



## **INSPECTION REPORT**

### A. FINAL INSPECTION REPORT: BY RDR

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B. Project code : WORPAR  
Workshop : EQUIPROMEX  
Item : 682X.1  
Drawing Nr : ASSY 100182989 Rev06, BODY 100190360 Rev02  
Order Nr :  
PO nr : 2748  
Inspector : RODRIGO DIAZ  
Date : 05/06/2022

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### C. ACCEPTED FOR DELIVERY BY: RDR

PROGRESS : 100%  
ESTIMATED READINESS DATE: 05/06/2022

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### D. GENERAL CONSIDERATIONS

✓ Painting quality : OK  
✓ Welding quality : OK  
✓ Cleanliness : OK  
✓ Material certificates : OK  
✓ Packing quality : OK  
✓ Handling, securing facilities: OK  
✓ Vessel thickness : OK  
✓ Dimensions according drawings : OK  
✓ Nozzles orientation and projections : OK  
✓ Internals attachments :OK

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### E. TESTING RESULTS : All tests have been completed with satisfactory results.

Type of test	Degree of examination	Results
Full of water shell side	100%	Satisfactory
R.T. Coils	Spot	Satisfactory

**This inspection does not in any way discharge the responsibility of the workshop nor impact on the mechanical warranty**



Hydrotest coil side	100%	Satisfactory
PMI	SS material.	Satisfactory
Visual inspection	100%	Satisfactory



270 degrees view. External visual inspection satisfactory, base metal and welding final appearance satisfactory. Tank is ready for shipment.



Top view. Shipment preparations are complete.

**This inspection does not in any way discharge the responsibility of the workshop nor impact on the mechanical warranty**

The logo for Desmet Ballestra, featuring the company name in white lowercase letters on a dark blue rectangular background.

Bottom cone view.

**END REPORT.**

**This inspection does not in any way discharge the responsibility of the workshop nor impact on the mechanical warranty**

