



Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

An ISO 9001
Company

ENQUIRY	Phone: +91 431 257 79 38 Fax : +91 431 252 00 31 Email : tvenkat@bheltry.co.in Web : www.bhel.com
NOTICE INVITING TENDER	

TWO PART BID	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
Tender to be submitted in two Parts	2851300026	04.11.2013	09.12.2013

You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity	Delivery Schedule
10	Gantry Frame with Rails, Drive and Spring Hangers For Orbital Welding Machine as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	6.00 Nos	31.12.2014
20	Gantry Frame with Rails, Drive and Spring Hangers For Orbital Welding Machine as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	2.00 Nos	4 Months from the date of Purchase Order

Important points to be taken care during submission of offer:-

1. Material shall be delivered to (for Indigenous Vendors):

- For Item Sl.No.10 (6 Nos.):- FOR, BHEL Stores, Power Equipment Fabrication Plant Bharat Heavy Electricals Limited, Mundipar – 441 804, Taluka: Sakoli, District: Bhandara, Maharashtra State.
- For Item Sl.No.20 (2 Nos.):- FOR, BHEL Stores, High Pressure Boiler Plant, Bharat Heavy Electricals Limited Tiruchirappalli – 620014, Tamilnadu.

2. EMD for this Tender will be (INR) : 2,00,000.00

3. Supervision of Erection & Commissioning period required 8 Weeks for Item Sl.No.10 (6 Nos.) and 3 Weeks for Item Sl.No.20 (2 Nos) from the date of intimation by BHEL to Vendor for deputation of their Engineers for E&C.

4. Offer shall be evaluated both items (Sl.Nos. 10 & 20) as a Single Package (Over All L1 Basis). Hence, both items should be quoted without fail any, otherwise your



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Item	Description	Quantity	Delivery Schedule
	<p>offer will not be considered.</p> <p>5. Compliance Form No: BND/IND/06 to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.</p> <p>6. All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media.</p> <p>BHEL's General guidelines / instructions (refer MM / CE / GENL / 001-EMD) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site http://www.bhel.com or from the Government tender website http://tenders.gov.in (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference "2851300026".</p>		
	<p>Tenders should reach us before 14:00 hours on the due date Tenders will be opened at 14:30 hours on the due date Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present</p>		<p>Yours faithfully, For BHARAT HEAVY ELECTRICALS LIMITED</p> <p>Sr. Manager / Capital Equipment / MM</p>

PART – A

Orbital Welding machine Gantry Frame with Rails, Drive & Spring Hangers

QUALIFYING CRITERIA

The Vendor has to compulsorily meet the following requirements to get qualified for considering the technical offer:

S.No	BHEL Specification	Vendor's Offer
1.0	QUALIFYING CRITERIA	
1.1	The BIDDER / VENDOR (OEM) shall have a minimum of TEN Years of Continuous Experience in the Structural fabrication and motorized moving gantry frame/structure. Vendor may indicate the actual no. of years of experience in the field	
1.2	Only those vendors (OEMs), who have manufactured and commissioned at least ONE number of Motorized Moving gantry frame/structure in the past five years (as on date of opening of Tender) and such machine is presently working satisfactorily for a minimum period of one year after commissioning (as on date of opening of Tender) should quote.	
1.3	Vendor has to submit at least one Performance Certificate from their customers, for satisfactory performance of Motorized moving gantry frame/structure supplied to them with in the past five years and is working satisfactory for a minimum period of one year (as on date of opening tender). For obtaining the Performance certificate, a suggestive format is provided.	
1.4	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	

2.0	INFORMATION TO BE PROVIDED BY VENDOR	
2.1	Number of Moving frames/structures supplied and commissioned till date in the quoted model.	
2.2	The BIDDER/VENDOR to furnish Reference List of Customers with full contact details.	

Suggestive Format of Performance Certificate:

The performance certificate should be produced **on Customer's Letter Head**.

PERFORMANCE CERTIFICATE

- 1 Supplier / Make of the equipment
- 2 Description of the equipment
- 3 Month & Year of Commissioning
- 4 a. Application for which equipment is used
b. Capacity of the equipment
c. Dimensions of the equipment(Height & width)
- 5 Performance of the Equipment Satisfactory / Good / Average / Not Satisfactory
(Strike off whichever is not applicable)
- 6 Service of Vendor Satisfactory / Good / Average / Not Satisfactory
(Strike off whichever is not applicable)
- 7 Any Other remarks

Date:

Signature & Seal of the Authority
Issuing the Performance Certificate

PART-B

Orbital Welding Machine Gantry Frame with Rails, Drive & Spring Hangers

Application:

This motorized gantry Frame along with spring hangers is required to carry the orbital welding machine and its attachments on the rails of shop floor.

The variant type of motorized gantry frame , Quantity and destination unit were provided below:

Sl.No	Equipment Type	Qty required	Destination unit
1	Variant 02	2 Sets	HPBP,Trichy
2	Variant 01	6 Sets	PEFP,Bhandara

Drawings for Variant 01:

Main Frame with drive as per the drg: 3-M-10A-60- 13666 rev.01

Supplement Drawings are provided below

S.No	Description	Drg.No	Qty
1	BOTTOM FRAME- I	3M10A6013568	1
2	BOTTOM FRAME - II	3M10A6013569	1
3	LEFT SIDE FRAME	3M10A6013570	1
4	RIGHT SIDE FRAME	3M10A6013571	1
5	TOP FRAME	3M10A6013572	1
6	TRANSFORMER FRAME	3M10A6013573	1
7	CHILLER TRAY	M&S-PD-13-283	1

Drawings for Variant 02:

Main Frame with drive as per the drg: 2-M-10A-60- 05084

Supplement Drawings are provided below

S.No	Description	Drg.No	Qty
1	BOTTOM FRAME- I	3M10A6013568	1
2	BOTTOM FRAME - II	3M10A6013569	1
3	LEFT SIDE FRAME	3M10A6013570	1
4	RIGHT SIDE FRAME	3M10A6013571	1
5	TOP FRAME	3M10A6015188	1
6	TRANSFORMER FRAME	3M10A6013573	1
7	CHILLER TRAY	M&S-PD-13-283	1

Technical Details:

S.No	BHEL Specification		Vendor comments
1.0	Job requirement	<ul style="list-style-type: none"> The vendor should manufacture , supply and commission the orbital welding machine gantry frame with rails, motor/drive and spring hangers as per the specification/drawings. Vendor shall also do the required material procurement, machining, edge preparation, welding etc as per drawing Bought out items like Motors, bearings, bearing housing etc will also be in vendor scope 	
2.0	Material	As Per the drawing- Fe 410WA.	
3.0	Electrode for welding	E 7018	
4.0	Flange Mounted Gear Motor -Qty:2 Nos		
4.1	Vendor to use the following specified Flange Mounted gear motor and gear box -Qty:2 Nos		
4.2	Power Supply	415v/50Hz/3 phase AC supply will be provided	
4.3	Motor power	1.1Kw	
4.4	Input RPM	1440 RPM	
4.5	Mounting	Flange Mounting	
4.6	Efficiency	75%	
4.7	Insulation	Class-B	
4.8	Enclosure	TEFC (Totally Enclosed, Fan cooled)	
4.9	Temperature	40°C	
4.10	IP Protection	44 as per IS 4691	
4.11	Cooling	IC 0141 As Per AS6362	
4.1.1	Gear Box Base Mounted with motor-Qty:2Nos		
4.1.2	Output RPM	20	
4.1.3	Gear Ratio	1:75	
4.1.4	Make preferred	PBL, TECHNO, SHANTHI, HELICAN, ALLENBERRY	
5.0	Cable & Switch	The required cable and switch for operating the gear motors fitted on both of the bottom frames and operating simultaneously to the single switch facility to be provided by vendor	
6.0	Bearings	Preferred makes: SKF, FAG, NTN only to be used	
7.0	Spring Balancer- Hendo Make Preferred		
7.1	Vendor to provide the following specified spring hangers		
7.1.1	For D-Head	Capacity: 2.5 to 5.0 kgs Cable Travel:2.5m Model No:DH4200A1013 Item No 9341 Qty:1 No	

