

Automatic Junction Box Production Line

Technical specifications



Product image

Produces solar panel junction boxes on an eight-station rotary table. The line combines hot-press plastic riveting, diode cutting and placement from a strip, MFDC welding, two solder pool operations, inspection and/or marking, and automatic unloading. The first station supports operator loading or optional automatic feeding.

Product features

- 1. Station - Loading: The preassembled plastic housing and metal components are loaded into the fixture. Operator loading or optional automatic feeding is available.
- 2. Station - Hot-press riveting: The plastic part is automatically riveted with a hot press.
- 3. Station - Diode cutting and placement: The strip-fed diode is automatically cut and placed on the product.
- 4. Station - MFDC welding: Both diode leads are welded in a piano-style sequence at a twin-piston station with an MFDC transformer.
- 5. Station - Solder pool 1: Automatic solder wire feeding and a soldering machine fill the first pool with molten solder. A soldering iron cleaning station is included.
- 6. Station - Solder pool 2: Automatic solder wire feeding and a soldering machine fill the second pool with molten solder. A soldering iron cleaning station is included.
- 7. Station - Inspection and/or marking: The product undergoes inspection and/or marking.
- 8. Station - Automatic unloading: The completed product is unloaded automatically.

APDT8/111mf

Values vary by model and application.

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Rated power (20% duty cycle)	111 kVA
S1P	54 kVA
Rated power (50% duty cycle)	70 kVA
Secondary voltage (V2)	8,3 V
I2P	6 kA
Jaw opening	20 mm
Welding jaw stroke	30 mm
Air pressure	2 / 8 bar
Capacity	600 units/hour
Electrode force	75 daN
Cooling water inlet temperature (min.-max.)	16 / 21 °C
Cooling water inlet flow (min.)	14 l/min
Transformer cooling	Water
Weight	2250 ± 50 kg
Dimensions (W × L × H)	1800 × 1950 × 2050 mm
Machine supply voltage / phases	500 V · 50/60 Hz · 3 phases
Time-delay mains fuse	125 A
Supply cable (≤10 m)	2 × 35 + 16 mm ²