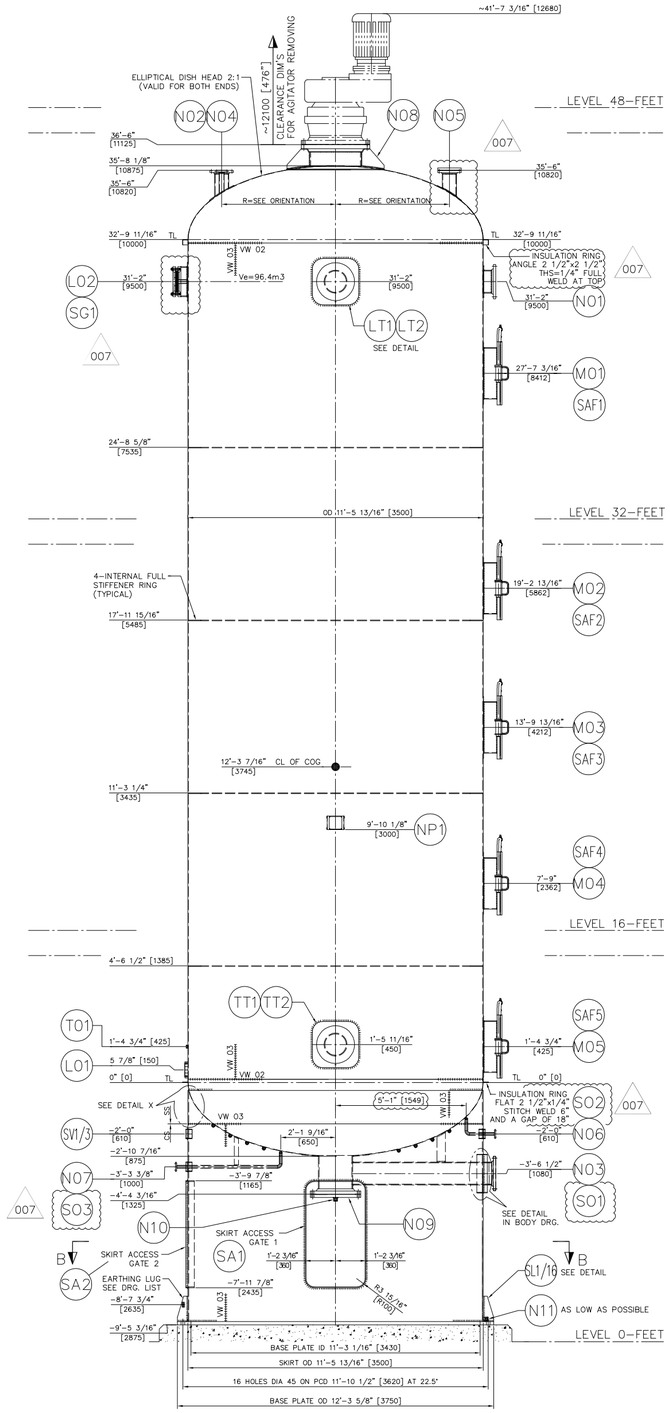
ACCORDING THE LAW OUR SURVEYS AND DRAWINGS MEET THE REQUIREMENTS FOR COMPLIANCE TO THE PARAGRAPH VIII AFTER MODIFICATIONS WITHOUT OUR WRITTEN CONSENT

DE CONFORMIDAD CON LA LEY, NUESTROS ESTUDIOS Y DIBUJOS CUMPLEN CON LOS REQUISITOS PARA EL CUMPLIMIENTO DEL PÁRRAFO VIII TENIENDO CUENTA LAS MODIFICACIONES SIN NUESTRA AUTORIZACIÓN ESCRITA AUNQUE HAYAN SIDO MODIFICADOS