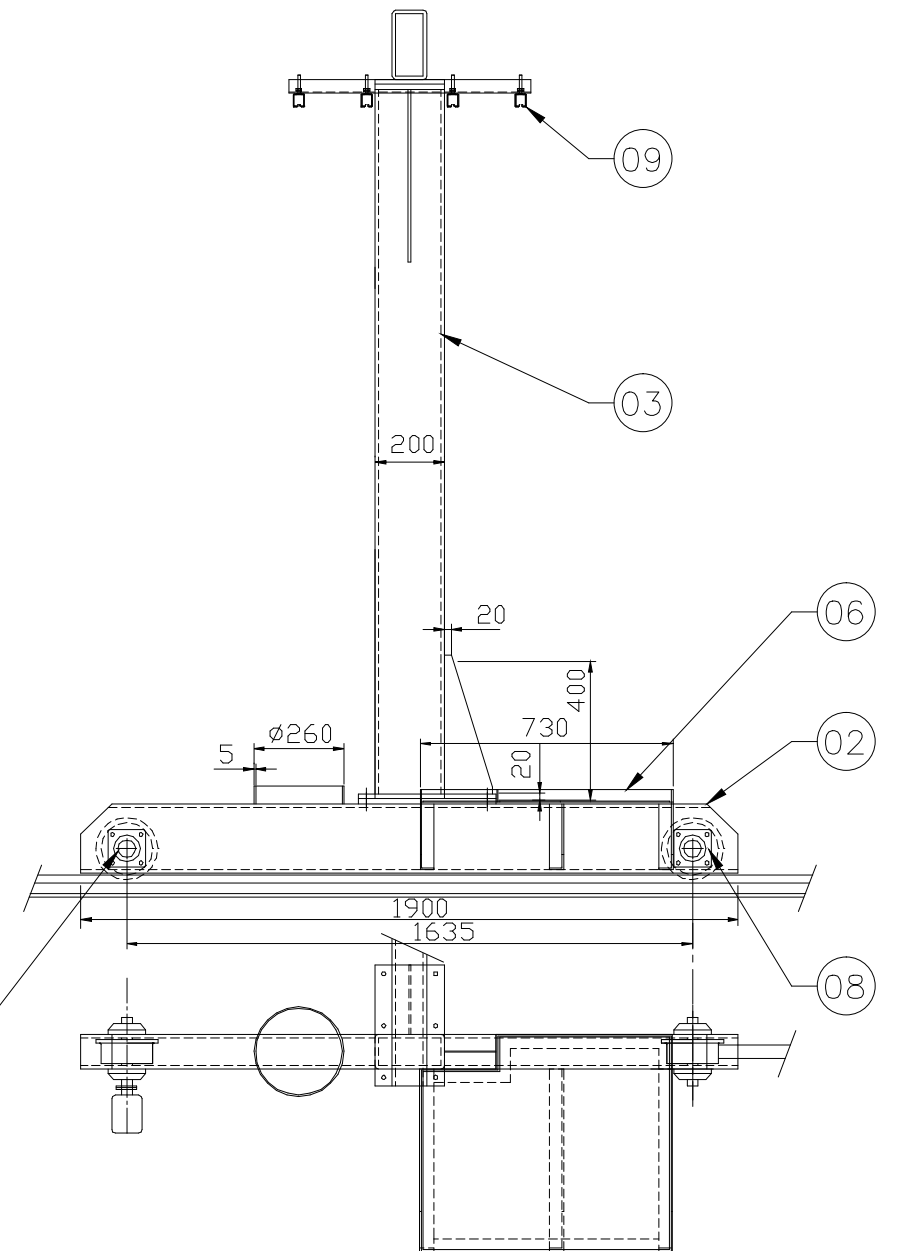
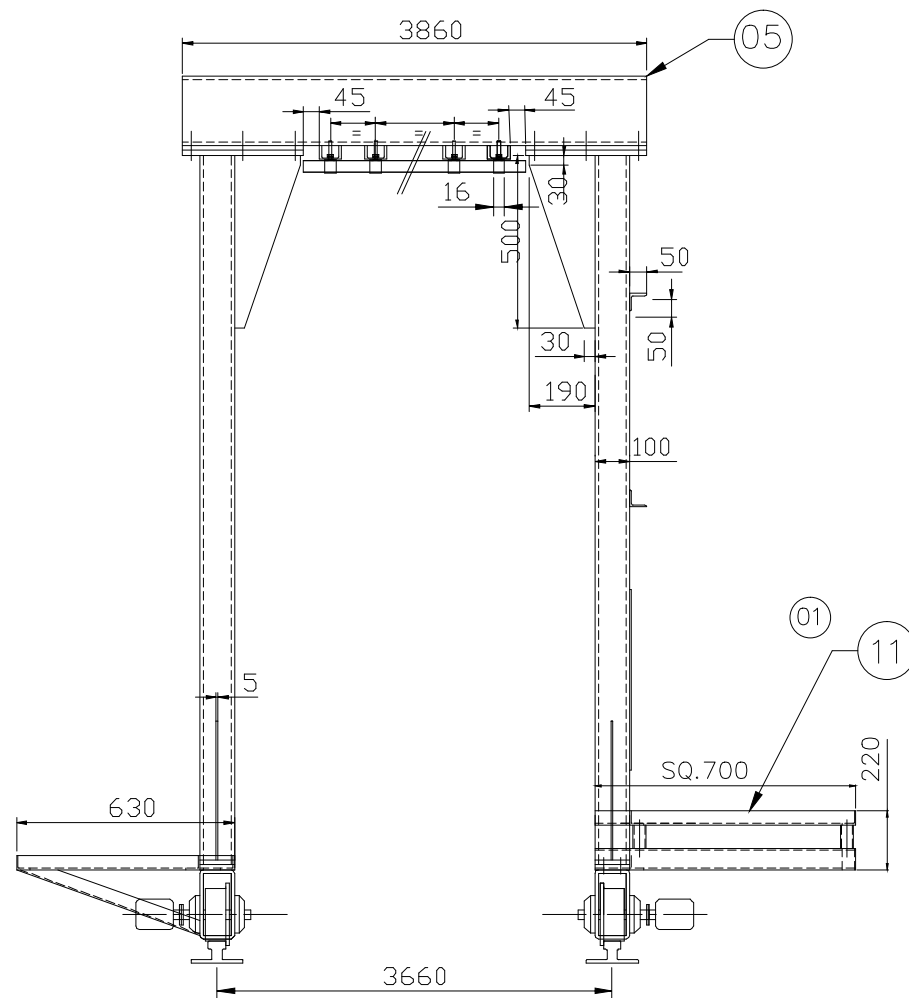
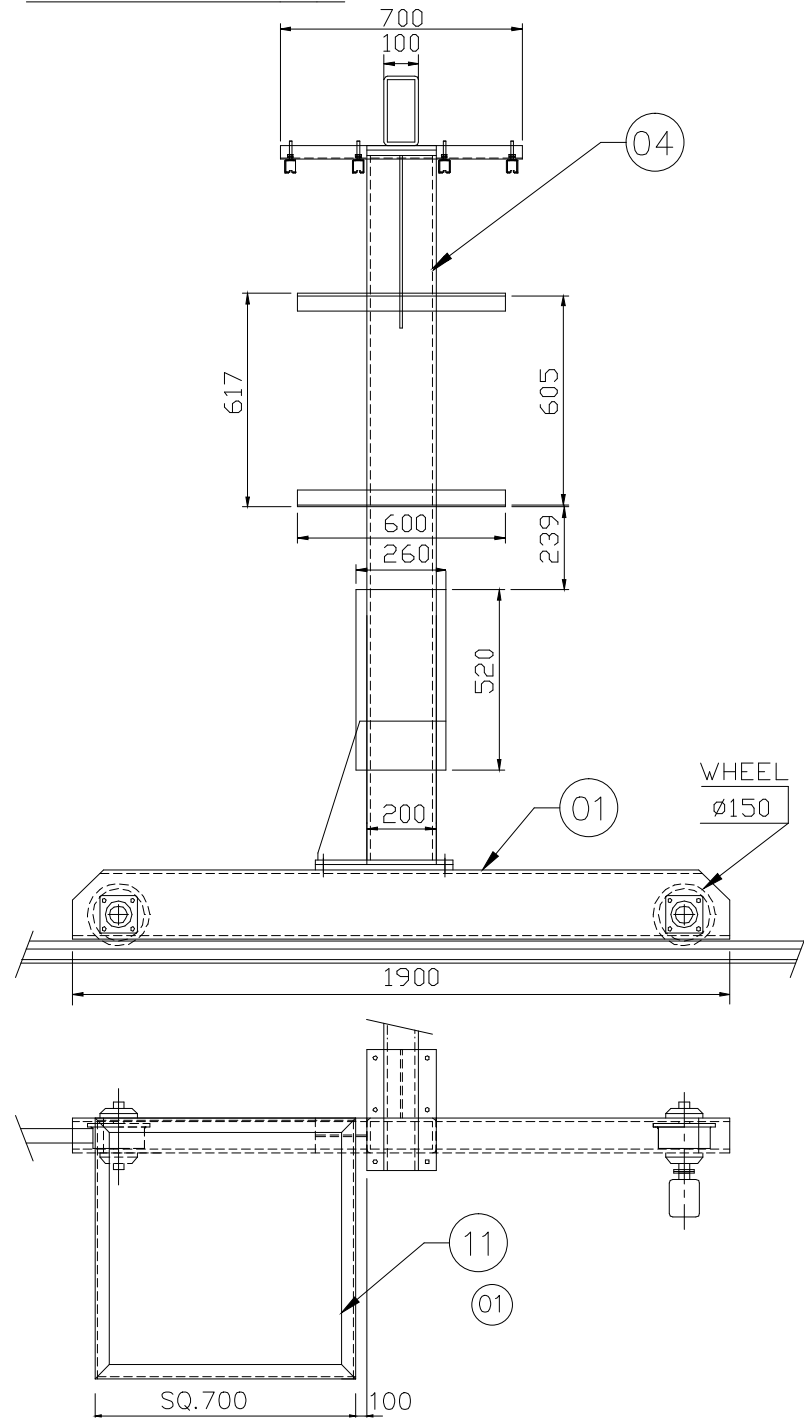
S.No	BHEL Specification		Vendor comments
7.1.2	For Chamfering machine	Capacity: 9.0 to 15.0 kgs Cable Travel : 2.5m Model:HSB-15 Qty:1 No	
7.1.3	For Pendent	Capacity:1.5 to 3 kgs Cable Travel:2.5m Qty:1 No	
7.1.4	For tube holding clamp/Fixture	Capacity:4.0 to 10.0 kgs Cable Travel:2.5m Qty:1 No	
8.0	Rails	Vendor to provide : Rails of Designation:22kg/m as per IS 3443 standard of length 20000mm-Qty 2. Complete anchoring system including foundation bolts, anchoring material, anchoring plates with suitable drill holes to accommodate the anchoring bolts along the length of rails etc will be in vendor scope. Vendor to provide details. Required civil foundation will be in BHEL scope	
9.0	Pre Dispatch inspection	At Vendor's factory, final inspection will be carried out by BHEL	
10.0	Painting	One coat of red oxide as per industrial practice has to be painted by the supplier	
11.0	Transportation	Loading at vendor's factory, transportation to BHEL, unloading to be carried out by the supplier. However, EOT crane facility of BHEL will be provided with in the shop floor.	
12.0	Guarantee	Vendor shall provide a guarantee for a period of 12 months from the date of Commissioning of the equipment or 18 months from the date of dispatch, whichever is earlier	

