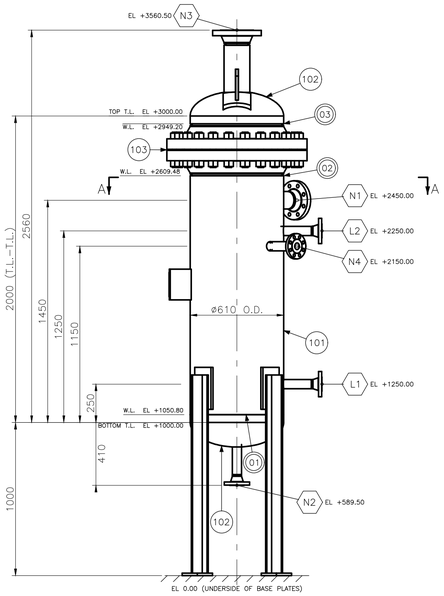
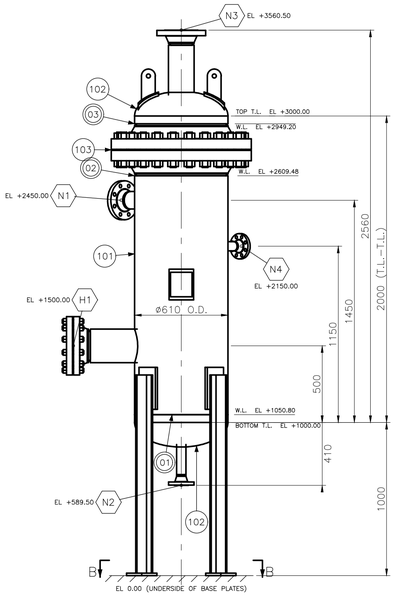
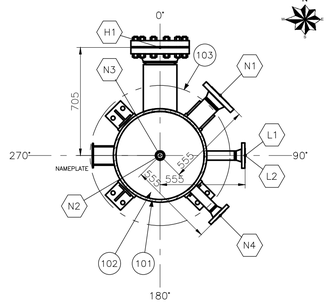


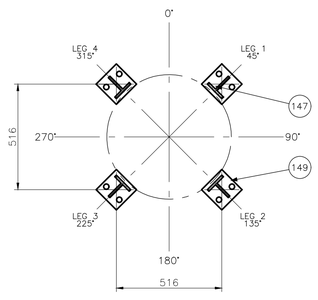
FRONT VIEW (LOOKING NORTH)
SCALE 1:20



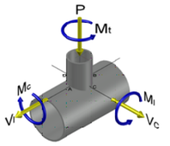
SIDE VIEW (LOOKING EAST)
SCALE 1:20



PLAN – SECTION A–A (BODY FLANGE ABOVE SHOWN PHANTOM)
SCALE 1:20



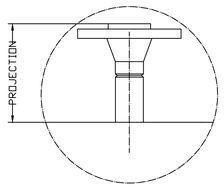
SECTION B–B (BASE PLATES)
SCALE 1:15

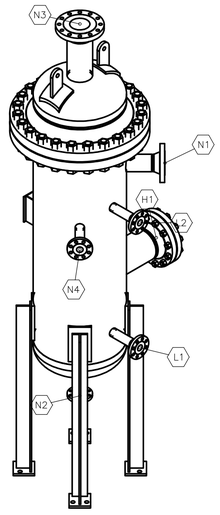


NOZZLE LOAD LIST

TAG	FLANGE	P (KN)	Vc (KN)	Vl (KN)	Mt (KNm)	Ml (KNm)	Mc (KNm)
H1	8" #300	–	–	–	–	–	–
L1	2" #300	0.64	0.96	0.96	0.25	0.19	0.14
L2	2" #300	0.64	0.96	0.96	0.25	0.19	0.14
N1	4" #300	1.77	2.66	2.66	1.32	1.06	0.80
N2	2" #300	0.64	0.96	0.96	0.25	0.19	0.14
N3	6" #300	3.00	4.50	4.50	3.38	2.70	2.02
N4	2" #300	0.64	0.96	0.96	0.25	0.19	0.14

