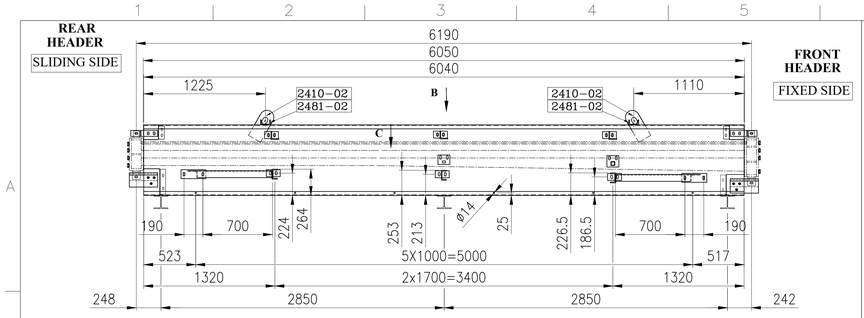
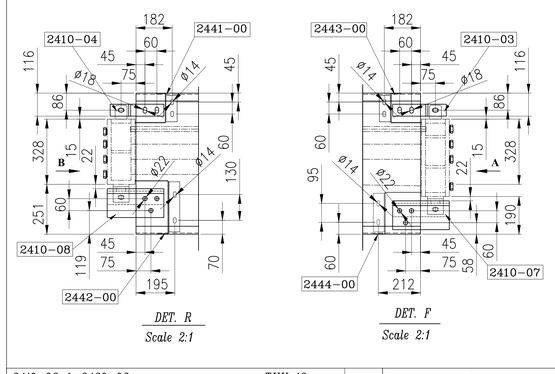
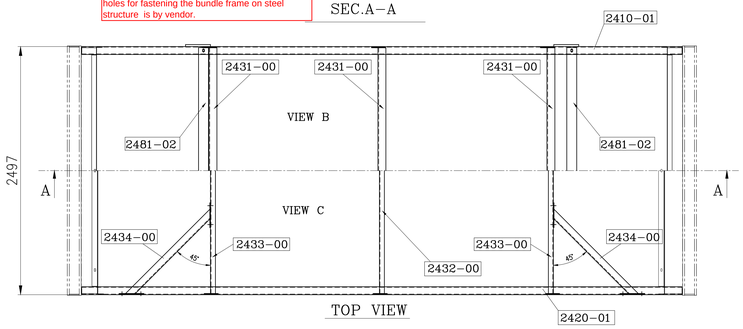
Approved as noted

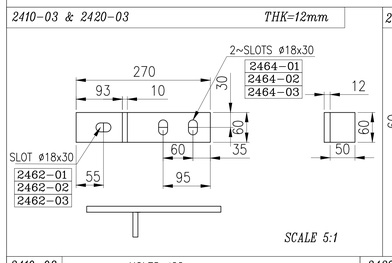


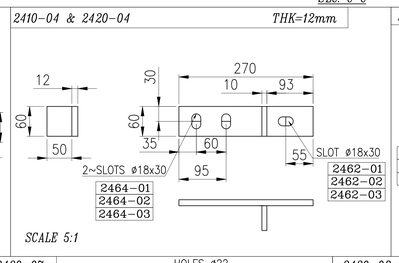
Compatibility between location and size of bolt holes for fastening the bundle frame on steel structure is by vendor.