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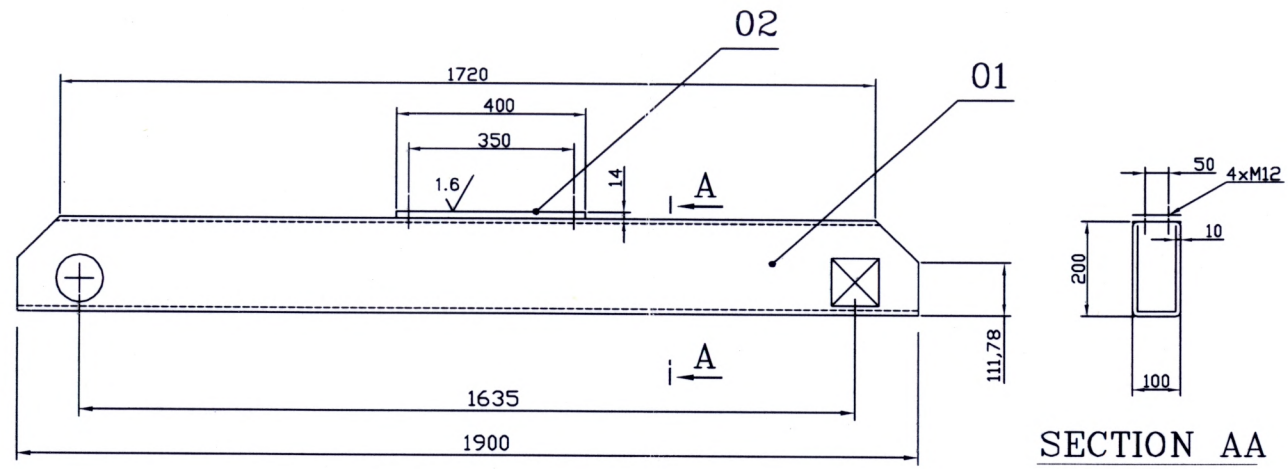
1	CHILLER TRAY			40.85	M&S-PD-13-283	11
2	RAIL SQW40x40x20000L					10
4	ALUMINIUM 'C' SLIDE 1 1/2" SLIDE WITH 2 SETS OF SLIDE ROLLER					09
2	IDLER ASSY					08
2	DRIVE ASSY					07
1	TRANS FORMER FRAME	Fe 410WA	IS:2062	28.82	3M10A6013573	06
1	TOP FRAME	Fe 410WA	IS:2062	197.37	3M10A6013572	05
1	RIGHT SIDE FRAME	Fe 410WA	IS:2062	116.63	3M10A6013571	04
1	LIFT SIDE FRAME	Fe 410WA	IS:2062	108.78	3M10A6013570	03

2	BOTTOM FRAME-2	Fe 410WA	IS:2062	89.49	3M10A6013569	02
1	BOTTOM FRAME-1	Fe 410WA	IS:2062	87.92	3M10A6013568	01
				669.36		
No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
	REFERENCE:	ALTERATIONS:		DCN REF	DATE	SIGN.
		ITEM No. 10 REMOVED			18.09.13	K.R
		ITEM No. 11 ADDED				(01)
SCALE	DRN	T.T.Balakrishnan				
	CHD	R.Ramamoorthy				
	APPD	C.S.Jayasheelan				
	DATE	06.06.08				
MACHINE: ORBITAL WELDING M/C				TYPE: ADK TECHNIK-LP4000x2500		
TITLE:				DRAWING No:		REV.
ORBITAL WELDING M/C GANTRY ASSY				3M10A6013666		01
Sheet No:				No. of Sheets:		

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SECTION AA

NOTE:-
 ALL WELDED CONSTRUCTION
 ALL WELDS ARE \blacktriangleright 5

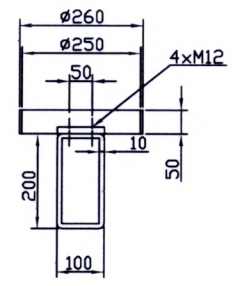
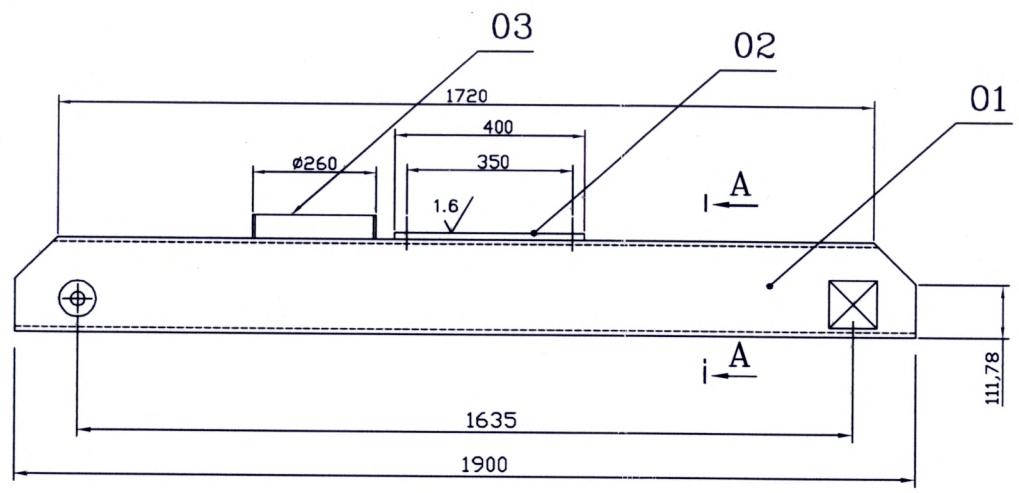
1	PL-14tx400x100	Fe 410WA	IS: 2062	4.40		02
1	RECT 200x100x10tx1900L	Fe 410WA	IS: 2062	83.52		01
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No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
	REFERENCE		ALTERATIONS	DCN REF	DATE	SIGN.
SCALE	DRAWN (378)					
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	APPROVED					
	DATE 06.06.08					
MACHINE: ORBITAL WELDING M/C			TYPE: ADK TECHNIK-LP4000x2500			
TITLE: BOTTOM FRAME 1			DRAWING No: 3M10A6013568			REV.
			Sheet No:		No. of Sheets:	

