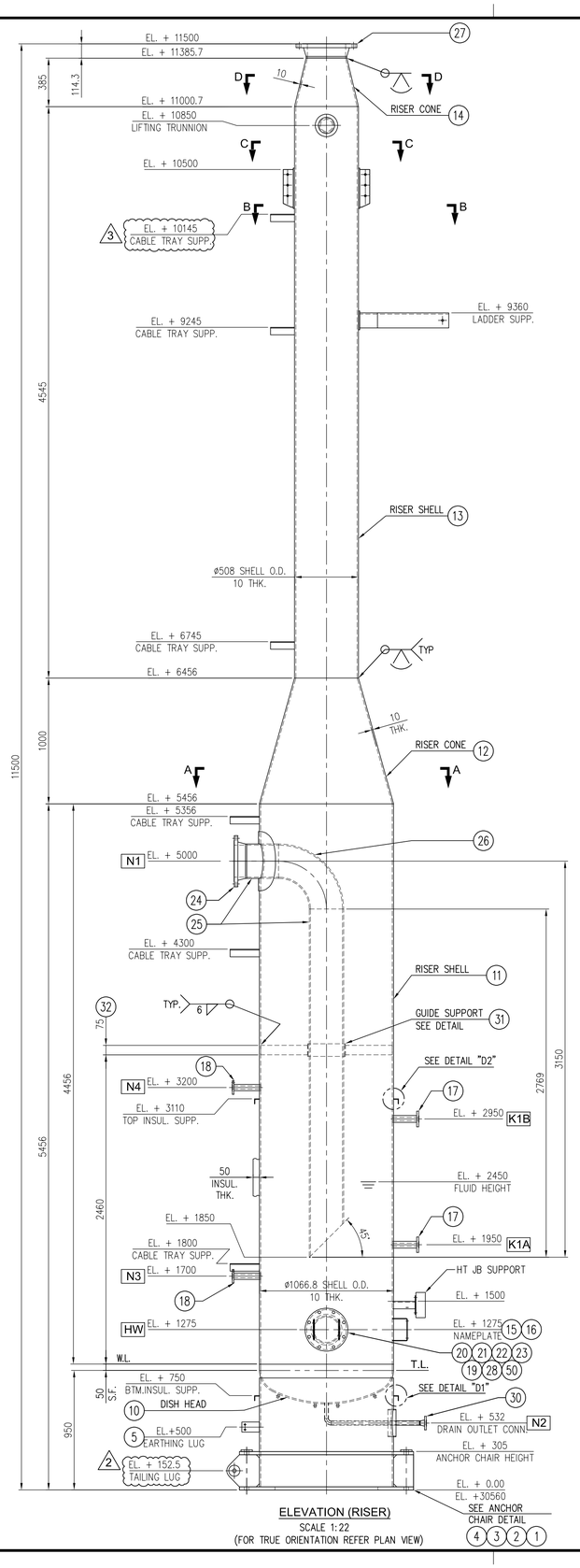
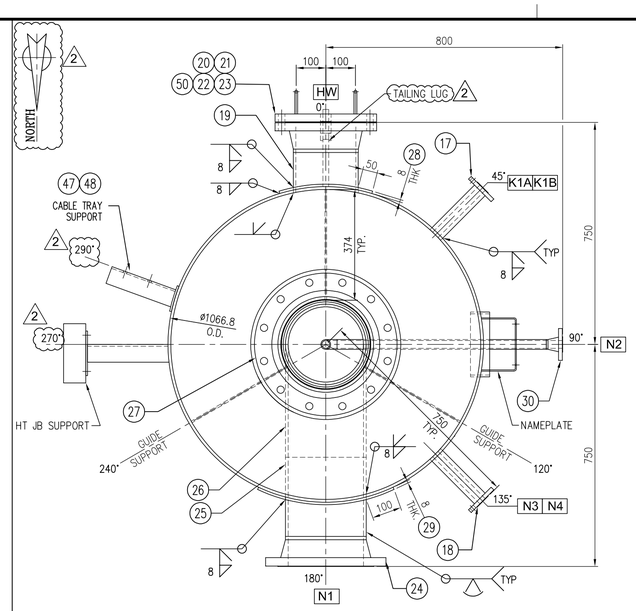
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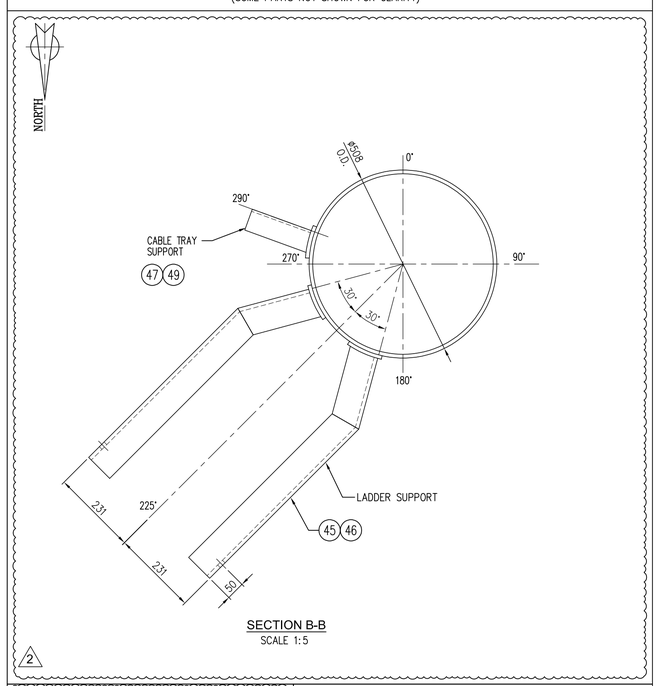
REV. 03



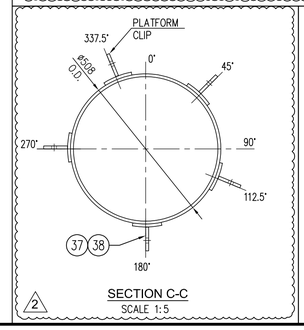
ELEVATION (RISER)
SCALE 1:22
(FOR TRUE ORIENTATION REFER PLAN VIEW)



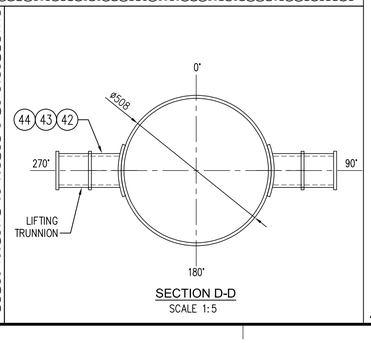
SECTION A-A
SCALE 1:10
(SOME PARTS NOT SHOWN FOR CLARITY)



SECTION B-B
SCALE 1:5



SECTION C-C
SCALE 1:5



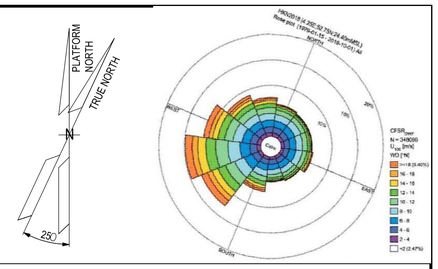
SECTION D-D
SCALE 1:5

BILL OF MATERIAL (RISER)

