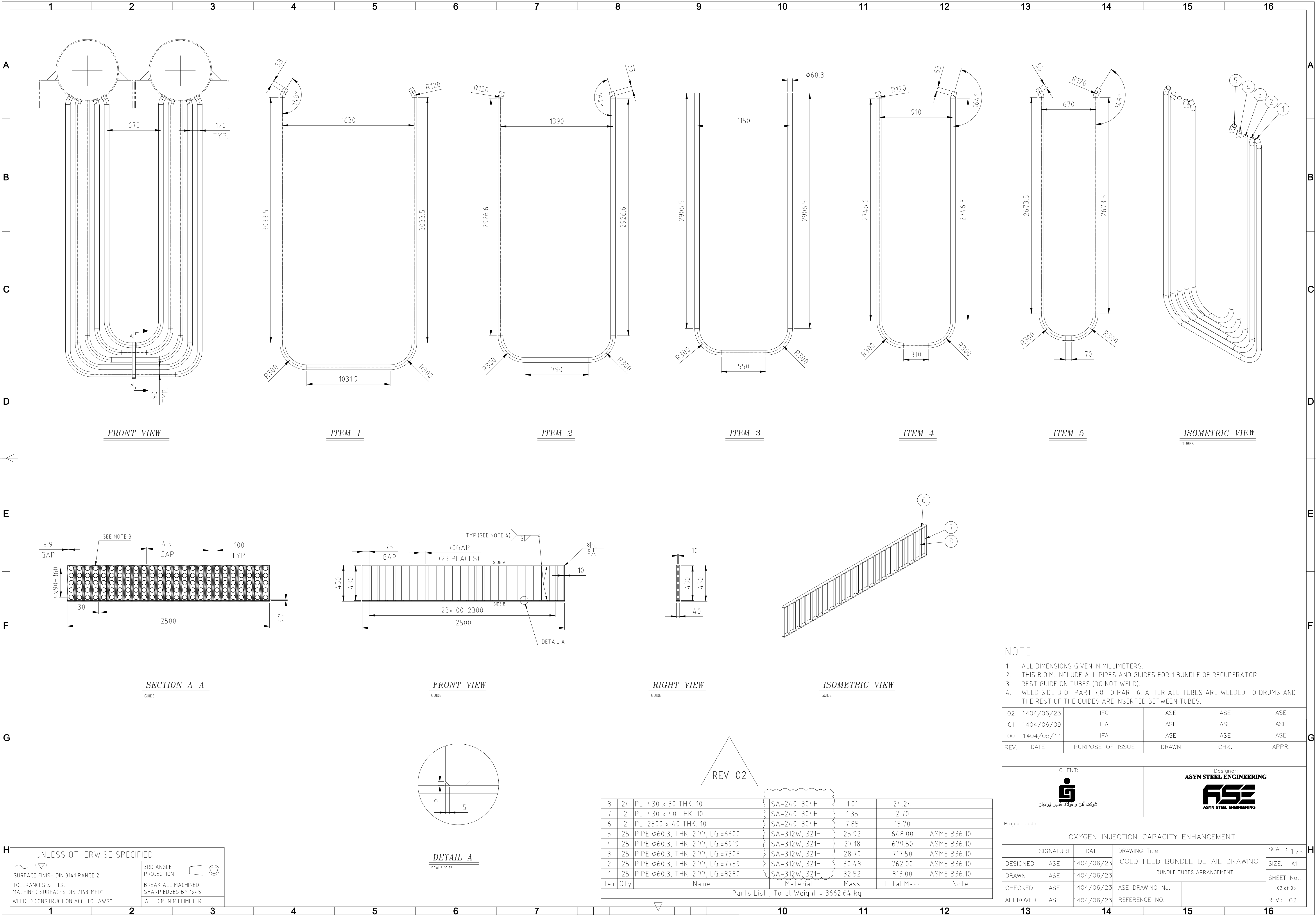
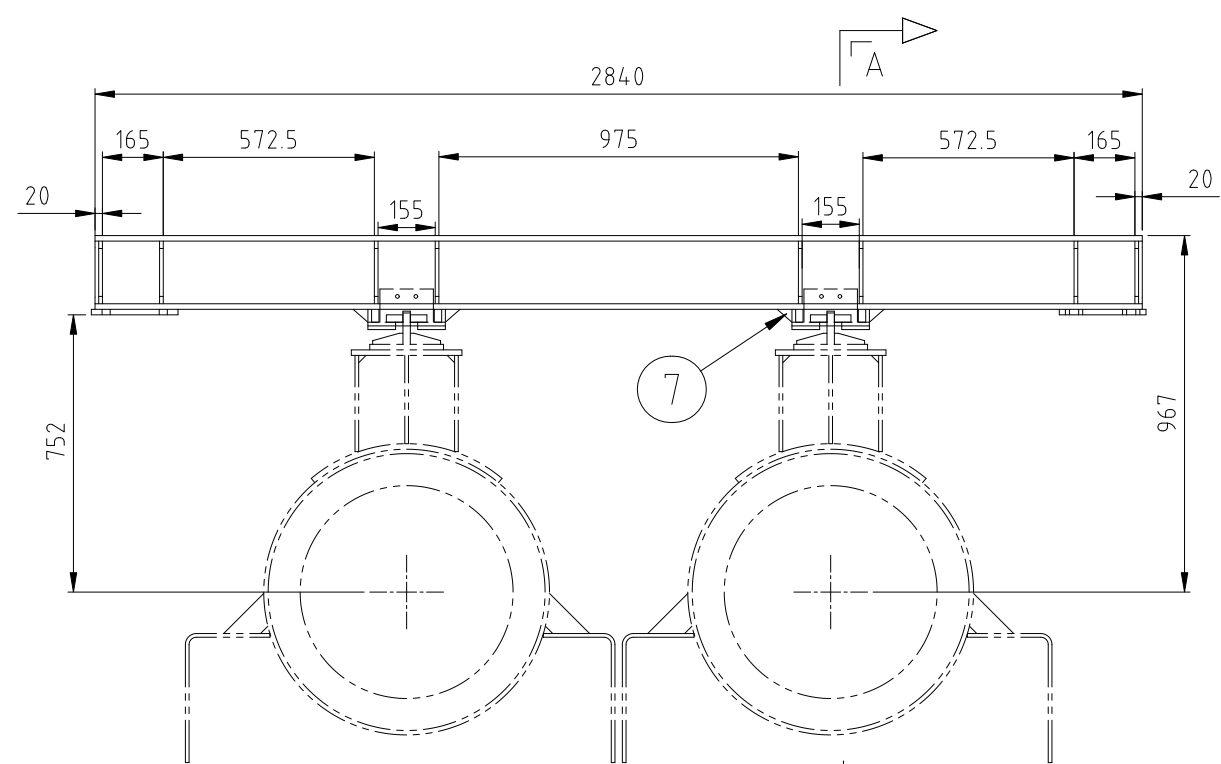