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SECTION AA

NOTE:-
 ALL WELDED CONSTRUCTION
 ALL WELDS ARE \blacktriangleright 5

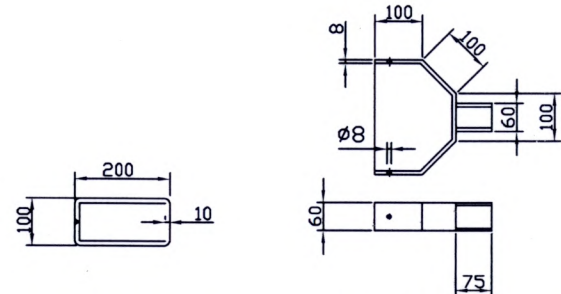
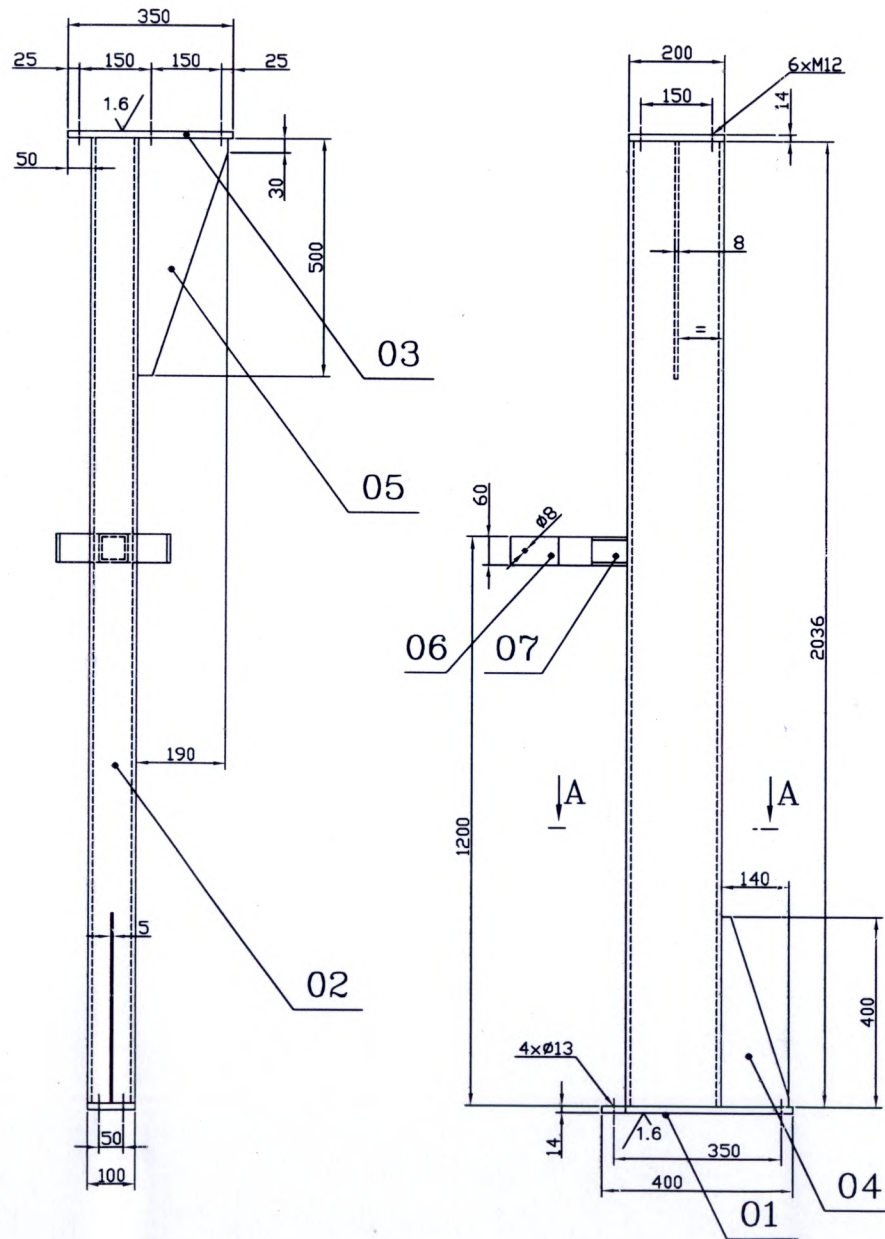
1	PL-5tx50x801	Fe 410WA	IS: 2062	1.57		03
1	PL-14tx100x400L	Fe 410WA	IS: 2062	4.40		02
1	RECT 200x100x10tx1900L	Fe 410WA	IS: 2062	83.52		01
				89.49	3M10A6013666	02
No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
	REFERENCE:		ALTERATIONS:	DCN REF	DATE	SIGN.
SCALE	DRAWN (338)					
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	APPROVED					
	DATE 06.06.08					
MACHINE: ORBITAL WELDING M/C			TYPE: ADK TECHNIK-LP4000x2500			
TITLE: 3M10A6013569			DRAWING No:		REV.	
Sheet No:			No. of Sheets:			

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SECTION AA

ITEM NO: -6,7

NOTE:- ALL WELDED CONSTRUCTION ALL WELDS ARE \blacktriangle 5

4	PL-8tx75x208	Fe 410WA	IS: 2062	0.98		07
1	PL-8tx60x500	Fe 410WA	IS: 2062	1.88		06
1	PL-8tx190x500	Fe 410WA	IS: 2062	5.97		05
1	PL-5tx140x400	Fe 410WA	IS: 2062	2.20		04
1	PL-14tx100x350	Fe 410WA	IS: 2062	3.85		03
1	RECT 200x100x10tx2036L	Fe 410WA	IS: 2062	89.50		02
1	PL-14tx100x400	Fe 410WA	IS: 2062	4.40		01
				108.78	3M10A6013666	03

No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
	REFERENCE:		ALTERATIONS:	DCN REF	DATE	SIGN.
						INDEX

SCALE	DRAWN	(378)				
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	APPROVED					
	DATE	06.06.08				

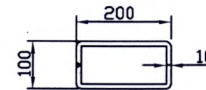
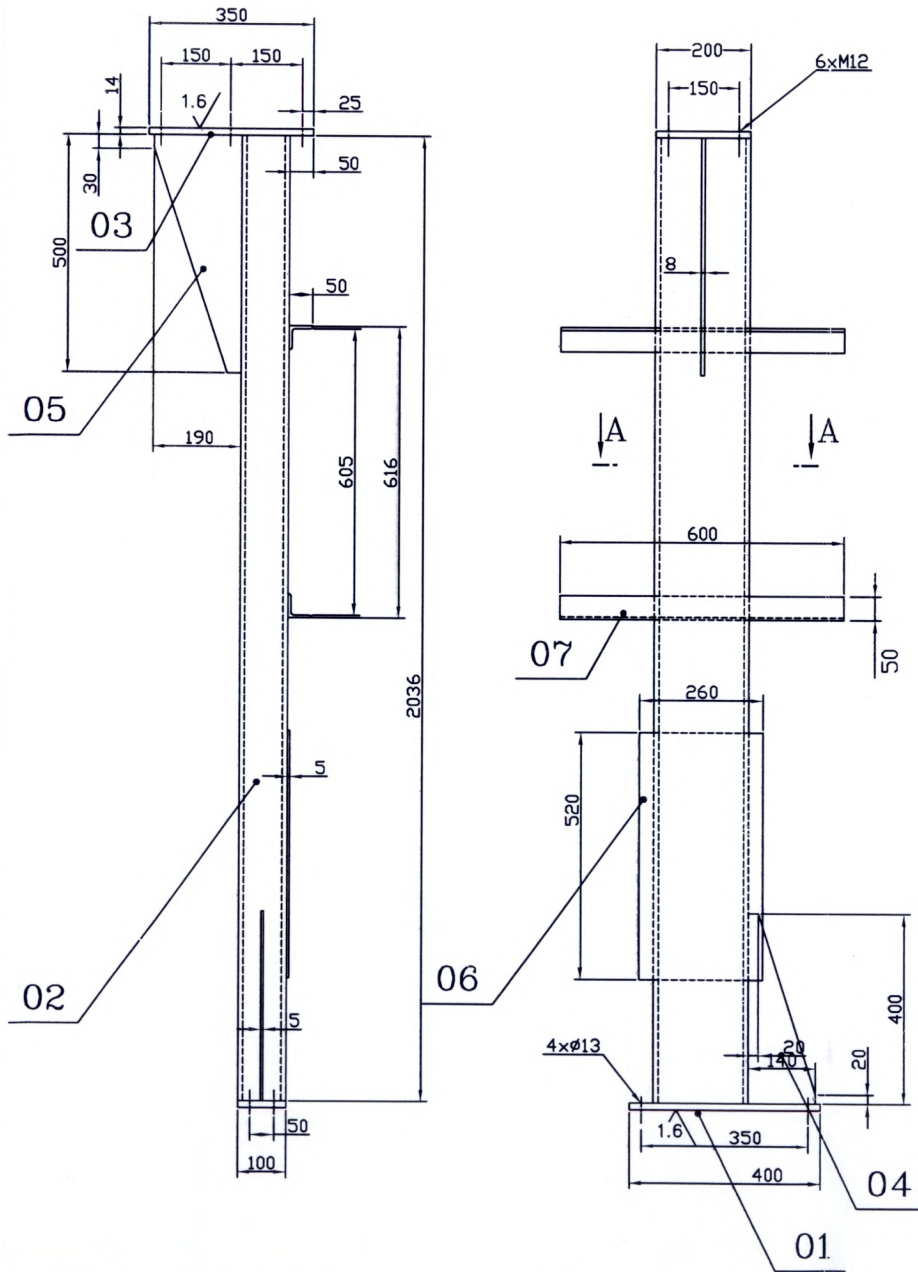
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Sheet No:	No. of Sheets:

4

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3.2/1.6



SECTION AA

NOTE:-
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ALL WELDS ARE $\nabla 5$

No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
2	ISA-50x50x600	Fe 410WA	IS: 2062	5.40		07
1	PL-5tx520x260	Fe 410WA	IS: 2062	5.31		06
1	PL-8tx500x190	Fe 410WA	IS: 2062	5.97		05
1	PL-5tx400x140	Fe 410WA	IS: 2062	2.20		04
1	PL-14tx350x100	Fe 410WA	IS: 2062	3.85		03
1	RECT 200x100x10tx2036L	Fe 410WA	IS: 2062	89.50		02
1	PL-14tx400x100	Fe 410WA	IS: 2062	4.40		01
				116.63	JM10A6013666	04

DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
REFERENCE:		ALTERATIONS:	DCN REF	DATE	SIGN.
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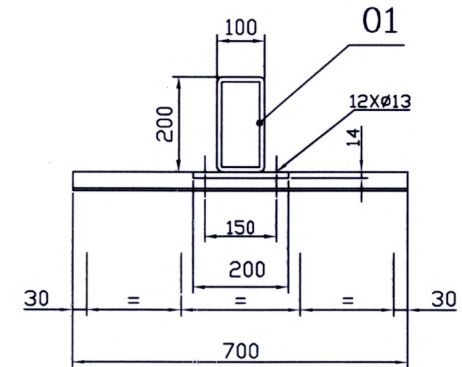
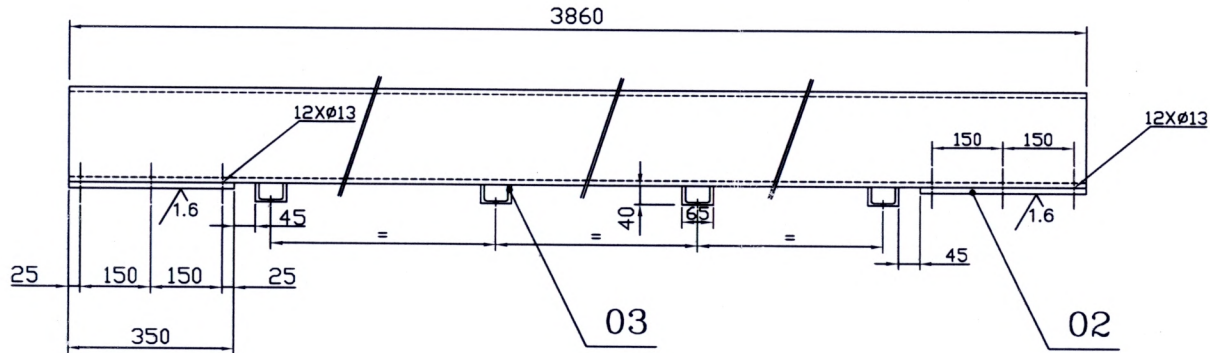
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TITLE: RIGHT SIDE FRAME	DRAWING No: 3M10A6013571
	REV.:
	Sheet No:
	No. of Sheets:

40

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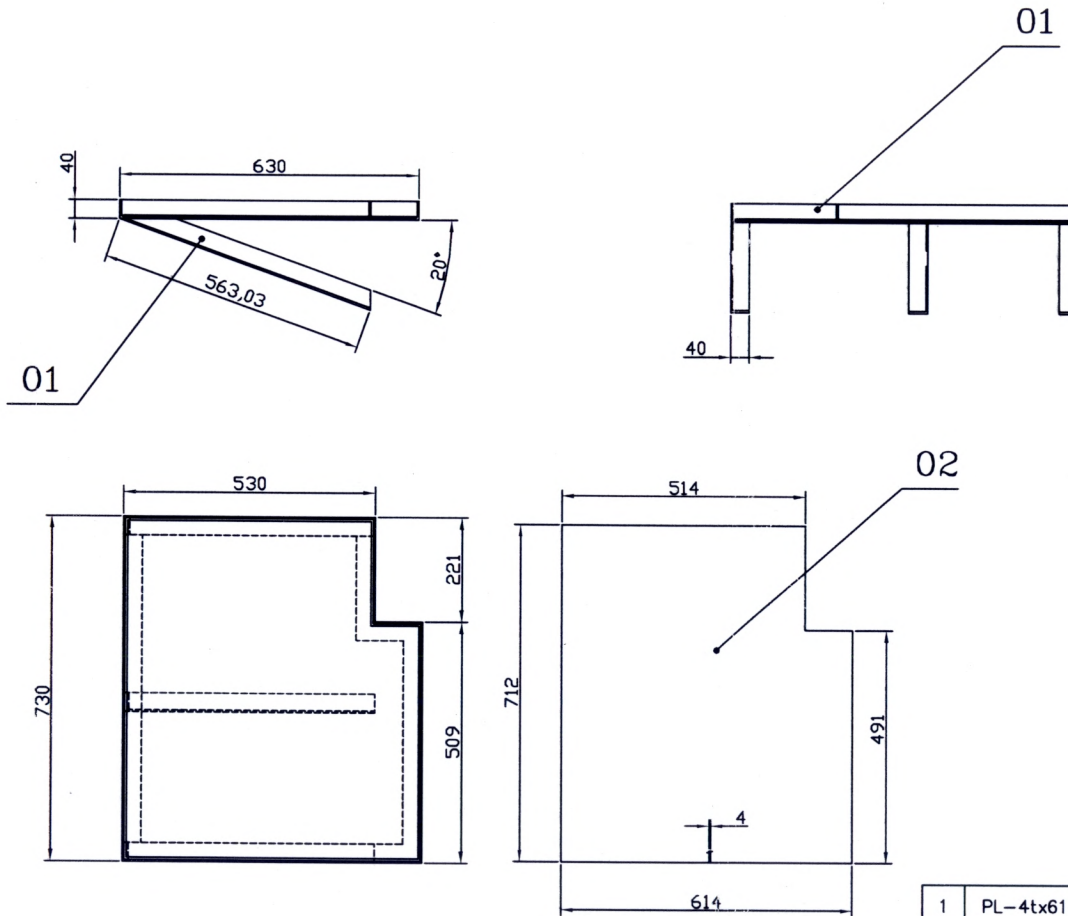
NOTE:-
ALL WELDED CONSTRUCTION
ALL WELDS ARE $\blacktriangle 5$

4	ISMC-65x40x700L	Fe 410WA	IS: 2062	19.99		03
2	PL-14tx350x100	Fe 410WA	IS: 2062	7.69		02
2	RECT 200x100x8tx3860L	Fe 410WA	IS: 2062	169.69		01
				197.37	JM10A6013666	05
No. of Pieces	DESCRIPTION	MATERIAL	STANDARD	NET.WT.IN KGS.	DRAWING No.	ITEM No.
	REFERENCE:		ALTERATIONS:	DCN REF	DATE	SIGN.
SCALE	DRAWN (378)					
	CHECKED					
1:10	APPROVED					
	DATE	06.06.08				
	MACHINE: ORBITAL WELDING M/C				TYPE: ADK TECHNIK-LP4000x2500	
	TITLE: TOP FRAME				DRAWING No: 3M10A6013572	REV.
					Sheet No:	No. of Sheets:

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TECHNICALS LIMITED - 620 014

