

ML2020



The **Harbach Positioning** standard duty series of Column & Boom Manipulators are specifically designed and built to withstand the harsh and rugged environments expected in the welding industry. It includes the following features:

- A slewing ring for column mounting, thereby providing a smooth 360° lockable rotation.
- All vertical and horizontal rails are precisely machined in single runs giving unsurpassed smooth and steady travel
- Non powered boom arm travel via easy glide manual hand wheel adjustment
- Motorized vertical travel via AC motor complete with brake for added safety
- High tensile roller chain used for vertical travel with the addition of a counter balance system provides smooth effortless vertical travel
- IP 55 control box and low voltage pendant control station
- Standard safety feature includes anti-fall device and limit switches for all functions
- Internally trunked cabling

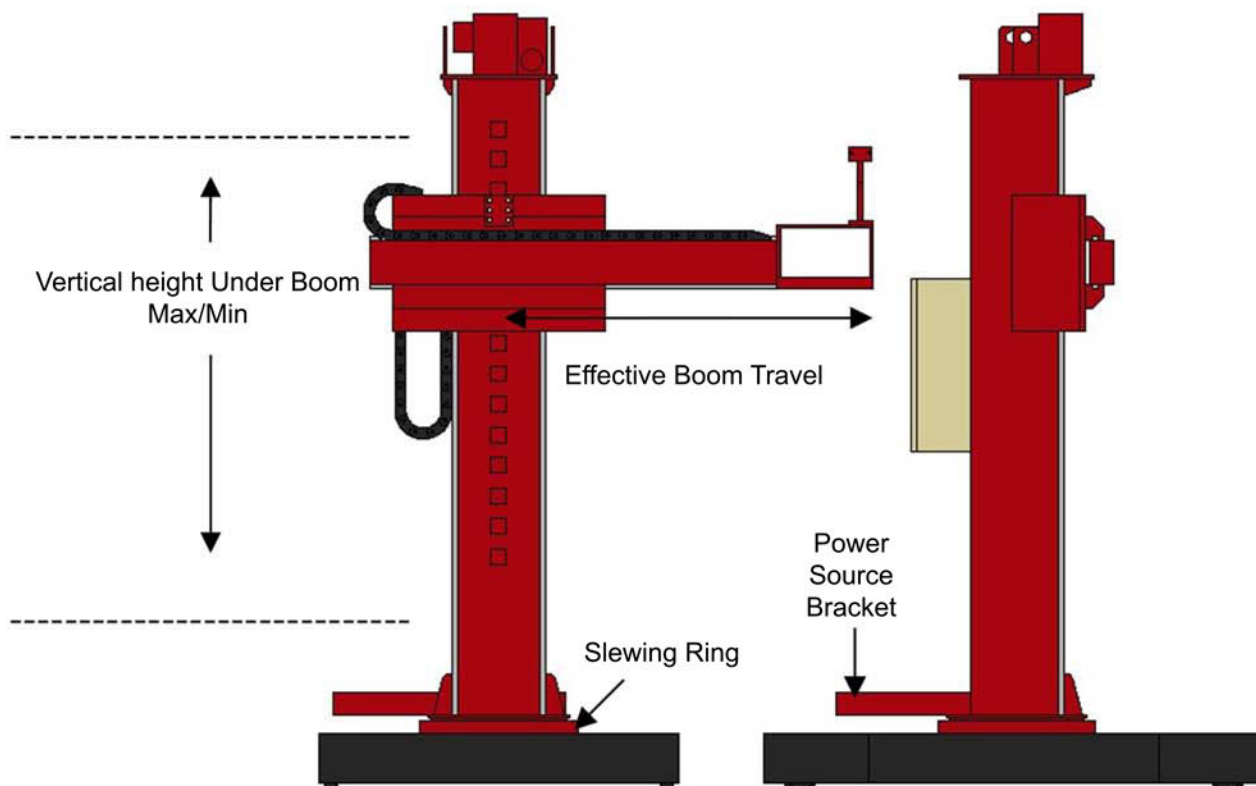
Light Duty Harbach Positioning Series

### ML2020

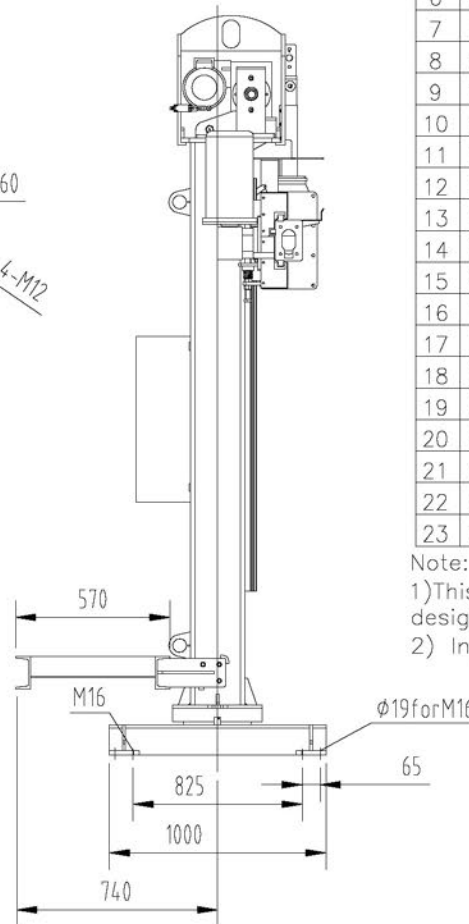
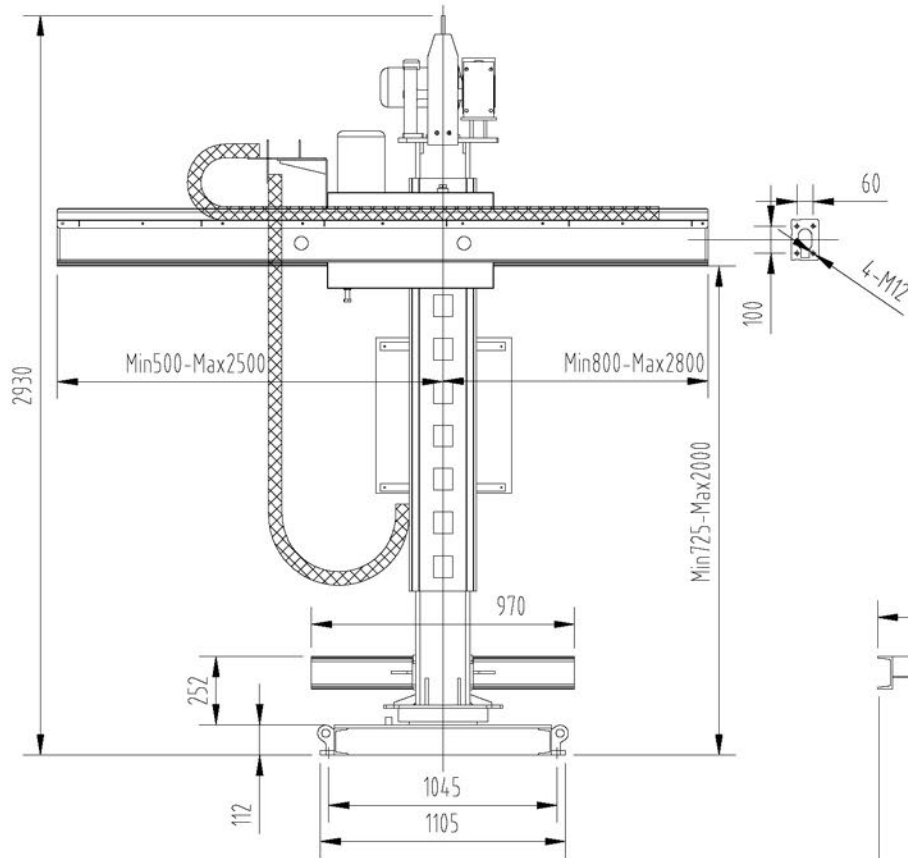
#### Optional features include:

- Travel car, manual can be fitted for rail mounting
- X-Y slide, manual or motorized, operated via the same pendant station
- Welding power source & wire feeder controller system

All Column & Boom Manipulators are grit blasted to SA2.5 and two coats of zinc phosphate paint followed by one coat of polyurethane paint work will ensure that your investment provides you with many years of uninterrupted service.