ITEM	QTY	DESCRIPTION	DIMENSION	MATERIAL	PED
1	1	BOTTOM ANCHOR PLATE	25 THK x 1385 O.D. x 820 I.D.	S275 J0	–
2	1	TOP ANCHOR PLATE	25 THK x 1385 O.D. x 1070 I.D.	S275 J0	–
3	15	GUSSET PLATE	12 THK x 159 x 255	S275 J0	–
4	16	WASHER PLATE	15 THK x 90 x 100	S275 J0	–
5	2	EARTHING LUG	6 THK x 80 x 140	AISI 304	–
6	1	SKIRT SHELL	10 THK x 865 LG. x 3320 (ROLL TO 1066.8 O.D.)	S275 J0	–
7	1	SLEEVE PIPE	8", SCH.20 (6.35 THK) x 97 LG.	A333 GR.6	–
8	1	PIPE (N2) (SMLS)	1", SCH.80 (4.55) x 1000 LG. (CUT TO SUIT)	A333 GR.6	ASME/EN
9	1	ELBOW	1", SCH.80 (4.55), 90DEG LR, BW.	A420 WPL6	ASME/EN
10	1	DISH END	2:1 ELLIPSOIDAL HEAD, 50 S.F. 12 THK (BEFORE FORMING) x 1066.8 O.D.	A516 Gr.60 /EQUIV.	ASME/EN
11	1	RISER SHELL	10 THK x 4456 LG. x 3320 (ROLL TO 1066.8 O.D.)	A516 Gr.60 /EQUIV.	ASME/EN
12	1	CONE	ø1066.8 LARGE O.D. x ø508 SMALL OD x 10 THK x 1000 HEIGHT.	A516 Gr.60 /EQUIV.	ASME/EN
13	1	RISER SHELL	10 THK x 4545 LG. x 1565 (ROLL TO 508 O.D.)	A516 Gr.60 /EQUIV.	–
14	1	CONE	ø508 LARGE O.D. x ø323.8 SMALL OD x 10 THK x 385 HEIGHT.	A516 Gr.60 /EQUIV.	–
15	1	NAMEPLATE SUPPORT	4 THK x 210 x 385	A516 Gr.60 /EQUIV.	ASME/EN
16	4	RIVETS	ø5	AISI 316	–
17	2	FLANGE FOR K1A & K1B	ø1" 150# LWNRF x 230 LG. ASME B16.5	A350 GR LF2	ASME/EN
18	2	FLANGE FOR N3 & N4	ø1" 150# LWNRF x 230 LG ASME B16.5	A350 GR LF2	ASME/EN
19	1	PIPE (HW) (SMLS)	8", SCH.40 (8.18 THK) x 122 LG. (CUT TO SUIT)	A333 GR.6	ASME/EN
20	1	FLANGE (HW)	8", SCH.40 (8.18 THK) x 150#, WNRF	A350 GR LF2	ASME/EN
21	1	FLANGE (HW)	8" x 150#, BLRF	A350 GR LF2	ASME/EN
22	1	GASKET (HW)	8", 150# SPIRAL WOUND ASME B16.20	SEE NOTE-9	ASME/EN
23	8	STUD BOLT + 2 NUT FOR (HW)	M20 x 110 LG.	A193 GR. B7/ SA194 GR.2H (HDG)	ASME/EN
24	1	FLANGE (N1)	10", SCH.40 (9.27 THK) x 150#, WNRF	A350 GR LF2	ASME/EN
25	1	PIPE (N1) (SMLS)	10", SCH.40 (9.27 THK) x 3200 LG. (CUT TO SUIT)	A333 GR.6	ASME/EN
26	1	ELBOW	10", SCH.40 (9.27), 90DEG LR, BW.	A420 WPL6	ASME/EN
27	1	FLANGE (RISER OUTLET)	12", SCH.STD (10 THK) x 150#, WNRF	A350 GR LF2	–
28	1	REPAD PLATE (HW)	8 THK x 50 WIDTH (CUT TO SUIT INNER OUTER ELLIPTICAL HOLES)	A516 Gr.60 /EQUIV.	ASME/EN
29	1	REPAD PLATE (N1)	8 THK x 100 WIDTH (CUT TO SUIT INNER OUTER ELLIPTICAL HOLES)	A516 Gr.60 /EQUIV.	ASME/EN
30	1	FLANGE (N2)	1", SCH.80 (4.55 THK) x 150#, WNRF	A350 GR LF2	ASME/EN
31	1	GUIDE SUPP. PLATE	6 THK x 100 LG. x 924 (ROLL TO 300 O.D.)	A516 Gr.60 /EQUIV.	ASME/EN
32	3	GUIDE SUPP. RIBS	6 THK x 75 x 375	A516 Gr.60 /EQUIV.	ASME/EN
3	33		DELETED		–
	33A		DELETED		–
	34		DELETED		–
3	35	2	INSUL. SUPP. ANGLE	L50x50x4 x 3666 LG. (ROLL TO 1146.8 O.D.)	S275 J0	ASME/EN
36	25	SQUARE NUT	M16	A194 GR. 2H (HDG)	–
37	5	PLATFORM CLEAT PAD	10 THK x 100 x 320	A516 Gr.60 /EQUIV.	–
38	5	PLATFORM CLEAT	10 THK x 80 x 300	A516 Gr.60 /EQUIV.	–
39	1	JB SUPP. PAD	6 THK x 90 x 90	A516 Gr.60 /EQUIV.	ASME/EN
40	1	JB SUPP. ANGLE	L60x60x6 x 197 LG.	S275 J0	–
41	1	JB SUPP. PLATE	6 THK x 150 x 150	S275 J0	–
42	2	TRUNNION PLATE	10 THK x ø130	S275 J0	–
43	2	TRUNNION PAD	10 THK x ø180	S275 J0	–
44	2	TRUNNION PIPE	4", SCH.80 (8.56 THK) x 196 LG.	A333 GR.6	–
2	44A	2	TRUNNION STOPPER	10 THK x ø130 O.D. x ø116 I.D.	S275 J0	
45	2	LADDER CLIP	L120x80x10 x 800 LG.	S275 J0	–
46	2	LADDER CLIP PAD	6 THK x 111 x 150	A516 Gr.60 /EQUIV.	–
47	6	CABLE TRAY SUPP. PAD	6 THK x 90 x 90	A516 Gr.60 /EQUIV.	ASME/EN
48	3	CABLE TRAY SUPP.	L60x60x6 x 232 LG.	S275 J0	–
49	3	CABLE TRAY SUPP.	L60x60x6 x 188 LG.	S275 J0	–
50	2	HANDLE (HW)	ø10 ROD x 300 LG.	S275 J0	ASME/EN
51	2	CONNECTION PLATE	6 THK x 30 x 80	S275 J0	–
52	2	HEX BOLT	M10 x 30 LG.	CS (HDG)	–
53	2	HEX NUT	M10 (H=D)	CS (HDG)	–
2	54	1	TAILING LUG	20 THK x 255 x 260	S275 J0	
2	55	2	TAILING LUG COLLAR PLATE	8 THK x ø90 O.D. x ø30 I.D.	S275 J0	

BILL OF MATERIAL (TIP, WINDSHIELD & BIRD SCREEN)

ITEM	QTY	DESCRIPTION	DIMENSION	MATERIAL	PED
101	1	FLANGE (VENT TIP)	ø12", (6 THK) x 150#, WNRF	AISI 316L	–
102	1	GASKET (VENT TIP CONN.)	ø12", 150# SPIRAL WOUND ASME B16.20	SEE NOTE-9	–
103	12	STUD BOLT + 2 NUT FOR VENT TIP FLG.	M24 x 135 LG.	A193 Gr. B7 SA194 Gr. 2H (HDG)	–
104	1	VENT TIP SHELL	ø12", 6 THK x 4886 LG.	AISI 316	–
105	5	WINDSHIELD SUPP. RING PL.	6 THK x ø416 O.D. x ø328 I.D.	AISI 316	–
106	1	WINDSHIELD & BIRD SCREEN SUPP. RING PL.	6 THK x ø416 O.D. x ø328 I.D. (SEE DETAIL)	AISI 316	–
107	8	NUT	M12	AISI 316	–
108	2	PERFORATED SHEET METAL	2 THK x 1491 LG. x 1314 (ROLL TO 420 O.D.)	AISI 316	–
109	1	PERFORATED SHEET METAL	2 THK x 973 LG. x 1314 (ROLL TO 420 O.D.)	AISI 316	–
110	1	PERFORATED SHEET METAL	2 THK x 139 LG. x 1314 (ROLL TO 420 O.D.)	AISI 316	–
111	1	PERFORATED SHEET METAL	2 THK x 375 LG. x 1314 (ROLL TO 420 O.D.)	AISI 316	–
112	1	BIRD SCREEN MTG. RING PL.	6 THK x ø416 O.D. x ø336 I.D. (SEE DETAIL)	AISI 316	–
113	1	BIRD SCREEN HOLDING SHELL	6 THK x 60 LG. x 1075 (ROLL TO 348 O.D.)	AISI 316	–
114	1	BIRD SCREEN STIFFENER RING	6 THK x 25 LG. x 1119 (ROLL TO 362 O.D.)	AISI 316	–
115	1	BIRD SCREEN	SQUARE STEEL NET WIRE, 1MM PITCH 10x10MM	AISI 316	–
116	8	HEX BOLT	M12 x 35 LG.	AISI 316	–
117	4	AWL SUPP.	UPN100 x 471 LG.	AISI 316	–
118	2	LIFTING LUG	10 THK x 90 x 145	AISI 316	–
119	2	CABLE TRAY SUPP.	L60x60x6 x 295 LG.	AISI 316	–
6	120	1	SPIRAL VENTURI SEAL	12"-SVS-9	AISI 316	–



NOTES

GENERAL NOTES :

1 – ALL DIMENSION ARE IN mm UNLESS OTHERWISE STATED.
2 – ALL ELEVATIONS ARE IN mm UNLESS OTHERWISE STATED.
3 – ALL WELDING SHALL BE CONTINUOS WITH CATHETUS EQUAL TO MINIMUN THK. TO BE WELDED.
4 – UNLESS OTHERWISE STATED, FLANGES WILL HAVE BOLT HOLES STRADDLING CENTERLINE.
5 – FOR SURFACE TREATMENT PLEASE REFER TO THE DOCUMENT NO. 1724000887-MAT-PRO-00010 (23-0193-0030).
6 – THE FACES OF FLANGES SHALL BE SMOOTH FINISH. SMOOTH FINISH SHALL BE ACHIEVED IN ACCORDANCE WITH ASME B16.5.
7 – FLANGE UP TO 24" SHALL COMPLY WITH ASME B16.5.
8 – REINFORCING PADS SHALL BE PROVIDED WITH ONE ¼" NPT TELLTALE HOLE. TWO-PIECE REINFORCING PADS SHALL BE PROVIDED WITH TWO TELLTALE HOLES (ONE PER SEGMENT). AFTER TESTING, THE TELLTALE HOLE SHALL BE PLUGGED. REINFORCING PADS SHALL NOT BE LOCATED ON THE WELDED SEAMS.
9 – GASKET SHALL BE STAINLESS STEEL, SPIRAL WOUND, GRAPHITE FILLED, EPOXY-COATED CARBON STEEL CENTERING RING AND STAINLESS STEEL INNER RING.
10 – WELDING FOR BIRD SCREEN (ITEM 114) SHALL BE DONE AFTER PROPER INSERTION OF ITEM 115 BETWEEN ITEM 113 AND 114
11 – RISER TOTAL NET WEIGHT: 3300 kg.
TIP TOTAL NET WEIGHT: 450 kg.
CABLE TRAY & ACCESSORIES NET WEIGHT: 90 kg.
PLATFORM & LADDER NET WEIGHT: 650 kg. (INCLUDING GRATING)
12 – BASE PLATE HOLE SHALL BE USED AS TAILING LUG FOR LIFTING OF RISER.
13 – SUITABLE CUTOUTS SHALL BE TAKEN INTO WINDSHIELD FOR WELDING OF AWL SUPPORT & CABLE TRAY SUPPORTS TO TIP SHELL.

