



ALPHA 565

crimp to crimp



komax

ALPHA 565

The Alpha 565 is a flexible and expandable wire processing machine with seven process modules. In addition to its core functions of two-sided crimp and seal insertion, the Alpha 565 also offers plenty of space for special processing, e.g. application of ferrules or MIL crimps, tinning, twisting, solidifying, ultrasonics, welding and much more. The conductor cross section range of 0.13 mm² to 6 mm² covers all common requirements. The proven Alpha 550 technology provides the perfect base for integrating customer-specific applications easily and effectively.

High flexibility for customer-specific processes

- Up to seven process modules
- Conductor cross sections from 0.13 – 6 mm²
- Cross sections up to 10 mm² possible on request
- Extremely flexible – even complex processes like dual core wire processing, ultrasonic compaction, welding, etc., can be realized

Outstanding productivity and quality

- High production output due to innovative machine and process module design
- Comprehensive quality monitoring with CFA+, CFA, ACD, Q1250 scalable
- High-performance machine parts with long service life (Alpha 550 platform)
- Real-time data exchange of all quality and production data via Komax HMI

Developed for your future needs

- Machine setup and configuration can be easily adjusted or extended
- The platform offers plenty of space for new applications
- Easy training of employees thanks to the clearly structured user interface (HMI)

▶ Plenty of room for a range of process combinations and applications

HIGH FLEXIBILITY

FOR YOUR FUTURE REQUIREMENTS



PLENTY OF SPACE FOR UP TO SEVEN PROCESS MODULES



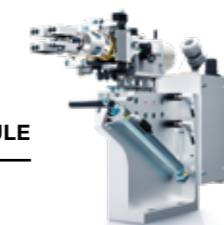
C1370 / C1360 / C1340
CRIMP MODULE



AEH-LS
FERRULE MODULES



Q1250 SCALABLE
OPTICAL CRIMP MONITORING



DC
DOUBLE GRIPPER MODULE



S1441
SEAL MODULE



X1582
TWISTING MODULE



X1585
FLUXING/TINNING MODULE



SLEEVE MODULE



X1582 twisting module

Twisted strand ends are the ideal basis for carrying out tinning rapidly and with pinpoint accuracy. The X1582 twisting module twists stripped wire ends in a wide range of dimensions. The twisting process is very precise, ensuring that no strands are damaged – even for extremely thin wires.

X1585 fluxing/tinning module

The X1585 fluxing/tinning module for Komax fully automated machines enables versatile lead-free tinning of strand ends. Constant tin flow ensures consistent quality. The precisely adjustable speed and temperature guarantee a high level of process reliability.

DC double gripper module

Using a sophisticated rotary gripper, two wires are brought together and stored temporarily on the fully automatic wire processing machine. The wire gripper then takes both wires (either horizontally or vertically, depending on the setting) and swivels them over to the crimp module.

AEH-LS ferrule modules

Automatic insertion of single ferrules on stripped wires.

Sleeve module

The sleeve module inserts different types of sleeves reliably and efficiently on one device. An application set allows the module to be changed over quickly to other sleeve types.

Seal module S1441 for maximum flexibility

The module automatically fits wires with conventional seals and mini seals. The combination of precision mechanics and seal position monitoring functionality on the Q1250 scalable quality module guarantees a high degree of process reliability and maximum productivity. The module can be simply and quickly switched from one seal variety to another.



Q1250 scalable optical crimp monitoring

The Q1250 scalable quality assurance module runs an optical check on the strip quality and automatically rejects defective products.

Seal monitoring is also available (connectible under license) for checking the seal position and orientation. Product quality can be traced end to end via statistics, image capture and network feedback.

C1370 / C1360 / C1340 crimp module for maximum productivity

The efficient user guidance and wire positioning directly on the module allows the shortest setup and changeover times. CFA+ guarantees the highest quality with minimal rejects. The robust crimp module design delivers extraordinary repeat accuracy. Features like the stroke and split cycle can be programmed easily. The C1370/C1360 adjusts the crimp height automatically during programming.

Customer-specific and individual

Thanks to the different process modules, complex and individual configurations of up to seven stations are possible. Programming of customer-specific processes is available on request.