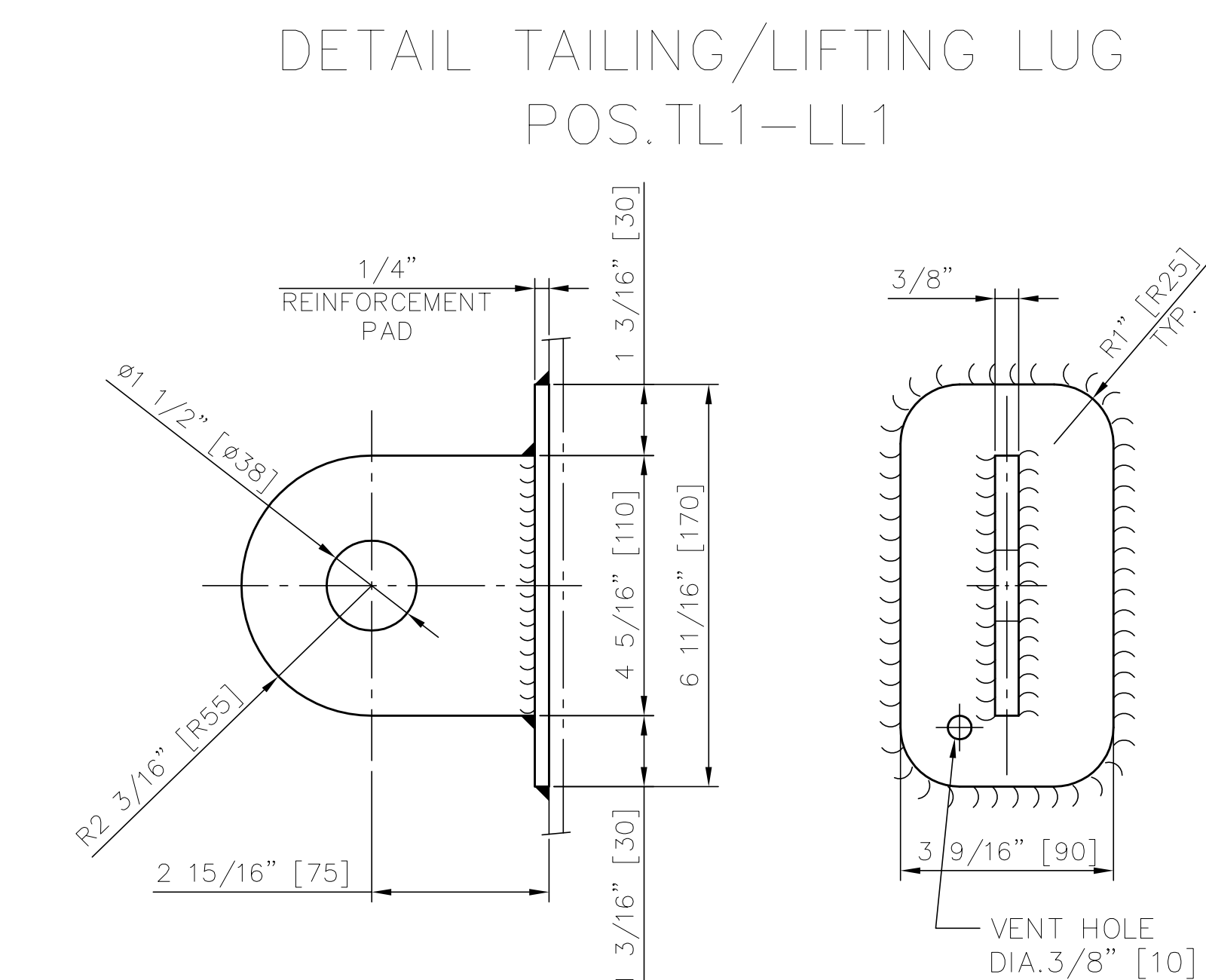
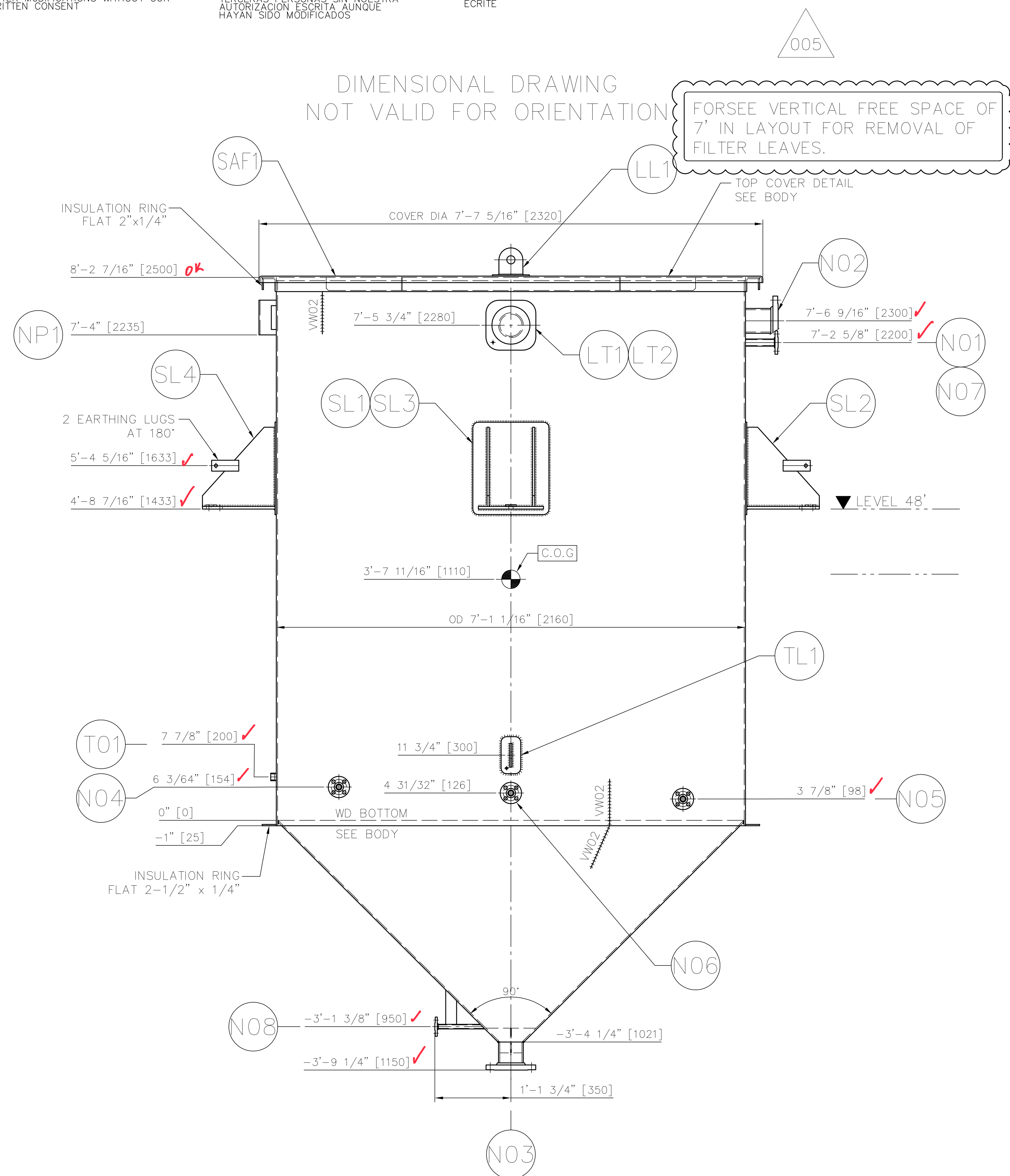


