

Alpha 433 S with two seals loading modules and two crimping presses



Three stations on side 1 on the Alpha 433 L



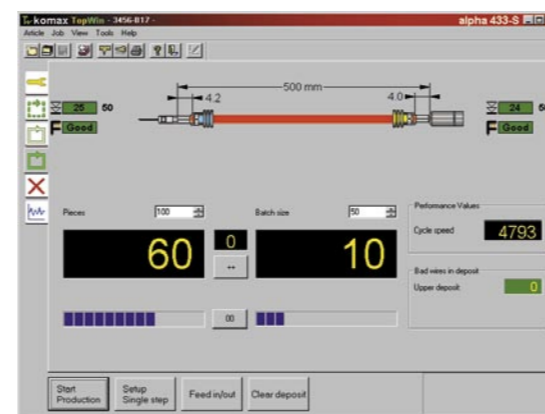
mci 711 crimping module



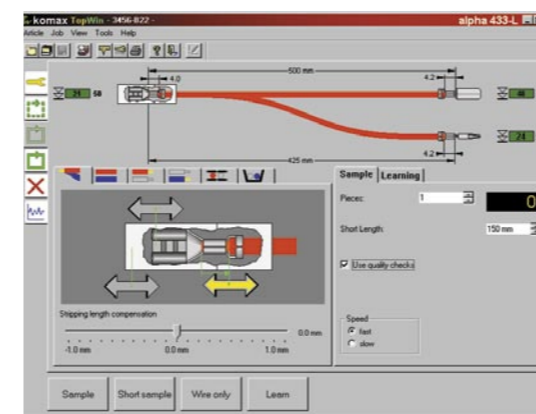
mci 721 crimping module with programmable crimping height



mci 761 seals loading module with SPA seals monitoring unit



Clearly arranged production menu



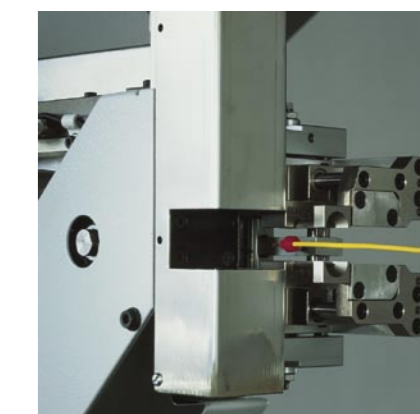
Simple fine adjustment in the TopWin user interface



Double gripper module



Terminal feed with carrier strip take-up unit



SPA seals monitoring unit

## Great Versatility Without Conversion Alpha 433 S/L/H

*The Alpha 433 fully automatic crimping machine is based on state of the art technology and is designed for processing single conductors as well as double crimp connections.*

*With its three different versions – the Alpha 433 S (standard machine), the Alpha 433 L (three stations on side 1) and the Alpha 433 H (processing of large wires) – the Alpha 433 offers maximum possibilities.*

### Area of Application

The Alpha 433 models are unsurpassed in their flexibility. Seal loading on one or both wire ends, various terminals and double crimp con-nections of different lengths and the same wires can be processed without difficulty. Teamed up with Komax MCI peripheral devices, the Alpha 433 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.

### Efficiency

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

### Unique feature

The cutting head effortlessly processes wires up to 6mm<sup>2</sup> (AWG 10) in cross section or even up to 16mm<sup>2</sup> (AWG 5) on the Alpha 433 H. 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.

### Alpha 433 S

The Alpha 433 S accommodates up to four processing stations, making it the ideal machine for crimping both wire ends and loading seals on one or both wire ends. Other types of processes are also possible, i.e. double crimp connections, fluxing and tinning, as well as sleeve attachment.

### Alpha 433 L

The greater flexibility of the Alpha 433 L really comes to the fore when processing sequences and double crimp connections. The additional press increases the number of wire variations that can be produced in sequential processing without conversion. With double crimp connections, a different type of contact can be

processed on each of the three ends.