HOLDS

ROSETTI MARINO

1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED

NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
Giuseppe Cavallo	21/11/24

THERMO ENGINEERING — AN ANSALDO ENERGIA COMPANY

ETE JOB 23-0193
ETE DWG NR. 23-0193-0131

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	06-11-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
02	08-10-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
01	05-09-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
00	02-08-2024	RJ	SCB	AL	ISSUED FOR INFORMATION

CROSSWIND

ROSETTI MARINO

TITLE :

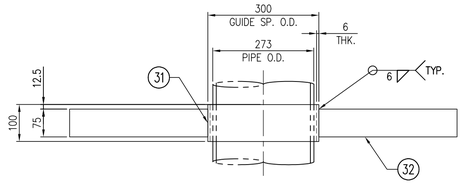
HYDROGEN VENT
DETAILED DRAWING WITH PART LIST

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:22	
DRAWN RJ	CHECKED SCB	APPROVED AL	DATE 02-08-24
A1	DRAWING NO. 1724000887-MAC-DD-00005	SHEET 001	REV. 03

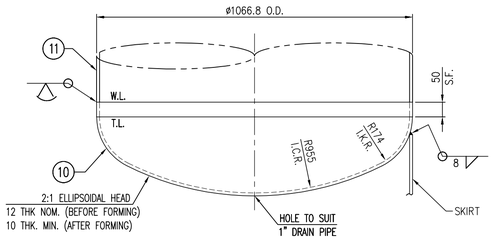
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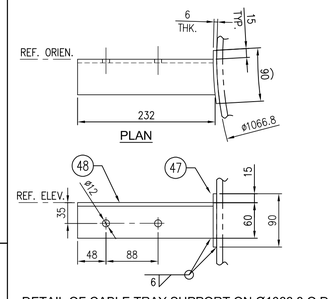
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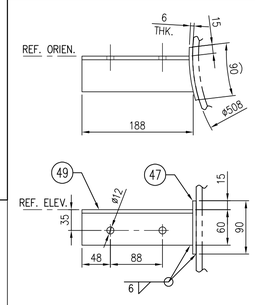
DETAIL OF GUIDE SUPPORT FOR NOZZ. "N1"



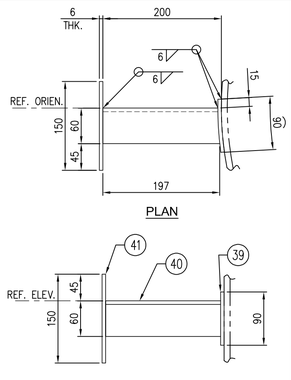
1066.8 O.D. DISH END DETAIL



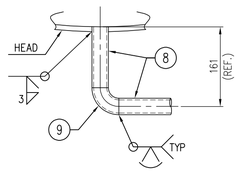
DETAIL OF CABLE TRAY SUPPORT ON Ø1066.8 O.D.



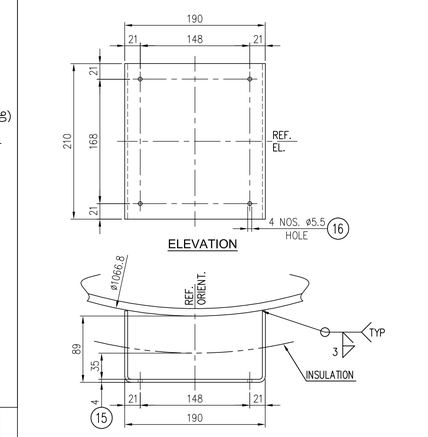
DETAIL OF CABLE TRAY SUPPORT ON Ø508 O.D.



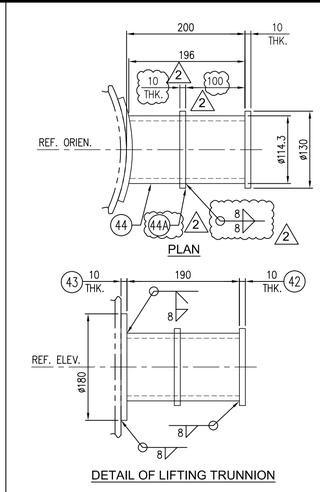
DETAIL OF HT. JB. SUPPORT



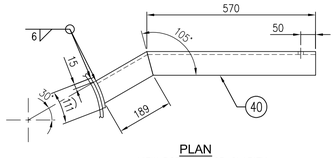
1" DRAIN DETAIL
SCALE 1:6



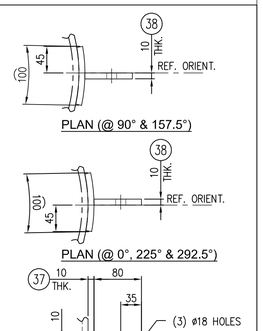
SCALE 1:4



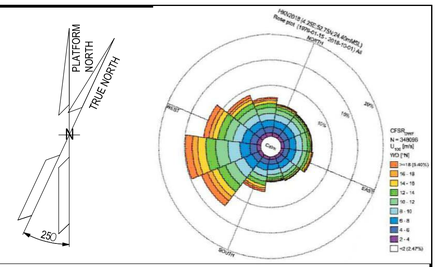
DETAIL OF LIFTING TRUNNION



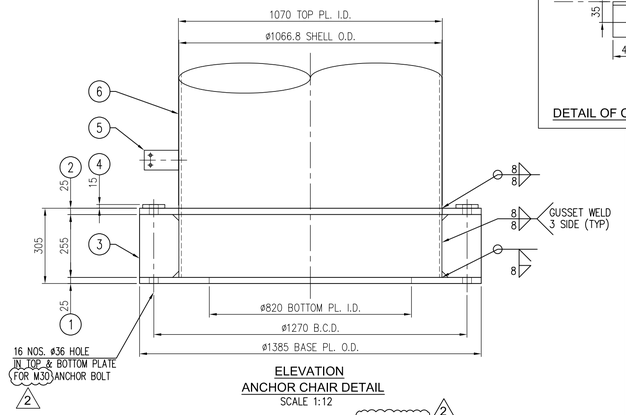
DETAIL OF LADDER SUPPORT



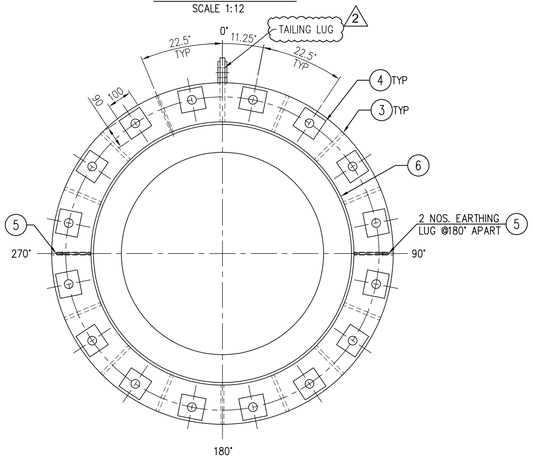
SCALE 1:5



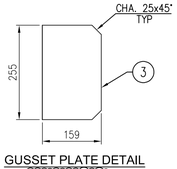
NOTES



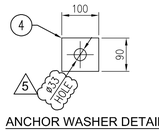
ELEVATION
ANCHOR CHAIR DETAIL
SCALE 1:12



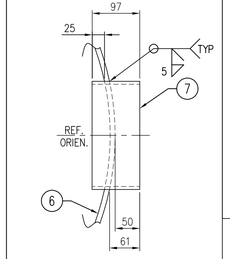
PLAN VIEW



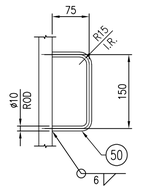
GUSSET PLATE DETAIL
(QTY. 15 REQ'D)
SCALE 1:8
2



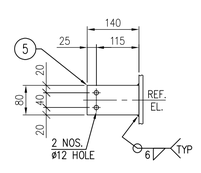
ANCHOR WASHER DETAIL
(QTY. 16 REQ'D)
SCALE 1:8



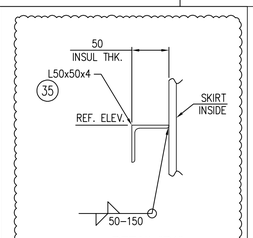
8" PIPE SLEEVE DETAIL
(FOR NOZZLE N2)
SCALE 1:6

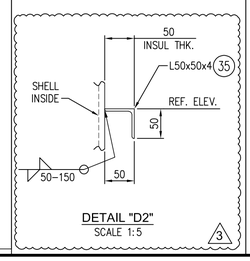


DETAIL OF HANDLE (HW)
SCALE 1:6



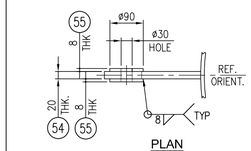
EARTHING LUG DETAIL
SCALE 1:8

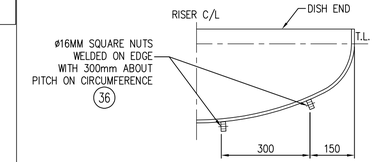




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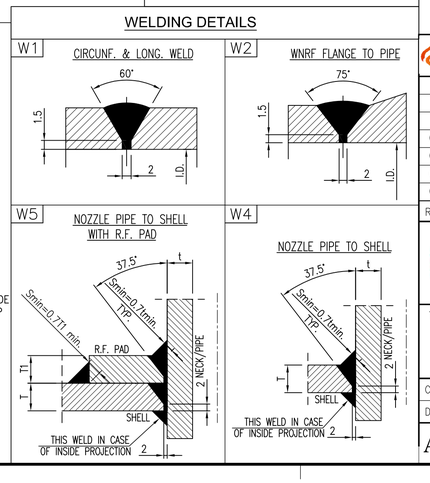
DELETED 3





DETAIL OF DISH END INSULATION SUPPORT
SCALE 1:4

WELDING DETAILS



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	06-11-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
02	08-10-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
01	05-09-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
00	02-08-2024	RJ	SCB	AL	ISSUED FOR INFORMATION

THERMO ENGINEERING — AN ENCONE COMBUSTION COMPANY

ETE JOB 23-0193

ETE DWG NR. 23-0193-0131

CROSSWIND

ROSETTI MARINO

TITLE :

