



EQUIPROMEX®

EXPEDIENTE DE DATOS

FABRICANTE

Equipos de Proceso Mexicanos, S.A. de C.V.

***Km. 9.5 carretera Guadalajara-Ameca, municipio de Tala, Jalisco,
México, CP 45300, Tel. (384)690 1000***

www.equipromex.com

CUSTOMER **DESMET BALLESTRA GROUP**

EQUIPMENT **ENZYME REACTORS**

ITEM **W503E1.2/2.2/3.2 (19-RA-854A/B/C)**

PROJECT **WORPAR**

W.O. **2743**



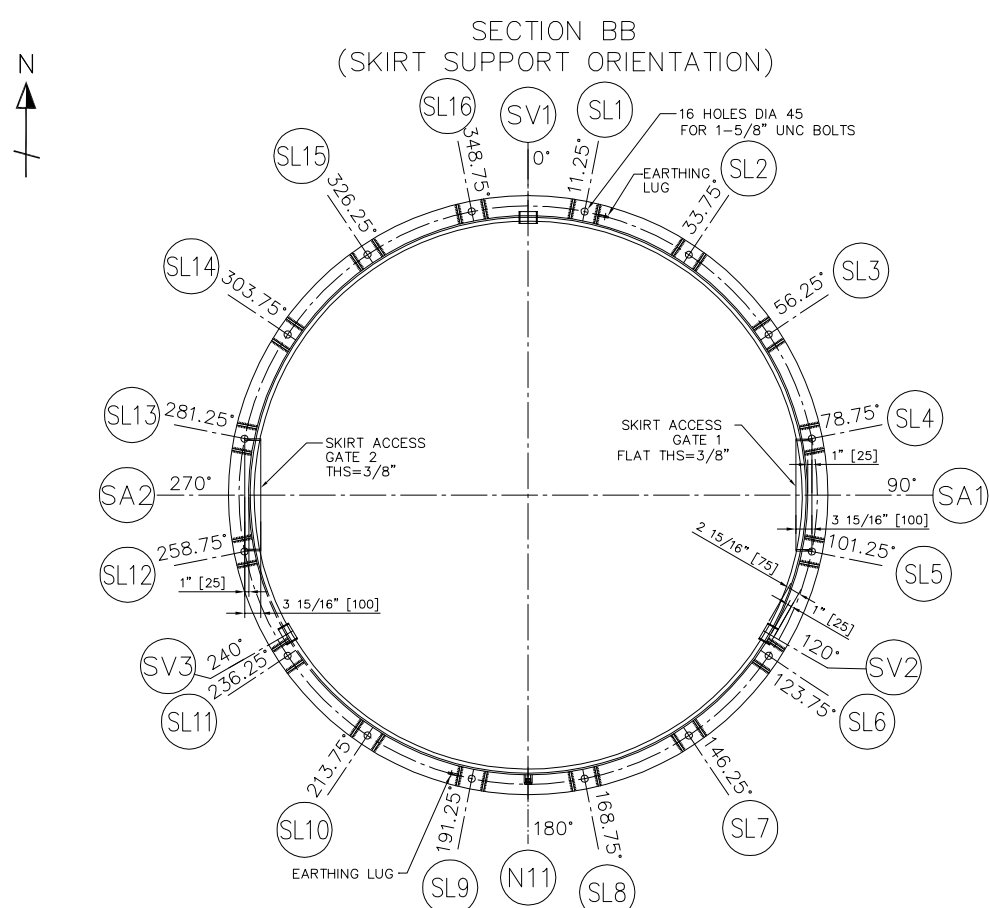
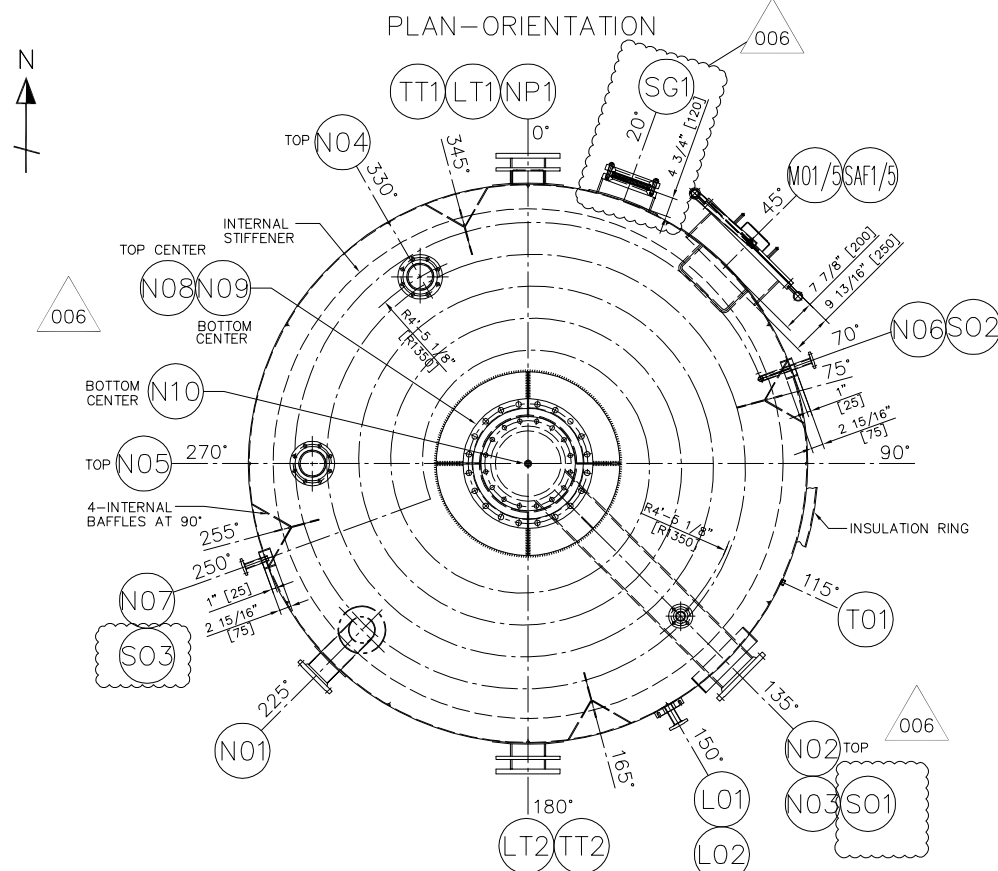