### Alpha 433 H

Large wires no longer pose a problem. The Alpha 433 H is capable of processing large wires up to 16mm<sup>2</sup> (AWG 5) (fine-wire conductors). The P104 crimping press delivers the requisite force to process large terminals. Terminals can be crimped on both ends but seals can also be loaded at one end.

### 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.

### Integrated devices

Requirements in today's wire processing call for complete solutions with optimized cost structures. To achieve this, the mci 711, mci 721 and mci 761 peripheral devices were specially adapted to this machine generation. Their advantage lies in their compact design and their standard user interfaces. Thanks to serial control, the modules can be optimally integrated into the TopWin user software.

### mci 711 and 721 crimping modules

The mci 711 and mci 721 crimping modules can be optimally integrated into the overall Alpha 433 system. Communications between the modules and the basic machine are handled by the MCI interface. Crimp

force monitoring is also integrated into each crimping module. A carrier strip chopper and terminal feed unit are available as options.

### mci 761 seals loading module

As with the crimping module, the mci 761 seals loading module is integrated in the basic machine. The modular design ensures maximum flexibility. The SPA seals monitoring unit is mounted on the seals loading module and is thus also integrated in the process.

### Double gripper module

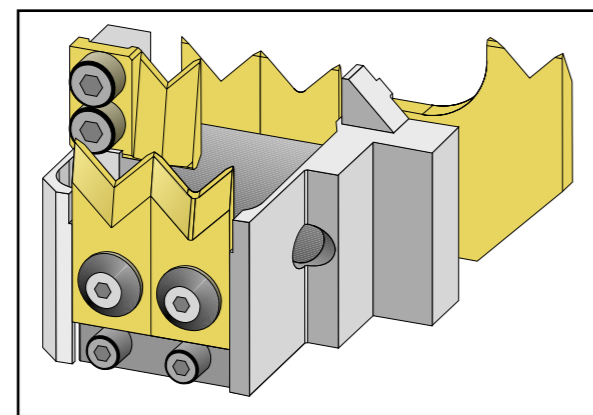
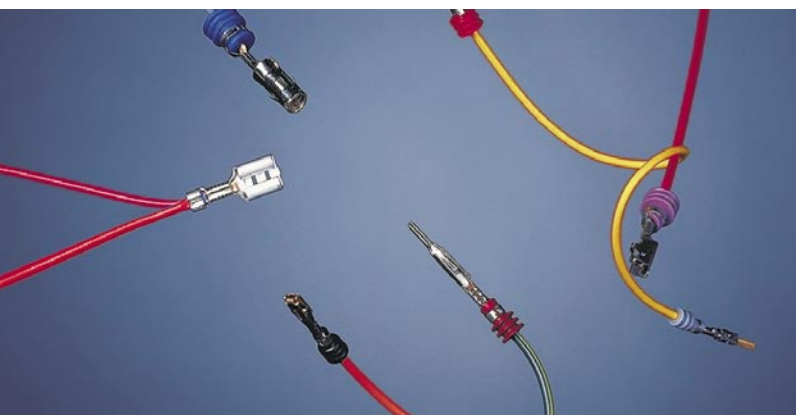
Wires of different lengths are processed into a double crimp connection in the double gripper module. The double gripper module is mounted on side 2. Its compact design also allows the mci 761 seals module and a crimping press to be mounted on side 2.