ACCORDING TO THE LAW OUR SURVEYS AND  
DRAWINGS ARE OUR EXCLUSIVE PROPERTY  
AND MAY NEITHER BE REPRODUCED NOR  
COMMUNICATED TO THIRD PARTIES EVEN  
AFTER MODIFICATIONS WITHOUT OUR  
WRITTEN CONSENT

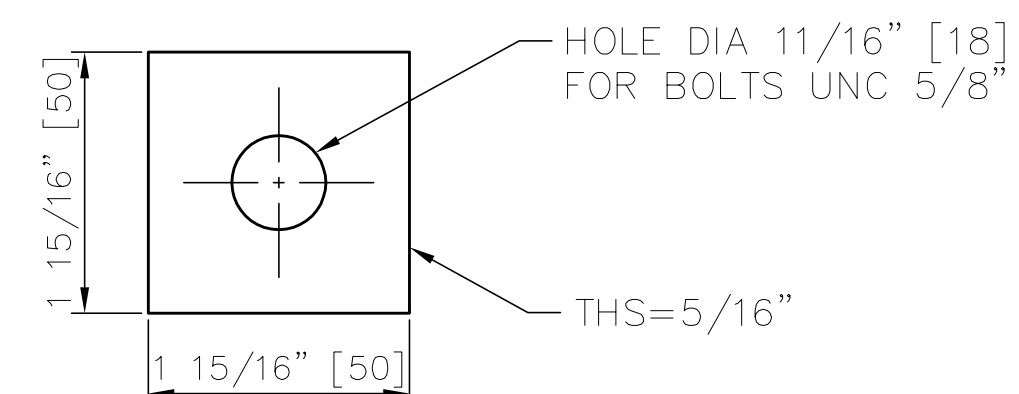
DE CONFORMIDAD CON LA LEY, NUESTROS  
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SER REPRODUCIDOS NI COMUNICADOS A  
TERCERAS PERSONAS SIN NUESTRA  
AUTORIZACION ESCRITA, AUNQUE  
HAYAN SIDO MODIFICADOS