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NOTE:-
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ALL WELDS ARE $\blacktriangle 5$

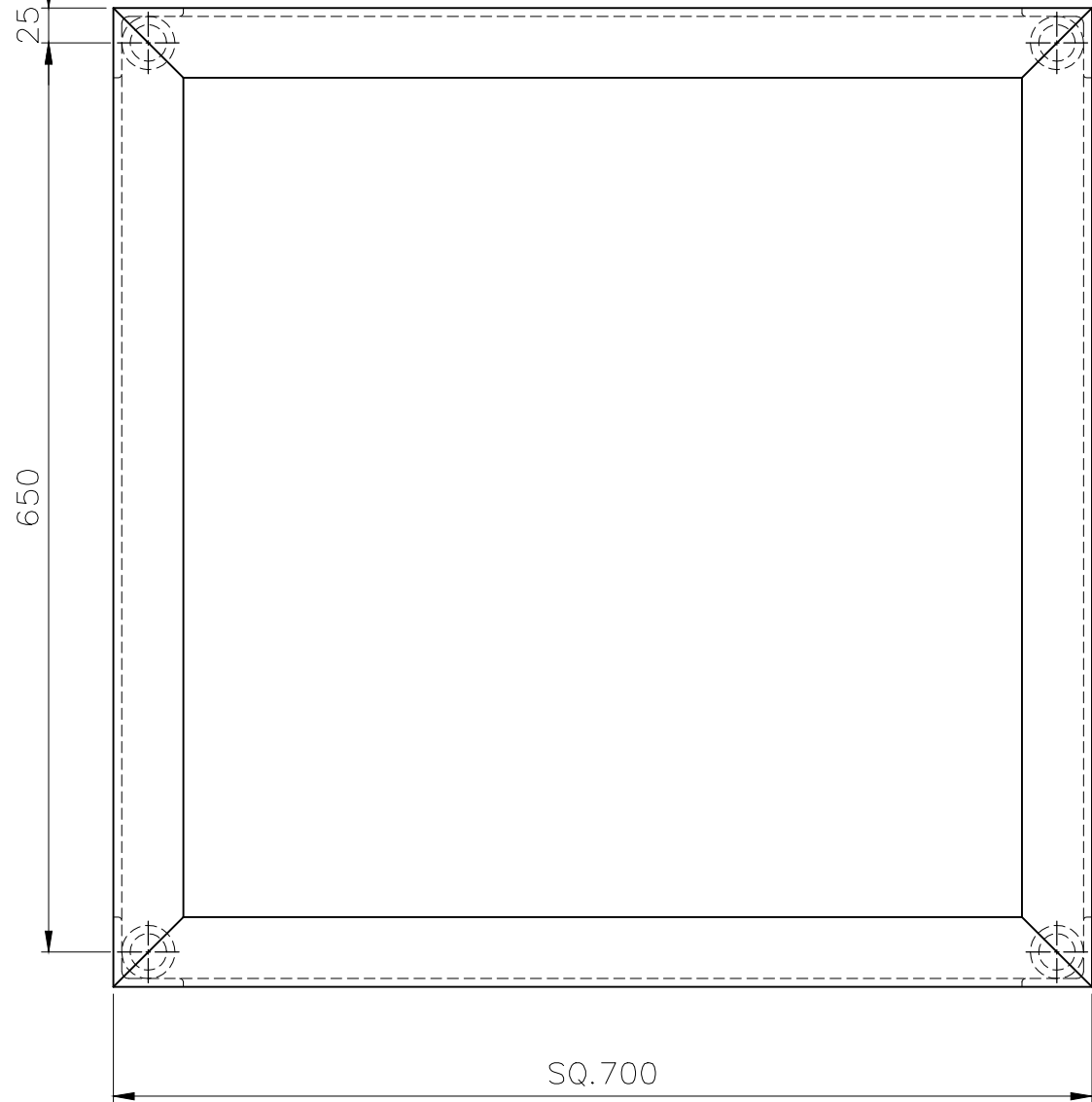
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2	ISA-40x40x5030L	Fe 410WA	IS: 2062	15.09		01
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	REFERENCE:		ALTERATIONS:	DCN REF	DATE	SIGN.
SCALE	DRAWN	(378)				
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	APPROVED					
	DATE	06.06.08				
MACHINE: ORBITAL WELDING M/C			TYPE: ADK TECHNIK-LP4000x2500			
TITLE: TRANSFORMER FRAME			DRAWING No:		REV.	
			3M10A6013573			
			Sheet No:		No. of Sheets:	

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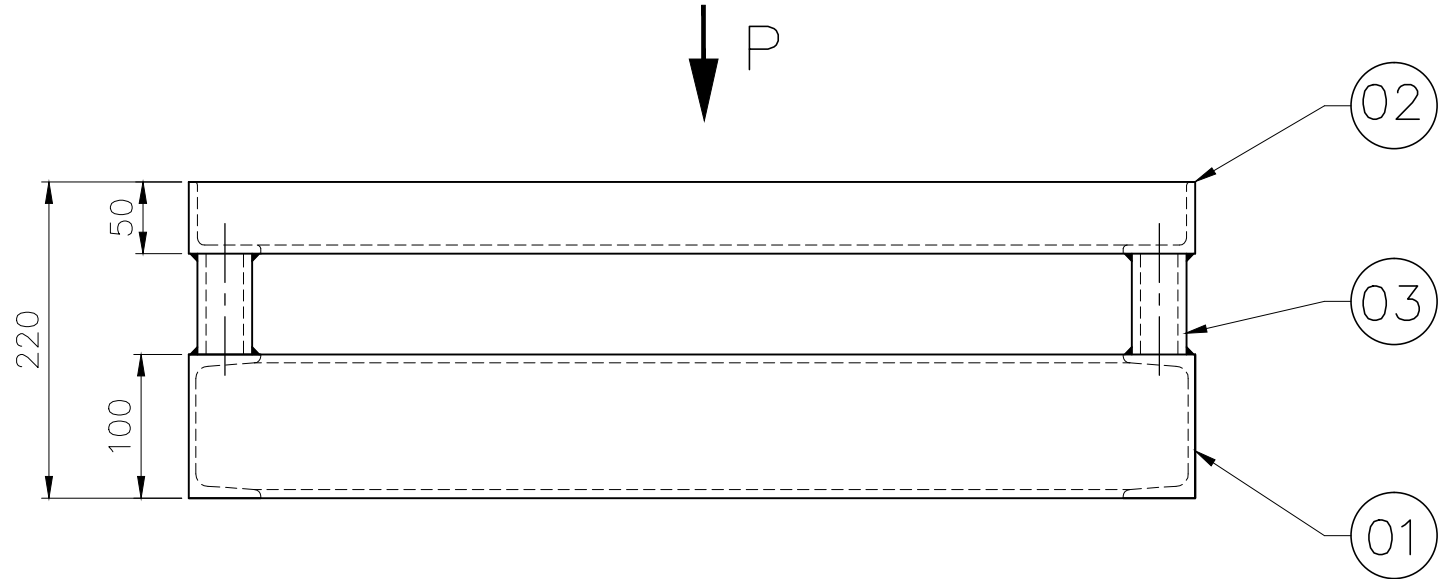
M&S-PD-13-283

DRAWING NO:

ALL DIMENSIONS ARE IN MILLIMETRES



VIEW-P



NOTE:

ALL JOINTS WELDED CONSTRUCTION

ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY
03	TUBE $\phi 38 \times 6 \times 70L$.		IS: 1239	0.37
			ERW	4
02	ISA 50x50x6x700L. IS: 808		IS: 2062	3.15
			E 250 A	4
01	ISMC 100x50x700L. IS: 808		IS: 2062	6.69
			E 250 A	4