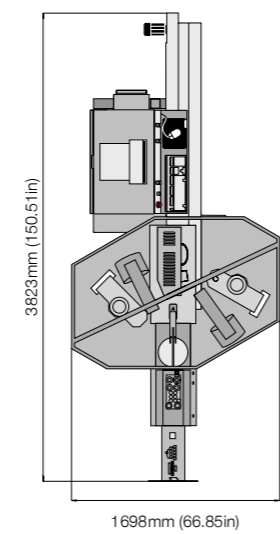
Integrated tool drawer



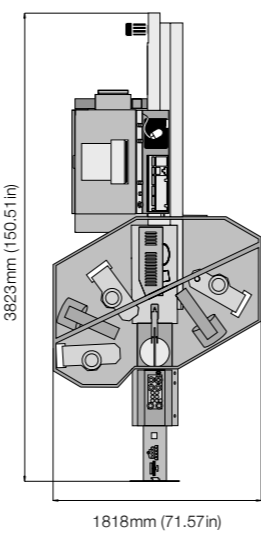
Ergonomic operation



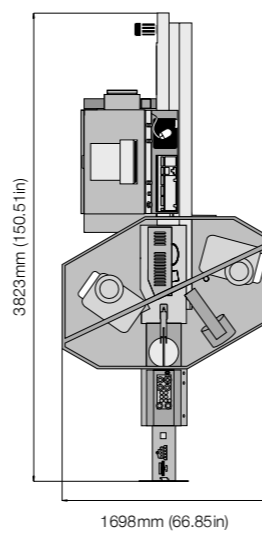
Blade block with parallel radius stripping blades



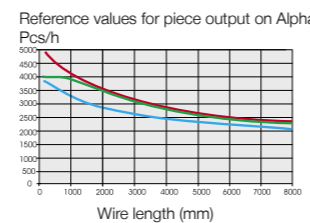
Alpha 433 S  
Height with safety cover closed: 2000mm (78.74 in)  
Height with safety cover open: 2900mm (114.18 in)



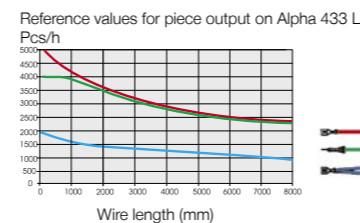
Alpha 433 L  
Height with safety cover closed: 2000mm (78.74 in)  
Height with safety cover open: 2900mm (114.18 in)



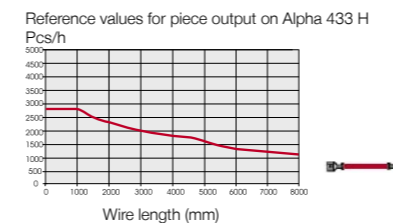
Alpha 433 H  
Height with safety cover closed: 2000mm (78.74 in)  
Height with safety cover open: 2900mm (114.18 in)



FLK conductor 0.75mm<sup>2</sup> (AWG19)  
Pneumatic pressure 6bar (87psi)  
Speed 10m/s (33ft/s)  
Acceleration 50m/s<sup>2</sup> (164ft/s<sup>2</sup>)  
Crimp modules mci 711  
Seals loading modules mci 761  
Quality monitoring inactive



FLK conductor 0.75mm<sup>2</sup> (AWG19)  
Pneumatic pressure 6bar (87psi)  
Speed 10m/s (33ft/s)  
Acceleration 50m/s<sup>2</sup> (164ft/s<sup>2</sup>)  
Crimp modules mci 711  
Seals loading modules mci 761  
Quality monitoring inactive



FLK conductor 16mm<sup>2</sup> (AWG5)  
Pneumatic pressure 6bar (87psi)  
Speed adjusted  
Acceleration adjusted  
Crimp modules P 104  
Seals loading modules inactive

General speaking, the piece output is reduced in all Alphas by about 6% if crimp force monitoring is activated (Kabel <2m (78.7in))

### Technical Data

**Length range**  
60mm–65000mm (2.36in–213ft)  
Optionally from 35mm (1.38in)

**Length accuracy**  
±1 mm (0.039in) or <0.2%  
depends on the wire length

**Stripping lengths**  
0.1–18mm (0.0039in–0.71in)

**Stripping lengths with partial pull-off**  
Both-ended 35mm (1.38in) ±1 mm (0.039in)  
Optionally up to 50mm (1.96in) on side 1

**Wire sizes\***  
0.20–6mm<sup>2</sup> (0.20–16mm<sup>2</sup> with Alpha 433 H\*\*)  
AWG24–AWG10 (AWG24–AWG5 with Alpha 433 H\*\*)