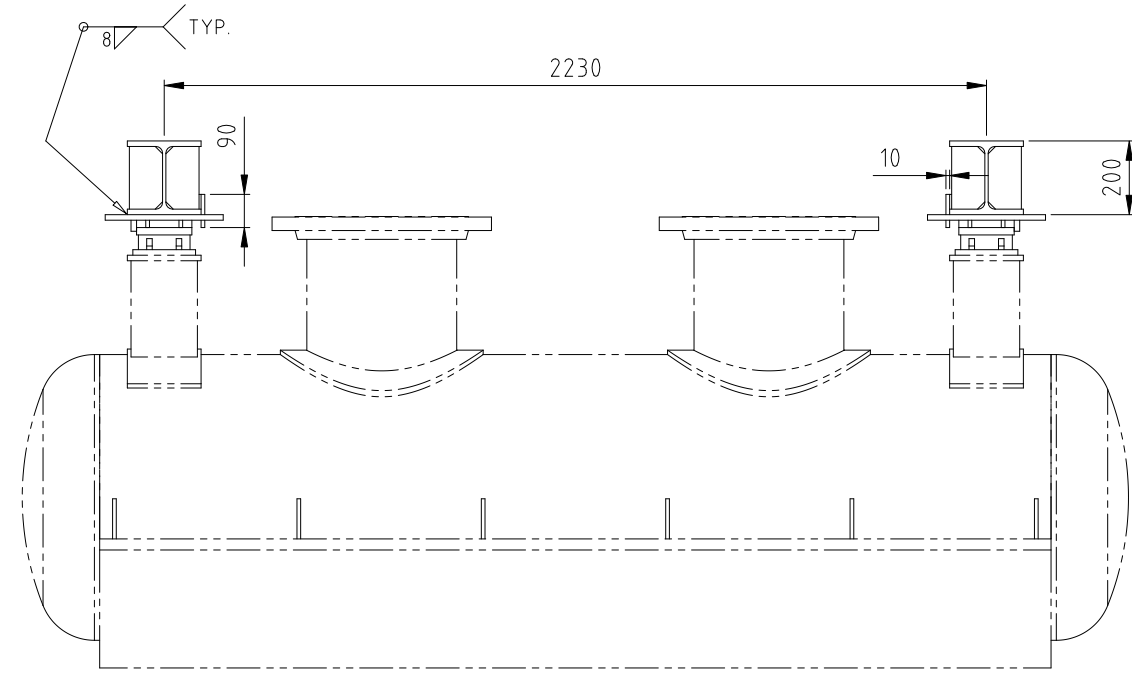