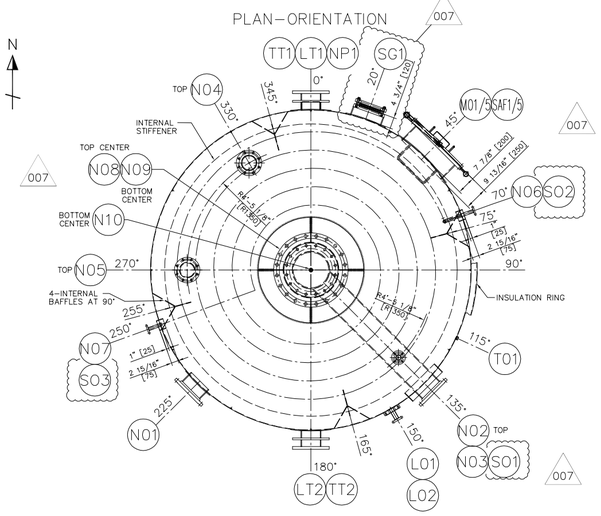
CONFORMENT A LA LOI, NOS ETUDES ET DESSINS SATISFONT AUX EXIGENCES DU PARAGRAPHE VIII APRES MODIFICATIONS SANS NOTRE AUTORISATION ECRITE

IF IN DOUT, ASK – DO NOT SCALE !

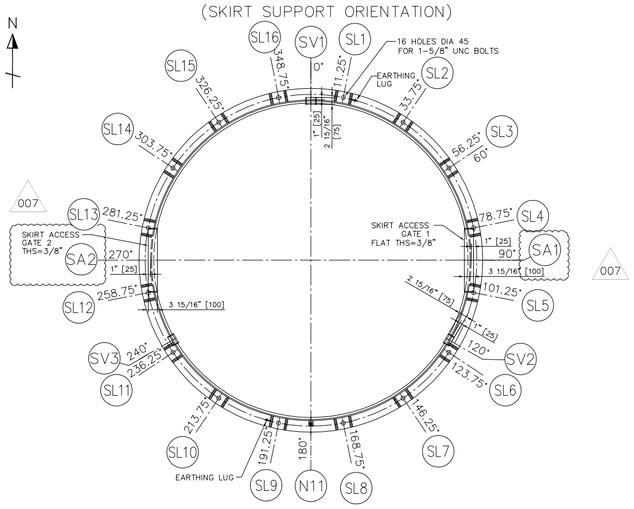
DIMENSIONAL DRAWING
NOT VALID FOR ORIENTATION



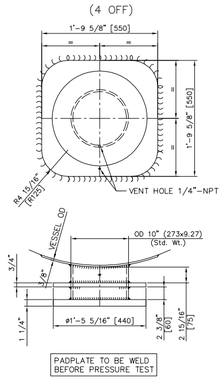
PLAN-ORIENTATION



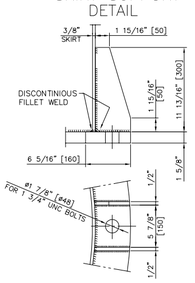
SECTION BB
(SKIRT SUPPORT ORIENTATION)



DETAIL POS. LT1/LT2-TT1/TT2
(4 OFF)



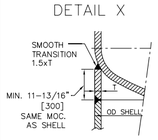
SKIRT SUPPORT DETAIL



WARNING PLATE (TYPE-4)