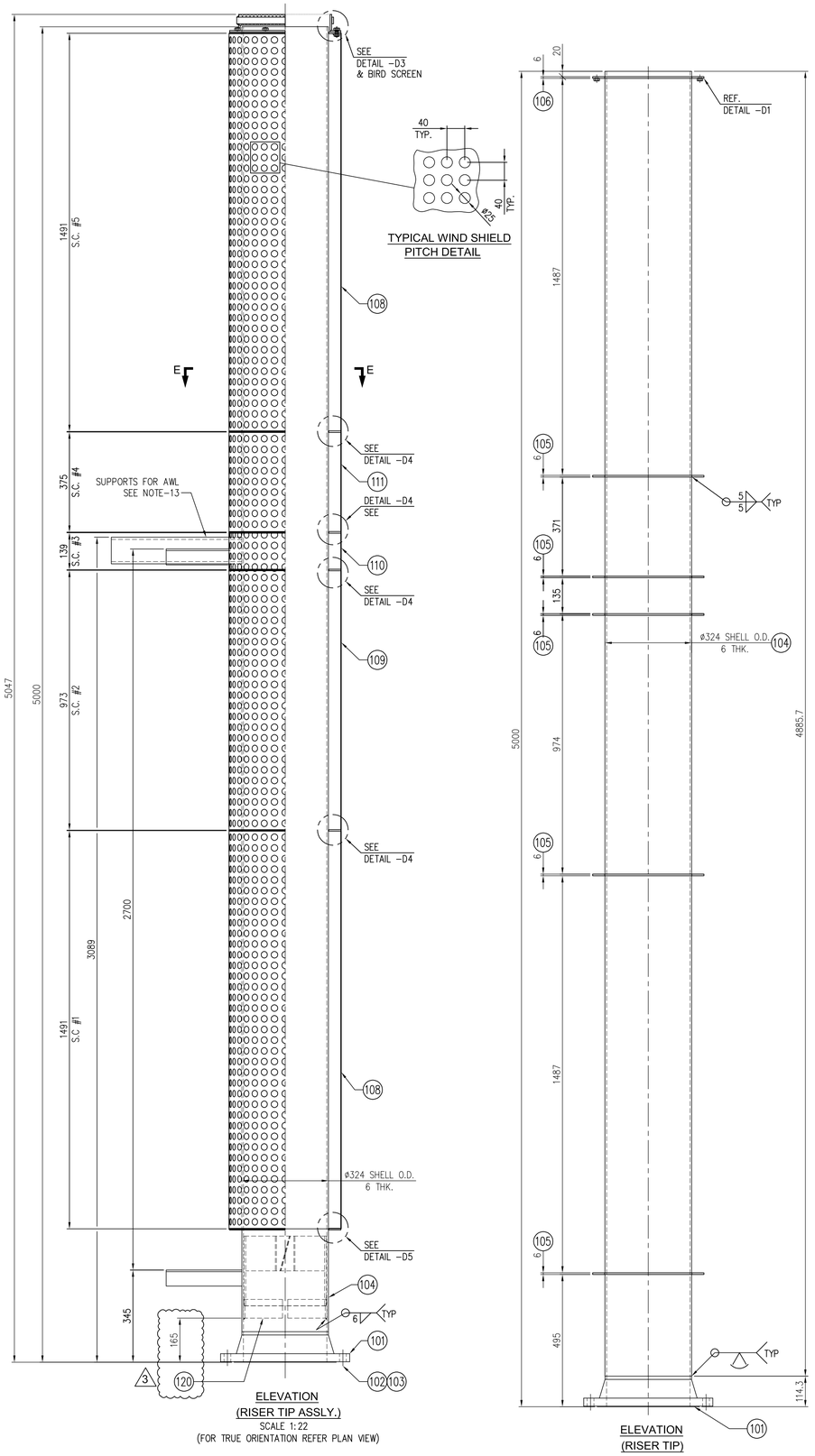
HYDROGEN VENT
DETAILED DRAWING WITH PART LIST

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1:22
DRAWN RJ	CHECKED SCB	APPROVED AL	DATE 02-08-24
A1	DRAWING NO. 1724000887-MAC-DD-00005	SHEET 002	REV. 03

File Name : 1724000887-MAC-DD-00005_03

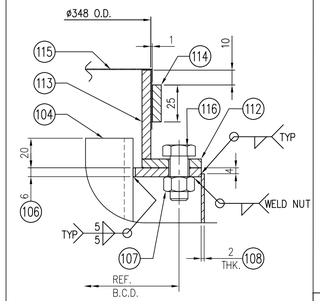
DRAWING NO. 1724000887-MAC-DD-00005_03

REV. 03

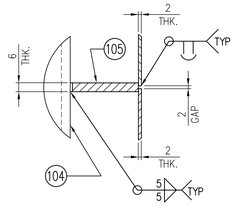


ELEVATION
(RISER TIP ASSLY.)
SCALE 1:22
(FOR TRUE ORIENTATION REFER PLAN VIEW)

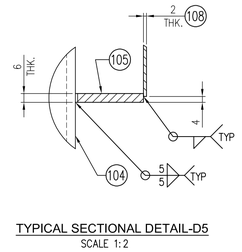
ELEVATION
(RISER TIP)



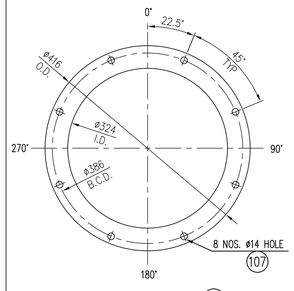
SECTIONAL DETAIL-D3
SCALE 1:2



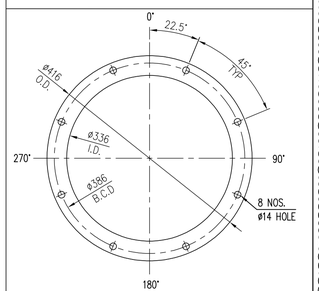
SECTIONAL DETAIL-D4
SCALE 1:2



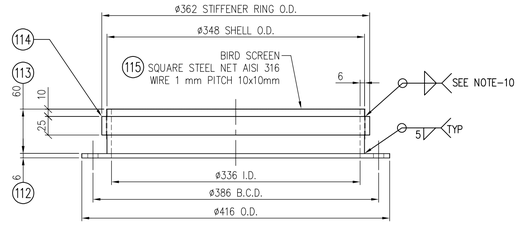
TYPICAL SECTIONAL DETAIL-D5
SCALE 1:2



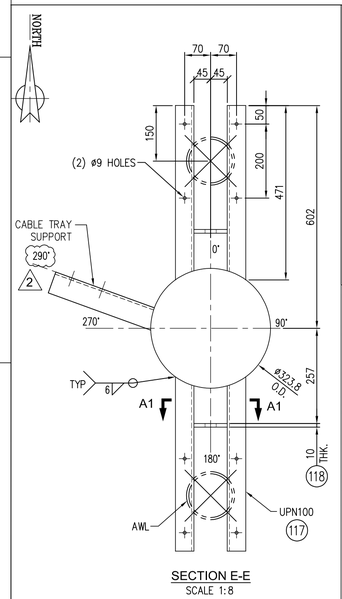
DETAIL OF ITEM (106)
SCALE 1:6



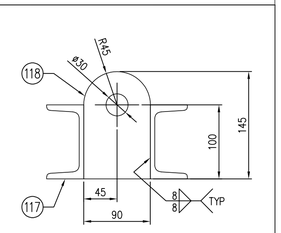
DETAIL OF ITEM (112)
SCALE 1:6



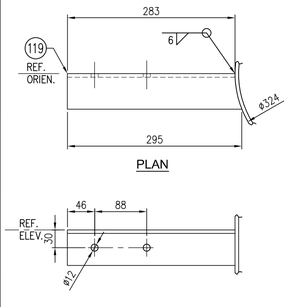
BIRD SCREEN ASSY. DETAIL
SCALE 1:4



SECTION E-E
SCALE 1:8

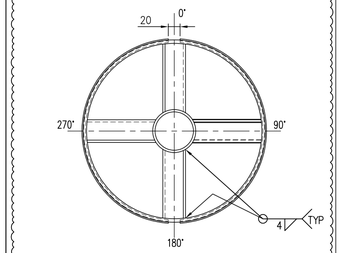


SECTION "A1-A1"
SCALE 1:4

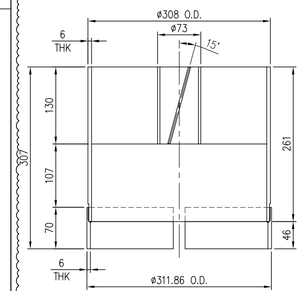


PLAN

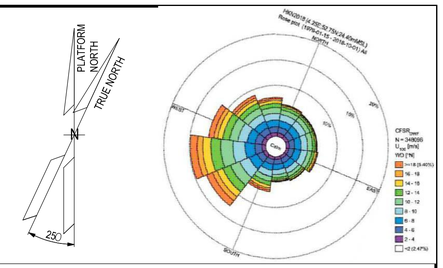
CABLE TRAY SUPPORT



PLAN VIEW



3 DETAIL OF VENTURI SEAL (120)
SCALE 1:6



NOTES

03	06-11-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
02	08-10-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
01	05-09-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
00	02-08-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

THERMO ENGINEERING — AN ENGIE COMPANY

ETE JOB 23-0193
ETE DWG NR. 23-0193-0131

CROSSWIND

ROSETTI MARINO

TITLE :

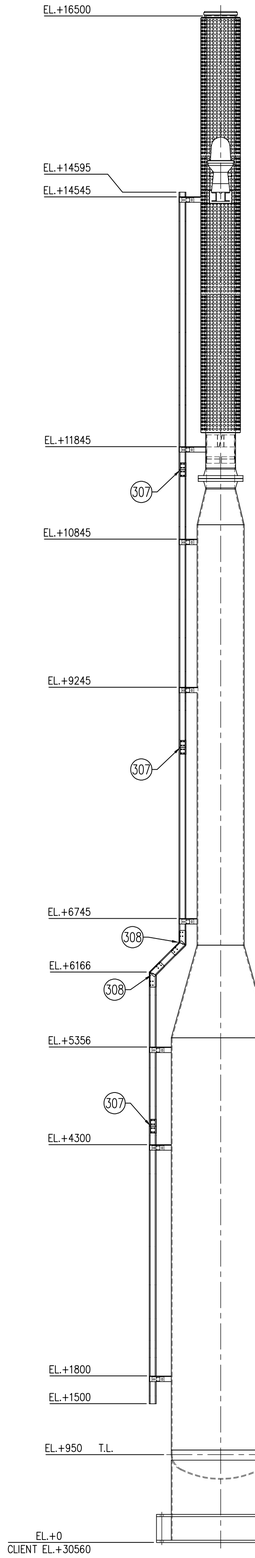
HYDROGEN VENT
DETAILED DRAWING WITH PART LIST

