



Alpha 433 H

Processing of large wire cross sections

komax WIRE



THE WAY TO MAKE IT | FLEXIBLE

The Alpha 433 H fully automatic wire processing machine is based on robust and established technology. It is designed for processing single conductors up to 16mm² as well as double crimp connections.

Area of Application

The Alpha 433 H boosts high crimp power in combination with flexibility. Seal loading on one or both wire ends, various terminals and double crimp connections of different lengths and the same wires can be processed without difficulty. Teamed up with Komax MCI peripheral devices, the Alpha 433 H is a very compact system offering optimum accessibility and ultra short conversion times.

Technology

The highly dynamic servo drives assure the gentle handling of wires even when large quantities are produced. With the TopWin user software, the gripper pressure can be adjusted to match the specific wire being processed. The unique gripper design allows the entire wire cross section range to be processed without having to change the gripper jaws.

◀ **Alpha 433 H** with two crimp modules and one seal module



▲ **Swivel and pull-off unit / stripping unit** Adjustable gripper pressure / Blade holder with two parallel radius stripping blades

Efficiency

Thanks to the quick locking system, the guide tubes can be changed without tools. All guide tubes and setup gauges are stored in a built-in drawer so they are within reach at all times.



▲ **Built-in drawer**

Performance

The stripping unit effortlessly processes wires up to 16mm² (AWG5). The powerful servo motor and the two radius stripping blades arranged next to each other allow the entire processing range to be processed without conversion.

The P104 crimp module delivers the requisite force (40kN) to process large terminals. They can be crimped on both ends.



▲ Alpha 433 H with crimp module P104

TopWin

The TopWin graphical user interface is designed for fast, easy data input. Its structure is easy to understand, allowing users to master the machine in no time at all.

With the special editor ("Permission Editor"), access to all key entry parameters can be matched to whatever the needs are. The optional WPCS (Wire Processing Communication Standard) interface allows Komax machines to be networked. Thanks to the open interfaces, the machine is very easy to integrate into all existing production sequences.



▲ TopWin Clearly arranged production menu



▲ TopWin Simple configuring and editing













Maximum Quality Control

Crimp-height measurement and pull-out force measurement are integrated in the process sequence. During production the processes are constantly checked against the specified values with functions that monitor crimp force, seal and splice detection. Any wires with processing defects are removed and the appropriate number is post-processed automatically.

Your benefit

- Robust and fully automatic wire processing machine for cross sections up to 16mm² (AWG5)
- Powerful crimp module with a crimp force of 40kN
- Flexibility with up to five process modules
- Blade holder with two parallel radius stripping blades
- Maximum ease of operation thanks to TopWin user software
- Extensive range of accessories

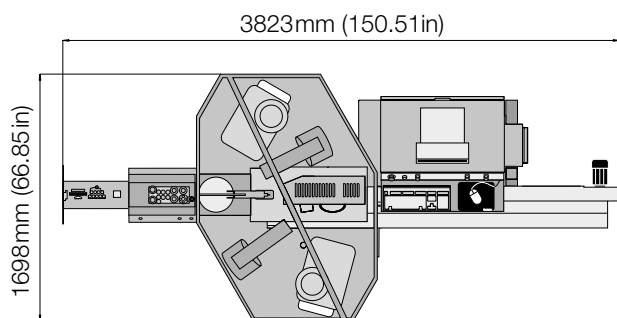
Application Samples Alpha 433 H

Cutting		Sleeve insertion	
Half stripping		Core processing	
Full stripping		Cutting of pulled strands	
Intermediate strip		Hot stamp marking	
Crimping		Inkjet marking	
Seal insertion			
Double crimping			

Options and Accessories

Feeding systems	Komax 106 ads 117 ads 119 ads 123
Marking systems	Komax 26 hot stamp marker Komax Inkjet marking system IMS Laser marking on request
Wire infeed	Belt drive
Processing modules	Crimp module P104 Seal module mci 761 (with seal position monitoring SPM) Sleeve module mci 792 Double gripper module
Quality control	Integrated crimp height measurement Integrated pull-out force measurement Crimp force analyzer CFA Splice detection Spark tester
Deposit systems	Basic module 2m (78.7in.) or 4m (157.5in.) Extension module 2m (78.7in.) or 4m (157.5in.)
Accessories	Barcodescanner PM8300 Magnifying glass Microscope
Software	Networking interface WPCS Data conversion TopConvert Manufacturing execution system KomaxCAO

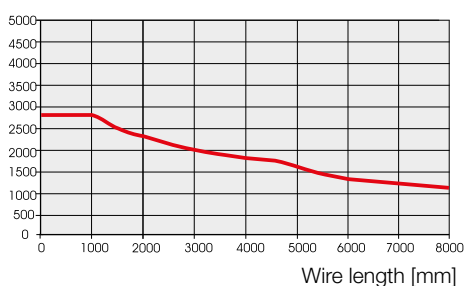
Machine Layout Alpha 433 H



Height with cover closed: 2250mm (88.6in.)
 Height with cover open: 3150mm (124in.)

Reference Values for Piece Output Alpha 433 H

Pieces/h



Conductor: FLK 16mm² (AWG5)
 Pneumatic pressure: 6bar (87psi)
 Speed: adjusted
 Acceleration: adjusted
 Crimp module: P104
 Quality monitoring: inactive

Technical Data

Length range	60mm–65000mm (2.36in.–213ft.) Optionally from 30–60mm (1.18in.–2.36in.)
Length accuracy	Repeat accuracy: ±(0.2% +1.0mm (0.04in.))
Stripping lengths	0.15mm–18mm (0.006in.–0.709in.)
Stripping lengths with partial strip	On both sides 35mm (1.378in.) Optionally up to 50mm (1.96in.) on side 1
Wire cross sections*	0.2 mm ² –16mm ² (AWG24–AWG5)
Wire infeed speed	max. 10m/s (33ft/s)
Noise level	<75dB (no crimping module)
Electrical connection	3×208–480V / 50–60Hz 10kVA
Pneumatic system	5–8bar (73–116psi) 9m ³ /h (318ft ³ /h)
Weight	approx. 1200kg (2646lb.)

* Extremely hard and tough wires may not be able to be processed even if they are within the above cross section range. If you are in doubt about your wires, we are happy to process samples of them.

More information about our product:



www.komaxwire.com

Komax Wire is a division of Komax Holding AG, Switzerland.

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