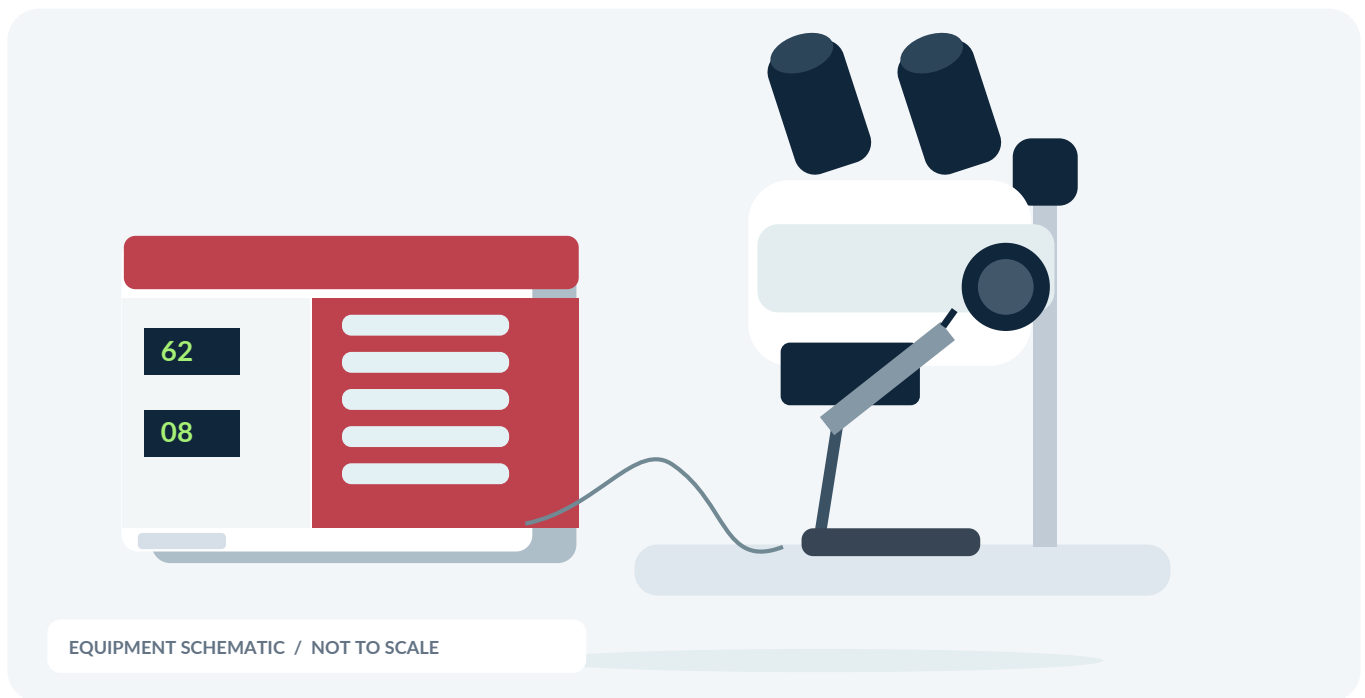


PRECISION WELDING EQUIPMENT

AX-AWM1

Dental Argon-Arc Spot Welder

Compact pulsed argon-shielded arc welding system for dental laboratory fabrication and repair of metallic restorations and orthodontic components.

**5–600 A**

WELDING CURRENT

3–30 ms

PULSE DURATION

100 W

LISTED POWER

1 Hz

MAX. FREQUENCY

APPLICATION SCOPE

Five material-oriented preset programs support gold alloys, cobalt-chromium alloys, dissimilar-metal work, titanium and orthodontic applications. A stereo zoom microscope and LCD filter shutter provide observation and flash protection when correctly operated.

Independent technical reference. Ratings relate to listed AX-AWM1 configurations; verify the delivered unit and its operating manual before installation.

Technical specifications

Published nominal data for the AX-AWM1. Unless stated otherwise, values describe the welding system rather than its shipping carton.