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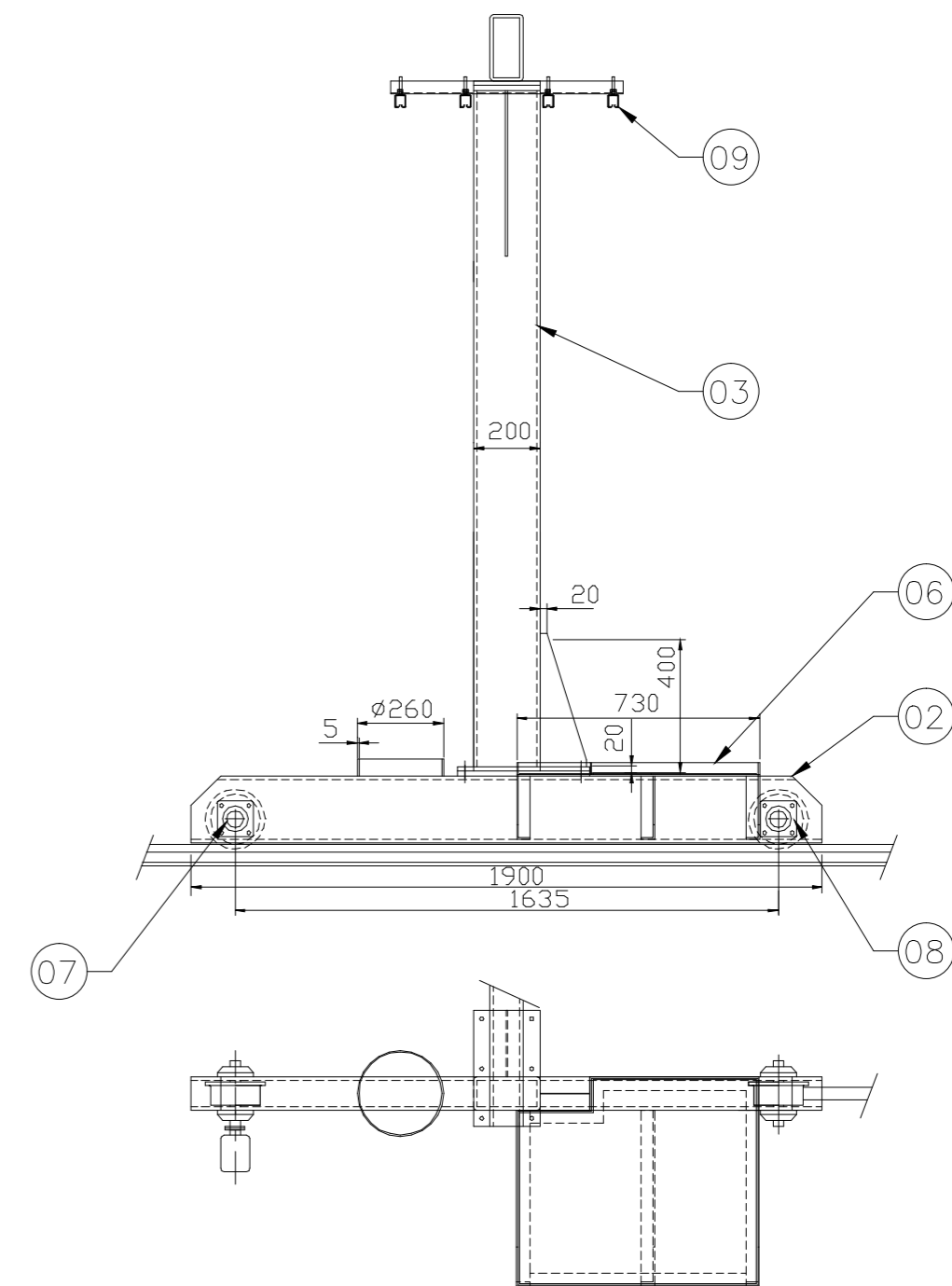
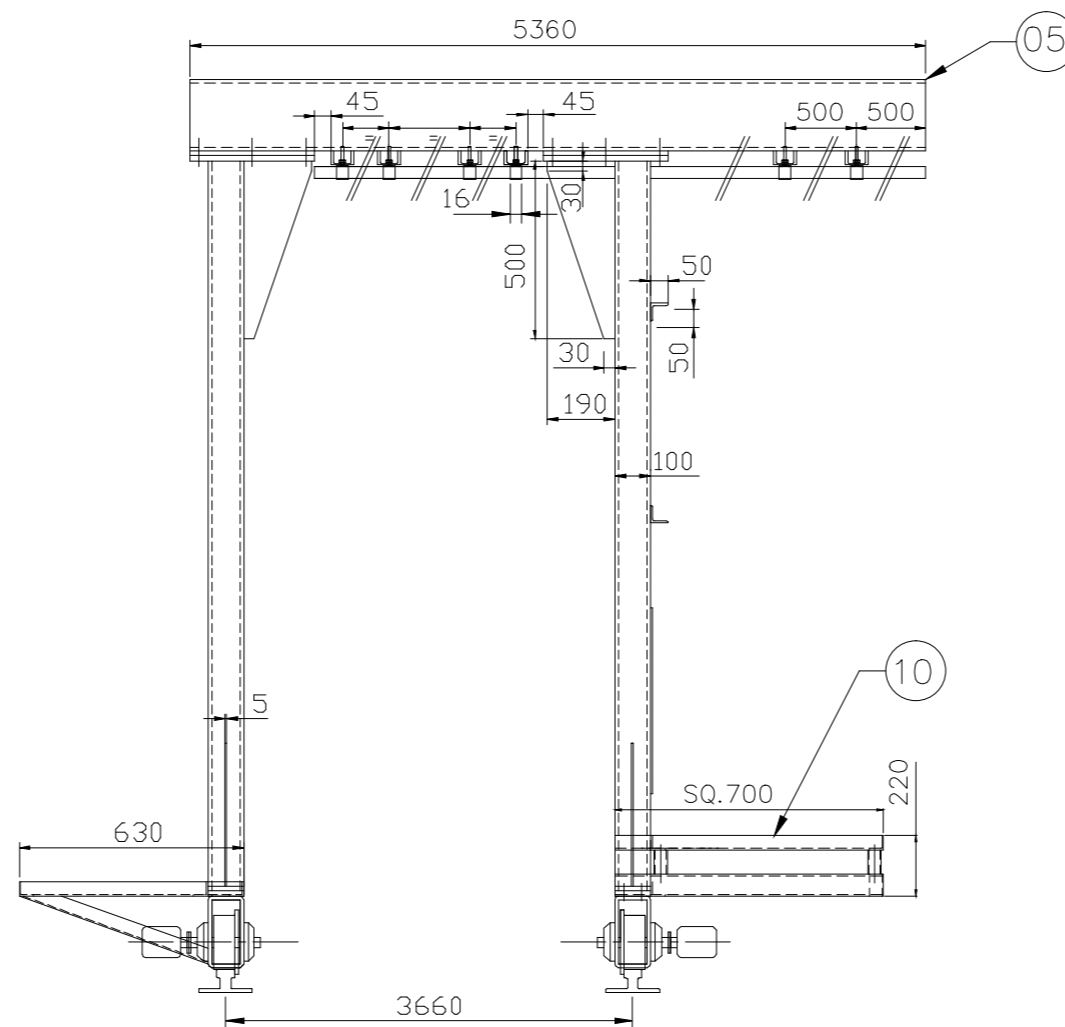
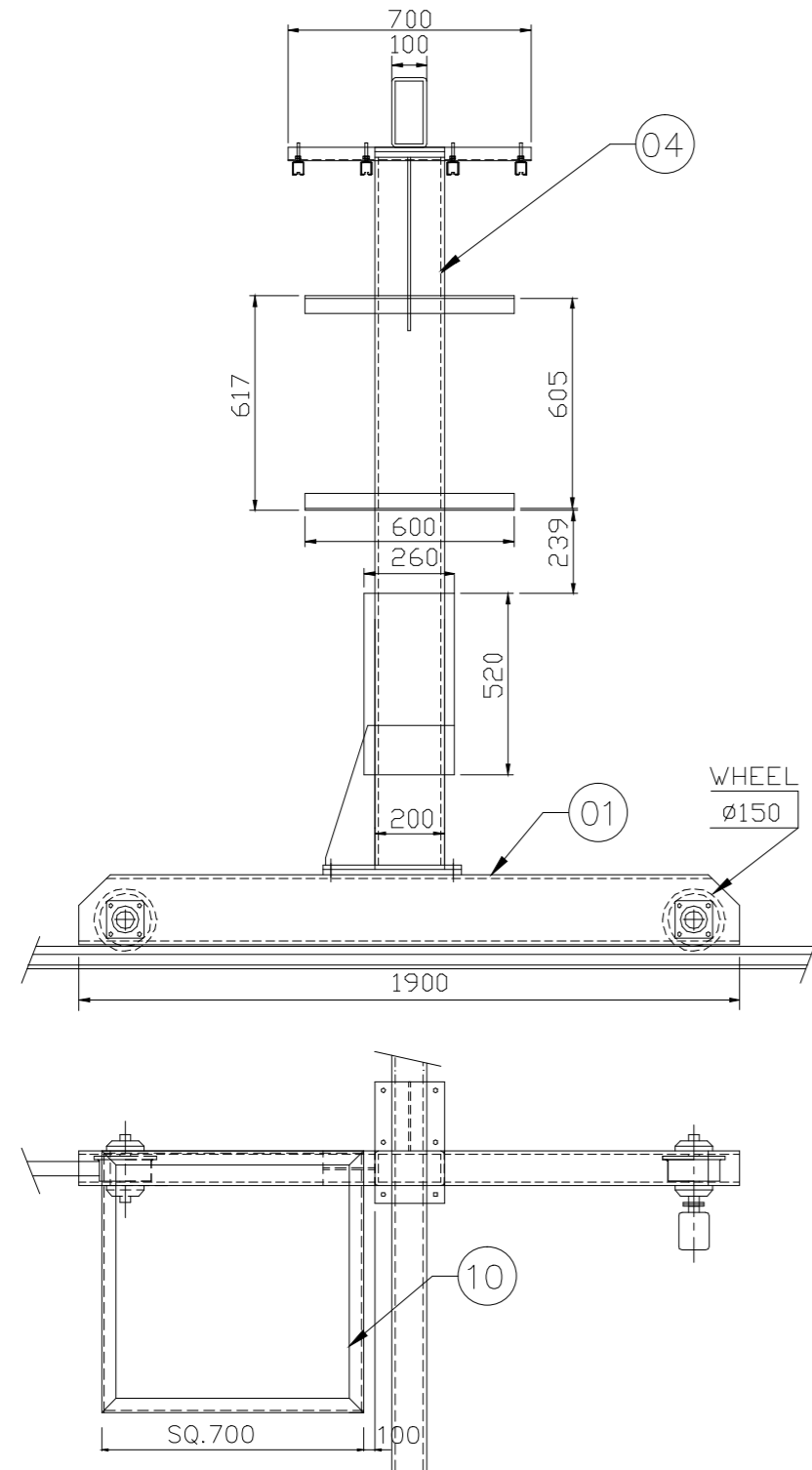
REV	DATE	ALTERED
		CHECKED
		APPROVED
ZONE		