CONTRACT NO./TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:22
DRAWN RJ	CHECKED SCB	APPROVED AL	DATE 02-08-24
A1	DRAWING NO. 1724000887-MAC-DD-00005	SHEET 003	REV. 03

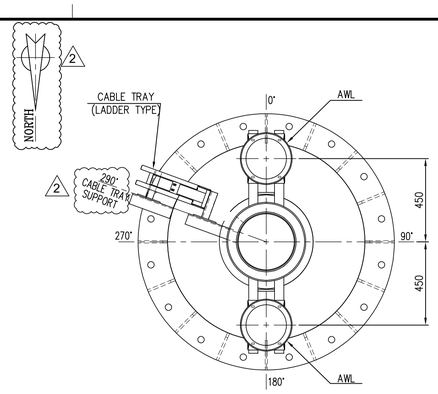
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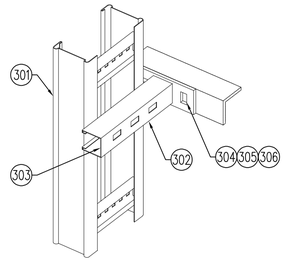
REV. 03



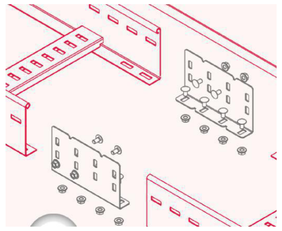
ELEVATION
SCALE 1:32
(REFER THIS VIEW ONLY FOR CABLE TRAY DETAIL)



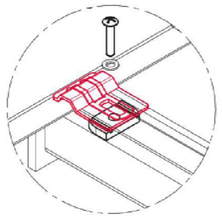
PLAN VIEW
SCALE 1:16
(REFER THIS VIEW ONLY FOR CABLE TRAY)



TYP. CABLE TRAY SUPPORT ARRANGEMENT



TYP. CABLE TRAY JOINT DETAIL
PART NO. 307,313,314



Profili e mensole / Channels and brackets:
UR1

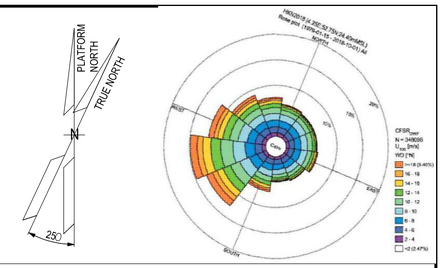
TYP. CABLE TRAY FIXING DETAILS
PART NO. 309,310,311,312



TYP. HINGE JOINT DETAIL
PART NO. 308,313,314

BILL OF MATERIAL (CABLE TRAY)

ITEM	QTY	DESCRIPTION	DIMENSION	MATERIAL
301	14 mtr	CABLE TRAY 100x75	(B2 Z 01B3C100HH10)	HOT DIP GALV.
302	8	58 UR1 SINGLE BRACKET	(A0 Z 58S7R100MU)	HOT DIP GALV.
303	16	PLUG FOR BRACKET FOR UR1	(A0 P 4TXXI040N)	LDPE
304	16	HEX. HEAD BOLT	M10 X 30LG.	CS (HDG)
305	16	HEX. HD. NUT	M10	CS (HDG)
306	16	WASHER	M10	CS (HDG)
307	8	CABLE TRAY JOINT	JOINT (B2 Z 60A4H025M)	HOT DIP GALV.
308	4	VERTICAL HINGE JOINT	(B2 Z 63A5H025M)	HOT DIP GALV.
309	16	NUT FOR CABLE TRAY	M8 (D0C25S08X40 Z)	HOT DIP GALV.
310	16	CABLE TRAY LOCKING DEVICE	(B2 X 84XXXO40M)	HOT DIP GALV.
311	16	WIDE CROWNED HEAD SCREW	M8 (D0C13L08X20 D)	HOT DIP GALV.
312	16	PLANE WASHER	M8 (D0C36S08X17 Z)	HOT DIP GALV.
313	160	ROUND HEAD SCREW WITH SQ. NECK	M6 (D0C10A06X15 E)	HOT DIP GALV.
314	160	FLANGED HEX. NUT	M6 (D0C16S06 E)	HOT DIP GALV.
315	14 mtr	SELF LOCKING COVER	100x15 (B2 Z 05Q3P100D)	HOT DIP GALV.
316	10	EARTHING BAR FOR COVERS EQUIPOTENTIAL CONNECTION W/2 NOS. M6 SCREW	(A3 R 62X1X015M)	HOT DIP GALV.



NOTES

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02	08-10-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
01	05-09-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
00	02-08-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

THERMO ENGINEERING — AN ARCADIS COMPANY

ETE JOB 23-0193
ETE DWG NR. 23-0193-0131

CROSSWIND

ROSETTI MARINO

TITLE :

HYDROGEN VENT
DETAILED DRAWING WITH PART LIST

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:22

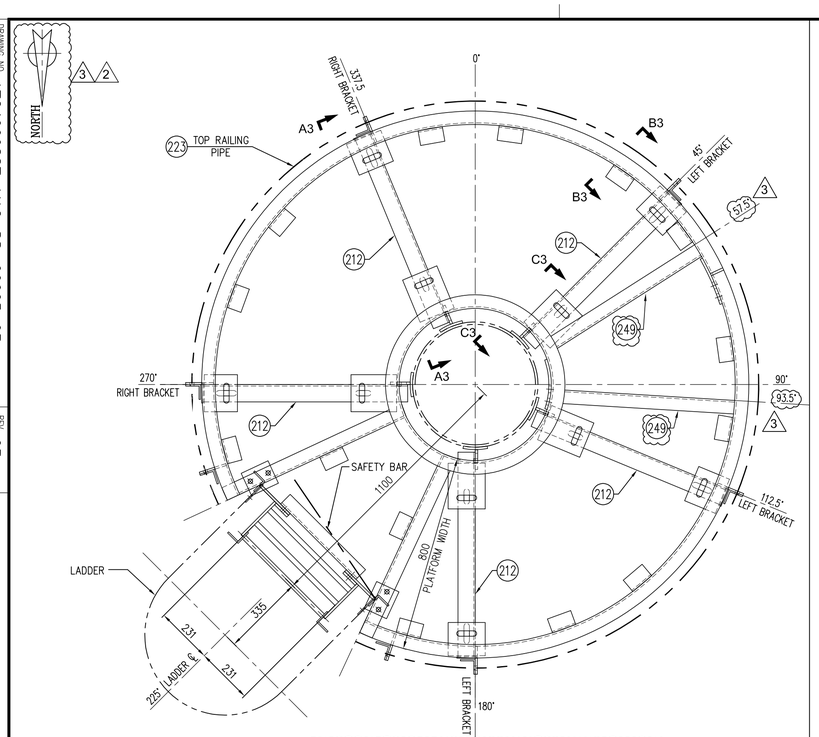
DRAWN RJ | CHECKED SCB | APPROVED AL | DATE 02-08-24

A1 | DRAWING NO. 1724000887-MAC-DD-00005 | SHEET 004 | REV. 03

File Name : 1724000887-MAC-DD-00005_03

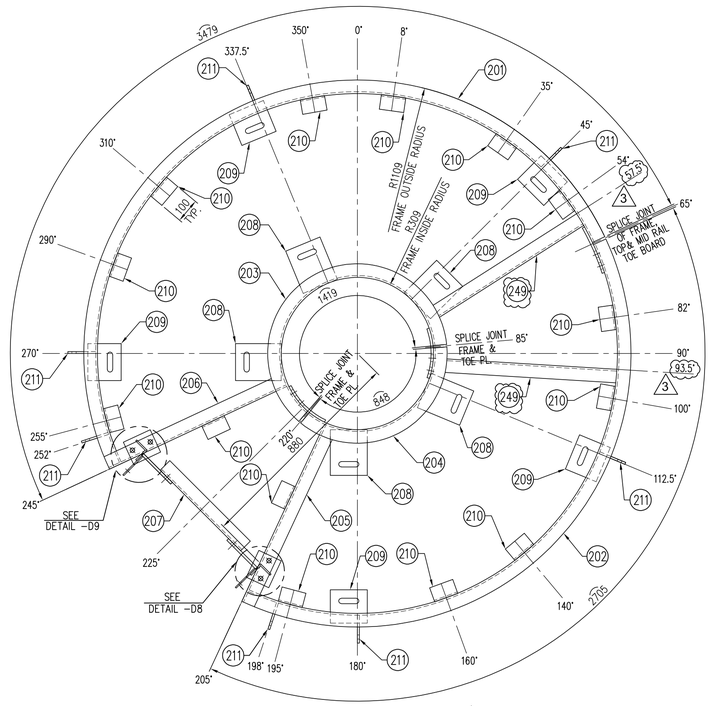
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REV. 03



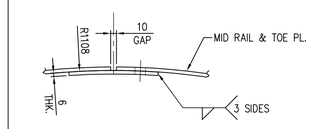
PLAN OF PLATFORM ASSEMBLY AT EL. +41060 (T.O.S.) 3/2

SCALE 1:12



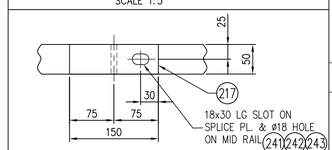
PLATFORM FRAME DETAIL 2

SCALE 1:12



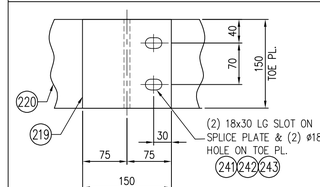
PLAN OF MID RAIL & TOE PL. SPLICE DETAIL