Technical data

	C1340	C1360	C1370
Max. crimp force	22 kN (4946 lbf.)		
Conductor cross section	0.13 – 6 mm ² (AWG 26 – 10)		
Crimp height adjustment	manual	automatic (1 mm adjustable)	
Sequential processing	no		up to 36 pieces
Closing height	135.80 mm standard		
Stroke/partial stroke	programmable from 10-40 mm / programmable partial stroke		
Crimp force monitoring	CFA+/CFA		

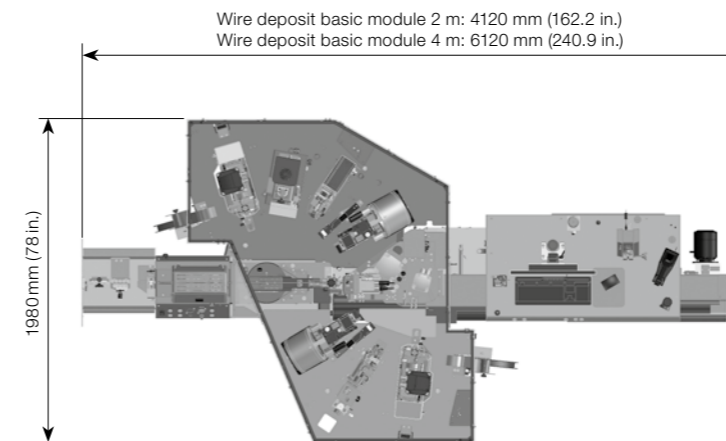


Technical data

Conductor cross section*	0.13–6 mm ² (AWG 26–10) up to 10 mm ² (AWG 8) as an application, on request
Wire retraction speed	max. 12 m/s (39 ft/s)
Wire outer diameter	max. 5.1 mm (0.20 in)
Length range**	60 – 65'000 mm (2.35 in – 213 ft)
Full strip	0.1 – 29.5 mm (0.004 – 1.16 in)
Partial strip	max. 35.5 mm (1.4 in)
Crimp force*	1 – 22 kN (224-4'946 lbf)
Process module side 1 / 2	4 / 3
Noise level	< 80 dB (without crimp tool)
Electrical connection	3 × 208 – 480 V / 50 – 60 Hz / 5.6 kVA
Compressed air connection	5 – 8 bar (73 – 116 psi.)
Air consumption crimp / crimp crimp seal / crimp seal	< 7 m ³ /h (247 ft. ³ /h) < 11 m ³ /h (388.5 ft. ³ /h)
Weight (incl. 2 crimp modules)	1.40 t (3087 lbs.)

* Komax offers feasibility tests for advance testing. Processing of larger conductor cross sections possible on request.
** Repeat accuracy ± (0.2% + 1 mm [0.04in.])

01
02



Height with closed hood: 2100 mm (82.7 in.)
Height with cover completely open (maximum opening): 2775 mm (109.3 in.)



03



04

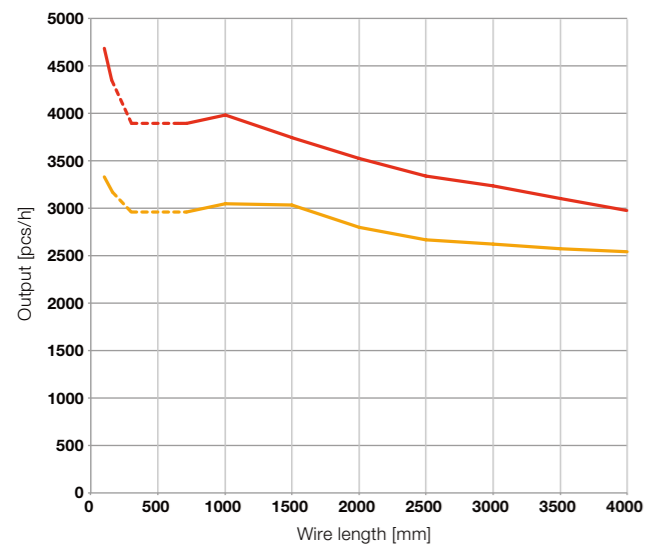


05

- 01** The X1582 twisting module twists stripped wire ends – without damaged strands – even for extremely thin wires.
- 02** Consistent tin flow and perfect temperature on the X1585 fluxing/ tinning module ensure high quality tinning of the strand ends.
- 03** Quick and reliable setup directly on the crimp module.
- 04** The robust swivel arm with unparalleled repeat accuracy supports stable cable processing.
- 05** The double gripper module positions two wires perfectly side by side and then guides them to the crimp module.



Piece output



Wire	FLRY, 0.50 mm ² (AWG 20)
Air pressure	6 bar (87 psi)
Wire speed	12 m/s
Crimp module	C1370
Seal module	S1441
Crimp force monitoring	active
ACD, Q1250 scalable	inactive
Deposit gripper	active

crimp / crimp
 crimp seal / crimp

The actual piece output may vary depending on the application and machine configuration.