CONFORMEMENT A LA LOI NOS ETUDES  
ET DESSINS SONT NOTRE PROPRIETE  
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OU COMMUNIQUEES A DES TIERS MEME APRES  
MODIFICATIONS SANS NOTRE AUTORISATION  
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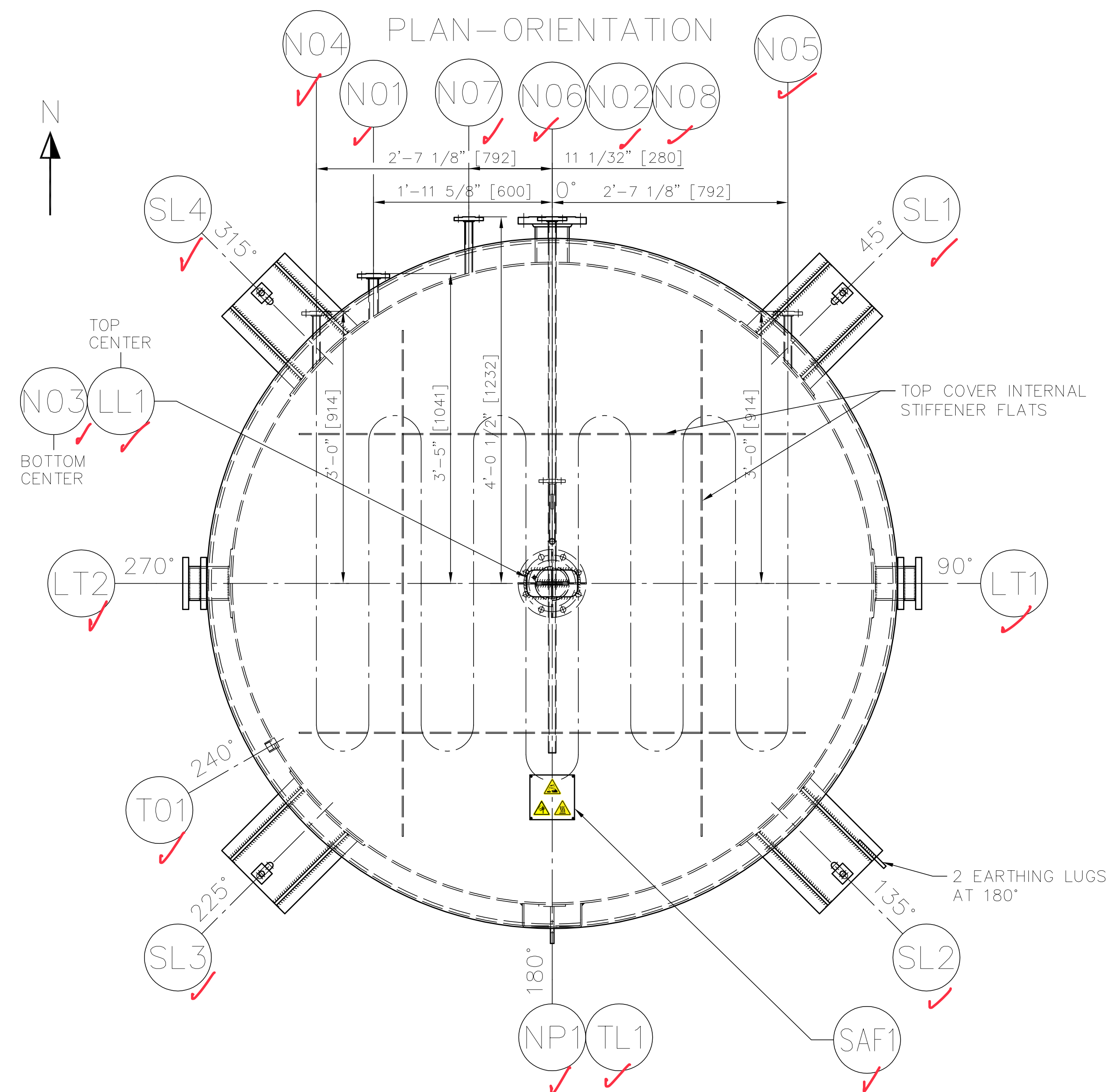
IF IN DOUBT, ASK – DO NOT SCALE !