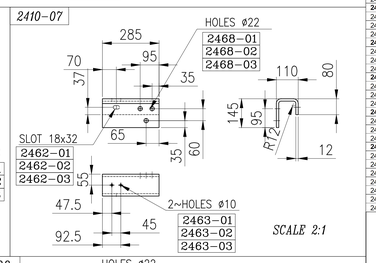
TOP ON LAST PASS
SEC.A-A

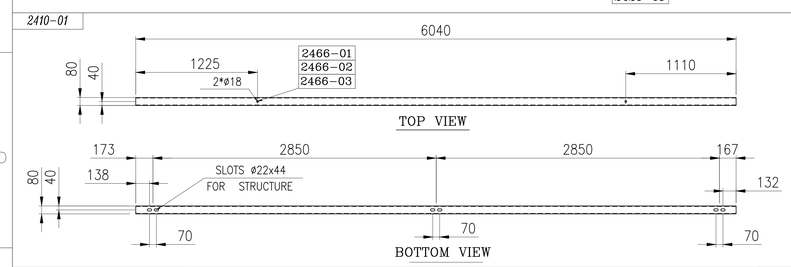


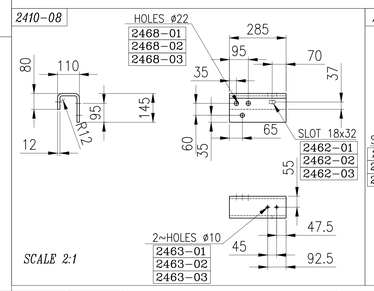


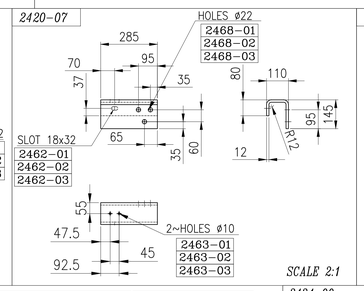


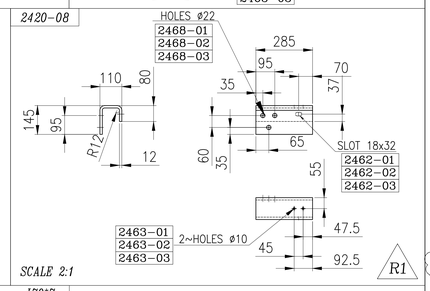


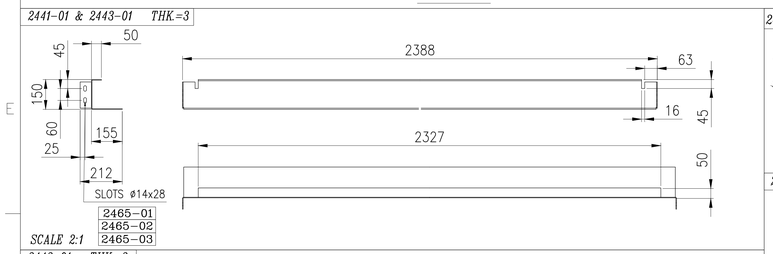


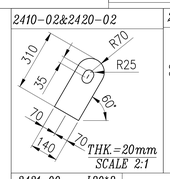


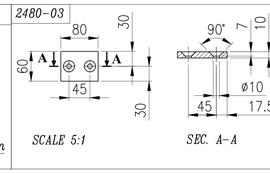


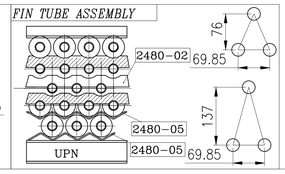


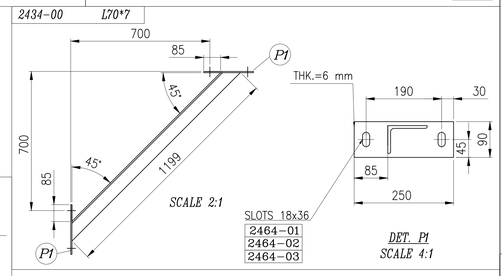


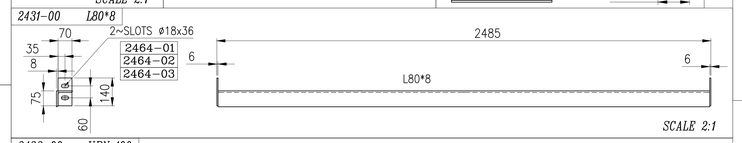


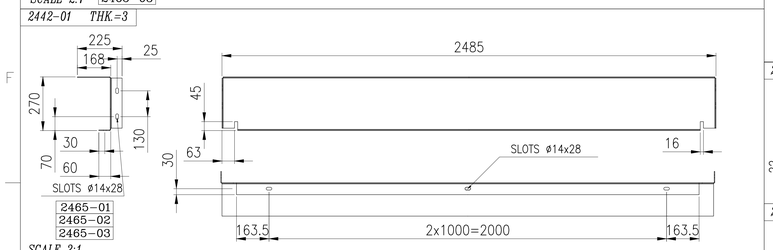


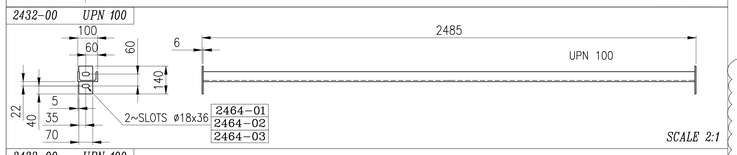


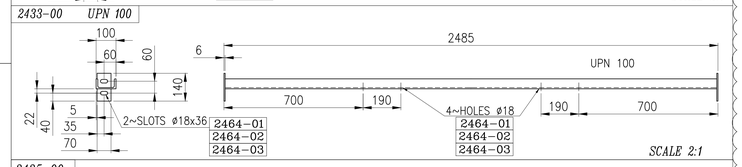


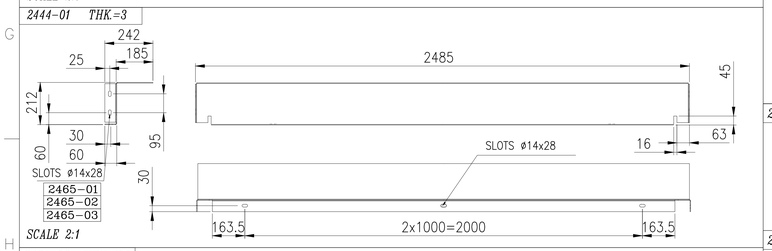


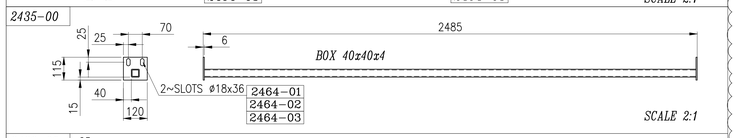


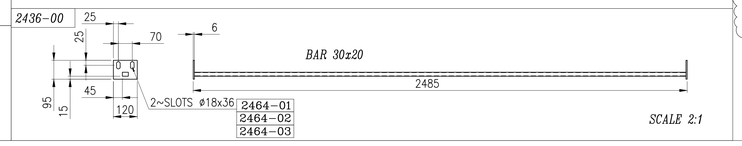


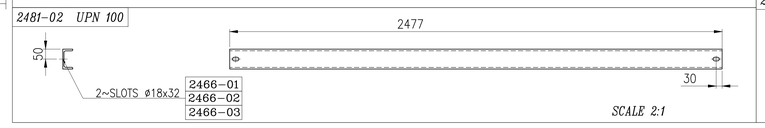


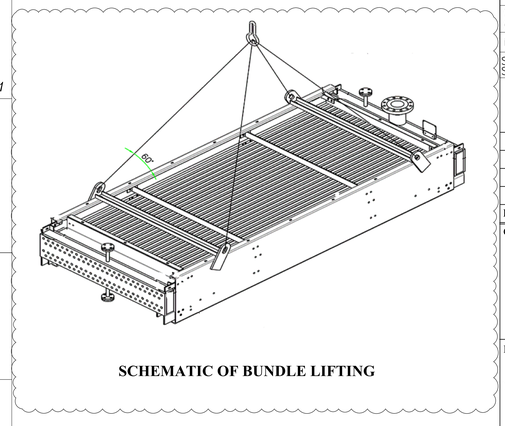












SCHEMATIC OF BUNDLE LIFTING

PART NO.	DESCRIBTION	DIMENSIONS DIA. (mm)	LENGTH (mm)	WIDTH (mm)	THK. (mm)	MATERIAL	QTY.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	STD DWG.	REV.
2400-00	***BUNDLE FRAME INCLIDING :***	-	-	-	-	-	**2**	***1091***	***2181***	-	-
2410-00	***LEFT SIDE INCLIDING :***	-	-	-	-	-	-	***289***	-	-	-
2410-01	PLATE	-	6040	902	6	ST-37(GALV.)	1	257	257	-	-
2410-02	PLATE (LIFTING LUG)	-	310	140	20	ST-37(GALV.)	2	7	14	-	-
2410-03	FRONT TRANSPORTATION HEADER SUPPORT (ASSEMBLY)	-	270	60	12	ST-37(GALV.)	1	2	2	-	-
2410-04	REAR TRANSPORTATION HEADER SUPPORT (ASSEMBLY)	-	270	60	12	ST-37(GALV.)	1	2	2	-	-
2410-07	FRONT HEADER SUPPORT	-	285	287	12	ST-37(GALV.)	1	8	8	-	-
2410-08	REAR HEADER SUPPORT	-	285	287	12	ST-37(GALV.)	1	8	8	-	-
2420-00	***RIGHT SIDE INCLIDING :***	-	-	-	-	-	-	***289***	-	-	-
2420-01	PLATE	-	6040	902	6	ST-37(GALV.)	1	257	257	-	-