PROJECTION DETAIL





ISOMETRIC VIEW
SCALE 1:20

DESIGN DATA

CODE			ASME VIII DIV.1 (2025) + DIV.2 CHECK
CODE STAMP			U
DESIGN DATA	INTERNAL PRESSURE	MPa(g)	3.00 (30 barg)
	INTERNAL TEMPERATURE	°C	350
	EXTERNAL PRESSURE	MPa(g)	0.103 (FULL VACUUM – ASSUMED)
	EXTERNAL TEMPERATURE	°C	350
	MAWP	–	3.76 (HOT & CORRODED, AT TOP)
OPERATING DATA	INT PRESSURE	MPa(g)	2.70 (ASSUMED)
	INT TEMPERATURE	°C	320 (ASSUMED)
FLUID	TYPE	–	HYDROCARBON VAPOUR / LIQUID (ASSUMED)
	DENSITY (VAPOUR/LIQUID)	kg/m3	15 / 850 (ASSUMED)
	MAXIMUM LIQUID LEVEL	mm	1000 (FROM BOTTOM T.L., ASSUMED)
PWHT		–	NOT REQUIRED (UCS–56)
RADIOGRAPHY		–	FULL (RT1)
JOINT EFFICIENCY (SHELL / HEADS)		–	1.0 / 1.0
CORROSSION ALLOWANCE		mm	3.0
HYDRAULIC TEST PRESSURE		MPa(g)	4.93 (AT TOP, UG–99(b))
MDMT		–	–15 °C @ 3.76 MPa (ASSUMED)
INSULATION			100 mm MINERAL WOOL (ASSUMED)

EQUIPMENT SIZING

INTERNAL DIAMETER	mm	575.0 (O.D. 610)
LENGTH (T.L.–T.L.)	mm	2000
SHELL THICKNESS (NOMINAL)	mm	17.48 (NPS 24 SCH.40)
HEAD	TYPE	2:1 ELLIPSOIDAL (TOP AND BOTTOM)
HEAD THICKNESS (NOMINAL)	mm	16 NOM. (MIN. 14 AFTER FORMING)

EQUIPMENT WEIGHT

EMPTY	kg	1442 (+ 90 INSULATION)
OPERATION	kg	1779
FULL OF WATER	kg	2121

BILL OF MATERIALS & FABRICATION SPECIFICATIONS

POS N°	QTY.	DESCRIPTION	LENGTH (mm)	MATERIAL	NOTES
101	1	SEAMLESS PIPE 24" SCH.40	1559	SA–106 GR.B	ASME B.36.10M
102	2	2:1 ELLIP. HEAD O.D. 610mm THK.16mm	–	SA–516 GR.70	SEE DETAIL
103	2	W.N. FLANGE 24" SCH.40 #300 R.F.	–	SA–105	ASME B.16.5
104	24	STUD BOLT 1 1/2"	–	SA–193 B7	ASME B18.31.2
105	48	NUT 1 1/2"	–	SA–194 2H	ASME B18.2.2
106	1	SPIRAL WOUND GASKET 24" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
107	1	SEAMLESS PIPE 8" SCH.160	328	SA–106 GR.B	ASME B.36.10M
108	1	W.N. FLANGE 8" SCH.160 #300 R.F.	–	SA–105	ASME B.16.5
109	1	BLIND FLANGE 8" #300 R.F.	–	SA–105	ASME B.16.5
110	12	STUD BOLT 7/8"	–	SA–193 B7	ASME B18.31.2
111	24	NUT 7/8"	–	SA–194 2H	ASME B18.2.2
112	1	SPIRAL WOUND GASKET 8" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
113	1	SEAMLESS PIPE 2" SCH.160	200	SA–106 GR.B	ASME B.36.10M
114	1	W.N. FLANGE 2" SCH.160 #300 R.F.	–	SA–105	ASME B.16.5
115	8	STUD BOLT 5/8"	–	SA–193 B7	ASME B18.31.2
116	16	NUT 5/8"	–	SA–194 2H	ASME B18.2.2
117	1	SPIRAL WOUND GASKET 2" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
118	1	SEAMLESS PIPE 2" SCH.160	200	SA–106 GR.B	ASME B.36.10M
119	1	W.N. FLANGE 2" SCH.160 #300 R.F.	–	SA–105	ASME B.16.5
120	8	STUD BOLT 5/8"	–	SA–193 B7	ASME B18.31.2
121	16	NUT 5/8"	–	SA–194 2H	ASME B18.2.2
122	1	SPIRAL WOUND GASKET 2" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
123	1	SEAMLESS PIPE 4" SCH.160	188	SA–106 GR.B	ASME B.36.10M
124	1	W.N. FLANGE 4" SCH.160 #300 R.F.	–	SA–105	ASME B.16.5
125	8	STUD BOLT 3/4"	–	SA–193 B7	ASME B18.31.2
126	16	NUT 3/4"	–	SA–194 2H	ASME B18.2.2
127	1	SPIRAL WOUND GASKET 4" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
128	1	SEAMLESS PIPE 2" SCH.160	197	SA–106 GR.B	ASME B.36.10M
129	1	W.N. FLANGE 2" SCH.160 #300 R.F.	–	SA–105	ASME B.16.5
130	8	STUD BOLT 5/8"	–	SA–193 B7	ASME B18.31.2
131	16	NUT 5/8"	–	SA–194 2H	ASME B18.2.2
132	1	SPIRAL WOUND GASKET 2" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
133	1	SEAMLESS PIPE 6" SCH.160	324	SA–106 GR.B	ASME B.36.10M
134	1	W.N. FLANGE 6" SCH.160 #300 R.F.	–	SA–105	ASME B.16.5
135	12	STUD BOLT 3/4"	–	SA–193 B7	ASME B18.31.2
136	24	NUT 3/4"	–	SA–194 2H	ASME B18.2.2
137	1	SPIRAL WOUND GASKET 6" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
138	1	SEAMLESS PIPE 2" SCH.160	200	SA–106 GR.B	ASME B.36.10M
139	1	W.N. FLANGE 2" SCH.160 #300 R.F.	–	SA–105	ASME B.16.5
140	8	STUD BOLT 5/8"	–	SA–193 B7	ASME B18.31.2
141	16	NUT 5/8"	–	SA–194 2H	ASME B18.2.2
142	1	SPIRAL WOUND GASKET 2" #300	–	SS316L/GRAPHITE, CS RINGS	ASME B.16.20
143	2	PLATE THK.20mm	–	SA–516 GR.70	SEE DETAIL
144	2	PLATE THK.16mm	–	SA–516 GR.70	SEE DETAIL
145	1	PLATE THK.6mm	–	SA–516 GR.70	SEE DETAIL
146	1	PLATE THK.2mm	–	SS 316	SEE DETAIL
147	4	PROFILE T 100x100x11	–	S235J2 (EN 10025–2)	SEE DETAIL
148	4	PLATE O.D. 630mm THK.10mm	–	SA–516 GR.70	SEE DETAIL
149	4	PLATE THK.16mm	–	S235J2 (EN 10025–2)	SEE DETAIL