MOUNTED ON MANHOLE TOP COVER WITH SUPPORTS

DETAIL X



NOZZLES

POS.	SERVICE	QTY.	NOMINAL DIA	FLANGE RATING	FLANGE TYPE	SCHED. / THK	REINF. PAD ODxTHK	PROJ. LGT.	REMARKS REF. DRG.	WELD TYPE
N01	OIL INLET	1	10"	CLASS 150	SO-RF	SCH.10S	1'-4 5/16"x5/16"	6'-2 13/16"		SEE BODY FWO2
N02	SYPHON VENT CONNECTION	1	2"	CLASS 150	SO-RF	SCH.40S	5 1/2"x5/16"	1'-4 5/16"		SEE BODY FWO2
N03	OUTLET TO PUMP	1	10"	CLASS 150	SO-RF	SCH.10S		6'-2 13/16"		NWO1/FWO2
N04	VENT	1	6"	CLASS 150	SO-RF	SCH.10S	11"x5/16"	1'-4 5/16"		SEE BODY FWO2
N05	SPARE NOZZLE+BLINDED	1	6"	CLASS 150	SO-RF BF-RF	SCH.10S	11"x5/16"	1'-4 5/16"		SEE BODY FWO2
N06	STEAM INLET	1	1"	CLASS 150	SO-RF	SCH.40S		6'-2 13/16"		FWO2/WO16
N07	CONDENSATE OUTLET	1	1"	CLASS 150	SO-RF	SCH.40S		6'-2 13/16"		FWO2/WO16
N08	SEAT FOR AGITATOR	1	24"	CLASS 150	SO-RF	SCH.40S	1'-9 1/4"x5/16"	1'-4 5/16"		FWO2/ SEE BODY
N09	SEAT FOR BOTTOM BEARING	1	16"	CLASS 150	SO-RF BF-RF	SCH.80S	1'-7 1/2"x5/16"	1'-4 3/16"	SEE DRG. LIST	NW10/FWO2
N10	DRAIN WITH PLUG	1	1"-NPT	CLASS 3000		FULL COUPLING				SEE DRG. LIST
N11	SKIRT DRAIN WITH PLUG	1	1"-NPT	CLASS 3000		FULL COUPLING				
T01	SEAT FOR TT	1	3/4"-NPT	CLASS 3000		HALF COUPLING				NWO1/ SEE BODY
LO1	SEAT FOR LEVEL TRANSMITTER	1	3"	CLASS 150	PAD FLANGE					NWO1/ SEE BODY
LO2	SEAT FOR LEVEL SWITCH (HLL)	1	1 1/2"	CLASS 150	SO-RF	SCH.40S		6'-2 13/16"		NWO2/FWO2
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/FWO1
SO1	SKIRT OPENING	1	18"			1'-5"x1/4"			SEE BODY	NWO3
SO2/3	SKIRT OPENINGS	2	4"			Std.Wt.				NWO3
SV1/3	SKIRT VENTS	3	4"			Std.Wt.				NWO3
SA1/2	SKIRT ACCESS	2	4"			Std.Wt.				NWO3

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	
SEAT FOR TT & DRAIN NOZZLES	SA-479 TP304L		INSULATION RINGS	FLAT/PROFILE	SA-240 304	
INTERNALS	SA-240 TP304L					

DESIGN DATA

			SHELL	EXTERNAL COIL
EQUIPMENT				
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 ALLOWANCE	STAINLESS STEEL	mm	0	0
	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	16120 (35539 Lbs)	
	ASSEMBLED	kg	17706 (39035 Lbs)-(AGITATOR WEIGHT INCLUDED)	
	INSULATION	kg	840 (1852 Lbs)	
	OPERATING	kg	104149 (229609 Lbs)	
	FULL OF WATER	kg	125346 (276341 Lbs)	
VOLUME		m³	106.8 (3772 Ft.³)	0.016 (0.566 Ft.³)
HEAT TRANSFER AREA		m²	-	2.6 (28 Ft.²)
INSULATION	SURFACE AREA / THK.	m²/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
007	01.12.2021	POS. SG1 RELOCATED AND SO1,SO2&SO3 RE-ARRANGED-UPDATED AS MARKED		RSS
006	25.10.2021	POS. N09 WELDING DETAIL MODIFIED		RSS
005	19.10.2021	UPDATED AS MARKED		RSS
004	13.09.2021	ORIENTATION HLD REMOVED-AND POS. N01,N04,N05 N08 & N09 PADPLATE SIZES ARE INCREASED-UPDATED AS MARKED		RSS
003	27.05.2021	POS. N01 PADPLATE DIA REVISED		RSS
002	16.04.2021	UPDATED AS MARKED		RSS

Desmet Ballestra Group

DOCUMENT TYPE	ASSY			
PROJECT DESCRIPT	WORPAR			
ITEM NBR DISPOSITION	W503E2.2 (19-RA-854B)	SECD	SAA	SCALE: A0 / FORMAT: A0
		PROC.E	GVK	
DOCUMENT DESCRIPTION	ENZYME REACTOR	PROJM	JCG	
		DOM	PRA	AUTHOR: RSS
Ve=96.4-D=3500-H=10000-S=2.6 ARRANGEMENT		DATE: 13.03.2021	DRAWING NUMBER: 100174595	REVISION: 007

A0(841 x 1189)

IF IN DOUBT, ASK DO NOT SCALE !

CAD DRWG. DO NOT MODIFY