2420-02	PLATE (LIFTING LUG)	-	310	140	20	ST-37(GALV.)	2	7	14	-	-
2420-03	FRONT TRANSPORTATION HEADER SUPPORT (ASSEMBLY)	-	270	60	12	ST-37(GALV.)	1	2	2	-	-
2420-04	REAR TRANSPORTATION HEADER SUPPORT (ASSEMBLY)	-	270	60	12	ST-37(GALV.)	1	2	2	-	-
2420-07	FRONT HEADER SUPPORT	-	285	287	12	ST-37(GALV.)	1	8	8	-	-
2420-08	REAR HEADER SUPPORT	-	285	287	12	ST-37(GALV.)	1	8	8	-	-
2430-00	***CROSSPIECES INCLIDING :***	-	-	-	-	-	-	***320***	-	-	-
2431-00	BRACED SUPPORT ANGLE(ASSEMBLY)(L80X8)	-	2485	-	-	ST-37(GALV.)	3	25	75	-	-
2432-00	UPN 100 (ASSEMBLY)	-	2485	-	-	ST-37(GALV.)	1	62	62	-	-
2433-00	UPN 100 (ASSEMBLY)	-	2485	-	-	ST-37(GALV.)	2	62	125	-	-
2434-00	L 70x7 (ASSEMBLY)	-	1199	-	-	ST-37(GALV.)	4	14	58	-	-
2440-00	***AIR SEAL INCLIDING :***	-	-	-	-	-	-	***125***	-	-	-
2441-01	REAR UPPER AIR SEAL	-	2593	343	3	ST-37(GALV.)	1	21	21	-	-
2442-01	REAR LOWER AIR SEAL	-	2593	486	3	ST-37(GALV.)	1	30	30	-	-
2443-01	FRONT UPPER AIR SEAL	-	2593	343	3	ST-37(GALV.)	1	21	21	-	-
2444-01	FRONT LOWER AIR SEAL	-	2593	445	3	ST-37(GALV.)	1	27	27	-	-
2435-00	BOX 40x40x4	-	2593	-	-	ST-37(GALV.)	1	14	14	-	-
2436-00	FLAT 30x20	-	2593	-	-	ST-37(GALV.)	1	12	12	-	-
2460-00	***BOLTS & NUTS INCLIDING :***	-	-	-	-	-	-	-	-	-	-
2462-00	**BOLTS & NUTS FOR FIXING HEADER & TRANSPORTATION :**	-	-	-	-	-	-	-	-	-	-
2462-01	BOLT	M16	70	-	-	DIN933-8 8 (DACROMET)	8	-	-	-	-
2462-02	NUT	M16	-	-	-	DIN934-8 (DACROMET)	8	-	-	-	-
2462-03	WASHER FOR BOLT	A17	-	-	-	DIN125-St. (DACROMET)	32	-	-	-	-
2463-00	**SCREWS & NUTS FOR TEFLON CALE :**	-	-	-	-	-	-	-	-	-	-
2463-01	SCREW	M8	40	-	-	DIN7991-8.8 / 10.9(GALV.)	8	-	-	-	-
2463-02	NUT	M8	-	-	-	DIN934-8 (DACROMET)	8	-	-	-	-
2463-03	WASHER FOR BOLT	A8.4	-	-	-	DIN125-St. (DACROMET)	8	-	-	-	-
