



## 08 Panel Shop Automation

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**Panel Shop Automation**  
**Enclosure modification centers**  
**Modcenter**



**Description:**

The ModCenter optimizes the machining of enclosures with cut-outs, drill-holes and threaded holes to boost your productivity. The fixation system of the ModCenter allows for placement of one or multiple enclosures, panels and mounting plates in multiple kind of materials. The ModCenter is available in four versions depending on the size of the machinable surfaces and each version is available in a Siemens or Beckhoff control system.

**Human Machine Interface:**

Modern operating solution with 21" screen, industrial PC with Intel i5 processor and Windows 10 64-bit operating system.

**Tools:**

All ModCenters have an automatic tool changing system that accommodates 12 tools and optionally up to 21 tools. The lubrication system extends the lifetime of the tools and is environment friendly as the lubricant is water based.

**Fixation:**

The fixation system has 7 automatic rotary clamps at the bottom and mechanical quick clamps at the top for securing panels and mounting plates. Enclosures are positioned with a synchronized motorized depth adjustment system and are secured with pneumatic fixations pillows allowing for ergonomic and force-free loading of small to large enclosures.

**Machinable material:**

Mild steel, stainless steel, copper, aluminum, PVC, polycarbonate, ABS, GRP and regardless if any of these are powder coated.

**Machine software:**

Ares Commander CAD is an intuitive programming system for the ModCenter available on the console or any other PC in the company network. The software includes a library with enclosures and symbols to make drawings fast and easily, to be automatically converted to machine code.

**Interface:**

Projects generated with almost all available CAD and E-planning systems in the market can be processed directly on the machine software, using .DXF or .DWG files.

**Rated voltage:**

400 V, 3~, 50/60 Hz.

**Rated current:**

32 A.

**Compressed air:**

6-8 bar, suction capacity 300 l/min.

N° of doors	Machinable enclosures, all sides		Machinable panels and mounting plates		Machine footprint		Item no.
	H (mm)	W (mm)	H (mm)	W (mm)	W (mm)	D (mm)	
1	Up to 1600	Up to 1250	Up to 1650	Up to 2400	3524	4500	MODC163B
1	Up to 1600	Up to 1250	Up to 1650	Up to 2400	3524	4500	MODC163S
2	Up to 1600	Up to 2200	Up to 1600	Up to 2400	3524	4500	MODC263B
2	Up to 1600	Up to 2200	Up to 1600	Up to 2400	3524	4500	MODC263S
2	Up to 2060	Up to 2200	Up to 2020	Up to 2400	4128	4500	MODC280B
2	Up to 2060	Up to 2200	Up to 2020	Up to 2400	4128	4500	MODC280S
2	Up to 2380	Up to 2200	Up to 2340	Up to 2400	4128	4500	MODC293B
2	Up to 2380	Up to 2200	Up to 2340	Up to 2400	4128	4500	MODC293S

Add U at the end of the item no. for UL approved ModCenters.

# Panel Shop Automation

## Rail and cable duct processing machines

### Cutting machine | NCCUT



**Description:**

The NCCUT semi-automated machine optimizes cutting of DIN rails and cable ducts to boost your labour productivity and minimize the cutting waste. Machine software imports the already created panel layout, generates a simplified cut list and guides the operator through the complete process. Motorized end-stop eliminates manual measuring and avoids potential human error. Suitable for one-off production, serial production, or prefabrication for future use.

**Human Machine Interface:**

Modern operating solution with 19" touchscreen, keyboard with trackball and PC with Windows 10 64-bit operating system.

**Printer:**

Labels are printed to identify each produced part to ensure a fast and reliable panel assembly.

**Machinable material:**

Cable duct up to a width of 125 mm. DIN rails NS 15, NS 35/7,5 and NS 35/15 (according to EN 60 715). Busbars NLS-CU 3/10. Cutting length of cable ducts, DIN rails and busbars is limited between 140 mm and 2200 mm.

**Accuracy:**

Precise cutting with a tolerance of 0.5 mm.

**Machine software:**

Software included for intuitive programming.