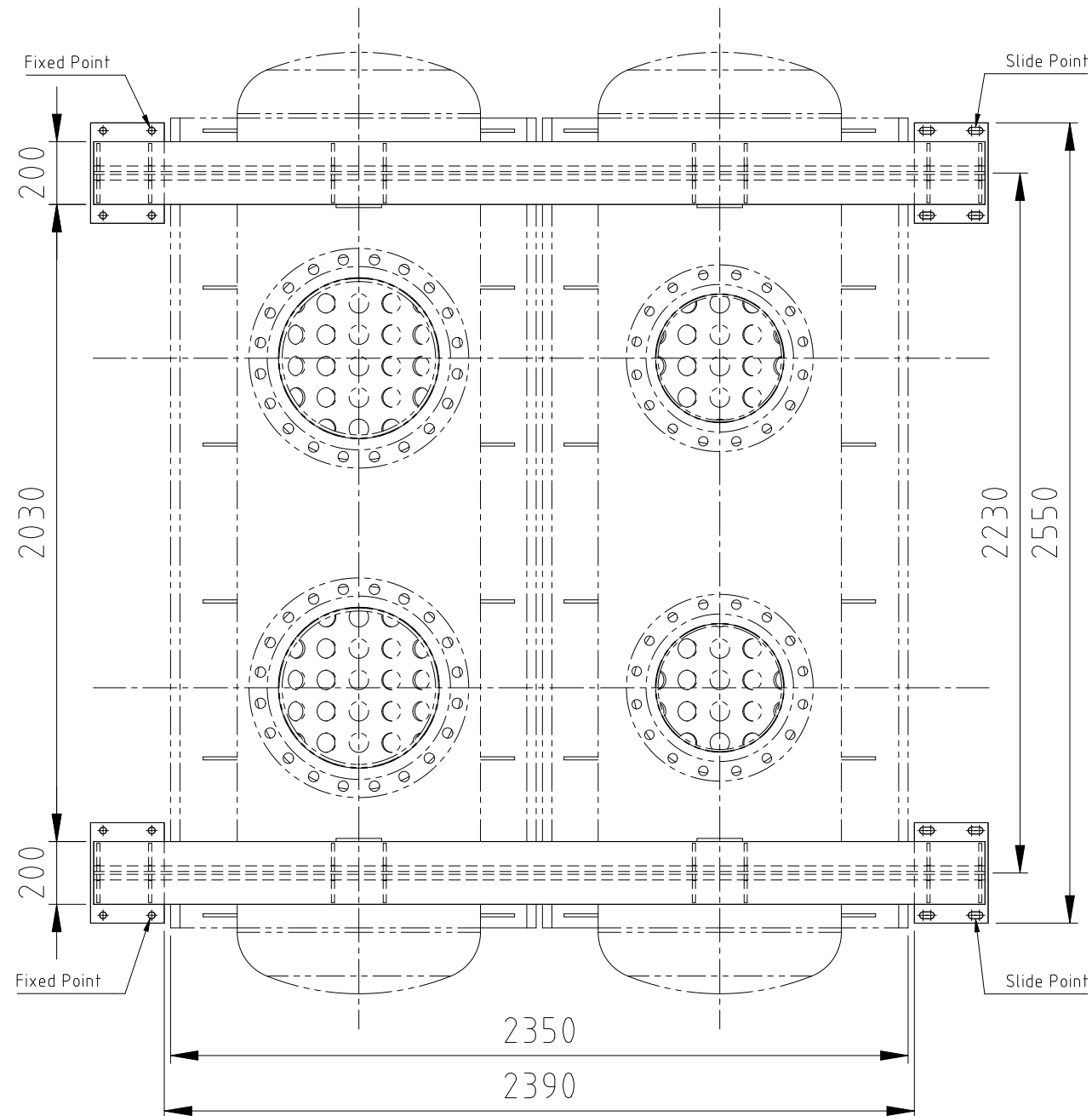
NOTE:				
1. ALL DIMENSIONS GIVEN IN MILLIMETERS.				
2. THIS B.O.M. INCLUDE ALL PIPES AND GUIDES FOR 1 BUNDLE OF RECUPERATOR.				
3. REST GUIDE ON TUBES (DO NOT WELD).				
4. WELD SIDE B OF PART 7,8 TO PART 6, AFTER ALL TUBES ARE WELDED TO DRUMS AND THE REST OF THE GUIDES ARE INSERTED BETWEEN TUBES.				
02	1404/06/23	IFC	ASE	ASE
01	1404/06/09	IFA	ASE	ASE
00	1404/05/11	IFA	ASE	ASE
REV.	DATE	PURPOSE OF ISSUE	DRAWN	CHK.
CLIENT:				
Designer: ASYN STEEL ENGINEERING				
Project Code				
OXYGEN INJECTION CAPACITY ENHANCEMENT				
SIGNATURE	DATE	DRAWING Title:		SCALE: 1:25
DESIGNED	ASE	1404/06/23	COLD FEED BUNDLE DETAIL DRAWING	SIZE: A1
DRAWN	ASE	1404/06/23	BUNDLE TUBES ARRANGEMENT	SHEET No.: 02 of 05
CHECKED	ASE	1404/06/23	ASE DRAWING No.	REV.: 02
APPROVED	ASE	1404/06/23	REFERENCE NO.	