2464-00	**BOLTS & NUTS FOR CROSS PIECE TO BUNDLE FRAME :**	-	-	-	-	-	-	-	-	-	-
2464-01	BOLT	M16	40	-	-	DIN933-8 8 (DACROMET)	56	-	-	-	-
2464-02	NUT	M16	-	-	-	DIN934-8 (DACROMET)	56	-	-	-	-
2464-03	WASHER FOR BOLT	A17	-	-	-	DIN125-St. (DACROMET)	112	-	-	-	-
2465-00	**BOLTS & NUTS FOR AIR SEAL :**	-	-	-	-	-	-	-	-	-	-
2465-01	BOLT	M12	40	-	-	DIN933-8 8 (DACROMET)	22	-	-	-	-
2465-02	NUT	M12	-	-	-	DIN934-8 (DACROMET)	22	-	-	-	-
2465-03	WASHER FOR BOLT	A13	-	-	-	DIN125-St. (DACROMET)	44	-	-	-	-
2466-00	**BOLTS & NUTS FOR FIXING BRACE TO BUNDLE FRAME :**	-	-	-	-	-	-	-	-	-	-
2466-01	BOLT	M16	40	-	-	DIN933-8 8 (DACROMET)	4	-	-	-	-
2466-02	NUT	M16	-	-	-	DIN934-8 (DACROMET)	4	-	-	-	-
2466-03	WASHER FOR BOLT	A17	-	-	-	DIN125-St. (DACROMET)	8	-	-	-	-
2467-00	**BOLTS & NUTS FOR BUNDLE FRAMETO STRUCTURE :**	-	-	-	-	-	-	-	-	-	-
2467-01	BOLT	M20	50	-	-	DIN933-8.8(GALV.)	12	-	-	-	-
2467-02	NUT	M20	-	-	-	DIN934-8(GALV.)	12	-	-	-	-
2467-03	WASHER FOR BOLT	A21	-	-	-	DIN125A-ST(GALV.)	24	-	-	-	-
2468-00	**BOLTS & NUTS FOR HEADER SUPPORT TO BUNDLE FRAME :**	-	-	-	-	-	-	-	-	-	-
2468-01	BOLT	M20	50	-	-	DIN933-8.8 (DACROMET)	12	-	-	-	-
2468-02	NUT	M20	-	-	-	DIN934-8 (DACROMET)	12	-	-	-	-
2468-03	WASHER FOR BOLT	A21	-	-	-	DIN125-St. (DACROMET)	24	-	-	-	-
2469-00	**BOLTS & NUTS FOR BUNDLE TO STRUCTURE SEALING :**	-	-	-	-	-	-	-	-	-	-
2469-01	BOLT	M12	40	-	-	DIN933-8.8(GALV.)	12	-	-	-	-
2469-02	NUT	M12	-	-	-	DIN934-8(GALV.)	12	-	-	-	-
2469-03	WASHER FOR BOLT	A13	-	-	-	DIN125A-ST(GALV.)	24	-	-	-	-
2480-02	FIN TUBE SPACER FOR TUBE 1"(TYPE 44)	-	943	32.5	-	ST-37(GALV.)	18	0.497	9	2849	-
2480-03	SLIDING PAD	-	80	60	10	TEFLON WITH 25% GLASS	4	0.3768	2	2845	-
2480-05	CORRUGATEDB STRIP(TYPE1)	-	2477	45	-	ALUMINUM	9	1	5	2810	-
2481-02	UPN 100	-	2477	-	-	ST-37(GALV.)	2	26	53	-	-