EQPT: WELDING M/C.-ORBITAL TIC WELDING		NAME: C.PONNUSAMY		SIGNATURE: <i>E. Ponnusamy</i>		DATE: 06/09/13	
DEPT: M&S		CHD: G.GOVINDARAJ		SIGNATURE: <i>G. Govindaraj</i>		DATE: 09/09/13	
GRADE OF UNTOL. DIM: $\phi/M/F$ IS: 2102		APPD: K.RAMANAN		SIGNATURE: <i>K. Ramanan</i>		DATE: 09/09/13	
CODE: 2597		SCALE: 1:5		WEIGHT (Kg): 40.85		REF TO ASSY DWG NO:	
TITLE: CHILLER TRAY		CARD CODE: U 01		DRAWING NO: M&S-PD-13-283		REF TO OLD DWG NO:	
						REV: 00	

DRAWING NO: 2M10A6005084

ALL DIMENSIONS ARE IN MILLIMETERS

3.2/1.6



10	CHILLER TRAY	M&S-PD-13-283		40.85
9	ALUMINUM 'C' SIDE 1 1/2" SIDE WITH 2 SET OF SIDE ROLLER		4	
8	IDLER FRAME			
7	DRIVE FRAME			

REV	DATE	ALTERED	CHECKED	APPROVED
ZONE				

6	TRANSFORMER FRAME	3M10A6013573		28.82
				1
5	TOP FRAME	3M10A6015188		240.68
				1
4	RIGHT SIDE FRAME	3M10A6013571		116.63
				1
3	LEFT SIDE FRAME	3M10A6013570		108.78
				1
2	BOTTOM FRAME-2	3M10A6013569		44.74
				2
1	BOTTOM FRAME-1	3M10A6013568		87.92
				1

ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY

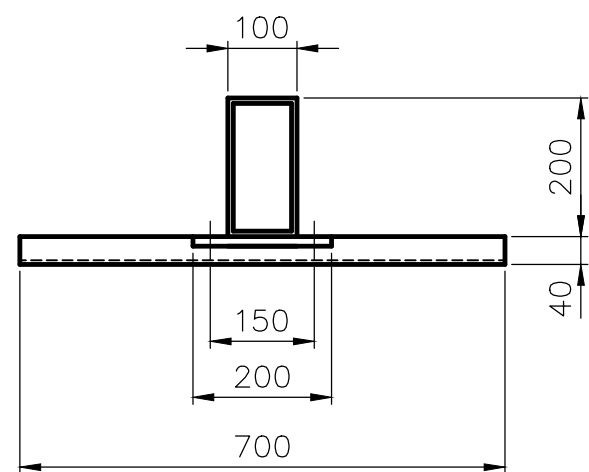
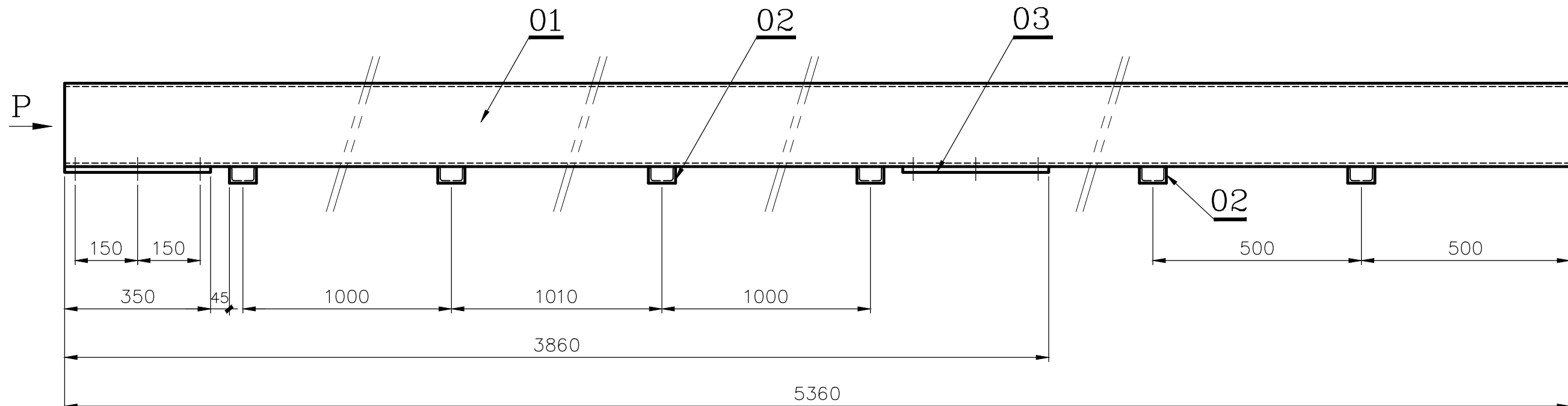
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EQPT:

		Bharat Heavy Electricals Ltd HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014	
DRN	TCD.S.SELVAMANICKAM	SIGNATURE	S. Selvamaniyam
CHD	G.GOVINDARAJ	SIGNATURE	G. Govindaraj
APPD	K.RAMANAN	SIGNATURE	K. Ramanan
DEPT	M&S	GRADE OF UNTO. DIM	SCALE
CODE	2597	φ/M/f IS:2102	NTS
TITLE		WEIGHT (Kg)	ITEM
ORBITAL WELDING M/C. (WITH EXTENDED FRAME) GANTRY ASSY.		713.16	
CARD CODE		DRAWING NO :	
U 01		2M10A6005084	
		REV	
		00	

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3M10A6015188



VIEW-P

3	PL 350 x 200 x 8 IS 1730		IS 2062	4.39
			E 250 A	2
2	ISMC 65x40x700 IS 1730		IS 1239	4.99
			ERW	6
1	RECT. 200x100x8 IS 1732		IS 2062	201.96
			E 250 A	1
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY

EQPT: ORBITAL TIG WELDING / ADK TECHINIEK-LP 4000x2500

	Bharat Heavy Electricals Ltd		DRN	S.SELVAMANICKAM	SIGNATURE	S. Selvamaniackam	DATE	24.10.13
	HIGH PRESSURE BOILER PLANT		CHD	G.GOVINDARAJ	SIGNATURE	S. Govindaraj	DATE	24.10.13
	TIRUCHIRAPALLI - 620014		APPD	K.RAMANAN	SIGNATURE	K. Ramanan	DATE	25.10.13

DEPT	M&S	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM
CODE	2597	φ/M/F IS: 2102	1:10	240.68	2M10A6005084	
					REF TO OLD DWG NO	

TITLE	TOP FRAME (ORBITAL WELDING M/C. GANTRY ASSY.)	CARD CODE	U 01	DRAWING NO :	3M10A6015188	REV	00
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REV	DATE	ALTERED
		CHECKED
		APPROVED
ZONE		

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