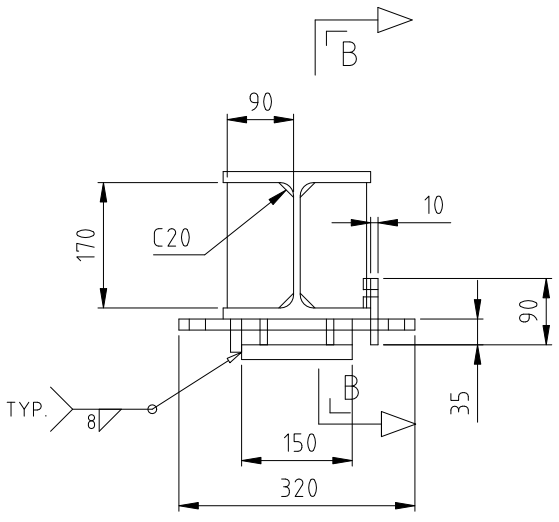
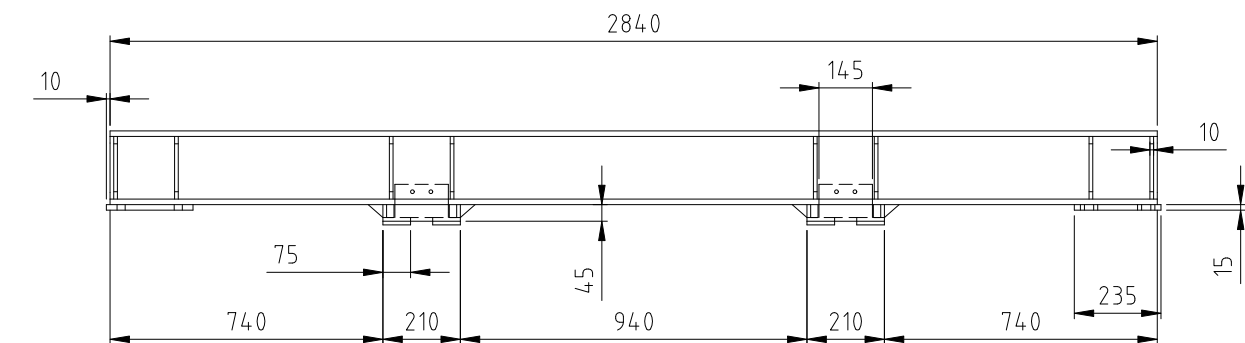
FRONT VIEW