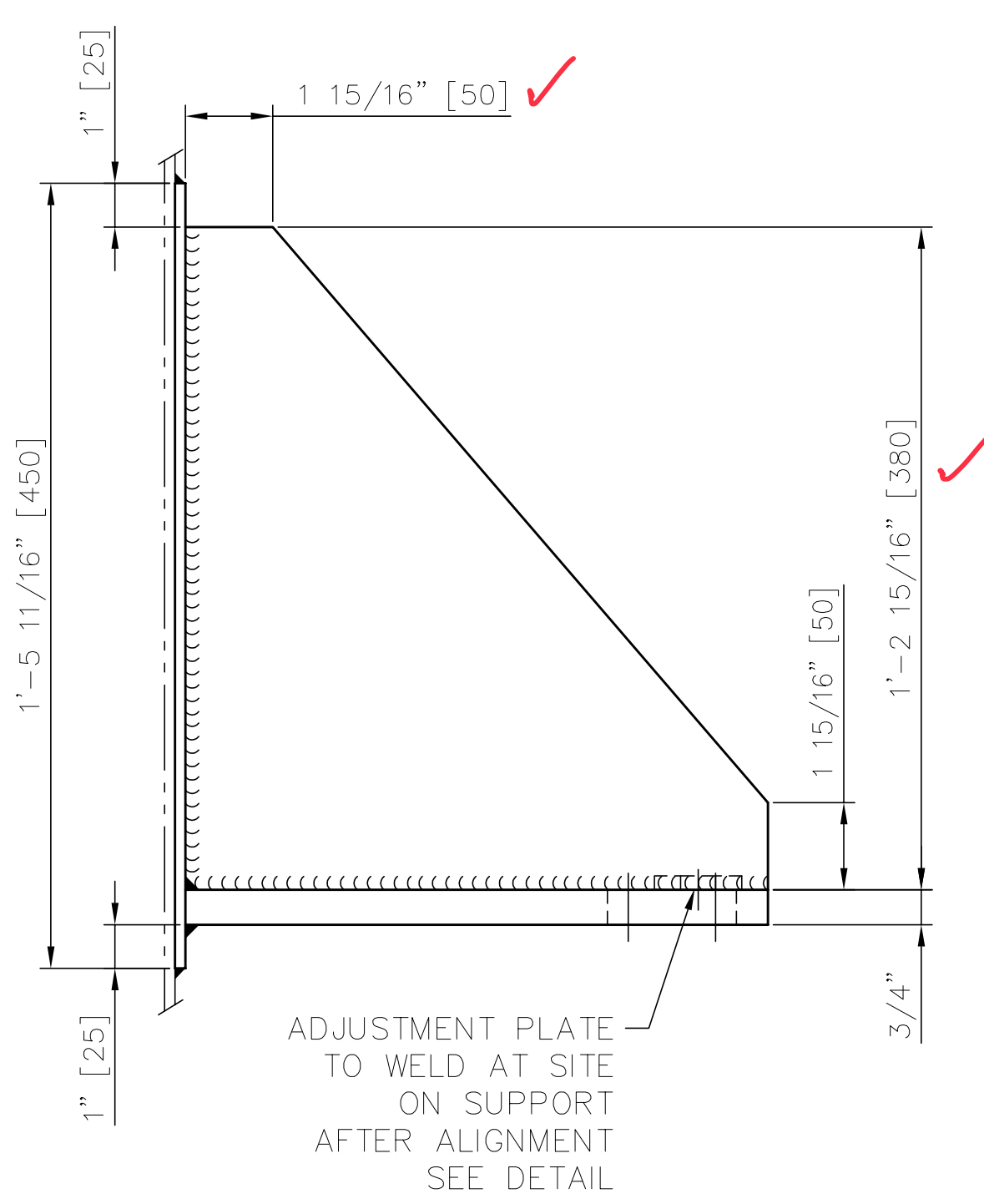
DETAIL ADJUSTMENT PLATE  
(QTY.: 4 NOs.)



