A Conventional Welding Rotator consists of two (2) parts:

- a motorised drive (power) unit; and
- an idler supporting unit.

The power unit is driven by a heavy duty geared DC or AC motor which is designed according to internationally proven specifications to ensure constant speed with outer balance load of 15%.

The heavy duty tyres are designed to 65° durable hardness with high-stress rubber cushion mounts to absorb shock loads and prevent gear box damage.

The DC electronic function or inverter comes with a remote control panel with interlocking reversing systems operating at temperatures in excess of 60° C.

A Conventional Welding Rotator is a motorised drive (power) unit and an idler supporting unit. It is designed to ensure constant speed with a maximum outer balance load of 15%. The heavy duty tyres are made of durable material to withstand shock loads and prevent gear box damage. The DC electronic function or inverter comes with a remote control panel that can operate at temperatures of 60° C.

**Options**

- Digital read LED present speed indicator
- Synchronising control accessory for multiple connections of power frames
- Synchronising, plug-in lead to customer length
- Bogie mounted frames
- Mechanised electric power bogie mounted frames
- Synchronising roll rotation and arc start control system

**Other features**

- Oil sight level gauges
- Skid frame protection to prevent any damage on control box when lifting centre loads
- Anti-creep device feature offering a 5° vessel creep control
- Overload disc to avoid any possible tyre damage

**Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>Static Load</th>
<th>Turning Capacity</th>
<th>Vessel Diameter</th>
<th>Tyre Diameter / Width</th>
<th>Rotation Speed</th>
<th>Drive Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>YR 10/5</td>
<td>5</td>
<td>10</td>
<td>120-2500</td>
<td>Ø 304 / 177</td>
<td>30-931</td>
<td>Single Wheel</td>
</tr>
<tr>
<td>YR 15/10</td>
<td>10</td>
<td>15</td>
<td>120-3200</td>
<td>Ø 355 / 177</td>
<td>30-931</td>
<td>Single Wheel</td>
</tr>
<tr>
<td>YR 30/20</td>
<td>20</td>
<td>30</td>
<td>250-4500</td>
<td>Ø 457 / 177</td>
<td>30-856</td>
<td>Single Wheel</td>
</tr>
<tr>
<td>YR 45/30</td>
<td>30</td>
<td>45</td>
<td>746-4500</td>
<td>Ø 588 / 203</td>
<td>30-843</td>
<td>Single Wheel</td>
</tr>
<tr>
<td>YR 60/30</td>
<td>30</td>
<td>60</td>
<td>746-4500</td>
<td>Ø 588 / 203</td>
<td>30-843</td>
<td>Dual Wheel</td>
</tr>
<tr>
<td>YR 110/75</td>
<td>75</td>
<td>110</td>
<td>746-4500</td>
<td>Ø 588 / 406</td>
<td>30-843</td>
<td>Dual Wheel</td>
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<tr>
<td>YR 120/90</td>
<td>90</td>
<td>120</td>
<td>746-4500</td>
<td>Ø 588 / 609</td>
<td>30-843</td>
<td>Dual Wheel</td>
</tr>
<tr>
<td>YR 180/120</td>
<td>120</td>
<td>180</td>
<td>746-4500</td>
<td>Ø 588 / 812</td>
<td>30-843</td>
<td>Dual Wheel</td>
</tr>
<tr>
<td>YR 200/150</td>
<td>150</td>
<td>200</td>
<td>746-4500</td>
<td>Ø 588 / 1015</td>
<td>30-843</td>
<td>Dual Wheel</td>
</tr>
</tbody>
</table>

**Notes**

- Please refer to Yuryoku Engineer for any requirement that is not covered by this catalogue.
Special Features

Self-Aligned
Roll different sizes of work pieces without changing wheel centre.