**Wire draw-in speed**  
max. 10m/s (33ft/s)

**Noise level**  
<75dB (without crimping modules)

**Electrical connection**  
3×208–480V/50–60Hz 10kVA

**Pneumatic connection**  
5–6bar (73–87psi)

**Air consumption**  
9m<sup>3</sup>/h (318ft<sup>3</sup>/h)

**Weight**  
Alpha 433 S: approx. 1080kg (2381lb)  
Alpha 433 L: approx. 1250kg (2758lb)  
Alpha 433 H: approx. 1200kg (2646lb)

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Professionals in Advanced Automation

### Accessories

The Alpha 433 S/L and H models can be tailored to match specific customer requirements by combining them with various types of accessories.

#### Preliminary wire processing

- Ink jet marker
- Hot stamp marker
- Continuous wire feed

#### Crimping module accessories

- Height-adjustable lifting pedestals
- Terminal feed with carrier strip take-up unit \*\*\*

#### Carrier strip chopper

- Carrier strip chopper

#### Process monitoring

- Crimp force analyzer
- Seals monitor
- Splice detector\*\*\*
- Wire end detector

#### Wire deposition

- Basic module 2m (78.7in) or 4m (157.5in)
- Extension module 2m or 4m

#### Further accessories

- Height adjustable drum cover holder

#### Further Modules

- Double gripper module
- Sleeve attachment unit \*\*\*
- Fluxing and tinning module\*\*\*

### Services

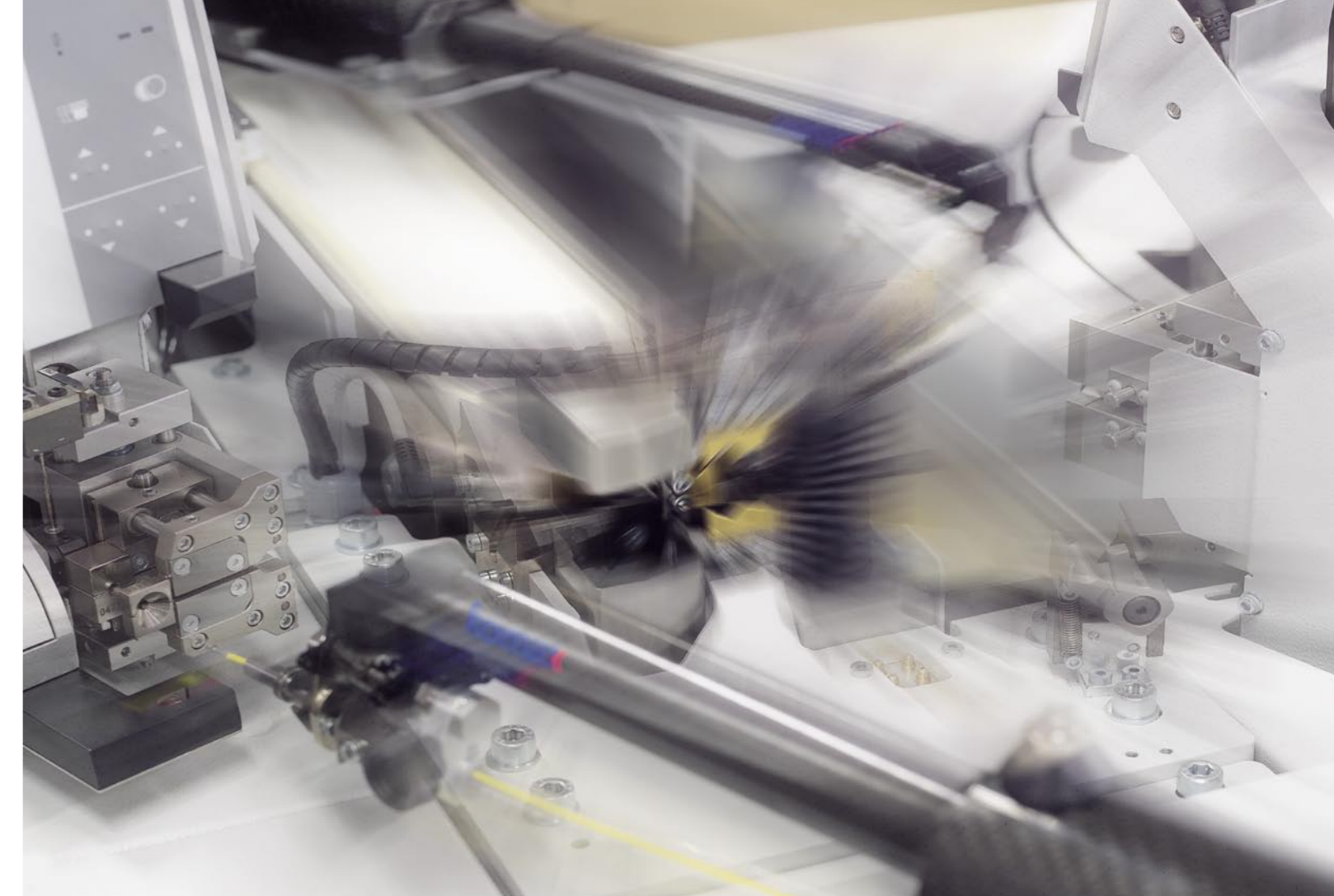
Komax naturally also provides you with the best in after-sales support.