**Interface:**

Projects generated with almost all available CAD and E-planning systems in the market can be processed directly on the machine software, using .CSV or .TXT files with the list of parts can be imported directly on the machine software.

**Rated voltage:**

240 V, 1~, 50 Hz.

**Rated current:**

8 / 16 A.



Description	Machine footprint		Item no.
	W (mm)	D (mm)	
DIN rail and cable duct cutting machine	4216	900	NCCUT2000

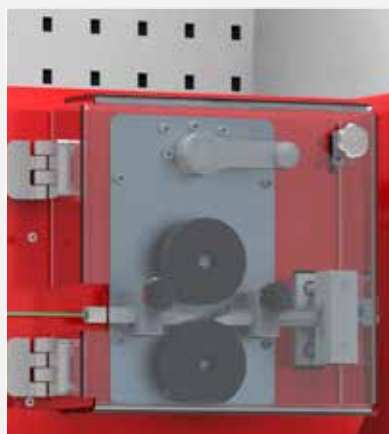


# Panel Shop Automation

## Wire processing machines

### Modular wire workstation | PWA1000



**Description:**

The Modular Wire Workstation allows to combine several options including a wire magazine, machines for cutting, stripping and crimping, and a printer for wire labels and storage produced wires. Suitable for one-off production ideal for direct use in the panel shop or prefabrication for future use.

**Human Machine Interface:**

Modern operating solution with 19" touchscreen and PC with Windows 10 64-bit operating system.

**Machine software:**

Personal Wiring Suit is an intuitive programming system for the PWA1000 to produce the wires and identification labels. The software also visualizes the panel wiring by providing the source and target plus the routing in the panel.

**Interface:**

Projects generated with almost all available CAD and E-planning systems in the market can be processed directly on the machine software, using .CSV or .XLS files.

**Rated voltage:**

240 V, 1~, 50 Hz.

**Rated current:**

8 / 16 A.

**Available modules:**

Wire magazine, Cutting, Stripping and crimping, Printer for wire labels, Storage of produced wires.

**Module - Wire magazine:**

The ergonomic table includes a modular wire magazine for either the original wire packaging or dedicated storage to feed the machine.

**Module - Cutting:**

Machine for cutting wires with a cross section from 0,5 mm<sup>2</sup> up to 16 mm<sup>2</sup> (AWG 20-5) to adjustable lengths at a speed up to 400 wires per hour.

**Module - Stripping and crimping:**

Electropneumatic stripper and crimping machine with 5-way magazine for processing insulated wire end ferrules on a reel. Crimping length can be adjusted either to 8 mm or alternatively 10 mm. Wires with a cross-section from 0,5 mm<sup>2</sup> up to 2,5 mm<sup>2</sup> (AWG 20-14) can be processed without set-up times.

**Module - Printer for wire labels:**

Wire labels are printed automatically to ensure a fast and reliable panel wiring.

**Module - Storage of produced wires:**

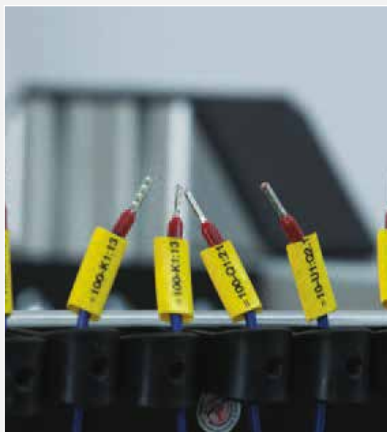
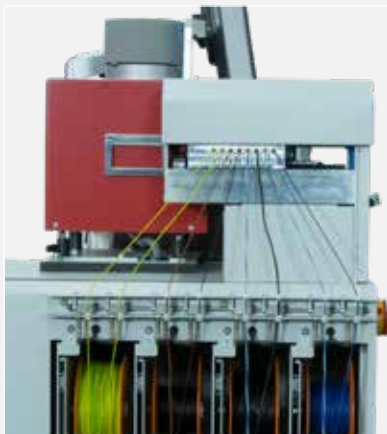
The produced wires can be placed on a removable bar positioned in the front of the workstation. There is a dedicated storage on the side of the workstation for completed bars.