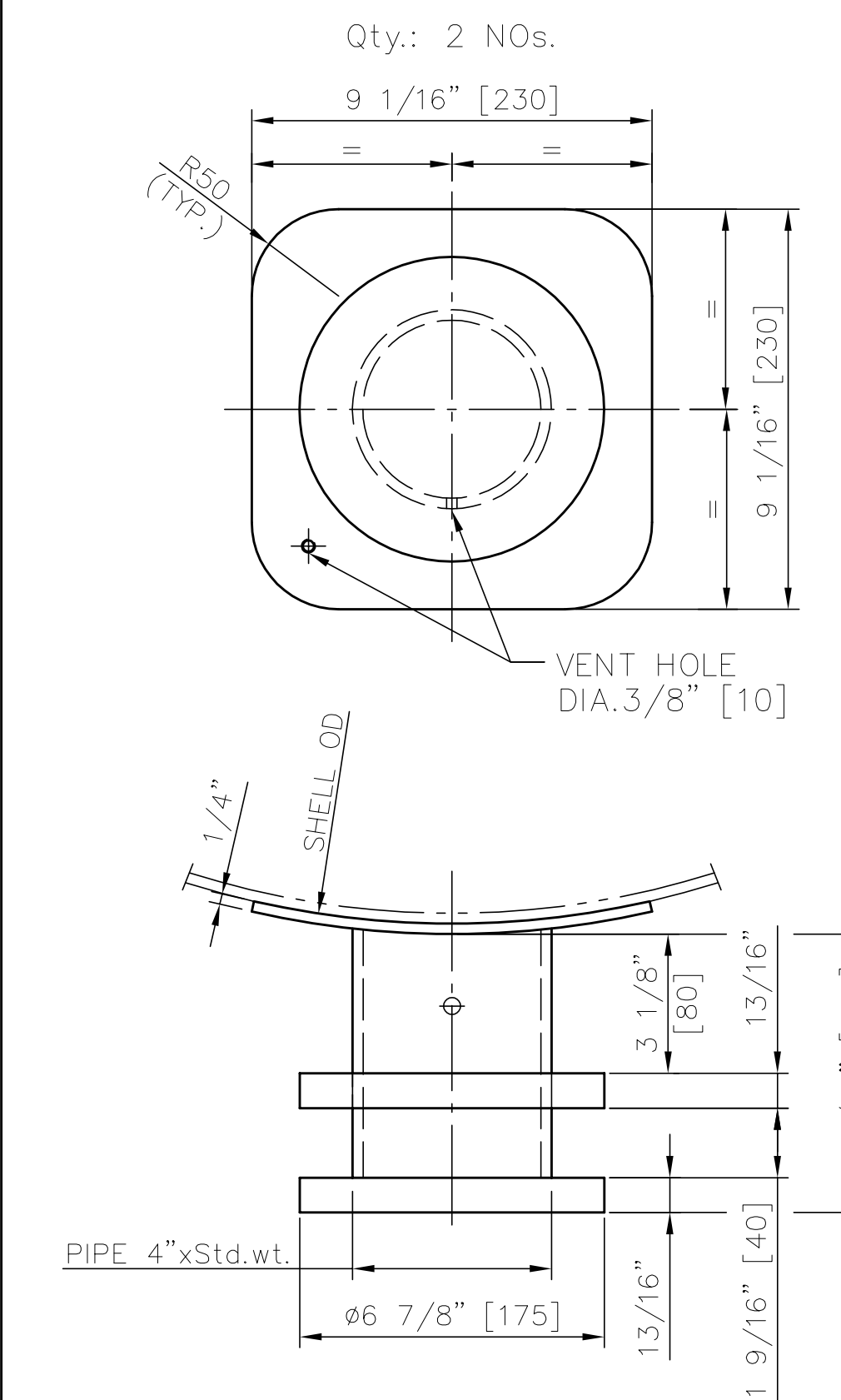
NOTE: ADJUSTMENT PLATE NEEDS TO BE WIRED TO THE SUPPORT



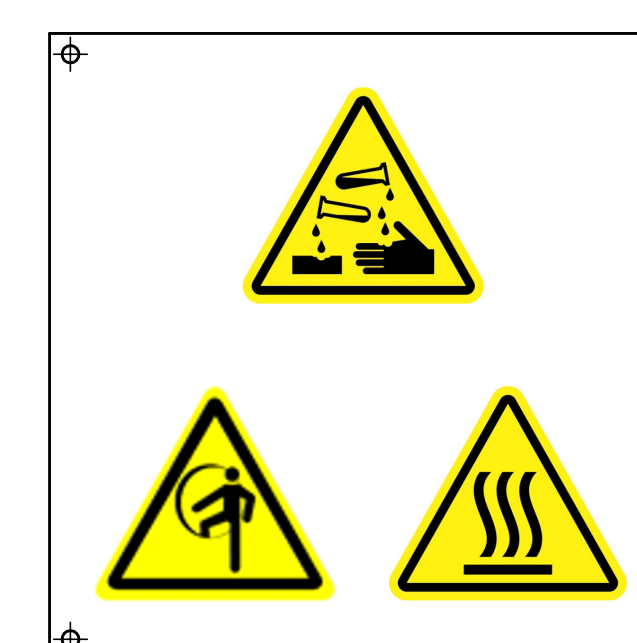
DETAIL POS.SL1-SL4



DETAIL LIFTING TRUNNIONS  
POS. LT1-LT2



WARNING PLATE TYPE-10



DIRECTLY RIVETED  
TO TOP COVER

## NOZZLES

POS.	SERVICE	QTY	NOMINAL DIA	FLANGE		SCHED / THK.	REINF. PAD O.D x THK.	PROJ. LENGTH	REMARKS REF. DRG.	WELD TYPE
				RATING	TYPE					
N01	CLEAN WATER INLET	1	1"	CLASS 150	SO-RF	SCH 40S		3'-5"		FW02/NW01
N02	OVERFLOW	1	4"	CLASS 150	SO-RF	SCH 40S		4'-1/2"		FW02/NW01
N03	DRAIN	1	4"	CLASS 150	SO-RF	SCH 40S		5'-9 1/4"		FW02/NW07
N04	STEAM INLET TO INTERNAL COIL	1	3/4"	CLASS 150	SO-RF	SCH 40S		3'		FW02/WD14 NW23
N05	CONDENSATE OUTLET FROM INTERNAL COIL	1	3/4"	CLASS 150	SO-RF	SCH 40S		3'		FW02/WD14 NW23
N06	COMPRESSED AIR INLET	1	3/4"	CLASS 150	SO-RF	SCH 40S		4'-1/2"		FW02/NW01
N07	CAUSTIC SODA INLET	1	1/2"	CLASS 150	SO-RF	SCH 40S		4'-1/2"		FW02/NW01
