where ideas become technology

IPC-HERMES-9852
The global standard for "M2M" in SMT assembly

V i d e o

Vers. 1.5
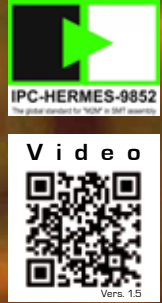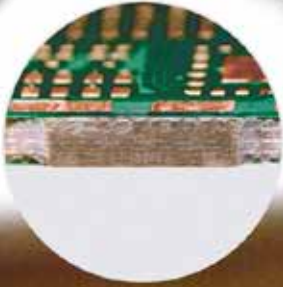
Laser **Depaneling**
(UV, XV, **ULTRAFAST**)

The flexible circuit's market is primarily driven by the demand for smaller and lighter products; those FPCBs require tighter tolerances and smaller spacing to cut the board after component placement. NeoCut Shape performs very high accurate and fast cutting operations, without mechanical stress on components.
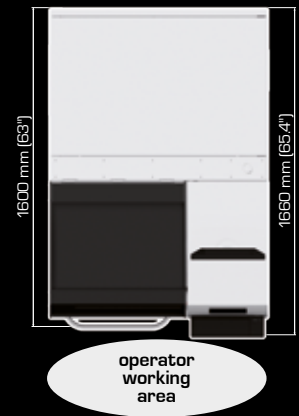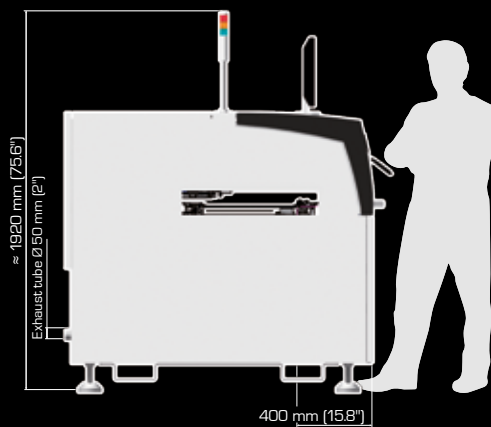
As well as supplying an exceptional solution in depaneling Kapton® and flexible PCBs, the NeoCut Shape is able to cut FR4 PCBs, with three different types of Laser, depending on customer need (UV - XV - **ULTRAFAST**).

The **ULTRAFAST** Laser is the perfect solution for applications that require a minimized heat-affected zone (HAZ). The result is a fast, precise and clean cut.

Easy programming, also editable off-line, enables the NeoCut Shape to be used both for prototyping and mass production.

ΠΞΟCUT
shape

Osai
automation systems

www.osai-as.com

Dimensions shown in machine drawings: ≈ 1400 mm (55"), 1100 mm (43.5"), ≈ 1920 mm (75.6"), Exhaust tube Ø 50 mm (2"), 400 mm (15.8"), 1600 mm (63"), 1660 mm (65.4")

operator working area

MACHINE CONFIGURATION

Transport (Height)	SMEMA compliant
Max. transport width	480 mm (19") with automatic width adjustment
Interface	SMEMA
Transfer direction	From left to right (optional from right to left or pass-back)
Operating side – Fixed rail	Front of the machine

PANEL DIMENSIONS

Panel (Length - Width)	70 mm to 480 mm (2.8" to 19") - 50 mm to 480 mm (2" to 19")
Panel (Weight)	Up to 3 Kg (6,6 lbs)
Transport PCB	3 mm flat belt
Panel thickness	0.5 mm to 3.5 mm (19,7 mils to 138 mils)
Panel clearance	40 mm Up / 40 mm Down
Whole cutting area	Up to 480 x 480 mm (Up to 19" x 19")
Single cutting area	Up to 100 x 100 mm (Up to 4" x 4")

INSTALLATION REQUIREMENTS

Power supply	CE 230V	(ETL)	208/240/277/440/480/575V
Power supply system	CE 1P+N+PE - 50/60 Hz, +/-10%	(ETL)	2Ph+GND 3 Wire - 50/60 Hz, +/-10%
Power consumption	Typical 1 kW (+ 0,2 up to 0,8 kW depending on Laser)		
Air pressure	6 bar (87 p.s.i.)		
Average consumption	< 10 Nl/min. (2,64 gpm)		
Ambient temperature	22°C +/- 2°C (72°F +/- 4°F)		
Humidity	< 70% (non-condensing)		

MACHINE DESCRIPTION

Length x Width x Height	1100 mm x 1660 mm x 1920 mm (43.5" x 65.4" x 75.6")
Codes reading and marking	Data Matrix ECC200, Code 39, Code 128, 2/5 Interleaved, QR code
Repeatability	+/- 20 µm (0,78 mils)
Axis speed (X - Y)	Up to 54 m/min
Weight	Approx. 1100 Kg (2425 lbs)
Color	RAL 9018, RAL 7016
Noise level	< 70 dB

LASER DESCRIPTION

Max Laser Power	15W (UV) - 40W (XV) - 50W (ULTRA FAST)
Smallest Spot Laser (UV - XV - ULTRA FAST)	Starting from 20 µm (0,8 mil)

STANDARD FEATURES

Pressurized optical path to avoid optics contamination, high efficiency fumes and dust extraction, 2D code and fiducial recognition, power meter, belt conveyor, HW predisposition for DB Connection, remote control

UPGRADES AND OPTIONS

- Automatic power adjustment
- Programmable focus position +/- 10mm
- Double belt for inline process
- SW Customization for DB connection

UPGRADES AND OPTIONS

- Full marking library (2D code, Bar code and others)
- Exhauster
- Vacuum table

Osai
automation systems