To be checked, about bolt, nut & washer, some are decromate and some are galvanized

NOTES :

1. All dimensions are in milimeters unless otherwise specified.
2. All parts shall be hot dipped galvanized in accordance with ASTM-123
3. Red Color Bolts which are used for fixing headers to side frame , on sliding side shall be removed after erection.
4. Weld: Continuous weld.
   Min. Height of fillet for thk.> 7mm to be welded = 0.8 thk.min
   Min. Height of fillet for thk.< 7mm to be welded = 3.5mm.

TOLERANCES			
THE FOLLOWING VALUES ARE APPLICABLE TO THE DIMENSIONS THAT ARE NOT PROVIDED WITH TOLERANCES ON DRAWING			
NOMINAL DIMENSIONS PER MILLIMETER STEPS	0 800	801 5000	5001 & +
TOLERANCES ±	1	2	3
TOLERANCE ON CENTER DISTANCES ± 0.5			
THE TOLERANCES SHOWN HERE ARE NOT CUMULATIVE			

REFERENCE DOCUMENTS

TITLE	VENDOR DOCUMENT NO.	CLIENT DOCUMENT NO.
GENERAL ARRANGEMENT	1158-A01-1000-00	EI027-DMF-VD-ME-DWG-003
TUBE BUNDLE DRAWING	1158-A01-2000-00	EI027-DMF-VD-ME-DWG-005
Steel Structure Drawing	1158-A01-1100-00	EI027-DMF-VD-ST-DWG-013
WELDING PROCEDURE SPECIFICATION (W.P.S.)	1158-A01-0060-00	EI027-DMF-VD-QC-WPS-021
NON DESTRUCTIVE TEST CHECK LIST (N.D.T.)	1158-A01-0070-00	EI027-DMF-VD-QC-PRO-022
Surface Blasting & Painting & Galvanizing Specification & InspectionProcedure	1158-A01-0070-00	EI027-DMF-VD-QC-PRO-024

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	APPROVED BY	FINAL APPROVED BY
R1	10/07/2024	ISSUED FOR APPROVAL	SH.S	S.S	J.B.L	A.GHZ
R0	08/11/2024	ISSUED FOR APPROVAL	SH.S	S.S	J.B.L	A.GHZ

CLIENT: EN3R TEKNOLOJI

CONTRACTOR:

PROJECT :
AIR COOLER FOR
Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.

BUNDLE FRAME DRAWING
1158-A01-2400-00

DWG. NO. EI027-DMF-VD-ME-DWG-007

SCALE : N.T.S. SIZE : A1 REV. : R1

Damafin thermal technology
Factory : Km 14 special Karaj road

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