SIDE VIEW

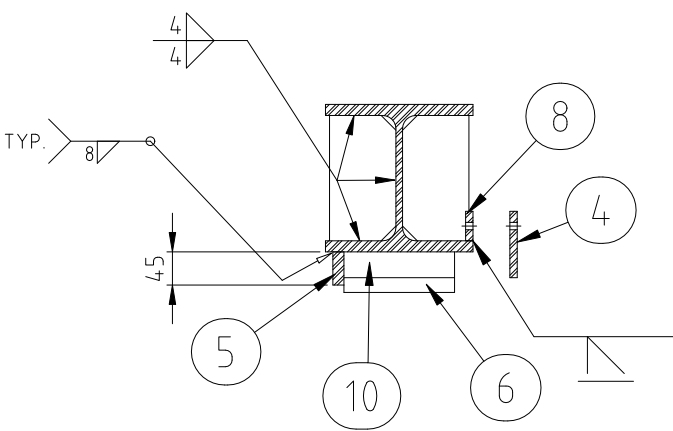


SIDE VIEW



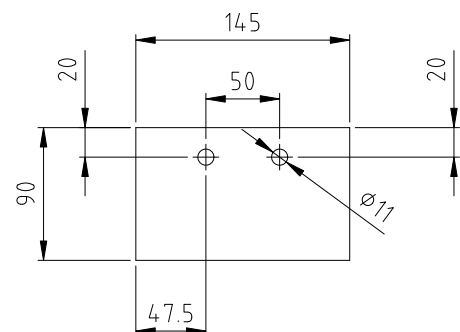
FRONT VIEW

SCALE 2:20



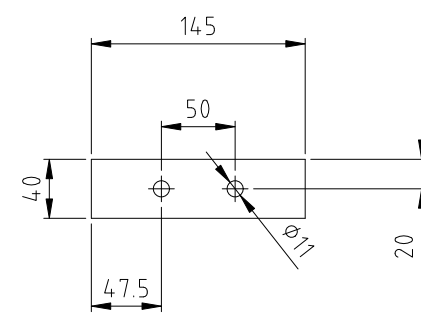
SECTION A-A

SCALE 2:20



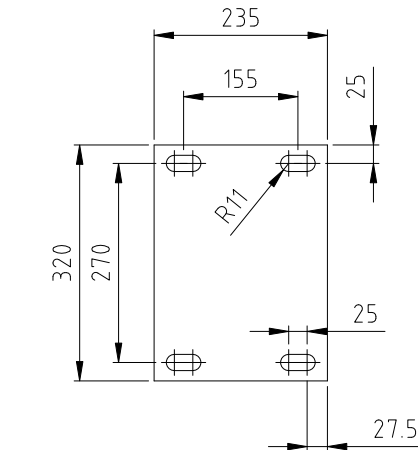
ITEM 4

SCALE 4:20



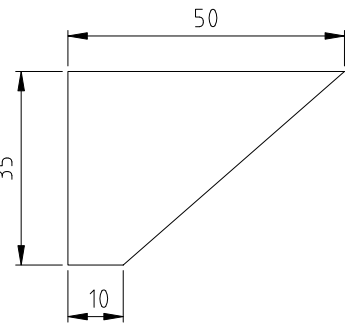
ITEM 8

SCALE 4:20



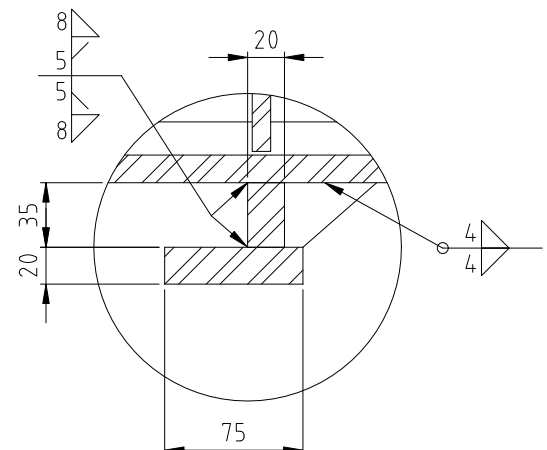
ITEM 3

SCALE 2:20



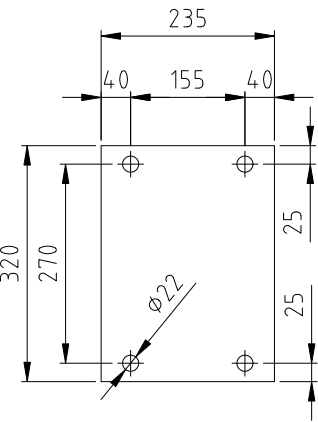
ITEM 7

SCALE 1:1



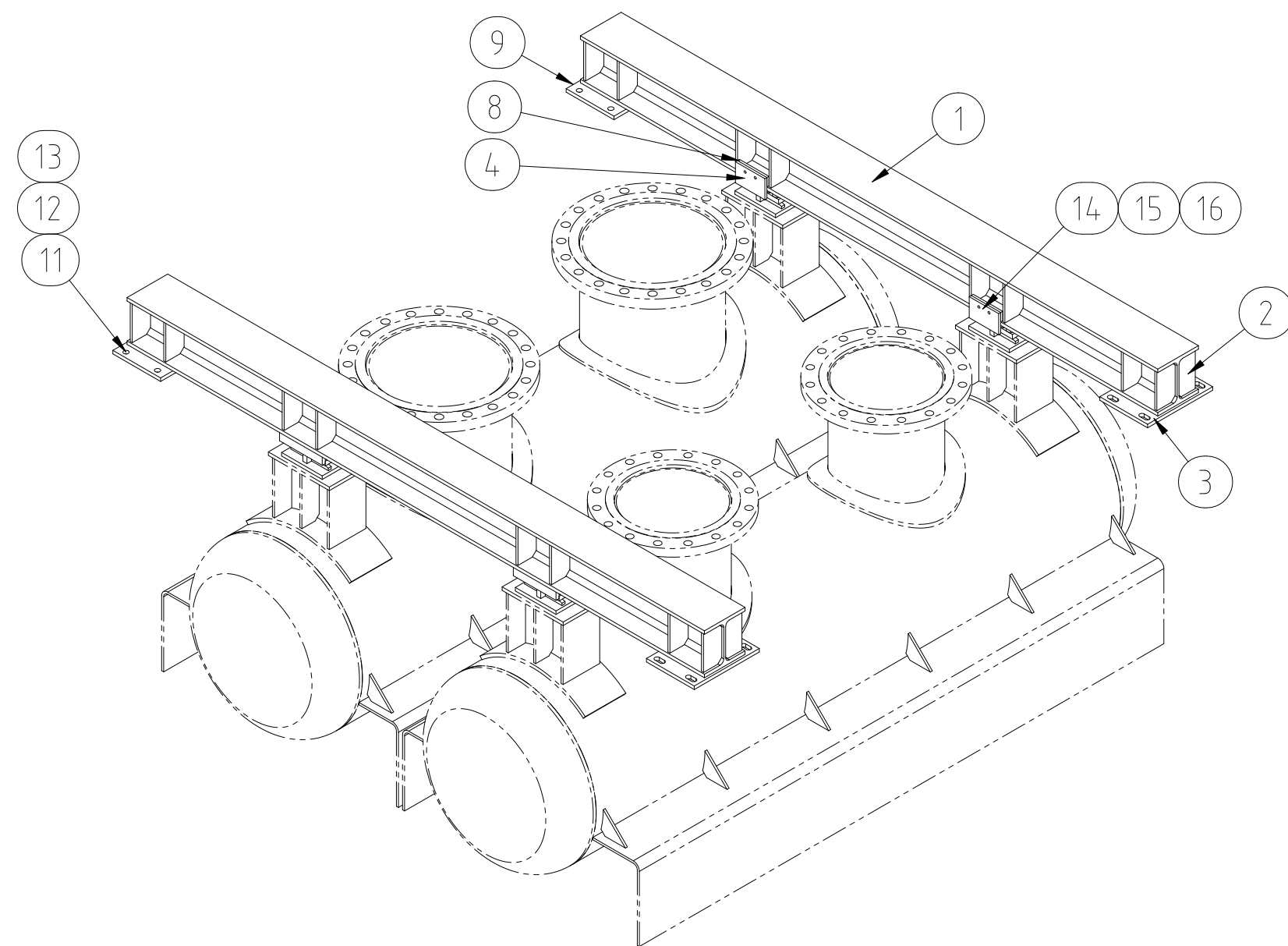
SECTION B-B

SCALE 1:4

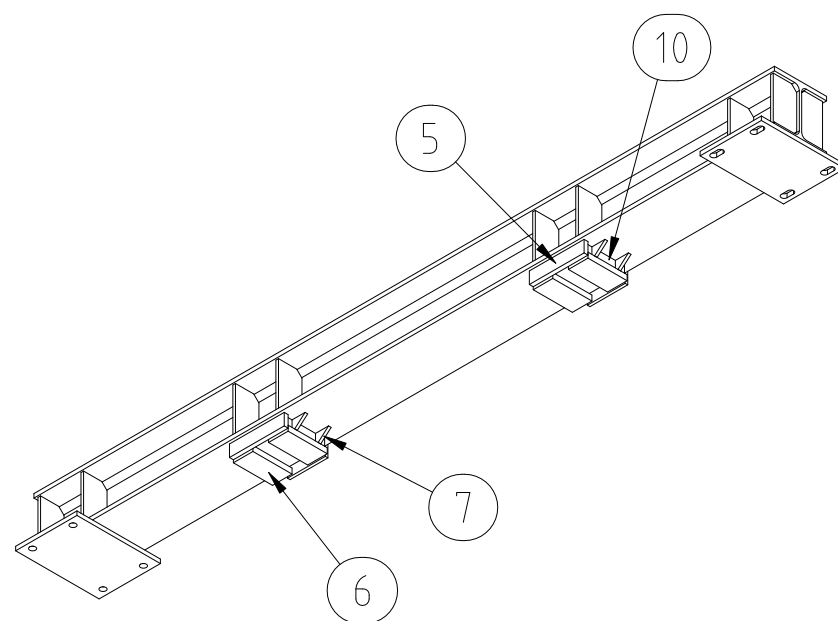


ITEM 9

SCALE 2:20



ISOMETRIC VIEW



ISOMETRIC VIEW

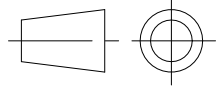
SUPPORT 1

NOTE:

1. ALL DIMENSIONS GIVEN IN MILLIMETERS.
2. THIS B.O.M. INCLUDE ALL SUPPORTS FOR 1 UNIT BUNDLE.
3. THIS SUPPORT MUST BE INSTALLED AT SITE.
4. ITEM 4 SHALL BE BOLTED AT SITE AFTER BUNDLE ASSEMBLY.