Electrical and arc performance

Mains supply	110 V / 220 V AC, 50/60 Hz*
Listed power consumption	100 W
Ingress protection	IP21
Welding voltage	40 V
Welding current range	5-600 A
Welding pulse duration	3-30 ms
Maximum welding frequency	1 Hz

Argon shielding and control

Shielding gas	Argon
Gas supply pressure	At least 0.1 MPa
Maximum argon consumption	5 L/min
Selectable preflow time	0.5 / 1.0 / 1.5 s
Welding presets	Au / Co-Cr / Hybrid / Ti / Ortho

Size and supplied items

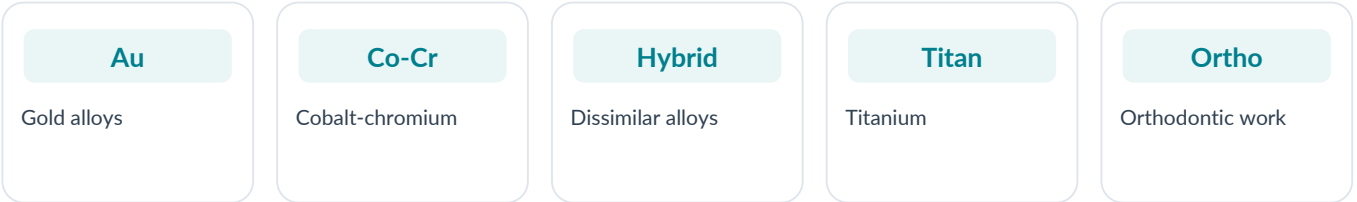
Shipping carton (H x W x D)	38 x 51 x 49 cm
Listed weight	32 kg**
Actual equipment dimensions	Not reliably specified
Listed basic package	Welder unit x 1; manual x 1

* The mains voltage is an order/configuration choice: confirm the rating plate and plug before connection. ** Published weight is 32 kg; the sources do not unambiguously distinguish net from packed weight. Carton dimensions must not be treated as device dimensions.