SCALE 1:5



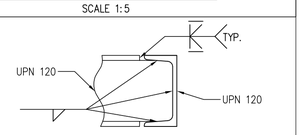
ELEVATION OF MID RAIL SPLICE DETAIL

SCALE 1:5



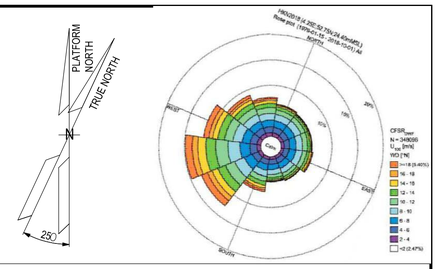
ELEVATION OF TOE PL. SPLICE DETAIL

SCALE 1:5



TYPICAL FRAME CONNECTION DETAIL

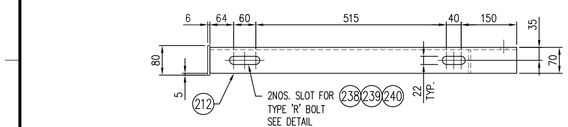
SCALE 1:5



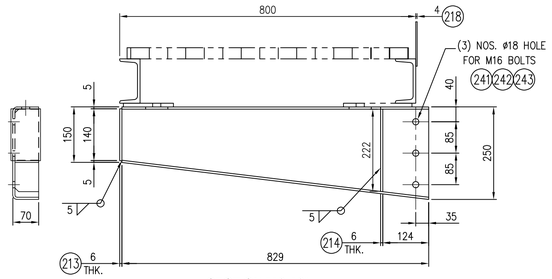
NOTES

GENERAL NOTES :

1 – ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
2 – ALL ELEVATIONS ARE IN mm UNLESS OTHERWISE STATED.
3 – BOLTS, NUTS AND WASHERS ARE HOT DIP GALVANIZED.
4 – DIMENSION "S" OF NON-DIMENSIONED FILLET WELDS SHALL AT LEAST BE EQUAL TO 0.8 TIMES THE MINIMUM THICKNESS OF THE SMALLEST ELEMENTS TO BE WELDED.
5 – ALL WELDS SHALL BE CONTINUOUS UNLESS OTHERWISE STATED.
6 – PAINTING CYCLES SHALL BE IN ACCORDANCE WITH DOCUMENT No.23-0193-0030.
7 – A SPARE OF 10% OF NUTS, BOLTS, WASHERS WILL BE SUPPLIED.
8 – No. OF SEPARATIONS OF GRATINGS SHALL BE VERIFIED BY MANUFACTURER.
9 – EACH PANEL OF GRATING WILL BE PROVIDED WITH A MINIMUM OF 4 GRATING CLAMPS.
10 – GRATINGS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM 123.
11 – STEEL ASTM A10011/A1011M GRADE 36 [250] TYPE 1 OR EUROPEAN EQUIVALENT (S235 JR EN 10025).
13 – PLATFORMS & LADDER TOTAL WEIGHT : 650 Kg (GRATINGS INCLUDED).

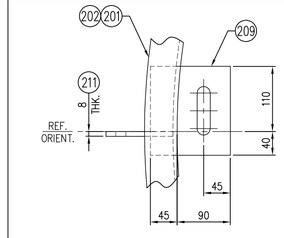


PLAN

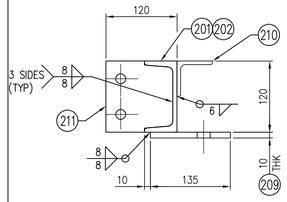


SECTION "A3-A3"
PLATFORM SUPPORT BRACKET DETAIL
3 NOS. LEFT BRACKET (OPPOSITE)
2 NOS. RIGHT BRACKET (AS SHOWN)

SCALE 1:8

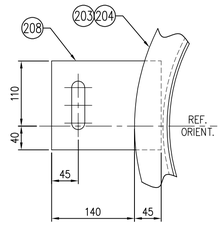


PLAN VIEW

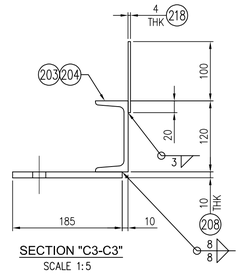


SECTION "B3-B3"

SCALE 1:5

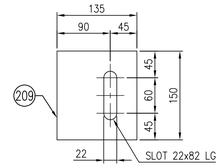


PLAN VIEW



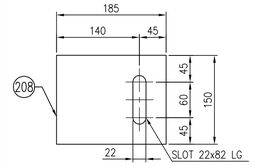
SECTION "C3-C3"

SCALE 1:5



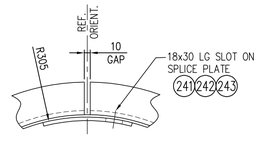
DETAIL OF PART NO. 209

SCALE 1:5

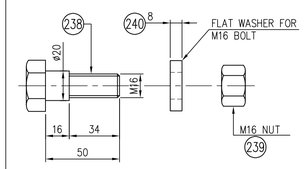


DETAIL OF PART NO. 208

SCALE 1:5

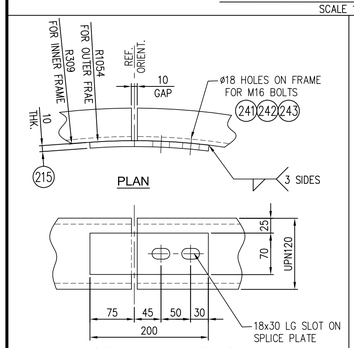


PLAN



BOLT TYPE 'R' DETAIL

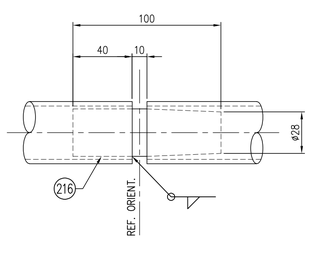
(SCALE 1:2)



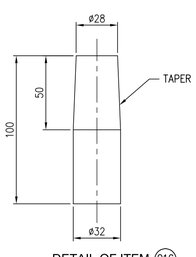
INNER & OUTER FRAME SPLICE DETAIL

(1 SPLICE @ EXTERNAL FRAME)
(2 SPLICE @ INTERNAL FRAME)

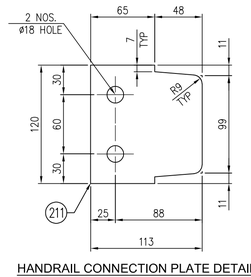
SCALE 1:5



TOP RAIL SPLICE DETAIL

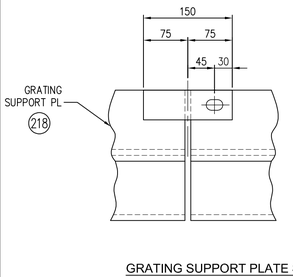


DETAIL OF ITEM 216



HANDRAIL CONNECTION PLATE DETAIL

SCALE 1:3

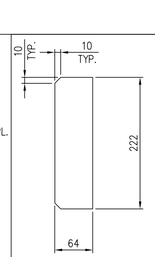


GRATING SUPPORT PLATE SPLICE DETAIL

(2 @ INTERNAL FRAME)

SCALE 1:5

SIDE VIEW



DETAIL OF PART NO. 214

SCALE 1:5

03	06-11-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
02	08-10-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
01	05-09-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
00	02-08-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

THERMO ENGINEERING — AN ENGIE THERMODYNAMICS COMPANY

ETE JOB 23-0193

ETE DWG NR. 23-0193-0131

CROSSWIND

ROSETTI MARINO

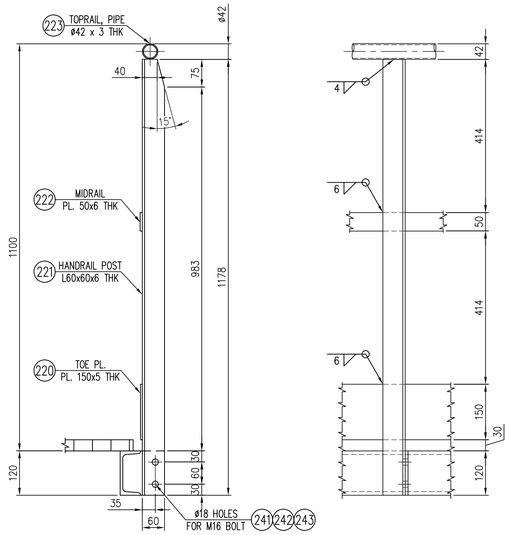
TITLE :

HYDROGEN VENT
DETAILED DRAWING WITH PART LIST

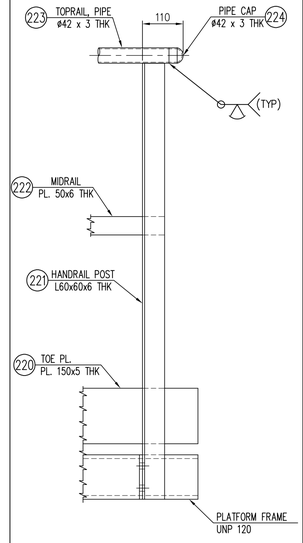
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:22
DRAWN RJ	CHECKED SCB	APPROVED AL	DATE 02-08-24
A1	DRAWING NO. 1724000887-MAC-DD-00005	SHEET 005	REV. 03

File Name : 1724000887-MAC-DD-00005_03

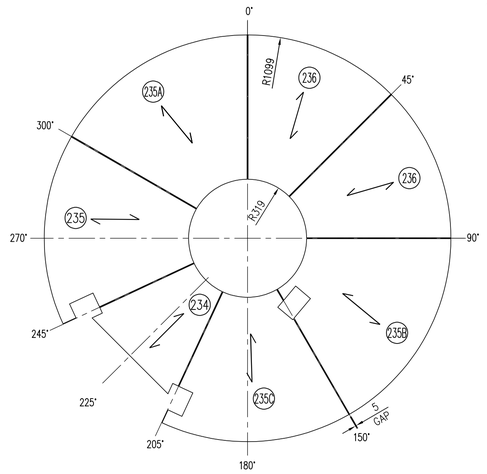
DRAWING NO. 1724000887-MAC-DD-00005_03 REV. 03