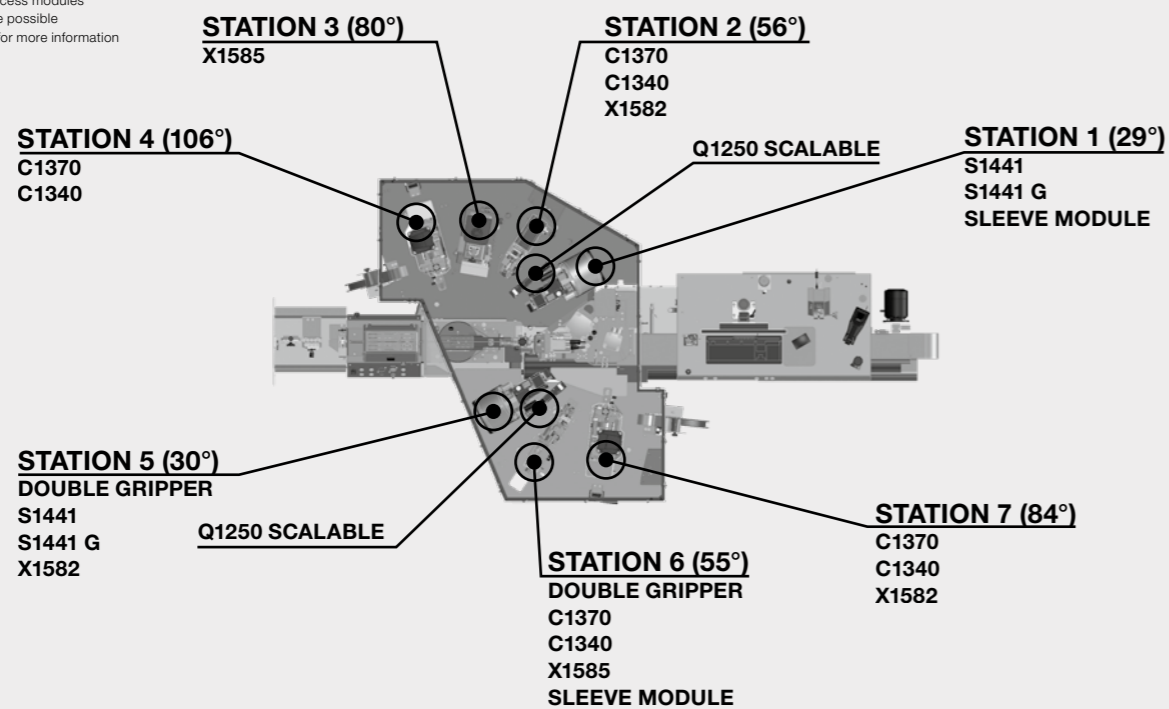
▲ A variety of processing options for a large selection of contacts.

Options and accessories

Prefeeder	F1110 • F1150 • ads 119 • ads 123
Marking systems	Komax 26 hot-stamp marker • Komax inkjet marking systems • Laser marking on request
Blade holders	Double-blade line for V-blades and special blades
Process modules	C1370/C1360/C1340 crimp module • S1441 seal module • X1582 twisting module • X1585 tinning module • Sleeve module • Double gripper module • AEH ferrule module • MIL crimp module • Welding module • Ultrasonic compaction
Quality assurance	Komax 341 integrated crimp height measurement • Q1210 integrated pull-off force measurement • Q1250 scalable optical crimp monitoring • Automatic conductor detector ACD • Material change detection • Material verification • Splice detection • Q1140 spark tester • Terminal detection
Filing systems	Base module 2 m (78.7 in) or 4 m (157.5 in) Extension module 2 m (78.7 in) or 4 m (157.5 in)
Accessories	Active terminal feed • Quick-change wire draw-in • Barcode reader • MX5050 intermediate stripping
Software	Komax HMI • MIKO networking interface • WPCS/MIKO converter • TopConvert data conversion

Configuration

- Shown are possible process modules
 - Not all combinations are possible
 - Please contact Komax for more information



Processing examples

Cutting		Split cycle for closed terminals	
Cutting pulled strands		Seal insertion	
Full stripping		Twisting/tinning	
Half stripping		Sleeve insertion	
Core processing		Ferrule crimping	
Double insulation, coax and triaxial cables		MIL crimping	
Intermediate stripping		Solidifying, splicing and welding wire ends	
Crimping		Hot-stamp marking	
Double crimping		Inkjet marking	

Komax – leading the field now and in the future

As a pioneer and market leader in automated wire processing, Komax provides its customers with innovative solutions. Komax manufactures series and customer-specific machinery, catering to every degree of automation and customization. Its range of quality tools, test systems, and intelligent software and networking solutions complete the portfolio, and ensure safe, flexible, and efficient production.

Komax is a globally active Swiss company with highly qualified employees and development and production facilities on several continents. It provides local support to customers worldwide through its unique sales and service network and offers services that help them get the most out of their investments.

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