Drive System
- Direct drive through heavy duty gear box
  (no external wearing parts such as spur or ring gears or chains)
- No backlash
- Oil sight level gauges

Electronic Control
- Precision DC electronic control with interlocking reversing system
- Controller will operate at temperatures in excess of 60°C
- Remote Control:
  a. Operation control panel as the standard length 10m
  b. Special cable can be supplied

DC or AC Motor
Ensures constant speed with outer balance loads of 15%.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Static Load (tonne)</th>
<th>Towing Capacity (tonne)</th>
<th>Vessel Diameter / Width (mm)</th>
<th>Tyre Diameter / Width (mm)</th>
<th>Drive Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>YR20ASA</td>
<td>20</td>
<td>30</td>
<td>580-4500</td>
<td>Ø 457 / 177</td>
<td>Single Wheel</td>
</tr>
<tr>
<td>YR30ASA</td>
<td>30</td>
<td>40</td>
<td>580-4500</td>
<td>Ø 457 / 177</td>
<td>Single Wheel</td>
</tr>
<tr>
<td>YR40ASA</td>
<td>40</td>
<td>60</td>
<td>580-4500</td>
<td>Ø 558 / 203</td>
<td>Dual Wheel</td>
</tr>
<tr>
<td>YR60ASA</td>
<td>60</td>
<td>90</td>
<td>580-4500</td>
<td>Ø 558 / 406</td>
<td>Dual Wheel</td>
</tr>
<tr>
<td>YR90ASA</td>
<td>90</td>
<td>135</td>
<td>580-4500</td>
<td>Ø 558 / 609</td>
<td>Dual Wheel</td>
</tr>
<tr>
<td>YR120ASA</td>
<td>120</td>
<td>180</td>
<td>580-4500</td>
<td>Ø 558 / 812</td>
<td>Dual Wheel</td>
</tr>
</tbody>
</table>
A safe vertical lift is achieved through an AC self-braking motor. A geared reducer provides constant speed and smooth movement. Moreover, the Manipulator is equipped with an automated safety latch. This latch locks the room instantly when the chain tension on the boom lift is released. The boom is driven by spur gears. It has a rack on the underside to prevent accumulation of foreign matter.

### Column & Boom Manipulator

Manipulators are designed to work either independently or in conjunction with rotators and/or positioners to perform jobs like positioning an automatic welding head correctly over a work piece to achieve accurate down hand weld.

The Manipulator is fully motorised for raise, lower and boom traverse with an optional motorised traveling base. It allows the use of fully automated production techniques which increase quality, reduce production time and reduce operator fatigue.
The Automatic Tank Welder machine is specifically designed for efficient horizontal welding of huge diameter storage tanks, ships’ hulls, etc., ranging from 6m diameter and above. The recommended plate thickness is from a minimum of 6mm to a maximum of 50mm while recommended plate height is from a minimum of 1200mm to a maximum of 3000mm.

The tank top is transported by a DC gear motor. Both the YTW 11.3 (single sided welding model) and YTW 11.2 (double sided welding model) weld both internal and external walls simultaneously via the submerged arc process. The flux support unit consists of two knurled drive wheels, a belt system and a recycling capacity of up to 95%.

The unit also incorporates a travel speed indicator with an override fast jog button that allows the tank to be repositioned. Travel can be manually initiated on arc start. All international standard renowned welding machine brands will fit with our tank welder.

For added safety, both welding stations are fitted with emergency stop facilities, designed to de-activate all control and welding functions at the touch of a button. Seam tracking on the tank wall is accomplished through motorised vertical slides.

The variable traveling speed of the unit is controlled by an electrical control pendant which ranges from 0 to 1200 mm/min. Total weight of each complete frame unit is approximately 650 kg without taking account of the Power Source, Welding Head and Control.

**Our Tank Welder main features are:**

- Master frame (A)
- Slave frame (B)
- Operator platform
- Flux recovery re-circulating systems
- Cross seam head adjuster
- Pre-heat torch & bracket
- Weather proof curtain
- Power supply cable – 50 metre
- 2 pieces of Flux Belt

**Other features of the Automatic Tank Welder include:**

- Heavy motorised carriage supporting both welding stations
- Telescopic legs for welding adjustment from 300-1200mm
- Welding head for vertical welding adjustments of up to 300mm
- Frame head spreader designed for easy tank top loading and clamp facilities
- Safety cages, ladders and handrails with floors and roofs of non-slip plate
The table top can be tilted at different angles to achieve better welding positions and precision finishing. Table top tilting angles differ from model to model. All machines have a remote control panel with mounted switches to adjust variable speed control, "Forward-Off-Reverse" and tilting angle.