TYPICAL HANDRAIL DETAIL
(TYP. @ 5 PLCS.)
SCALE 1:8



TYPICAL HANDRAIL END DETAIL
(TYP. @ 2 PLCS.)
SCALE 1:8

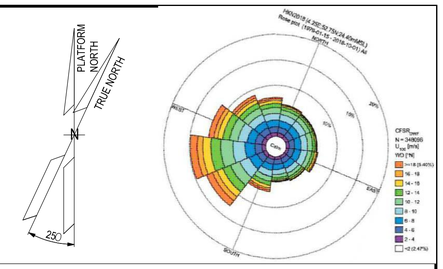


GRATING FOR PLATFORM DETAIL
(SCALE 1:16)

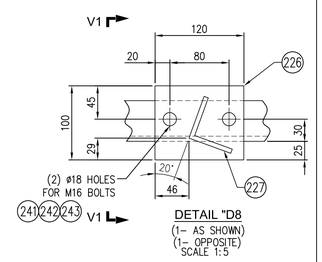
1

BILL OF MATERIAL (PLATFORM)

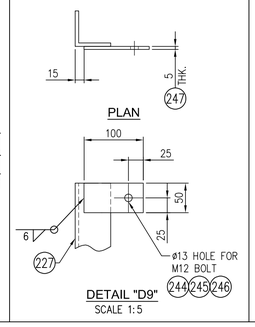
ITEM	QTY	DESCRIPTION	DIMENSION	MATERIAL
201	1	PLATFORM FRAME	UPN 120 x 3479 LG.	EN10025 S275 J0
202	1	PLATFORM FRAME	UPN 120 x 2705 LG.	EN10025 S275 J0
203	1	PLATFORM FRAME	UPN 120 x 1419 LG.	EN10025 S275 J0
204	1	PLATFORM FRAME	UPN 120 x 848 LG.	EN10025 S275 J0
205	1	PLATFORM FRAME	UPN 120 x 793 LG.	EN10025 S275 J0
206	1	PLATFORM FRAME	UPN 120 x 793 LG.	EN10025 S275 J0
207	1	PLATFORM FRAME	UPN 120 x 462 LG.	EN10025 S275 J0
208	5	CONNECTION PLATE (BRACKET)	10 THK x 185 x 150	EN10025 S275 J0
209	5	CONNECTION PLATE (BRACKET)	10 THK x 135 x 150	EN10025 S275 J0
210	14	GRATING SUPP. ANGLE	60 x 60 x 6 THK x 100 LG.	EN10025 S275 J0
211	7	CONNECTION PLATE (HANDRAIL POST)	8 THK x 113 x 120 LG.	EN10025 S275 J0
212	3R+2L	SUPPORT BRACKET	6 THK x 829 LG. (SEE DETAIL)	EN10025 S275 J0
213	5	BRACKET END PLATE	6 THK x 80 x 140 LG.	EN10025 S275 J0
214	5	BRACKET GUSSET	6 THK x 64 x 222 LG.	EN10025 S275 J0
215	1EX/2IN	SPLICE PL. (INNER/OUTER FRAME)	6 THK x 70 x 200 LG.	EN10025 S275 J0
216	1	SPLICE PL. (TOP RAIL)	ø32 ROD x 100 LG.	EN10025 S275 J0
217	3	SPLICE PL. (GRATING SUPP. PL.& MIDRAIL)	6 THK x 50 x 150 LG.	EN10025 S275 J0
218	1	GRATING SUPP. PL.	4 THK x 120 x 1950 LG.	EN10025 S275 J0
219	1	SPLICE PL. (TOE PLATE)	6 THK x 150 x 150 LG.	EN10025 S275 J0
220	1	TOE PLATE	5 THK x 150 x 7300 LG. (CUT TO SUIT)	EN10025 S275 J0
221	7	HANDRAIL POST	60 x 60 x 6 THK x 1178 LG.	EN10025 S275 J0
222	1	MID RAIL	6 THK x 50 x 7300 LG.	EN10025 S275 J0
223	1	TOP RAIL	ø42 x 3 THK x 7500 LG.	EN10025 S275 J0
224	2	TOP RAIL PIPE CAP	ø1.1/4" (42) x 3 THK, ASME B16.9	CS
225	2	PLATFORM STEP OVER SUPP. CLIP	10 THK x 120 x 167 LG.	EN10025 S275 J0
226	2	SAFETY GATE HANDRAIL BASE PL.	10 THK x 100 x 120 LG.	EN10025 S275 J0
227	2	SAFETY GATE HANDRAIL	60 x 60 x 6 THK x 1090 LG.	EN10025 S275 J0
228	1	PIPE (SAFETY BAR)	ø1" (33.4) x SCH.STD x 800 LG.	EN10025 S275 J0
229	1	PIPE (SAFETY BAR)	ø1" (33.4) x SCH.STD x 70 LG.	EN10025 S275 J0
230	1	PIPE (SAFETY BAR)	ø1" (33.4) x SCH.STD x 122 LG.	EN10025 S275 J0
231	2	END PLATE	3 THK x ø27	EN10025 S275 J0
232	1	ROD	ø22 x 125 LG.	EN10025 S275 J0
233	1	STOP PLATE	6 THK x 40 x 250 LG.	EN10025 S275 J0
234	1	GRATING	MESH 30x50, PL.30x5 THK, 0.26~ M² (IN 1 PANELS)	SEE NOTE,8,9,10,11
235	1	GRATING	MESH 30x50, PL.30x5 THK, 0.51~ M² (IN 1 PANELS)	SEE NOTE,8,9,10,11
235A	1	GRATING	MESH 30x50, PL.30x5 THK, 0.56~ M² (IN 1 PANELS)	SEE NOTE,8,9,10,11
235B	1	GRATING	MESH 30x50, PL.30x5 THK, 0.56~ M² (IN 1 PANELS)	SEE NOTE,8,9,10,11
235C	1	GRATING	MESH 30x50, PL.30x5 THK, 0.51~ M² (IN 1 PANELS)	SEE NOTE,8,9,10,11
236	2	GRATING	MESH 30x50, PL.30x5 THK, 0.42~ M² (IN 2 PANELS)	SEE NOTE,8,9,10,11
236A		DELETED		
237	32	GRATING FIXING CLAMPS	STAPLE & CLAMP, WITH M8 x 60LG. HEX. HED. BOLT + 2 SQ. NUT (SEE DETAIL)	CS
238	10	BOLT TYPE 'R' (SEE DETAIL)	M16 x 50 LG.	8.8
239	10	HEX. HEAD NUT	M16 (H=D)	8
240	10	WASHER	8 THK FOR M16 BOLT	CS
241	46	HEX. HEAD BOLT	M16 x 50 LG.	8.8
242	46	HEX. HEAD NUT	M16 (H=D)	8
243	46	FLAT WASHER	M16	CS
244	2	HEX. HEAD BOLT	M12 x 40 LG.	8.8
245	2	HEX. HEAD NUT	M12 (H=D)	8
246	2	FLAT WASHER	M12	CS
247	2	LADDER CLIP	6 THK x 50 x 100	EN10025 S275 J0
248	1	BANDING PLATE	3 THK x 185 x 1500 LG. (CUT TO SUIT)	EN10025 S275 J0
3 249	2	PLATFORM FRAME	UPN 120 x 690 LG.	EN10025 S275 J0



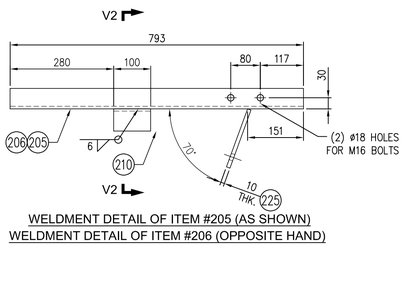
NOTES



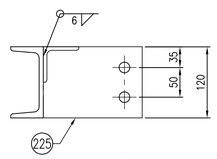
DETAIL "D8"
(1– AS SHOWN)
(1– OPPOSITE)
SCALE 1:5



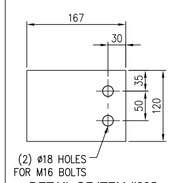
DETAIL "D9"
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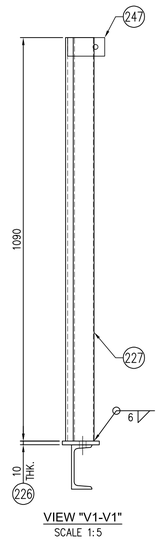
WELDMENT DETAIL OF ITEM #205 (AS SHOWN)
WELDMENT DETAIL OF ITEM #206 (OPPOSITE HAND)



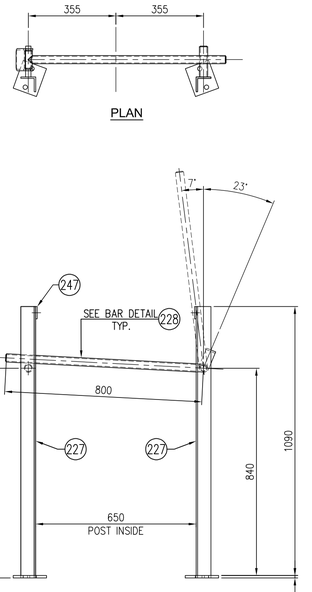
VIEW "V2-V2"
SCALE 1:5



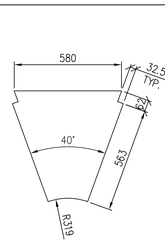
DETAIL OF ITEM #225
SCALE 1:5



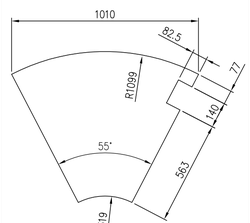
VIEW "V1-V1"
SCALE 1:5



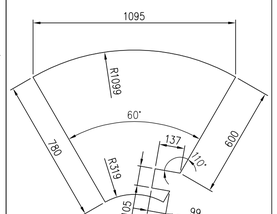
ELEVATION
SAFETY BAR TYPICAL DETAIL



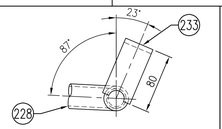
DETAIL OF ITEM #234
(SCALE 1:16)



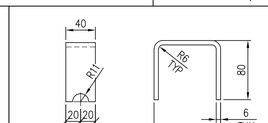
DETAIL OF ITEM #235
(SCALE 1:16)