N08	DIRECT STEAM INLET	1	1/2"	CLASS 150	SO-RF	SCH 40S		1'-1 3/4"		FW02/NW03
T01	SEAT FOR TI	1	3/4" NPT	CLASS 3000	HALF COUPLING					NW04

## ACCESSORIES

LT1-LT2	LIFTING TRUNNIONS	2						SEE DETAIL	
TL1	TAILING LUG	1						SEE DETAIL	
LL1	LIFTING LUG (COVER)	1						SEE DETAIL	
SL1-SL4	SUPPORTS	4						SEE DETAIL	
NP1	NAMEPLATE	1						100190362	
SAF1	WARNING PLATE TYPE-10	1						00430535	

## MATERIALS / CERTIFICATES

ITEM	MATERIAL	CERT	ITEM	MATERIAL	CERT	
SHELL/CONE/TOP COVER	SA-240 304	✓	LIFTING	PAD PLATE	SA-240 304	✓
NOZZLES NECKS	SA-312 TP304	✓	TRUNNIONS	PIPE/PLATE	SA-106 B/SA-36	✓
NOZZLES FLANGES	SA-182 F304	✓	TAILING LUG	PAD PLATE	SA-240 304	✓
INTERNAL COIL	SA-312 TP304	✓		PIPE/PLATE	SA-106 B/SA-36	✓
INTERNAL COIL FLANGES	SA-182 F304	✓			SA-240 304/SA-312 TP304	
SUPPORTS	PAD PLATE		SEAT FOR TI		SA-403 WP304	
	PLATE/FLAT	SA-36	SUPPORT FOR NAMEPLATE		SA-240 304	
GASKET	GARLOCK 3500		EXTERNAL BOLTS & NUTS (UNC)		SA-193 B7/SA-194 2H	