The Travel Gantry Welding System is designed and manufactured according to customer specifications and its main function is to do welding work on the web or flanges for H or I beam.

This system consists of a controlled variable speed motorised travel gantry which moves along the track and attaches to either a twin or multi welding head, which is adjustable for the weld position. The unit is best suited to submerged Arc or MIG welding systems, subject to customer requirements. The number of units of power source required to generate the welding function depends on the number of welding heads/controls.

The advantages of using the Travel Gantry System are:

- It provides better production efficiency and productivity, and helps customers in cutting down cost and improving product quality
- Increased output
- Cleaner production floor and great reduction in wastage compared to the conventional method
- Operation for longer number of hours

Please contact us with any further questions.

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Loading Capacity (kg)</th>
<th>Tilt Angle Degrees</th>
<th>Tilt Time (sec)</th>
<th>Rotation Speed (mm/min)</th>
<th>Table Diameter (mm)</th>
<th>Power Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>YP 0.4</td>
<td>400</td>
<td>135</td>
<td>60</td>
<td>0.15 - 1.5</td>
<td>800</td>
<td>415 v 3 PH 50 Hz</td>
</tr>
<tr>
<td>YP 0.6</td>
<td>600</td>
<td>135</td>
<td>60</td>
<td>0.1 - 1</td>
<td>800</td>
<td>415 v 3 PH 50 Hz</td>
</tr>
<tr>
<td>YP 0.8</td>
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<td>135</td>
<td>60</td>
<td>0.09 - 1</td>
<td>1000</td>
<td>415 v 3 PH 50 Hz</td>
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<tr>
<td>YP 1.5</td>
<td>1500</td>
<td>135</td>
<td>60</td>
<td>0.06 - 0.6</td>
<td>1200</td>
<td>415 v 3 PH 50 Hz</td>
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<tr>
<td>YP 2.5</td>
<td>2500</td>
<td>135</td>
<td>60</td>
<td>0.05 - 0.5</td>
<td>1400</td>
<td>415 v 3 PH 50 Hz</td>
</tr>
<tr>
<td>YP 4</td>
<td>4000</td>
<td>135</td>
<td>60</td>
<td>0.045 - 0.45</td>
<td>1600</td>
<td>415 v 3 PH 50 Hz</td>
</tr>
<tr>
<td>YP 6</td>
<td>6000</td>
<td>135</td>
<td>90</td>
<td>0.003 - 0.3</td>
<td>1800</td>
<td>415 v 3 PH 50 Hz</td>
</tr>
<tr>
<td>YP 8</td>
<td>8000</td>
<td>115</td>
<td>150</td>
<td>0.025 - 0.25</td>
<td>1800</td>
<td>415 v 3 PH 50 Hz</td>
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<tr>
<td>YP 10</td>
<td>10000</td>
<td>115</td>
<td>150</td>
<td>0.022 - 0.22</td>
<td>2000</td>
<td>415 v 3 PH 50 Hz</td>
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<tr>
<td>YP 15</td>
<td>15000</td>
<td>105</td>
<td>240</td>
<td>0.02 - 0.2</td>
<td>2250</td>
<td>415 v 3 PH 50 Hz</td>
</tr>
</tbody>
</table>

Our Positioner / Turntable is a compact machine ideally suited for jobs requiring rotary fixturing & positioning welding. We have various models which cater for work piece loading capacities, ranging from 400 kg to 15000 kg.
Our Pipe Rack System is a special custom design and build automatic modular welding and transfer line process that incorporates a welding station with a fit-up, making it suitable for circumferential sub-welding tubular sections. It also consists of a hydraulic kicker to allow lifting and unloading.

The Pipe Rack System assists customers in increasing production efficiency and reduces production cost in the long term.

For more information on this system, please contact us.