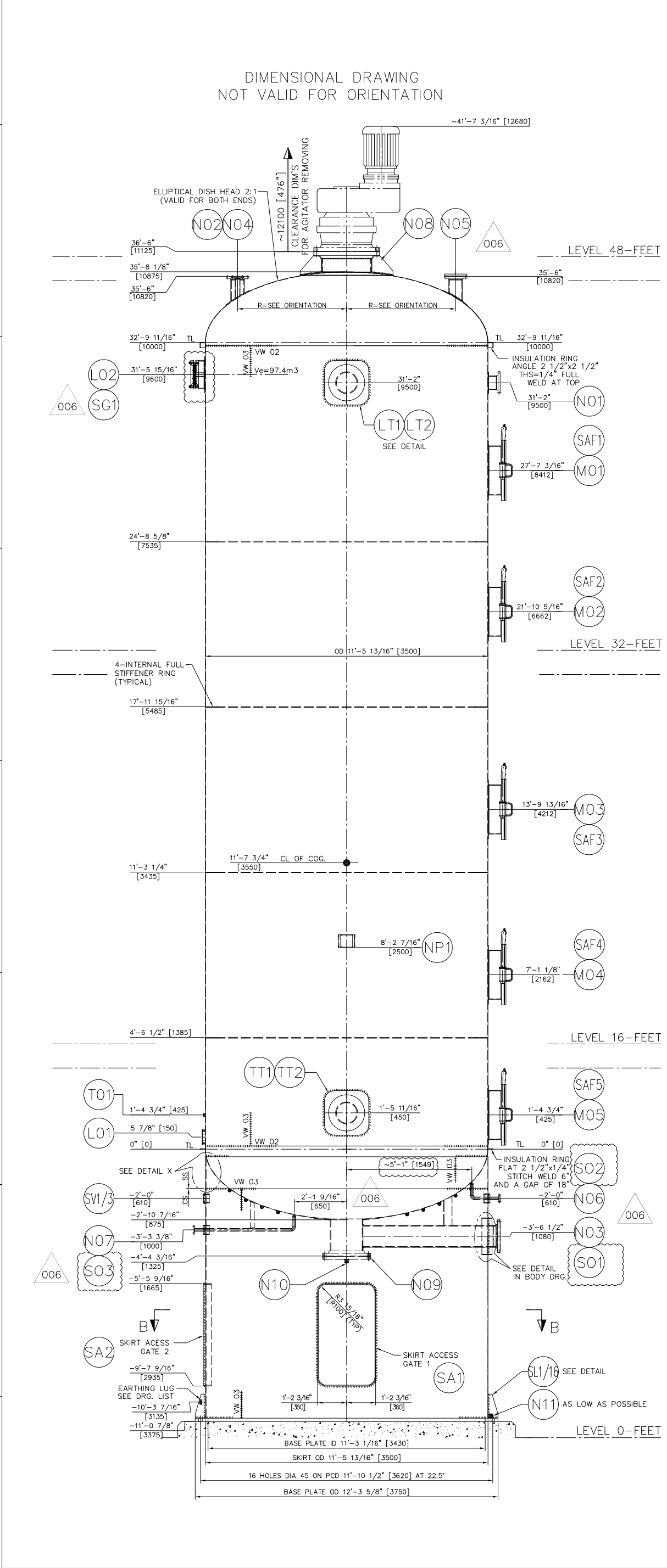
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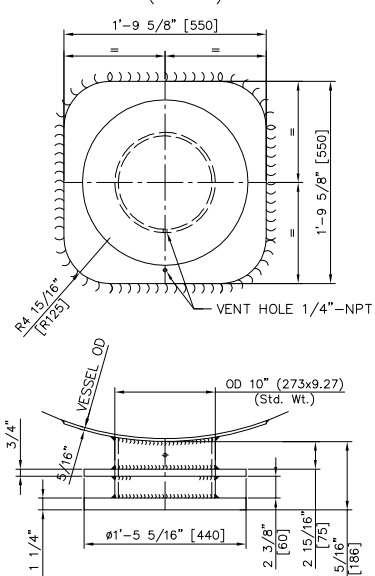
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8.DRAWINGS