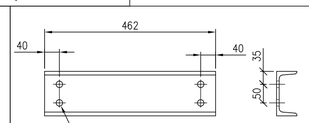
DETAIL OF ITEM #235B
(SCALE 1:16)



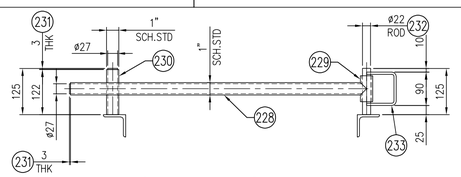
SAFETY BAR TYPICAL DETAIL



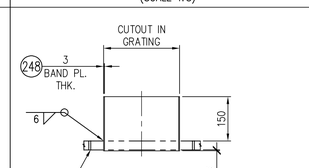
DETAIL PART 233



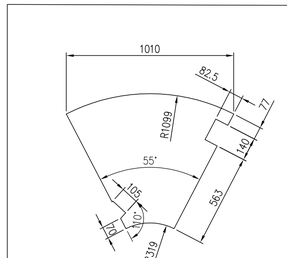
DETAIL OF ITEM #207
(SCALE 1:8)



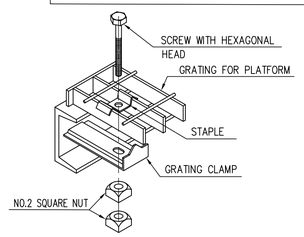
SAFETY BAR TYPICAL DETAIL



TYPICAL CUTOUT BANDING DETAIL



DETAIL OF ITEM #235C
(SCALE 1:16)



GRATING CLAMPS DETAIL 237
MINIMUM No.4 ANCHORS FOR EACH PANEL

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	06-11-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
02	08-10-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
01	05-09-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
00	02-08-2024	RJ	SCB	AL	ISSUED FOR INFORMATION

THERMO ENGINEERING — AN ENGLOBE CORPORATION COMPANY

ETE JOB 23-0193
ETE DWG NR. 23-0193-0131

CROSSWIND

ROSETTI MARINO

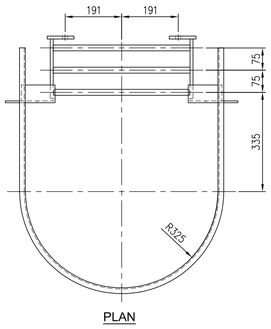
TITLE :
HYDROGEN VENT
DETAILED DRAWING WITH PART LIST

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE 1:22
DRAWN RJ | CHECKED SCB | APPROVED AL | DATE 07-08-24
A1 | DRAWING NO. 1724000887-MAC-DD-00005 | SHEET 006 | REV. 03

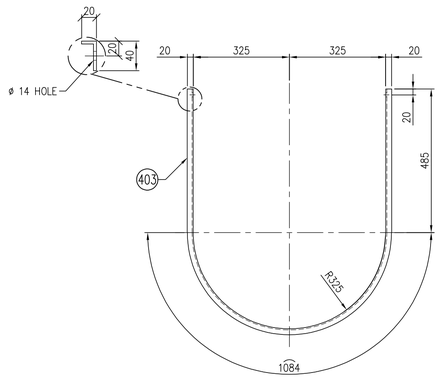
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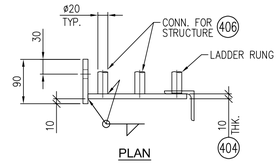
REV. 03



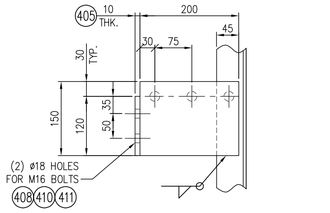
PLAN



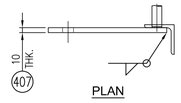
SECTION "A4-A4"



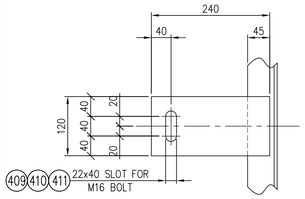
PLAN



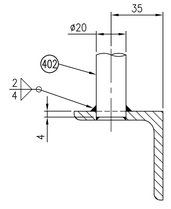
DETAIL #1



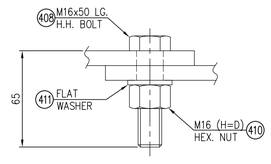
PLAN



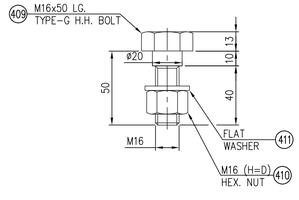
DETAIL #2



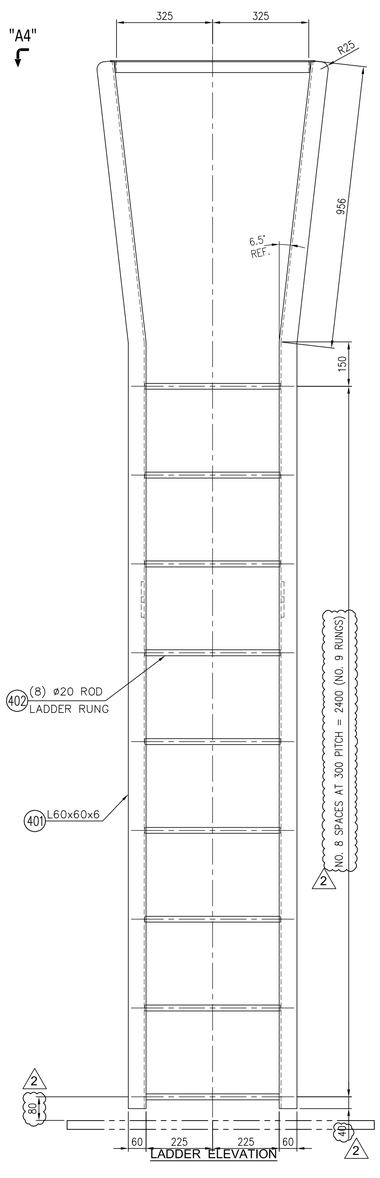
RUNGS WELDING DETAIL



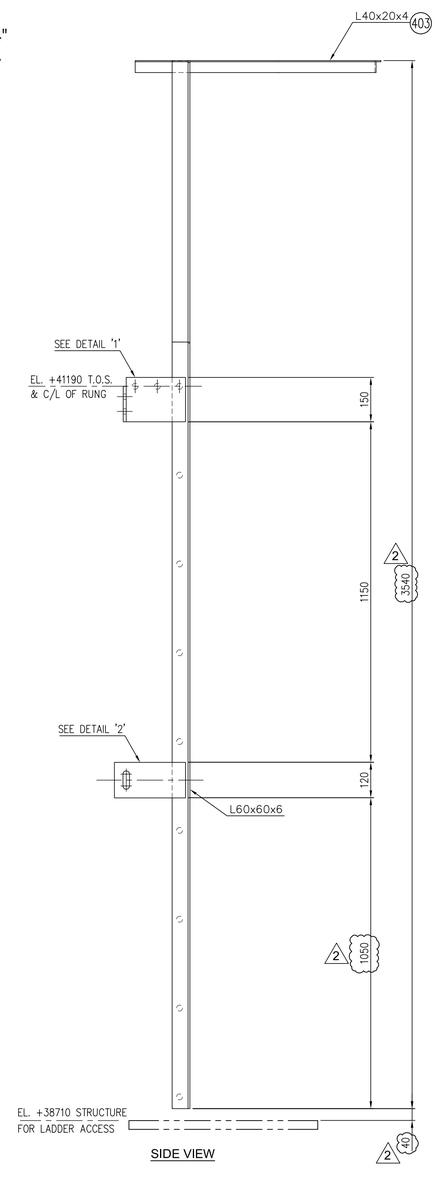
FIXED CLIP FIXING DETAIL



SLIDING CLIP FIXING DETAIL
(TYPE G BOLT)

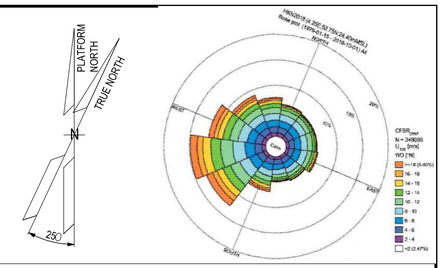


LADDER ELEVATION



SIDE VIEW

BILL OF MATERIAL (LADDER)				
ITEM	QTY	DESCRIPTION	DIMENSION	MATERIAL
401	2	LADDER STRINGER	L 60x60x6 x 3540 LG.	S275 J0
402	9	LADDER RUNG	ROD ø20 x 458 LG.	S275 J0
403	1	TOP HOOP	L 40x20x4 x 2055 LG.	S275 J0
404	2	LADDER CLIP (FIXED)	10 THK x 150 x 200 LG.	S275 J0
405	2	LADDER CLIP (FIXED)	10 THK x 90 x 120 LG.	S275 J0
406	2	CONN. STRUCT. RUNG	ROD ø20 x 462 LG.	S275 J0
407	2	LADDER CLIP (SLIDING)	10 THK x 120 x 240 LG.	S275 J0
408	4	HEXAGONAL HEAD BOLTS	M16 x 50 LG.	8.8
409	2	TYPE-G HEXAGONAL HEAD BOLTS (SEE DETAIL)	M16 x 65 LG.	8.8
410	6	HEXAGONAL NUTS	M16 (H=D)	8
411	6	FLAT WASHER	FOR M16 BOLT	CARBON STEEL



NOTES

03	06-11-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
02	08-10-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
01	05-09-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
00	02-08-2024	RJ	SCB	AL	ISSUED FOR INFORMATION
REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

THERMO ENGINEERING — AN ENCORE COMBUSTION COMPANY

ETE JOB 23-0193

ETE DWG NR. 23-0193-0131

CROSSWIND

ROSETTI MARINO

TITLE :

HYDROGEN VENT
DETAILED DRAWING WITH PART LIST

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:22

DRAWN RJ | CHECKED SCB | APPROVED AL | DATE 02-08-24

A1 | DRAWING NO. 1724000887-MAC-DD-00005 | SHEET 007 | REV. 03

File Name : 1724000887-MAC-DD-00005_03