16	16	WASHER A11	ST.	0.01	0.16	DIN 125A
15	8	HEX NUT M10	8	0.01	0.08	DIN 934
14	8	HEX BOLT M10x45	8.8	0.03	0.24	DIN 933
13	32	WASHER A21	ST.	0.01	0.32	DIN 125A
12	16	HEX NUT M20	10.9	0.02	0.32	DIN 934
11	16	HEX BOLT M20x60	10.9	0.05	0.80	DIN 933
10	8	PL. 150 x 35 THK. 20	A516-Gr.60	0.82	6.56	
9	2	PL. 320 x 235 THK. 15	A516-Gr.60	0.46	0.92	
8	4	PL. 145 x 40 THK. 10	A516-Gr.60	0.46	1.84	
7	16	PL. 50 x 35 THK. 10	A516-Gr.60	0.11	1.76	
6	8	PL. 150 x 75 THK. 20	A516-Gr.60	1.77	14.16	
5	4	PL. 210 x 45 THK. 15	A516-Gr.60	1.11	4.44	
4	4	PL. 145 x 90 THK. 10	A516-Gr.60	1.02	4.08	
3	2	PL. 320 x 235 THK. 15	A516-Gr.60	8.85	17.70	
2	32	PL. 170 x 90 THK. 10	A516-Gr.60	1.20	38.40	
1	2	HEB 200 , LG=2840	A516-Gr.60	174.09	348.18	DIN 1025-2
Item Qty		Name	Material	Mass	Total Mass	Note
Parts List , Total Weight = 439.96 kg						