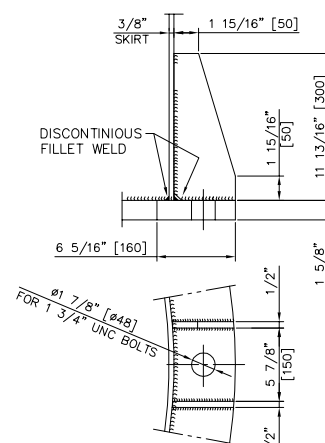


DETAIL POS. LT1/LT2-TT1/TT2



USE SPREADER BEAM FOR LIFTING

SKIRT SUPPORT DETAIL

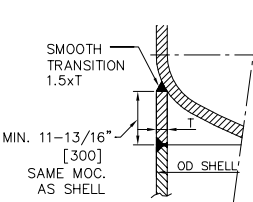


WARNING PLATE
(TYPE-4)



MOUNTED ON MANHOLE
TOP COVER WITH SUPPORTS

DETAIL X



NOZZLES										
POS.	SERVICE	QTY.	NOMINAL DIA.	FLANGE RATING	T-PIPE	SCHED. 7 THK.	REFIN. PAD 1/2 THK.	PROJ. REF. DRG.	REMARKS	MELD TYPE
N01	OR INLET	1	6"	CLASS 150	SO-RF	SCH.10S	10 3/8"/6" N6	6 1/8" N6	NW1/FW02 SEE BODY	
N02	SYPHON VENT CONNECTION	1	2"	CLASS 150	SO-RF	SCH.40S	5 1/2"/6" N6	4 3/8" N6	SEE BODY FW02	
N03	OUTLET TO PUMP	1	10"	CLASS 150	SO-RF	SCH.10S	15 1/2"/6" N6	6 1/8" N6	NW1/FW02	
N04	VENT	1	6"	CLASS 150	SO-RF	SCH.10S	11 5/8" N6	7 1/8" N6	SEE BODY FW02	
N05	SPARE NOZZLE+BLUNDED	1	6"	CLASS 150	SO-BF-RF	SCH.10S	11 5/8" N6	7 1/8" N6	SEE BODY FW02	
N06	STEAM INLET	1	1"	CLASS 150	SO-RF	SCH.40S		6 1/8" N6	FW02/W016	
N07	CONDENSATE OUTLET	1	1"	CLASS 150	SO-RF	SCH.40S		6 1/8" N6	FW02/W016	
N08	SEAT FOR AGITATOR	1	24"	CLASS 150	SO-RF	SCH.40S	5-8 1/8" N6	5-8 5/8" N6	SEE BODY FW02	
N09	SEAT FOR ROTARY BEARING	1	16"	CLASS 150	SO-BF-RF	SCH.80S	7-1 1/2" N6	4-1 3/4" N6	SEE DRG. U5	NW10/FW02
N10	DRAIN WITH FLUG	1	1"-NPT	CLASS 3000						SEE DRG. LIST
N11	DRAIN WITH PLUG	1	1"-NPT	CLASS 3000						
T01	SEAT FOR TT	1	3/4"-NPT	CLASS 3000						NW10/FW02
L01	SEAT FOR LEVEL TRANSMITTER	1	3"	CLASS 150	PAD FLANGE					NW10/SEE BODY
L02	SEAT FOR LEVEL SWITCH (RL)	1	1 1/2"	CLASS 150	SO-RF	SCH.40S		6 1/8" N6	NW10/FW02	
S01	SIGHT/CLASS SIZE 6	1	14"			SCH.40S	5-5 1/8"/6" N6		00454364	NW10
M01	MANHOLE DIA 24" MOS WITH VERTICAL DAVIT ARM	5	24"				2'-0 5/8" N6	2'-3 1/8"/6" N6	10017732	NW1/FW01
S01	SKIRT ACCESS	1	18"				4'-0 1/4" N6			SEE BODY
S02/3	SKIRT OPENINGS	2	4"				Sld.Wt.			NW03
Sv1/3	SKIRT VENTS	3	4"				Sld.Wt.			NW03
Sv1/2	SKIRT ACCESS	2	4"				Sld.Wt.			NW03

ACCESSORIES									
L1/A12	LIFTING TRUNNIONS	2							SEE DETAIL
T11/ T12	TAILING TRUNNIONS	2							SEE DETAIL
SL1/ SL16	SKIRT SUPPORTS	16							SEE DETAIL
NPI	NAMEPLATE	1							SEE DWG
SAPT SAFT	WARNING PLATE TYPE-4	5							004.30529