Description	Machine footprint		Item no.
	W (mm)	D (mm)	
Modular wire workstation	1250	800	PWA1000



**Panel Shop Automation**  
**Wire processing machines**  
Wire personal assistant | PWA5000



**Description:**

The Personal Wire Assistant is a mobile solution that optimizes the production of wires reducing the processing time up to 50%. The PWA5000 fully automates cutting to length, stripping and crimping of wires boosting productivity and ensuring consistent and precise quality. A printer is available as an option to automatically print wire labels to ensure a fast and reliable panel wiring. The machine has an automated wire feeding with 8 spools for different wires. An external accessory is available for storage of additional wires that can feed the machine without using the internal spools reducing the switching times. Suitable for one-off production ideal for direct use in the panel shop or prefabrication for future use.

**Human Machine Interface:**

Modern operating solution with 19" touchscreen, industrial PC with Intel i3 processor and Windows 10 64-bit operating system.

**Wire feeding:**

The machine has an automated wire feeding with 8 spools for different wires. An external accessory is available for storage of additional wires that can feed the machine without using the internal spools reducing the switching times.

**Stripping and crimping:**

Electropneumatic stripper and crimping with 5-way magazine for processing insulated wire end ferrules on a reel. Crimping length can be adjusted either to 8 mm or alternatively 10 mm. The finished wires include ferrules on both ends without manual intervention.

**Processable wires:**

Wires with a cross-section from 0,5 mm<sup>2</sup> up to 2,5 mm<sup>2</sup> (AWG 20-14) can be processed without set-up times.

**Speed:**

120 wires/hour including ferrules on both sides of the wire.

**Machine software:**

Personal Wiring Suit is an intuitive programming system for the PWA5000 to produce the wires and identification labels. The software also visualizes the panel wiring by providing the source and target plus the routing in the panel.

**Interface:**

Projects generated with almost all available CAD and E-planning systems in the market can be processed directly on the machine software, using .CSV or .XLS files.

**Rated voltage:**

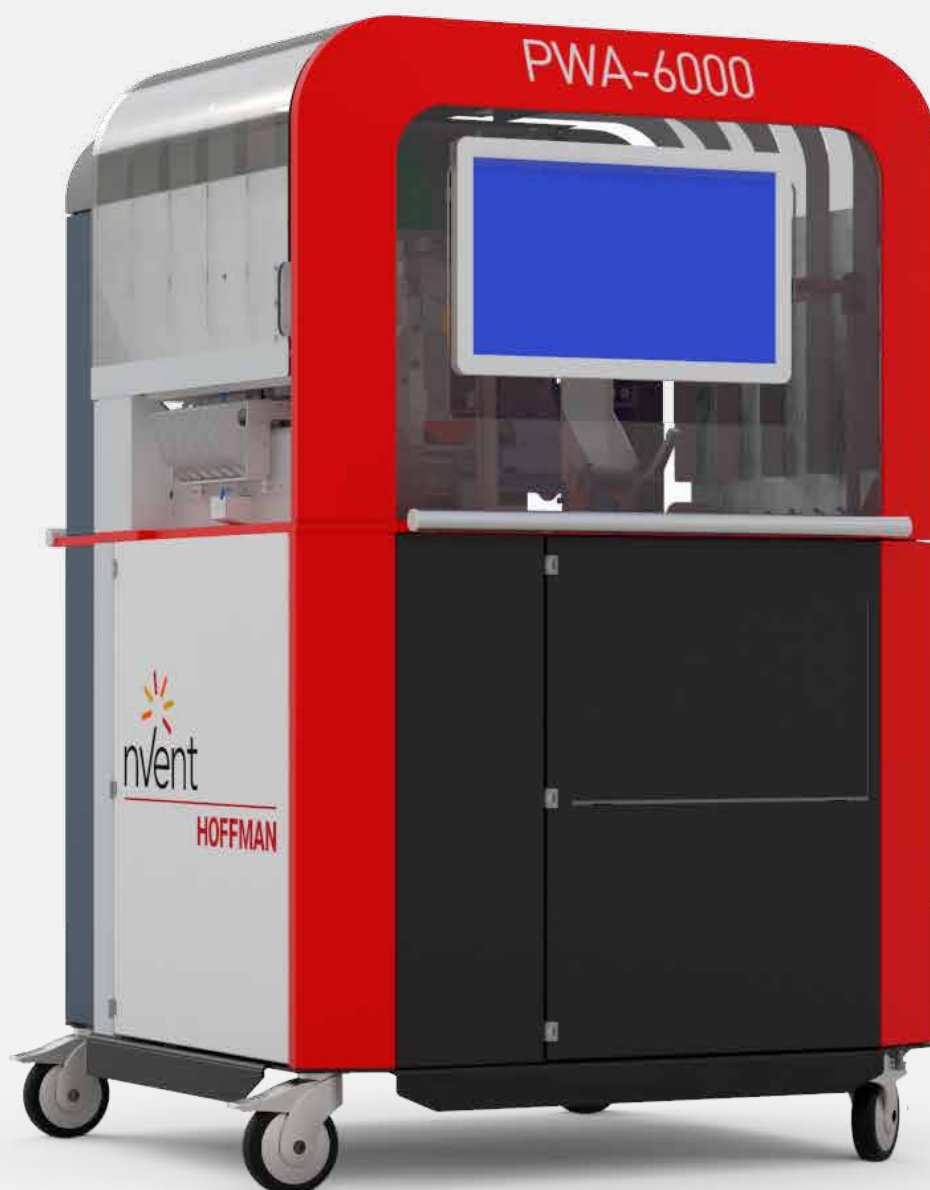
240 V, 1~, 50 Hz.