#### Light Duty Harbach Positioning Series



|    |                            |  |
|----|----------------------------|--|
| 1  | Model                      | ML2020-FM-WE-DC  |
| 2  | Payload                    | 100 kg at 300mm from the front end of boom             |
| 3  | Vertical Speed             | 580 mm/min at 50Hz, 0.37KW c/w Brake                   |
| 4  | Boom Speed                 | 317~3170mm/min, 0.37KW c/w Forced Cooling              |
| 5  | Travel Speed               | NA   |
| 6  | Max. Under Boom Height     | 2000mm   |
| 7  | Effective Boom Travel      | 2000mm   |
| 8  | Welding Controller/Feeder  | N.A.   |
| 9  | Welding Controller Bracket | N.A.   |
| 10 | Welding Power Source/Brand | N.A.   |
| 11 | Welding Powersource Skid   | Yes  |
| 12 | Electrical Panel           | Yes  |
| 13 | Base Type                  | Floor Mounted Fixed Base                               |
| 14 | X-Y Slide                  | NA   |
| 15 | Slewing Feature            | Yes. Manual +/-180°                                    |
| 16 | Power Supply               | 380/400/415V-3P-50Hz or 440/460/480V-3P-60Hz           |
| 17 | Travelcar Rail GG          | N.A.   |
| 18 | Control Voltage            | 24Vac  |
| 19 | Control Means              | Via Push Button Pendant c/w 7m Cable                   |
| 20 | Surface Preparation        | Gritblast to SA2.5                                     |
| 21 | Painting                   | Lead free, 2 coats Zinc Phosphate, 1 coat Polyurethane |
| 22 | Color                      | RAL3003 Red & RAL9005 Black for fixed base             |
| 23 | Quantity                   | 1 unit   |

Note:

- 1) This drawing is for illustration only and subjected to final design and site confirmation.
- 2) Input terminals are wired for 400V by default.

ALL DIMENSIONS IN MM, UNLESS OTHERWISE SPECIFIED.



CUSTOMER APPROVAL:

DATE:

CHECKED BY:

DATE:

DRAWN BY: IC

DATE: 09-02-2011

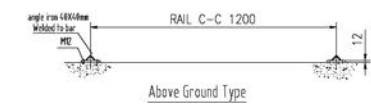
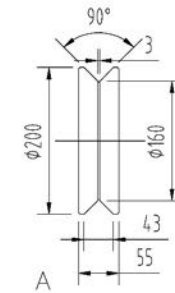
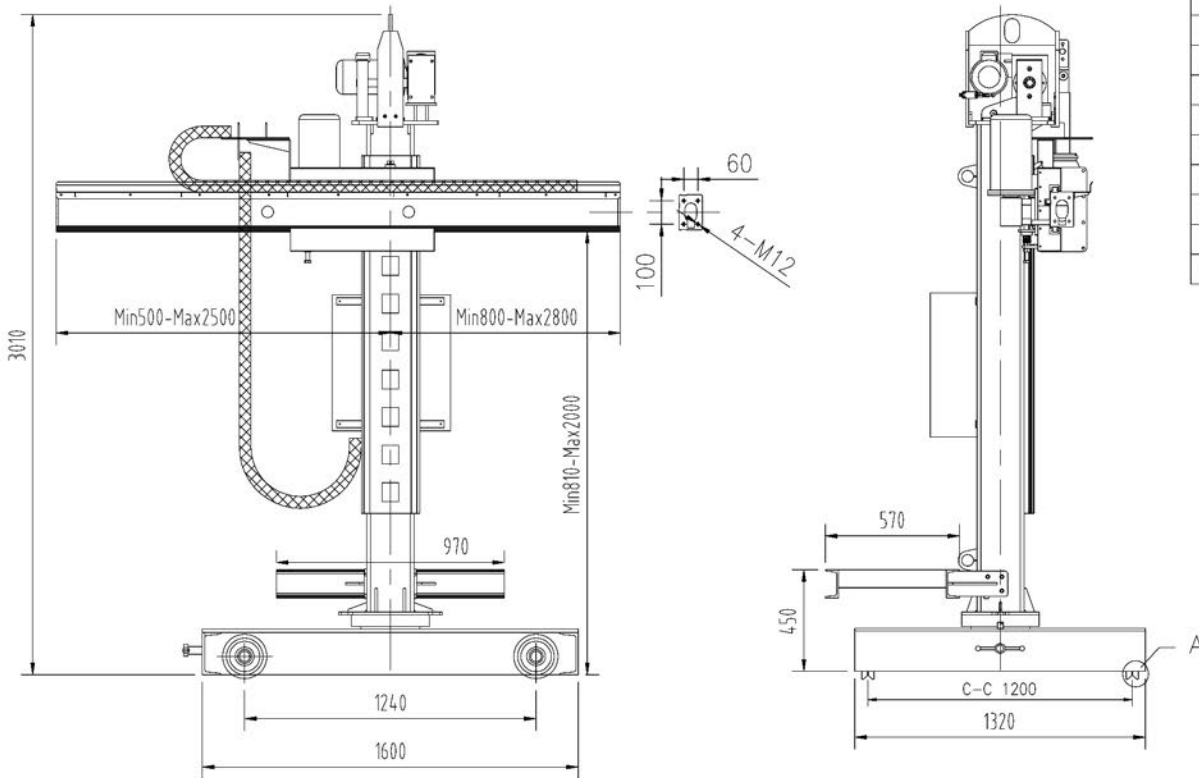
| REV   | DATE | DESCRIPTION                          | EDIT BY | REMARKS | SCALE:        |
|---|------|--------------------------------------|---------|---------|---------------|
|   |      | CUSTOMER:                            |         |         | N.T.S.        |
|   |      | DRAWING NAME: Light-Duty Manipulator |         |         | ⏪ ⏩           |
|   |      | DRAWING NO.: ML2020-FM-WE-DC         |         |         | REV: 0        |
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## Specification for Manipulator

|    |                            |   |
|----|----------------------------|---|
| 1  | Model                      | ML2020-MT1200-WE-DC                                       |
| 2  | Payload                    | 100kg at 300mm from the front end of the boom             |
| 3  | Vertical Speed             | Max. 580mm/min 0.37 kw at 50Hz with brake                 |
| 6  | Boom Speed                 | 317 to 3170 mm/min 0.37kw at 5 to 50Hz With Force Cooling |
| 7  | Max.Under Boom Height      | 2000mm  |
| 8  | Effective Boom Travel      | 2000mm  |
| 9  | Welding Controller/Feeder  | N.A.  |
| 10 | Welding Controller Bracket | N.A.  |
| 11 | Welding Powersource/Brand  | N.A.  |
| 12 | Welding Powersource Skid   | Yes   |
| 13 | Electrical Panel           | YES   |
| 14 | Slewing Feature            | Yes,Manual on slew ring                                   |
| 15 | Power Supply               | 380/400/415V-3P-50Hz or 440/460/480V-3P-60Hz              |
| 16 | Control Voltage            | 24V AC  |
| 17 | Control Means              | Via push button pendant on 6m cable                       |
| 18 | Travelcar                  | Yes.Manual push trolley                                   |
| 19 | Travelcar Rail G-G         | 1200mm  |
| 20 | Surface Preparation        | Gritblast to SA2.5  |
| 21 | Painting                   | Powder coating  |
| 22 | Color                      | RAL3003 Red & RAL9005 Black for travelcar only            |
| 23 | Qty                        | 1 unit  |

Note : :

- 1) Input terminals are wired for 400V by default.
- 2) This drawing is accurate at time of preparation and may be subjected to final design.



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| REV   | DATE | DESCRIPTION | EDIT BY | REMARKS | SCALE         |
|---|------|-------------|---------|---------|---------------|
| CUSTOMER:   |      |             |         |         | N.T.S.        |
| DRAWING NAME: Manipulator 2.0x2.0 on Manual travelcar   |      |             |         |         |               |
| DRAWING NO: ML2020-MT1200-WE-DC   |      |             |         |         | REVISION: 0   |
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31-08-2011