REFERENCE DOCUMENT

REFERENCE DOCUMENT	DOC. NO.
VCAL MECHANICAL CALCULATION DOSSIER (ASME VIII–1/–2, ASCE 7–10, UBC–97)	VCAL–06–CSH–00001
VCAL GENERAL ARRANGEMENT DRAWING (SHEETS 1/2 AND 2/2)	VCAL–06–DWG–00001
VCAL 3D MODEL (STEP AP214)	VCAL_REV00.step
SUPPORTING LEGS FOR VERTICAL VESSELS (STANDARD)	CLIENT STD.
ALLOWABLE PIPING LOADS ON NOZZLES (BASIC SPEC.)	CLIENT SPEC.
STRUCTURAL DESIGN CRITERIA (SITE DATA)	PROJECT SPEC.

GENERAL NOTES

1) ALL DIMENSIONS IN mm. EL 0.00 = UNDERSIDE OF BASE PLATES; NOZZLE HEIGHTS DIMENSIONED FROM BOTTOM T.L.
2) DESIGN CODE: ASME VIII DIV.1 ED.2025 ('U' STAMP); CHECKED TO ASME VIII DIV.2 (PART 4 + PART 5). MATERIALS ASME II–A / II–D.
3) FLANGES ASME B16.5 CL300 W.N. R.F. (BORE TO MATCH PIPE SCHEDULE); GASKETS ASME B16.20; STUDS B18.31.2; NUTS B18.2.2.
4) BODY FLANGE (ITEM 103): 2 x ASME B16.5 NPS 24 CL300 W.N. R.F. SCH.40, 24 STUD BOLTS 1 1/2" (RATING 37.6 barg AT 350 °C).
5) FLANGE BOLT HOLES STRADDLE THE MAIN CENTRE LINES. NOZZLE PROJECTION = OUTSIDE SURFACE (AT NOZZLE C.L.) TO RAISED FACE.
6) PWHT NOT REQUIRED (UCS–56). HYDROSTATIC TEST 49.3 barg AT TOP (UG–99(b), BASED ON MAWP 37.6 barg).
7) SUPPORTS: 4 LEGS T 100x100x11 (CLIENT STD.), VERIFIED TO ASCE 7–10 / UBC–97. FOUNDATION LOADS PER LEG: SEE SHEET 2.
8) LIFTING: 2 LUGS ON TOP HEAD, SPREADER BEAM; LUGS DESIGNED FOR 2 x FABRICATED (LIFTING) WEIGHT.
9) 3D MODEL (STEP) AND THIS DRAWING ARE GENERATED FROM THE SAME PARAMETRIC MODEL – VIEWS ARE TRUE PROJECTIONS / SECTIONS.
10) HOT INSULATION 100 mm (NOT SHOWN). SURFACE PREPARATION AND PAINTING ACCORDING TO PROJECT SPECIFICATION.