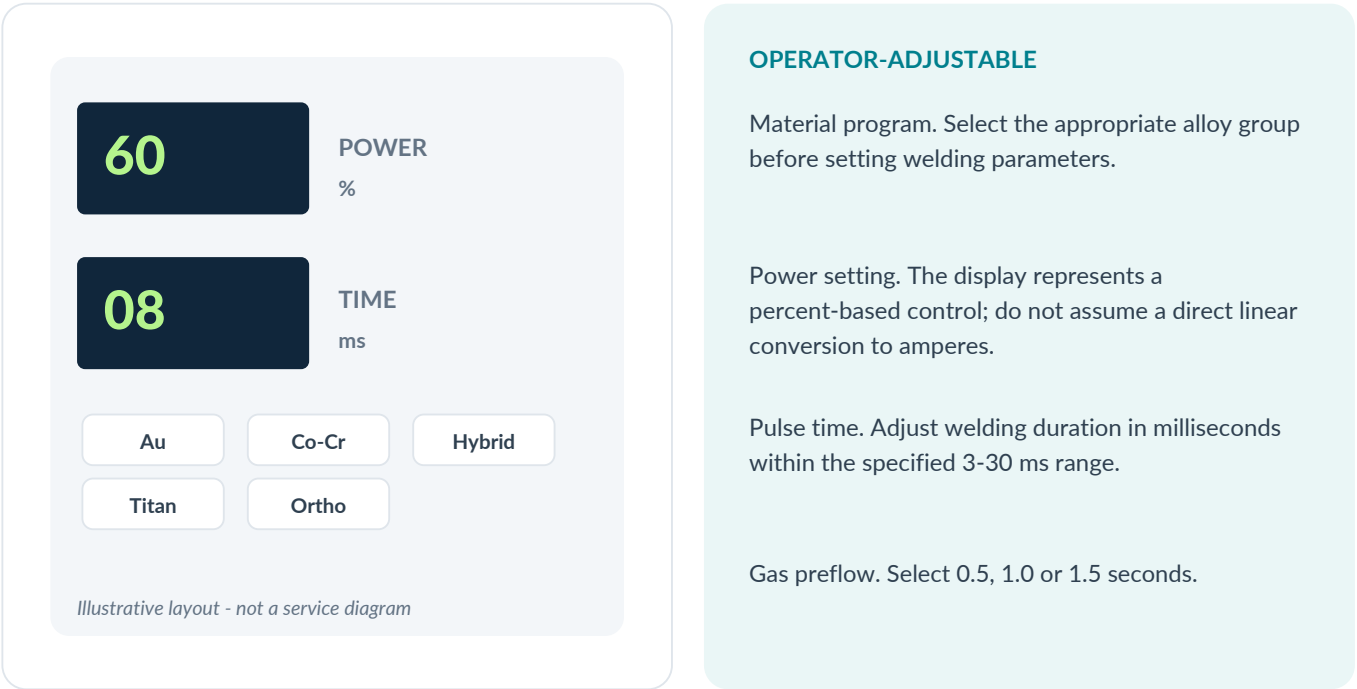
Control functions

The control interface combines material presets with adjustable welding energy, pulse time and argon preflow. Program selection is not a substitute for process qualification.

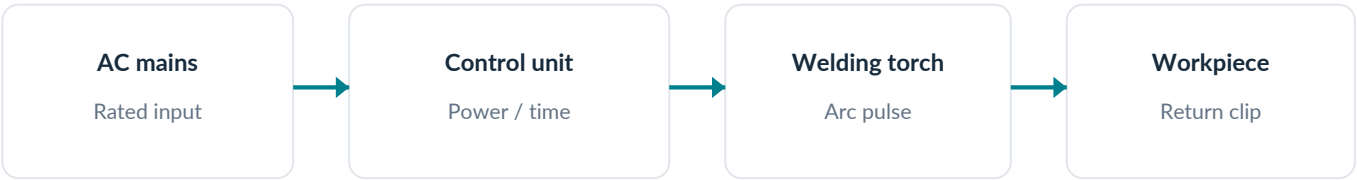
Five application presets



Control panel reference



System arrangement



OPTICAL AND GAS SUBSYSTEMS

Microscope and LCD shutter: magnified observation with protective filtering. Argon cylinder and regulator: external shielding-gas supply connected to the welding handpiece. The gas cylinder is not listed as included.

Installation and safety notes

This sheet is a procurement and technical-reference summary. It does not replace the supplied operating instructions, local electrical rules or laboratory safety procedures.

1

Before electrical connection

Confirm whether the delivered model is rated for 110 V or 220 V AC and use a correctly grounded supply. Inspect the plug, supply cable, connectors and fuses before use.

2

Argon installation and ventilation

Use a secured argon cylinder with a suitable regulator; provide gas supply at the specified minimum pressure and check for leaks. Maintain ventilation to reduce oxygen-displacement risk.

3

Optical and welding protection

Verify that the microscope filter shutter is functional before welding. Use suitable eye/face protection, gloves and local fume extraction; keep exposed skin away from hot workpieces.

4

Qualified operation and service

For trained dental-laboratory personnel only. Select a material preset, confirm suitable settings, and follow the official operating procedure. Disconnect power before maintenance.

Pre-purchase / acceptance checklist

- ☐ Verify exact power input, plug type and regional electrical compatibility.
- ☐ Confirm controller, microscope, torch, workpiece clip and cables in the delivered set.
- ☐ Check availability of argon cylinder, regulator, consumables and replacement filters.
- ☐ Ask for actual device footprint and net mass if space or handling limits are critical.
- ☐ Confirm the included instruction manual and safety / regulatory documentation.

IMPORTANT DATA INTERPRETATION

38 x 51 x 49 cm are shipping-carton dimensions, not machine dimensions. The published 32 kg weight is not identified as net or packed. The 5-600 A welding rating describes a brief output pulse and is not directly comparable to 100 W listed input power.