02	1404/06/23	IFC	ASE	ASE	ASE
01	1404/06/09	IFA	ASE	ASE	ASE
00	1404/05/11	IFA	ASE	ASE	ASE
REV.	DATE	PURPOSE OF ISSUE	DRAWN	CHK.	APPR.
CLIENT:  شریکت آغن و فولاد عیدیر ایرانیان					
Designer: ASYN STEEL ENGINEERING 					
Project Code					
OXYGEN INJECTION CAPACITY ENHANCEMENT					
	SIGNATURE	DATE	DRAWING Title:		SCALE: 1:20
DESIGNED	ASE	1404/06/23	COLD FEED BUNDLE DETAIL DRAWING		SIZE: A1
DRAWN	ASE	1404/06/23	BUNDLE SUPPORT 1		SHEET No.: 03 of 05
CHECKED	ASE	1404/06/23	ASE DRAWING No.		
APPROVED	ASE	1404/06/23	REFERENCE NO.		REV.: 02

UNLESS OTHERWISE SPECIFIED	
 SURFACE FINISH DIN 3141 RANGE 2	3RD ANGLE PROJECTION 
TOLERANCES & FITS: MACHINED SURFACES DIN 7168"MED" WELDED CONSTRUCTION ACC. TO "AWS"	BREAK ALL MACHINED SHARP EDGES BY 1x45° ALL DIM IN MILLIMETER



SCALE 2:15



SCALE 2:15



SCALE 2:15



NOTE:

1. ALL DIMENSIONS GIVEN IN MILLIMETERS.
2. THIS B.O.M. INCLUDE ALL SUPPORTS FOR 1 UNIT BUNDLE.

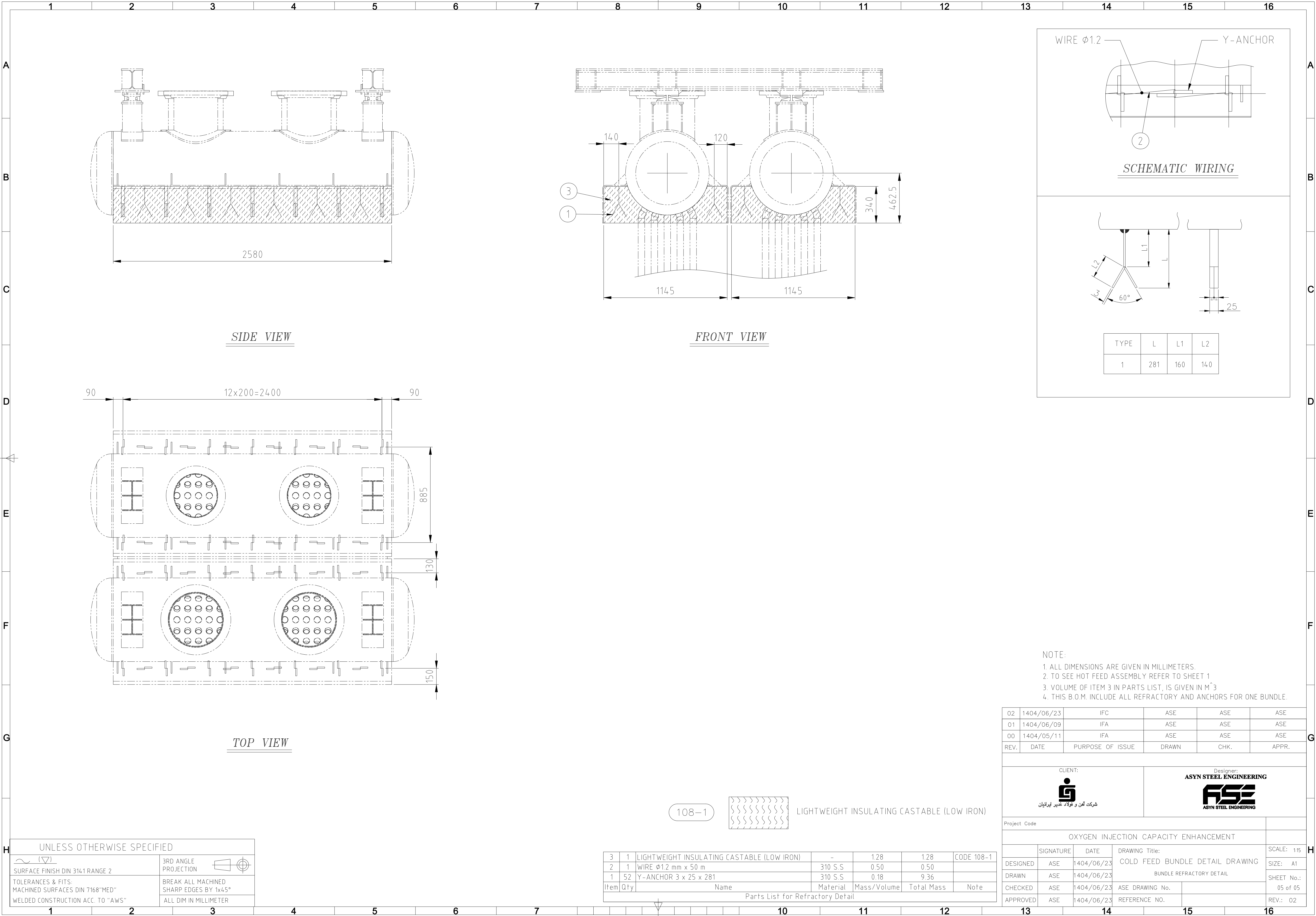
CLIENT :  شركت آغا و فواد الطاجر للصلب		Designer: ASYN STEEL ENGINEERING  ASYN STEEL ENGINEERING	
Project Code			
OXYGEN INJECTION CAPACITY ENHANCEMENT			
SIGNATURE		DATE	
DESIGNED	ASE	1404/06/23	DRAWING Title: COLD FEED BUNDLE DETAIL DRAWING BUNDLE SUPPORT 2
DRAWN	ASE	1404/06/23	
CHECKED	ASE	1404/06/23	ASE DRAWING No.
APPROVED	ASE	1404/06/23	REFERENCE NO.
			SCALE: 1:15
			SIZE: A1
			SHEET NO: 04 of 05
			REV.: 02