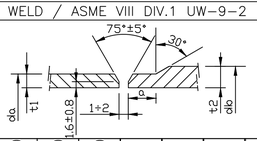
HOLD POINTS

H1) MATERIAL CERTIFICATES EN 10204 3.1 (PRESSURE PARTS)
H2) WPS/PQR/WPQ APPROVAL BEFORE WELDING
H3) RT FILM REVIEW (100 % RT OF CATEGORY A / B WELDS)
H4) HYDROSTATIC TEST WITNESS (49.3 barg AT TOP, 30 min)
H5) FINAL DIMENSIONAL & VISUAL INSPECTION, NAMEPLATE

LEGEND

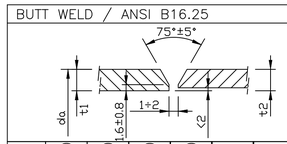
T.L.: TANGENT LINE W.L.: WELDING LINE EL: ELEVATION
(1xx) CIRCLE: ITEM No. (BILL OF MATERIALS, SHEET 1)
HEXAGON: NOZZLE TAG (NOZZLE LIST, SHEET 1)
DOUBLE CIRCLE: WELD No. (WELD DETAILS, SHEET 1)

BUTT WELD / ASME VIII DIV.1 UW–9–2



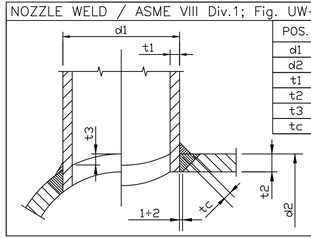
POS.	⑩1	⑩2	⑩3				
da	610	610	610				
db	610	610	610				
t1	16	17.48	16				
t2	17.48	17.48	17.48				
a	–	–	–				

BUTT WELD / ANSI B16.25



POS.	⑩4	⑩5	⑩6	⑩7			
da	60.3	114.3	168.3	219.1			
t1	8.74	13.49	18.26	23.01			
t2	8.74	13.49	18.26	23.01			

NOZZLE WELD / ASME VIII Div.1; Fig. UW–16.1 Skt. c



POS.	⑩8	⑩9	⑩10	⑩11	⑩12
d1	60.3	114.3	219.1	60.3	168.3
d2	610	610	610	610	610
t1	8.74	13.49	23.01	8.74	18.26
t2	17.48	17.48	17.48	16	16
t3	0	0	0	0	0
tc	3.3	6.0	6.0	3.3	6.0

NOZZLE LIST

POS	DESCRIPTION	NOM. DIA	FLANGE RATING	FLANGE TYPE	FLANGE FACE	SCHEDULE/ THICKNESS	REMARK	PROJECTION (mm)
H1	HANDHOLE	8"	300	WN	RF	SCH.160 (23.01)	–	400
L1	LEVEL INSTRUMENT 1	2"	300	WN	RF	SCH.160 (8.74)	–	250
L2	LEVEL INSTRUMENT 2	2"	300	WN	RF	SCH.160 (8.74)	–	250
N1	INLET	4"	300	WN	RF	SCH.160 (13.49)	–	250
N2	LIQUID OUTLET	2"	300	WN	RF	SCH.160 (8.74)	–	250
N3	GAS OUTLET	6"	300	WN	RF	SCH.160 (18.26)	–	400
N4	PRESSURE INSTRUMENT	2"	300	WN	RF	SCH.160 (8.74)	–	250

LIST OF STRUCTURAL BOLTS

ITEM	DESCRIPTION	DIN SPECIFICATIONS			Q.T.Y.
	Ø BOLTS x LENGTH	BOLTS	NUTS	WASHERS	
①	ANCHOR BOLT M20 x 300 (BASE PLATES)	DIN 529 – 4.6 HDG	ISO 4032 – 5 HDG	ISO 7089 – 200HV HDG	8

COMPANY DOCUMENT APPROVAL STATUS

A	Approved with no comments. Works can proceed.
B	Approved with comments as noted. Contractor can proceed with work implementing the comment indicated by Company.
C	NOT APPROVED. Revise and/or resubmit. Contractor cannot proceed with works.

