# IK-72W

### Magnetic Rail Welding Carriage



## Light weight welding carriage with magnetic rail system to perform consistent

The KOIKE IK-72W welding equipment is used for straight welding while riding along the 1D Rail affixed with ultra strong magnets in order to perform vertical welds. Made of aluminum alloy, the IK-72W is light weight and easy to use.

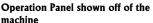
#### Features & Benefits

- Remote Pendant
   Allows welder to work in a more ergonomic position
- Permanent Magnetic Track
  Secures track to plate; allows track
  to be used vertically
- Three Rail Options Available
  Aluminum rail; makes accurate
  straight cuts; extendable track
  allows welding of longer parts
- Clutch Lever
  Releases side rollers to allow quick positioning of machine on rail
- Innovative Use of Materials for Precision Welding Light weight aluminum tubing and permanent magnets allow easy alignment and portability.
- Rack and Pinion
   Provide steady consistent motion in both vertical and horizontal welds.
- Multi Weld Processes
   Standard and programmable weaving options
- **Light weight at 4.5 kg (10 lb)**Makes transport and setup easier



#### **Removable Control Station**







Operation Panel shown on the machine

| SPECIFICATIONS                        |   |  |
|---------------------------------------|---|--|
| IK-72W1                               | Part# TBPJ6404004   |  |
| Drive System                          | Rack and Pinion   |  |
| Travel Speed                          | 150-1500 (mm/min)<br>(6 - 60 IPM)                                       |  |
| Adjustment range of welding gun Angle | Angle 40° ~ 55°<br>Vertical 45 mm (1.7 in)<br>Horizontal 45 mm (1.7 in) |  |
| Welding Margin                        | Start: 125 mm (4.9 in)<br>End: 140 mm (5.5 in)                          |  |
| Welding Positions                     | Fillet welding, downward welding<br>& vertical welding                  |  |
| Power                                 | AC 115 V/220 V<br>50/60 Hz Single Phase 1A                              |  |
| Weight                                | 4.5 kg (10 lb)  |  |
| Carriage Size                         | 350 mm x 250 mm x 230 mm  |  |







2D double-plane rail



3D triple-plane rail

| RAIL OPTIONS   |                     |                 |
|--|---------------------|-----------------|
| 1D Rail (straight plane) Vertical 1,500mm (60in)                   | cutting is possible | TBPJ64025       |
| 2D Rail (double plane) 1D(up)<br>1,000mm (40in)<br>60° bend radius | + 1 D(down)         | ZS31680         |
| 3D Rail (triple plane) 1D(up)<br>1,000mm (40in)<br>60° bend radius | + 1D(down) + 1D(t   | wist) TBPJ64026 |

#### **Welding Precision**

The KOIKE IK-72W is a light weight welding carriage using the IK-72 magnetic rail system. Setup is minimal with control on all axes. A remote pendant allows for the welder to work in a more ergonomic position. The pendant can then be attached to the carriage to be used as a compact system. The rack and pinion system provides steady consistent motion in both vertical and horizontal welding applications. While developed for the heavy truck trailer and shipbuilding industries, many other welding applications can be automated using the IK-72W. Most welding torches and power supplies are able to be integrated into the system allowing the use of existing equipment.

Studies show that semi-automation reduces production costs and increases the quality of the welding process.

#### **APPLICATIONS**

| Triple-plane curve welding at ship using triple-plane curved |  |                       |
|--|--|-----------------------|
|  | Welding the material for a double plane rail application |                       |
|  |  |                       |
|  |  |                       |
| Hsir   | ng a triple-plane curved rail                            |                       |
| ( )  | ig a tripic-plane curved fair                            |                       |
|  |  |                       |
|  | _  | Using a straight rail |
| Using a double-plane curved rail                             |  | Using a straight rail |



