SA–106/Std.Wt.		SEAT FOR LEVEL TRANSMITTER		SA–240 304L	
INTERNALS	SA–240 TP304L		INSULATION RINGS:FLAT/PROFILE		SA–240 304	
SEAT FOR TT & DRAIN NOZZLES	SA–479 TP304L					

DESIGN DATA

EQUIPMENT			SHELL	EXTERNAL COIL
PRESSURE	OPERATING	barg	–0.1/ATM (–1.47 psig)	3 (43.51° F)
	DESIGN	barg	–0.25/+0.25 (–3.67/+3.67 psig)	–1/+6 (–14.5+87 psig)
	TEST	barg	0.325 (4.78 psig)	7.8 (114.6 psig)
TEMPERATURE	OPERATING	°C	75 (167° F)	144 (291.2° F)
	DESIGN	°C	0/120 (248° F)	193.3 (380° F)
	TEST	°C	AMBIENT	AMBIENT
MIN. DESIGN METAL TEMP.		°C	–10 (14° F)	
CORROSION	STAINLESS STEEL	mm	0	0
ALLOWANCE	CARBON STEEL	mm	1/16" (1.6)	1/16" (1.6)
RADIOGRAPHY			NONE	NONE
MIN. JOINT EFFICIENCY			0.7	0.85
HEAT TREATMENT			NONE	
DESIGN CODE			ASME SEC VIII DIV.1 Ed.2019	ASME B31.3
WIND / SEISMIC DESIGN			101 mph SDS = 1.077g, SD1 = 0.664g (ASCE 7–16)	
FLUID			OIL+ENZYME	STEAM
FLUID–GROUP			NA	NA
PED 2014/68/EU			NA	
ASME "U" STAMP			NO	
WEIGHT	EMPTY	kg	15770 (34767 Lbs)	
	ASSEMBLED	kg	17356 (38263 Lbs)–(AGITATOR WEIGHT INCLUDED)	
	INSULATION	kg	840 (1852 Lbs)	
	OPERATING	kg	103799 (228838 Lbs)	
	FULL OF WATER	kg	124996 (275569 Lbs)	
VOLUME		m^3	106.8 (3772 Ft.^{3})	0.016 (0.566 Ft.^{3})
HEAT TRANSFER AREA		m^2	–	2.6 (28 Ft.^{2})
INSULATION	SURFACE AREA / THK.	m^2/mm	140/50 (1507 Ft.^{2}/2")	
INSPECTED BY			DeSmet Ballestra	

NOTES : – LIQUID DENSITY : 888 kg/m3 (55.43 Lbs/Ft.^{3})
– USE SPREADER BEAM FOR LIFTING

REV	DATE	DESCRIPTION OF MODIFICATION	NBR OF MOD	BY
008	18.07.2022	LEVEL POT DETAIL ADDED–UPDATED AS MARKED		RSS
007	19.05.2022	UPDATED AS MARKED		RSS
006	01.12.2021	POS. SG1 RELOCATED AND SO1,SO2&SO3 RE–ARRANGED–UPDATED AS MARKED		RSS
005	25.10.2021	POS. N09 WELDING DETAIL MODIFIED		RSS
004	19.10.2021	UPDATED AS MARKED		RSS
003	14.09.2021	ORIENTATION HOLD REMOVED–UPDATED AS PER CLIENT COMMENTS		RSS
002	27.05.2021	POS. N01 PADPLATE DIA REVISED		RSS
001	16.04.2021	POSMOH HOLD REMOVED AND MO3 RELOCATED AND COG MARKED ON THE DRG.–UPDATED AS MARKED		RSS

Desmet Ballestra Group

DOCUMENT TYPE	ASSY				
PROJECT DESCRIPT	WORPAR				
ITEM NBR DISPOSITION	W503E3.2 (19–RA–854C)	SECD	SAA	SCALE	FORMAT
		PROC.E	GVK		A0
DOCUMENT DESCRIPTION	ENZYME REACTOR	PROJ.M	JCG		
		DCM	PRA	AUTHOR	RSS
Ve=96.4–D=3500–H=10000–S=2.6 ARRANGEMENT		DATE	DRAWING NUMBER		REVISION
		13.03.2021	100174605		008

A0(841 x 1189)

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CAD DRWG. DO NOT MODIFY