



F1110

wire handling

komax

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The F1110 is a sophisticated wire feeding system for the fully automatic wire processing machines in the Alpha and Gamma ranges. Loose coiled wire or wire drums can be unwound easily and consistently. The prefeeder is fully integrated into the main machine's software via EtherCAT and can communicate with it. This synchronization helps to ensure that maximum output can be achieved at all times.

WIRE FEEDING FOR DEMANDING CONTAINERS RELIABLE AND GENTLE ON MATERIALS

Intelligent software for maximum performance

- Maximum throughput due to active synchronization of machine and process
- Automatic adjustment of the software parameters (self-learning system)
- Stops extremely quickly when knots are detected in wires

Quick and easy setup and changeover

- Quick wire change due to the storage arm's separate loading/unloading positions
- Optimized unloading position of the storage arm after the job is completed
- Adjustable pretension for wires with a large cross section
- Fully electric – no compressed air required

Extremely ergonomic and user friendly

- Reliable dereeling, even for complex wire bundles and from wire racks
- Integrated wire end detection with automatic stop
- Machine wire line at optimal working height for the operator
- Speed of up to 6 m/s can be adjusted directly on the prefeeder

▶ A powerful rubber or plasma-coated roller drive pulls the wire into the prefeeder at a speed of 6 m/s.

Short changeover times

Thanks to a range of mechanical and ergonomic optimizations, the changeover time has been reduced significantly in comparison to predecessor models. For example, a swivel arm with a loading and unloading position is available for feeding wire in and out. The parameters for the prefeeder (e.g. speed, acceleration) can be saved in the main machine's HMI controller. Wire end detection ensures that the machine can be run until empty without any problem. Wire remnants are minimized.

High output

Numerous technical details ensure failure-free operation and therefore high output: The infeed speed can be directly adjusted on the prefeeder to the optimal level for the wire container and is not set lower as a preventive measure. It also synchronizes with the wire processing machine and ensures optimal output. In case of wire jam or knot-detection, the prefeeder will stop after using up the storage capacity of max. 4.2 m. There is also a by-pass option if the prefeeder is not needed for a job.

Careful wire handling

The smart wire feed system adapts to suit the type of container as well as the stability and quality of the wire material. The intelligent software allows the default settings to be continuously adjusted during production. Sudden changes of speed or excess tension are prevented by the system. If knots are found, it stops ultraquickly so that the issue can be rectified before it causes major problems.

- 01** The flexible swivel arm provides adjustable pretension. The magnet holds the swivel arm in the convenient loading and unloading position.
- 02** In case of wire jam or knot-detection, the prefeeder will stop after using up the storage capacity of max. 4.2 m.
- 03** The maximum feeding speed can be adjusted directly on the prefeeder.

Technical data

Wire diameter	1 – 5 mm (0.04 – 0.2 in.)
Wire cross section	0.22 – 4 mm ² (AWG24 – AWG11) 0.13 – 0.22mm ² on request
Max. diameter of wire coil	650 mm (25.6 in.)
Max. height of wire coil	1000 mm (39.4 in.)
Wire feed speed	3 – 6 m/s (9.8 – 19.6 mph)
Max. wire storage capacity	4.2 m (13.7 ft)
Power supply	110/230 VAC, 60/50 Hz (automatic switching)
Performance	0.3 kW
Compressed air	-
Height of wire outlet (wire line)	1170 mm (46 in.) for Alpha 1080 mm (42.5 in.) for Gamma
Machine dimensions (L x W x H)	1150 x 419 x 1050 mm (45.2 x 16.5 x 41.3 in.)
Weight	55.6 kg (122.5 lb.)
Communication	EtherCAT bus
Software	Komax HMI



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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