SUBMITTAL DESCRIPTION
X Issued for approval
Issued for information

REV.	DATE	DESIGN AUTHOR	ROLE DESCRIPTION
00	11/11/2026	Iñigo Ozcariz Garcia	Chief Design Engineer

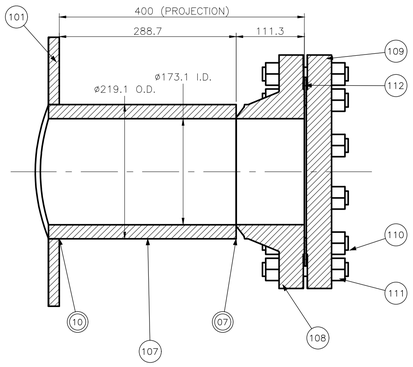
Date	11/11/2026
DWN.	CLAUDE (AI)
REV.	PENDING
APPR.	PENDING

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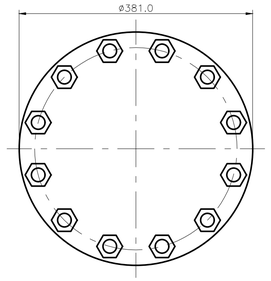
Project: VCAL – VERTICAL PRESSURE VESSEL
30 barg / 350 °C – ASME VIII DIV.1 / DIV.2
PURCHASE ORDER: –
Document No.: VCAL–06–DWG–00001
Rev.: 00

Title: GENERAL ARRANGEMENT DRAWING
SHEET 1/2 – VIEWS, DESIGN DATA, NOZZLES, BOM, WELD DETAILS
Scale: AS SHOWN
Format: A1
ISO – E
Sheet: 1/2

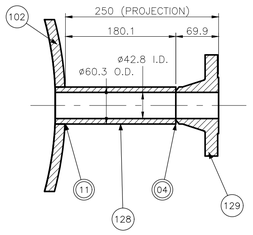
This drawing and the design it covers is the property of Digital SimTec and all rights are reserved. Neither in whole nor part may be reproduced or transmitted to third party without prior written consent of owner.



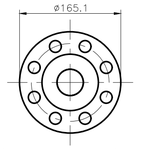
NOZZLE H1 – 8" #300 W.N. R.F. + BLIND + SCH.160 PIPE (EL +1500.00)
SCALE 1:5



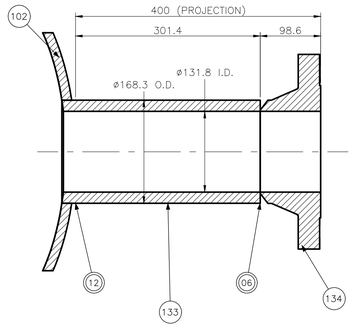
12 HOLES ø25.4 ON ø330.2 B.C.



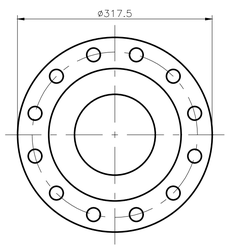
NOZZLE N2 – 2" #300 W.N. R.F. + SCH.160 PIPE (EL +589.50)
SCALE 1:5



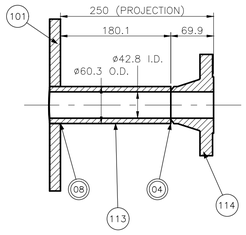
8 HOLES ø19.1 ON ø127.0 B.C.



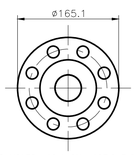
NOZZLE N3 – 6" #300 W.N. R.F. + SCH.160 PIPE (EL +3560.50)
SCALE 1:5



