

PRO-MATION

Model: Version PRO 3t 30 Watt Laser Soldering Cell

Length: 1000 mm(For Batch Processing)

Frame Style: Heavy duty, precision extruded framing with vanity panels

Description: This batch process soldering station combines superior performance, easy to use software, and precise movement to selective solder top side applications. The Version PRO 3t work cell comes with an enclosed table top that includes location pins. Fixtures may be designed to attach to the locating pins, to secure product(s) during soldering.

Standard Features:

- 30 Watt Diode Laser (Spot Size as small as 0.4mm)
- Multi Axis robot safely enclosed in high technology work cell (X,Y,Z and W movement)
- Automatically controlled solder feeder
- Micro Camera interfaced into a High Resolution panel for “Real Time” viewing
- Control Pendant (Windows Excel based format) “Teach method” programming
- Recipe storage for over 100 programs
- Table Top mount (grounded)
- “Easy Roll” wheels with leveling feet
- Audible alarm and 3 color light tower
- Full safety enclosure w/door safety switches
- Top side fan and fume extraction hose provided
- Optional – Computer interface software with computer, monitor and keyboard

Product Soldering Capability:

Edge Contact:	N/A
Length:	2.0” – 11.8” (50 mm - 300 mm)
Width:	2.0” – 11.8” (50 mm – 300 mm)
Thickness:	0.045” (1 mm) minimum (less deflection)
Above board clearance:	.59” (15 mm) Laser focal point
Below board clearance:	N/A – Table Top

Facilities Requirements:

Electrical:	110 VAC – 1 Phase 15A
Air:	71 PSI (clean filtered) = 5 BARS
Working Height:	(37.5”) +/- 1” or (950 mm) +/- 30 mm
Footprint:	1000 mm Long by 1300 mm deep



Laser Head w/Camera



DESCRIPTION	PRO 3t SPECIFICATION	
APPLICABLE PRODUCT W x L	MIN MAX THICKNESS	50 * 50 mm 300 * 300 mm 0.5 * 2.0 mm
WORK CELL	WORKING HEIGHT ACCESS	950 mm (- 30 mm Leveling Feet) FRONT AND REAR DOUBLE DOORS
CYCLE TIME	VARIES WITH PRODUCT / APPLICATION GENERALIZED	TBD 0.8 UP TO 2.5 SECONDS PER JOINT
MOTION SPEED	X MOTION Y MOTION	750 mm / SEC (belt driven on twin linear slides) 750 mm / SEC (belt driven on twin linear slides)
ROBOT	MFG. SPEC.	SEIKO HIGH ACCURACY STEPPER / ENCODER
ACCURACY	X AXIS Y AXIS	5 PHASE STEPPING MTR. / ROTARY ENCODER 0.01 mm RESOLUTION (REPEATABILITY 0.02 mm) 5 PHASE STEPPING MTR. / ROTARY ENCODER 0.01 mm RESOLUTION (REPEATABILITY 0.02 mm)
HEIGHT	Z AXIS	5 PHASE STEPPING MOTOR 150 mm / SEC (driven on linear shaft)
MISC.	W AXIS	5 PHASE STEPPING MOTOR 420 DEGREES / SEC (belt driven)
LASER	30 WATT TRUE OUTPUT (DIODE)	810 nm wave length
LASER LIFE	10,000 HOURS	LIFETIME EXPECTED AT FULL POWER
FACILITIES	ELECTRICAL AIR BLOWER	110 VAC / 15 A SINGLE PHASE N/A OPTIONAL FOR FUME EXTRACTION TUBE
CONTROLS	MAIN CONTROLLERS INPUT / TEACH LASER OUTPUT VIDEO AUX	PLC / CUSTOM PROGRAMMING LANGUAGE PENDANT SYSTEM MANUAL SETTING THROUGH POWER SUPPLY INTEGRATED MICRO CAMERA / LCD PANEL AUX OUTPUT FOR COMPUTER INTERFACE
SIGNAL TOWER	DOOR OPEN / CLOSE	TWO COLOR LIGHT TOWER
FUME EXTRACTION	TOP SIDE FAN / EXTRACTION TUBE	INTERNAL TOP MOUNTED FANS (always On) FUME EXTRACTION TUBE PROVIDED FOR HOOK UP TO OUTSIDE BLOWER (6 mm fitting)
SURFACE PLATE	NICKEL PLATED ALUMINUM LOCATING PINS	FOR ROBOT MOUNT AND LOCATING PINS PINS (15 MM) OUTSIDE AT EACH CORNER OF SOLDERING AREA