9	8	PL 140 x 45 THK. 20	SA-240, 304H	0.74	5.92	
8	4	PL 90 x 30 THK. 20	SA-240, 304H	0.29	1.16	
7	16	PL 140 x 90 THK. 15	SA-240, 304H	1.22	19.52	
6	4	PL 200 x 170 THK. 15	SA-240, 304H	4.00	16.00	
5	4	PL 300 x 200 THK. 15	SA-240, 304H	7.07	28.28	
4	4	PL 261 x 260 THK. 10	SA-240, 304H	5.10	20.40	
3	8	PL 239 x 85 THK. 10	SA-240, 304H	1.60	12.80	
2	8	PL 261 x 180 THK. 10	SA-240, 304H	3.76	30.08	
1	4	PAD. 552 x 200 THK. 15	SA-240, 304H	13.23	52.92	
Item	Qty	Name	Material	Mass	Total Mass	Note
Parts List , Total Weight = 187.1 kg						

UNLESS OTHERWISE SPECIFIED	
 SURFACE FINISH DIN 3141 RANGE 2	3RD ANGLE PROJECTION 
TOLERANCES & FITS: MACHINED SURFACES DIN 7168"MED" WELDED CONSTRUCTION ACC. TO "AWS"	BREAK ALL MACHINED SHARP EDGES BY 1x45°
	ALL DIM IN MILLIMETER

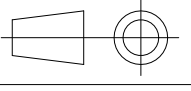


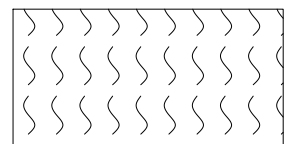
SCAIF 10:15



NOTE:
1. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS.
2. TO SEE HOT FEED ASSEMBLY REFER TO SHEET 1
3. VOLUME OF ITEM 3 IN PARTS LIST, IS GIVEN IN M³
4. THIS B.O.M. INCLUDE ALL REFRACTORY AND ANCHORS FOR ONE BUNDLE.

02	1404/06/23	IFC	ASE	ASE	ASE
01	1404/06/09	IFA	ASE	ASE	ASE
00	1404/05/11	IFA	ASE	ASE	ASE
REV.	DATE	PURPOSE OF ISSUE	DRAWN	CHK.	APPR.
CLIENT:			Designer:		
 شرکت آهن و فولاد غدیر ایرانیان			 ASYN STEEL ENGINEERING		
Project Code					
OXYGEN INJECTION CAPACITY ENHANCEMENT					
	SIGNATURE	DATE	DRAWING Title:		SCALE: 1:15
DESIGNED	ASE	1404/06/23	COLD FEED BUNDLE DETAIL DRAWING		SIZE: A1
DRAWN	ASE	1404/06/23	BUNDLE REFRACTORY DETAIL		SHEET No.: 05 of 05
CHECKED	ASE	1404/06/23	ASE DRAWING No.		REV.: 02
APPROVED	ASE	1404/06/23	REFERENCE NO.		

UNLESS OTHERWISE SPECIFIED	
 SURFACE FINISH DIN 3141 RANGE 2	3RD ANGLE PROJECTION 
TOLERANCES & FITS: MACHINED SURFACES DIN 7168 "MED" WELDED CONSTRUCTION ACC. TO "AWS"	BREAK ALL MACHINED SHARP EDGES BY 1x45° ALL DIM IN MILLIMETER

108-1			LIGHTWEIGHT INSULATING CASTABLE (LOW IRON)			
3	1	LIGHTWEIGHT INSULATING CASTABLE (LOW IRON)	-	1.28	1.28	CODE 108-1
2	1	WIRE Ø12 mm x 50 m	310 S.S	0.50	0.50	
1	52	Y-ANCHOR 3 x 25 x 281	310 S.S	0.18	9.36	
Item	Qty	Name	Material	Mass/Volume	Total Mass	Note
Parts List for Refractory Detail						