12 HOLES ø22.4 ON ø269.8 B.C.

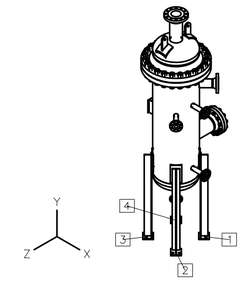


NOZZLE L1 – 2" #300 W.N. R.F. + SCH.160 PIPE (EL +1250.00)
SCALE 1:5

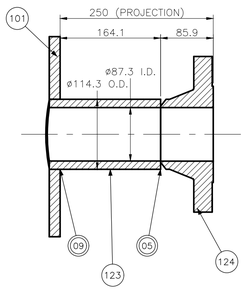


8 HOLES ø19.1 ON ø127.0 B.C.

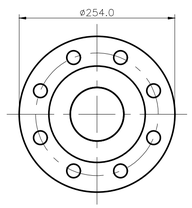
VCAL SUPPORT LEGS LOADS TABLE (FOUNDATION LOADS, UNFACTORED)							
LEG	L/C	Fx kN	Fy kN	Fz kN	Mx kNm	My kNm	Mz kNm
1 (45°)	1 E (+X)	1.3	−8.3	−0.9	−0.4	0.0	−0.7
	2 E (+Z)	−0.9	12.7	1.6	0.8	0.0	0.4
	3 E (−X)	−1.3	8.3	0.9	0.4	0.0	0.7
	4 E (−Z)	0.9	−12.7	−1.6	−0.8	0.0	−0.4
	5 DE	0.0	−4.6	0.0	0.1	0.0	0.1
	6 DO	0.0	−5.2	0.0	0.1	0.0	0.1
	7 DT	0.0	−6.1	0.0	0.1	0.0	0.1
	8 L	0.0	−0.5	0.0	0.0	0.0	0.0
	9 S	0.0	−0.3	0.0	0.0	0.0	0.0
	10 T	2.8	0.0	−2.8	−1.7	0.0	−1.7
	11 W (+X)	1.5	−5.8	−0.2	0.0	0.0	−0.7
	12 W (+Z)	−0.2	5.9	1.5	0.7	0.0	0.0
	13 W (−X)	−1.5	5.8	0.2	0.0	0.0	0.7
	14 W (−Z)	0.2	−5.9	−1.5	−0.7	0.0	0.0
2 (135°)	1 E (+X)	1.9	−12.9	1.0	0.5	0.0	−1.0
	2 E (+Z)	0.5	−7.7	1.4	0.7	0.0	−0.2
	3 E (−X)	−1.9	12.9	−1.0	−0.5	0.0	1.0
	4 E (−Z)	−0.5	7.7	−1.4	−0.7	0.0	0.2
	5 DE	0.0	−3.2	0.0	0.0	0.0	0.0
	6 DO	0.0	−3.8	0.0	0.0	0.0	0.0
	7 DT	0.0	−4.7	0.0	−0.1	0.0	0.1
	8 L	0.0	−0.5	0.0	0.0	0.0	0.0
	9 S	0.0	−0.3	0.0	0.0	0.0	0.0
	10 T	2.8	0.0	2.8	1.7	0.0	−1.7
	11 W (+X)	1.2	−5.9	0.5	0.2	0.0	−0.6
	12 W (+Z)	0.2	−5.9	1.5	0.7	0.0	0.0
	13 W (−X)	−1.2	5.9	−0.5	−0.2	0.0	0.6
	14 W (−Z)	−0.2	5.9	−1.5	−0.7	0.0	0.0
3 (225°)	1 E (+X)	1.7	8.4	−0.9	−0.5	−0.1	−0.9
	2 E (+Z)	−0.9	−12.7	1.6	0.8	0.0	0.4
	3 E (−X)	−1.7	−8.4	0.9	0.5	0.1	0.9
	4 E (−Z)	0.9	12.7	−1.6	−0.8	0.0	−0.4
	5 DE	0.0	−2.8	0.0	0.0	0.0	0.0
	6 DO	0.0	−3.5	0.0	0.0	0.0	0.0
	7 DT	0.0	−4.3	0.0	−0.1	0.0	−0.1
	8 L	0.0	−0.5	0.0	0.0	0.0	0.0
	9 S	0.0	−0.3	0.0	0.0	0.0	0.0
	10 T	−2.8	0.0	2.8	1.7	0.0	1.7
	11 W (+X)	1.2	5.9	−0.5	−0.2	0.0	−0.6
	12 W (+Z)	−0.5	−5.9	1.2	0.6	0.0	0.2
	13 W (−X)	−1.2	−5.9	0.5	0.2	0.0	0.6
	14 W (−Z)	0.5	5.9	−1.2	−0.6	0.0	−0.2
4 (315°)	1 E (+X)	1.5	12.9	1.3	0.6	0.0	−0.7
	2 E (+Z)	0.3	7.8	1.4	0.7	0.0	−0.2
	3 E (−X)	−1.5	−12.9	−1.3	−0.6	0.0	0.7
	4 E (−Z)	−0.3	−7.8	−1.4	−0.7	0.0	0.2
	5 DE	0.0	−4.3	0.0	0.1	0.0	−0.1
	6 DO	0.0	−4.9	0.0	0.1	0.0	−0.1
	7 DT	0.0	−5.7	0.0	0.1	0.0	−0.1
	8 L	0.0	−0.5	0.0	0.0	0.0	0.0
	9 S	0.0	−0.3	0.0	0.0	0.0	0.0
	10 T	−2.8	0.0	−2.8	−1.7	0.0	1.7
	11 W (+X)	1.5	5.8	0.2	0.0	0.0	−0.7
	12 W (+Z)	0.5	5.9	1.2	0.6	0.0	−0.2
	13 W (−X)	−1.5	−5.8	−0.2	0.0	0.0	0.7
	14 W (−Z)	−0.5	−5.9	−1.2	−0.6	0.0	0.2



