

PRECISION AUTOMATIC WELDING SOLUTION FOR INDUSTRIAL FABRICATION



Fillet & Stitch Angle Wavering Welding Carriage with Welding Automation

TECHNICAL SPECIFICATION

| Technical Parameters | |
|----------------------|--------------------------------|
| Parameter | Specification |
| Size (L×W×H) | 430 × 280 × 290 mm |
| Weight | 12 kg (Including Swing Device) |
| Input Power | AC 220V |
| Swing Motor | DC 24V |
| Driving Method | Four Wheel Drive (Rubber Rims) |
| Travel Speed | 50 – 1900 mm/min |

| Torch Adjustment Range | |
|------------------------|---------------|
| Parameter | Specification |
| Vertical Adjustment | 40 mm |
| Horizontal Adjustment | 40 mm |
| Working Angle | ±45° |
| Fine Adjustment Angle | 10° |

| Swing Parameters | |
|------------------------|---------------|
| Parameter | Specification |
| Stay Time (Left/Right) | 0 – 2.5 sec |
| Deviation Setting | 0 – ±8° |
| Swing Speed | 0 – 100 |
| Swing Angle | ±15° |

| Welding Current (A) | | | |
|---------------------|---------|---------|---------|
| Position | Φ1.2mm | Φ1.4mm | Φ1.6mm |
| Downhand | 120–300 | 150–380 | 180–430 |
| Flush Fillet | 120–280 | 150–320 | 180–380 |
| Horizontal | 120–280 | 150–300 | 180–330 |

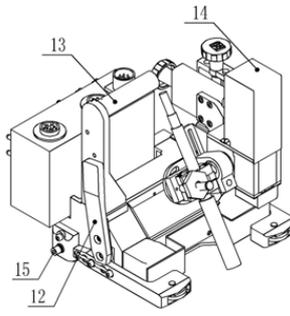
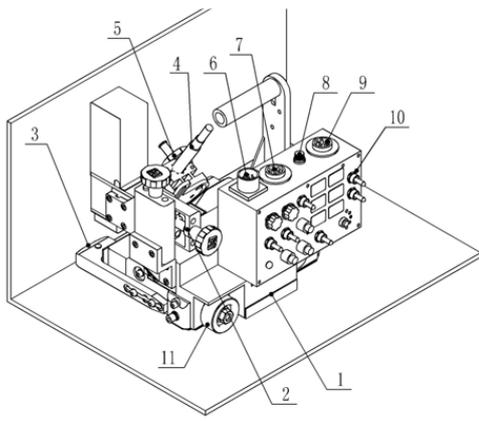
| Nozzle Distance (H) | |
|---------------------|----------|
| Current | Distance |
| Below 200A | 10–15 mm |
| 200–350A | 15–20 mm |
| 350–500A | 20–25 mm |

APS Welding Carriage is a compact, high-performance automatic welding tractor designed for fillet welding, horizontal welding, and stitch welding applications. Equipped with adjustable oscillation control and four-wheel rubber drive system, it ensures stable arc travel and uniform weld bead formation.

KEY FEATURES

- Four Wheel Drive (Rubber Rim) for Stable Movement.
- Adjustable Oscillation (Weaving) Function.
- Digital Travel Speed Display (Nixie Tube).
- Compact & Portable Design.
- Suitable for MIG / MAG / CO₂ welding.
- Continuous & Stitch Welding Modes.
- Industrial Grade Construction





Component Details

1) Main Carriage Frame

The base structure of the machine. It supports and carries all mechanical and electrical components. Provides stability during welding.

2) X-Y Slide Adjustment Unit

Used to precisely adjust torch position. Allows fine adjustment in vertical (up/down) and horizontal (left/right) directions during welding.

3) Guide Roller Wheel

Guides the carriage along the workpiece surface. Ensures accurate tracking of the weld seam.

4) Torch Holder Arm

Support arm for mounting welding torch. Adjustable for different welding angles.

5) Torch Clamping Device

Quick-lock torch holding mechanism. Allows easy installation, removal, maintenance, and adjustment of the welding torch.

6) Swing Motor AC Socket

Power outlet connection for the oscillation (swing) motor.

7) Travel Motor AC Socket

Power outlet connection for the carriage driving motor.

8) Fuse (Protection Unit)

Electrical protection component to prevent overload and short circuit damage.

9) External AC Power Inlet

Main AC power supply input connection.

10) Control Box

Central control unit for regulating travel speed, oscillation speed, swing width, and operational functions.

11) Drive System

Comprises four rubber wheels, bevel gears, chain and sprocket mechanism. Responsible for smooth and stable carriage movement.

12) Magnetic Control Handle

Used for positioning and guiding the carriage. Equipped with permanent magnetic system to prevent deviation from the weld line.

13) Lifting Handle

Handle used for easy carrying and positioning of the machine.

14) Oscillation (Swing) Unit

Controls torch weaving motion during welding. Improves weld bead width and sidewall fusion.

15) Stop Switch

Automatic stop sensor. Stops the carriage when it reaches the end of the workpiece.

Note: Continuous design and development entitle us to upgrade / update / modify specifications without further notice.