MATERIALS / CERTIFICATES					
ITEM	MATERIAL	CERT.	ITEM	MATERIAL	CERT.
SHELL/PISTONS	SA-340 304L		SHIRT / SUPPORTS	SA-240 304/SA-356	
NOZZLE NECKS	SA-312 TP304L		TRUNNIONS / PAD PLATE	SA-240 304	
NOZZLE FLANGES	SA-182 F304L		PIPE/PIPE PLATE	SA-106 B/SA-36	
MANHOLE NECKS	SA-240 F304L		INTERNAL STIFFENERS	SA-240 304L	
MANHOLE FLANGES	SA-182 F304L		GASKETS	CARBON 3500	
EXTERNAL COIL	SA-312 TP304		INTERNAL BOLTS/NUTS(UNC)	SA-193 B/SA-194 8	
EXTERNAL COIL FLANGE	SA-182 F304		INTERNAL BOLTS/NUTS(UNC)	SA-193 B/SA-194 21	
INTERNAL COIL SUPPORT	SA-312 TP304		SUPPORT FOR NAMEPLATE	SA-240 304	
INTERNAL STIFFENERS	SA-240 TP304		SUPPORT FOR WARMING PLATE	SA-240 304	
SEAT FOR SIGHTGLASS	SA-312 TP304/SA-240 304L		REINFORCING PADS	SA-240 304	
VENT HOLES	SA-106/516 W		SEAT FOR LEVEL TRANSMITTER	SA-240 304L	
INTERNAL VALVES	SA-240 TP304L		INSULATION RINGS(PL/MI/PI)	SA-240 304	
SEAT FOR T.D. & DRAINS	SA-470 TP304				

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 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+NAPHTHENE	STEAM
FLUID-GROUP			NA	NA
PED 2014/68/EU			NO	
ASME "U" STAMP			NA	
WEIGHT	EMPTY	kg	16460 (36288 Lbs)	
	ASSEMBLED	kg	18046 (39785 Lbs)-(AGITATOR WEIGHT INCLUDED)	
	INSULATION	kg	840 (1852 Lbs)	
	OPERATING	kg	105377 (232228 Lbs)	
	FULL OF WATER	kg	125686 (277090 Lbs)	
VOLUME		m³	106.8 (3772 Ft³)	0.016 (0.566 Ft³)
HEAT TRANSFER AREA		m²	-	2.6 (28 Ft²)
INSULATION	SURFACE AREA / THK.	m²/mm	140/50 (1507 Ft²/2")	
INSPECTED BY	DeSmet Ballestra			

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

006	01.12.2021	POS, S21 WELDING DETAIL MODIFIED	ASSIGNED-UPDATED AS MARKED		RSS
005	25.10.2021	POS, N09 WELDING DETAIL MODIFIED	ASSIGNED-UPDATED AS MARKED		RSS
004	16.10.2021	UPDATED AS MARKED	ASSIGNED-UPDATED AS MARKED		RSS
003	13.09.2021	MANUAL DRAWING NUMBER CHANGED AND POS, MOVING NOB & NOB PADSETS SIZES ARE INCREASED-UPDATED AS MARKED	ASSIGNED-UPDATED AS MARKED		RSS
002	27.05.2021	POS, NO1 PADSET, DIA REVISED	ASSIGNED-UPDATED AS MARKED		RSS
001	27.04.2021	HOLD REMOVED ON POS,MOZ & COG MARKED ON THE DRAWING-UPDATED AS MARKED	ASSIGNED-UPDATED AS MARKED		RSS
REVI	DATE	DESCRIPTION OF MODIFICATION			NBR OF MOD BY
			DOCUMENT TYPE	ASSY	
Desmet Ballestra Group			PROJECT/DESCRIP	WORPAR	
ITEM NBR DISPOSITION	W50.3E.1.2 (19-RA-854A)	SEC'D PROJ' C	SAA CJK	SCALE	FORMAT
DESCRIPTION	ENZ/ME REACTOR	PROM JCC			A0
		DOM	PRA	AUTHOR	RSS
		DATE	DRAWING NUMBER		REVISION
Ve=97.4-D=3500-H=10000-S=2.6					
ARRANGEMENT					
		13.03.2021	100174585		006

IF IN DOUBT, ASK 1 CAD DRWG.
DO NOT SCALE ! DO NOT MODIFY