## DESIGN DATA

EQUIPMENT		SHELL		INTERNAL COIL	
PRESSURE	OPERATING	barg	ATM	3 (43.5 psig)	
	DESIGN	barg	ATM	4 (58 psig)	
	TEST	barg	FILL WITH WATER	5.2 (75.4 psig)	
TEMPERATURE	OPERATING	°C	65 (149° F)	143 (289.4° F)	
	DESIGN	°C	100 (212° F)	193.33 (380° F)	
	TEST	°C	AMBIENT	AMBIENT	
MIN. DESIGN METAL TEMP.		°C	-10 (14° F)		
CORROSION	STAINLESS STEEL	mm	0	0	
ALLOWANCE	CARBON STEEL	mm	1.6 (1/16")	1.6 (1/16")	
RADIOGRAPHY			NONE	SPOT	
MIN. JOINT EFFICIENCY			0.7	0.85	
HEAT TREATMENT			NONE		
DESIGN CODE			ASME SEC. VIII DIV.1 Ed:2019		
WIND / SEISMIC DESIGN			101 mph / SDS = 1.077g, SD1 = 0.664g (ASCE 7-16)		
FLUID			HOT WATER AND CAUSTIC SODA	STEAM	
FLUID GROUP			NA	NA	
PED 2014/68/EU			NA		
ASME "U" STAMP			NO		
WEIGHT	EMPTY	kg	1720 (3791.95 lbs)		
	ASSEMBLED	kg	1720 (3791.95 lbs)		
	INSULATION	kg	144 (317.46 lbs)		
	OPERATING	kg	13538.8 (29848 lbs)		
	FULL OF WATER	kg	12168 (26825.8 lbs)		
VOLUME		m <sup>3</sup>	10.3 (363.74 ft3)	0.0051 (0.18 ft3)	
HEAT TRANSFER AREA		m <sup>2</sup>	1.1 (11.84 ft2)		
INSULATION	SURFACE AREA / THK.		24 / 50 (258.33 ft2 / 2")		
INSPECTED BY			DESMET BALLESTRA		

NOTE:

1. OPERATING FLUID DENSITY = 982 kg/m<sup>3</sup> (61.3 lbs/ft<sup>3</sup>).  
2. FILTER ELEMENTS WEIGHT ARE INCLUDED IN OPERATING WEIGHT

005	03.02.2022	NOTE ADDED AND OPERATING WEIGHT UPDATED.			NSB	
004	08.11.2021	POS. T01 LOCATION CHANGED.			NSB	
003	23.09.2021	PLAN—ORIENTATION UPDATED			KSM	
002	30.07.2021	HOLD REMOVED FROM PLAN & ELEVATION AND THICKNESS & DESIGN TEMPERATURE UPDATED AS MARKED			KSM	
001	22.04.2021	POS.N06 & TL1 ORIENTATION UPDATED AS MARKED			SHN	
REV	DATE	DESCRIPTION OF MODIFICATION		NBR OF MOD	BY	
			DOCUMENT TYPE	ASSY		
Desmet Ballestra Group			PROJECT DESCRIPT	WORPAR		
ITEM NBR DISPOSITION	682X.1 (19-D-772)		SECD	PKK	SCALE	FORMAT
			PRO.CE	GVK		A1
			PROJ.M	JCG		
DOCUMENT DESCRIPTION	FILTER ELEMENT CLEANING TABLE		DOM	PRA	AUTHOR	SHN
V=10.3-D=2160-H=2500-S=1			DATE	DRAWING NUMBER		REVISION
			30.03.2021	100182989		005

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