- Commissioning
- Production assistance
- Training courses for different levels of users
- Worldwide customer service network with seamless supply of spare parts

\* Certain hard and tough wires might not be able to be processed even if they are within the size range. If you are in doubt, we are happy to produce samples of your wires.

\*\* – Fine-wire conductors (FLY16, 16mm<sup>2</sup> (AWG5), 128 single wires, PVC insulation)  
– Max. outside diameter of wire: 8.5mm (0.32in)  
– Terminals are not allowed to exceed the following dimensions (W×H): 18×10mm (0.71×0.4in)

\*\*\* Not with Alpha 433 H

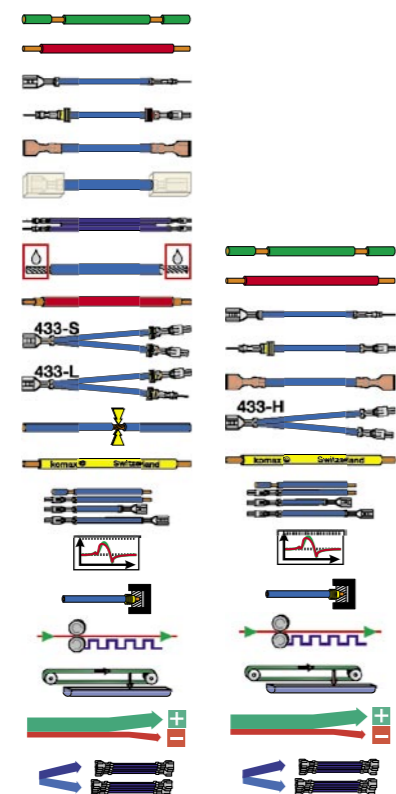


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CC2: Alpha 433

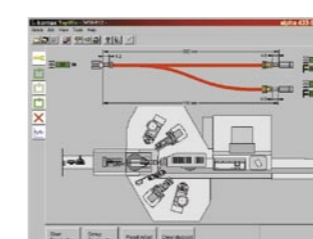
### Your benefits:

- Incomparable flexibility with up to five processing stations
- Short conversion times
- Maximum ease of operation thanks to TopWin user software
- Networkable with WPCS interface
- Ultra modern quality monitoring
- Processing of entire cross section range thanks to blade block with parallel radius stripping blades
- Belt drive for high processing speed
- Extensive range of accessories



Alpha 433 S/L applications

Alpha 433 H applications



## Wire Processing to the Most Exacting Standards Alpha 433 S/L/H

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