THROUGH-HOLE PCB ASSEMBLY

# DX-350

## Semi-Automatic Dip Soldering Machine




**45 kg**
Nominal solder capacity

**350 × 250 × 70 mm**
Solder bath dimensions

**Up to 400 °C**
Bath temperature control range

## A single workstation for THT soldering

Apply flux, preheat, dip solder and cool the PCB in one operator-guided workflow.

# Technical Specifications

TRA DX-350 | Semi-automatic dip soldering

| PROCESS & SOLDERING | |
|---|---|
| **Process** | Semi-automatic dip soldering for THT PCB assemblies |
| **Solder bath dimensions** | 350 × 250 × 70 mm |
| **Nominal solder capacity** | 45 kg |
| **Bath temperature control range** | Ambient temperature to 400 °C |
| **Temperature control precision** | ±1% (manufacturer specification) |
| **Temperature controller** | PID with setpoint and actual temperature display |
| **Flux application** | Sensor-triggered spray or manual foot-switch activation |
| **PCB handling** | Adjustable holder and operator-guided mechanical arm |

| UTILITIES & DIMENSIONS | |
|---|---|
| **Power supply** | 220 V AC ±10%, 50 Hz |
| **Rated power** | 2,500 W |
| **Machine dimensions (L × W × H)** | 1,230 × 800 × 1,160 mm |
| **Net machine weight** | 101 kg |

## Built for operator-guided THT assembly

The self-priming flux pump operates without an external compressed-air supply. The machine includes PCB preheating, fan-assisted cooling, a fume exhaust port and a solder dross tray.

**Confirm usable PCB dimensions and solder alloy compatibility for the supplied fixture and bath.**

# Design & Operation

Controls and components of the dip soldering workstation




### PID temperature control

Displays the bath setpoint and measured temperature.



### Automatic flux spray

Sensors trigger flux application as the PCB moves into position.



### Mechanical arm

Guides the PCB holder through immersion and withdrawal.



### Danfoss nozzle

Atomizes flux supplied by the built-in electromagnetic pump.

# From Flux Application to Cooling




### Flux application

Load the PCB into the holder and apply flux before preheating.

### PCB preheating

Preheat the fluxed board before it contacts the solder bath.

### Dip soldering

Guide the PCB into and out of the PID-controlled bath with the mechanical arm.

### Cooling & release

Move the PCB to the fan-cooled area, then release it from the holder.

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