**Rated current:**

16 A.

Description	Machine footprint		Item no.
	W (mm)	D (mm)	
Wire personal assistant	840	960	PWA5000

**Panel Shop Automation**  
**Wire processing machines**  
Wire processing center | PWA6000



**Description:**

Wire Processing Center optimizes the production of wires reducing the processing time up to 75%. The PWA6000 fully automates the cutting to length, stripping, crimping, marking and bundling of the wires boosting productivity and ensuring consistent and precise quality. The machine has an internal, automated wire feeding with 12 spools for different wires. An external accessory is available for storage of additional wires that can feed the machine without using the internal spools reducing the switching times. The machine places the ferrules on both sides and marks the wires. The finished wires are placed on adhesive tapes, in a predefined order, to optimize order picking. The fully automated process of prefabrication wires optimizes the panel wiring process and thereby reduces costs.

**Human Machine Interface:**

Modern operating solution with 21.5" touchscreen, industrial PC with Intel i5 processor and Windows 10 64-bit operating system.

**Wire feeding:**

The machine has an automated wire feeding with 12 spools for different wires. An external accessory is available for storage of additional wires that can feed the machine without using the internal spools reducing the switching times.

**Stripping and crimping:**

Electropneumatic stripper and crimping with 5-way magazine for processing insulated wire end ferrules on a reel. Crimping length can be adjusted either to 8 mm or alternatively 10 mm. The finished wires include ferrules on both ends without manual intervention.

**Wire marking system:**

Direct printing on the wire to mark the source and target identification on each end of the wire. The wires are marked with blue ink so it is suitable for almost all wire colours and avoids the use of two printers.

**Processable wires:**

Wires with a cross-section from 0,5 mm<sup>2</sup> up to 2,5 mm<sup>2</sup> (AWG 20-14) can be processed without set-up times.

**Speed:**

120 wires/hour including ferrules on both sides of the wire.

**Machine software:**

Personal Wiring Suit is an intuitive programming system for the PWA6000 to produce the wires. An external accessory is available for storage of finished wires and transport to the panel shop. This accessory has a screen to visualize the panel wiring by providing the source and target plus the routing in the panel.

**Interface:**

Projects generated with almost all available CAD and E-planning systems in the market can be processed directly on the machine software, using .CSV or .XLS files.

**Rated voltage:**

240 V, 1~, 50 Hz.

**Rated current:**

16 A.

**Compressed air:**

6-8 bar, suction capacity 300 l/min.

Description	Machine footprint		Item no.
	W (mm)	D (mm)	
Wire processing center	1050	1150	PWA6000