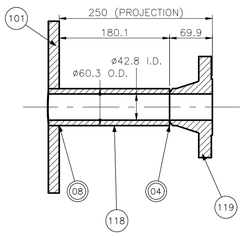
SUPPORT LEGS – LEG NUMBERS AND AXES (X = EAST, Y = UP, Z = SOUTH)
SCALE 1:40



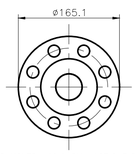
NOZZLE N1 – 4" #300 W.N. R.F. + SCH.160 PIPE (EL +2450.00)
SCALE 1:5



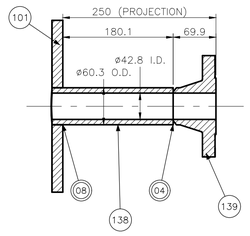
8 HOLES ø22.4 ON ø200.2 B.C.



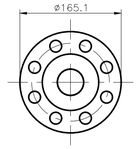
NOZZLE L2 – 2" #300 W.N. R.F. + SCH.160 PIPE (EL +2250.00)
SCALE 1:5



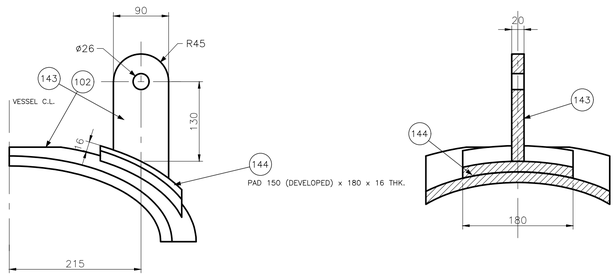
8 HOLES ø19.1 ON ø127.0 B.C.



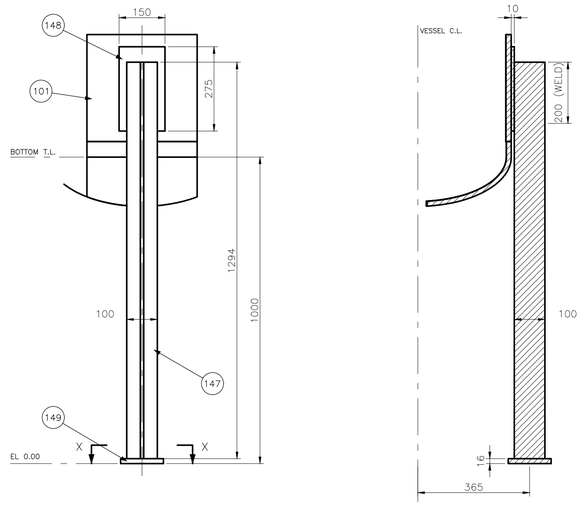
NOZZLE N4 – 2" #300 W.N. R.F. + SCH.160 PIPE (EL +2150.00)
SCALE 1:5



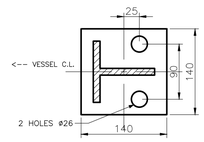
8 HOLES ø19.1 ON ø127.0 B.C.



LIFTING LUG (2 OFF AT 0° / 180°) – FRONT VIEW & SECTION ON HOLE C.L.
SCALE 1:5



LEG (4 OFF): RADIAL VIEW AND SECTION ON WEB
SCALE 1:10



BASE PLATE (4 OFF) – SECTION X–X
SCALE 1:5

REFERENCE DOCUMENT	DOC. NO.
VCAL MECHANICAL CALCULATION DOSSIER (ASME VIII–1/–2, ASCE 7–10, UBC–97)	VCAL–06–CSH–00001
VCAL GENERAL ARRANGEMENT DRAWING (SHEETS 1/2 AND 2/2)	VCAL–06–DWG–00001
VCAL 3D MODEL (STEP AP214)	VCAL_REV00.step
SUPPORTING LEGS FOR VERTICAL VESSELS (STANDARD)	CLIENT STD.
ALLOWABLE PIPING LOADS ON NOZZLES (BASIC SPEC.)	CLIENT SPEC.
STRUCTURAL DESIGN CRITERIA (SITE DATA)	PROJECT SPEC.

GENERAL NOTES

1) ALL DIMENSIONS IN mm. EL 0.00 = UNDERSIDE OF BASE PLATES; NOZZLE HEIGHTS DIMENSIONED FROM BOTTOM T.L.
2) DESIGN CODE: ASME VIII DIV.1 ED.2025 ('U' STAMP); CHECKED TO ASME VIII DIV.2 (PART 4 + PART 5). MATERIALS ASME II–A / II–D.
3) FLANGES ASME B16.5 CL300 W.N. R.F. (BORE TO MATCH PIPE SCHEDULE); GASKETS ASME B16.20; STUDS B18.31.2; NUTS B18.2.2.
4) BODY FLANGE (ITEM 103): 2 x ASME B16.5 NPS 24 CL300 W.N. R.F. SCH.40, 24 STUD BOLTS 1 1/2" (RATING 37.6 barg AT 350 °C).
5) FLANGE BOLT HOLES STRADDLE THE MAIN CENTRE LINES. NOZZLE PROJECTION = OUTSIDE SURFACE (AT NOZZLE C.L.) TO RAISED FACE.
6) PWHT NOT REQUIRED (UCS–56). HYDROSTATIC TEST 49.3 barg AT TOP (UG–99(b), BASED ON MAWP 37.6 barg).
7) SUPPORTS: 4 LEGS T 100x100x11 (CLIENT STD.), VERIFIED TO ASCE 7–10 / UBC–97. FOUNDATION LOADS PER LEG; SEE SHEET 2.
8) LIFTING: 2 LUGS ON TOP HEAD, SPREADER BEAM; LUGS DESIGNED FOR 2 x FABRICATED (LIFTING) WEIGHT.
9) 3D MODEL (STEP) AND THIS DRAWING ARE GENERATED FROM THE SAME PARAMETRIC MODEL – VIEWS ARE TRUE PROJECTIONS / SECTIONS.
10) HOT INSULATION 100 mm (NOT SHOWN). SURFACE PREPARATION AND PAINTING ACCORDING TO PROJECT SPECIFICATION.

HOLD POINTS

H1) MATERIAL CERTIFICATES EN 10204 3.1 (PRESSURE PARTS)
H2) WPS/PQR/WPQ APPROVAL BEFORE WELDING
H3) RT FILM REVIEW (100 % RT OF CATEGORY A / B WELDS)
H4) HYDROSTATIC TEST WITNESS (49.3 barg AT TOP, 30 min)
H5) FINAL DIMENSIONAL & VISUAL INSPECTION, NAMEPLATE

LEGEND

T.L.: TANGENT LINE W.L.: WELDING LINE EL: ELEVATION
(1xx) CIRCLE: ITEM No. (BILL OF MATERIALS, SHEET 1)
HEXAGON: NOZZLE TAG (NOZZLE LIST, SHEET 1)
DOUBLE CIRCLE: WELD No. (WELD DETAILS, SHEET 1)

COMPANY DOCUMENT APPROVAL STATUS	
A	Approved with no comments. Works can proceed.
B	Approved with comments as noted. Contractor can proceed with work implementing the comment indicated by Company.
C	NOT APPROVED. Revise and/or resubmit. Contractor cannot proceed with works.

SUBMITTAL DESCRIPTION
X Issued for approval
Issued for information

REV.	DATE	DESIGN AUTHOR	ROLE DESCRIPTION
00	11/11/2026	Iñigo Ozcariz Garcia	Chief Design Engineer

Date	11/11/2026
DWN.	CLAUDE (AI)
REV.	PENDING
APPR.	PENDING

DIGITAL SimTec SIMULACIÓN · INGENIERÍA · IA

Project	PURCHASE ORDER:	Document No.	Rev.
VCAL – VERTICAL PRESSURE VESSEL 30 barg / 350 °C – ASME VIII DIV.1 / DIV.2	–	VCAL–06–DWG–00001	00

Title	Scale	Format
GENERAL ARRANGEMENT DRAWING SHEET 2/2 – NOZZLE, LUG AND LEG DETAILS, FOUNDATION LOADS	AS SHOWN	A1
	ISO – E	Sheet: 2/2

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