1 INTRODUCTION

1.1 ABOUT THE MACHINE

1.1.1 Machine description

The Omega 740 / 750 is an expandable fully automatic wire processing machine for processing single-conductor wires. The integrated blockloader loads defined blocks fully automatically.

1.1.2 Machine identification / voltage version

1 Name plate

2 Sticker: Voltage version

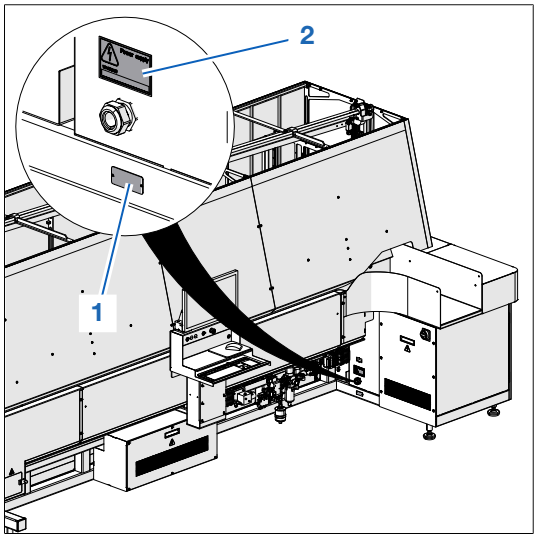

Fig. 1

Name plate

1 Komax article number

2 Machine type

3 Serial number

4 Year of construction

5 Possible voltage range

6 Frequency

7 Power input

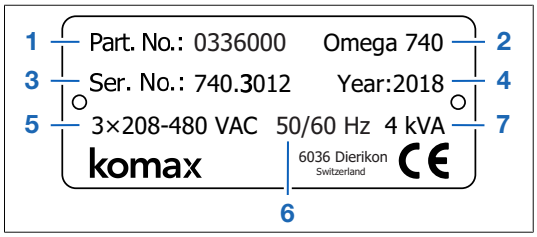

Fig. 2

Voltage version sticker

The actual voltage version of the machine is shown on this sticker.

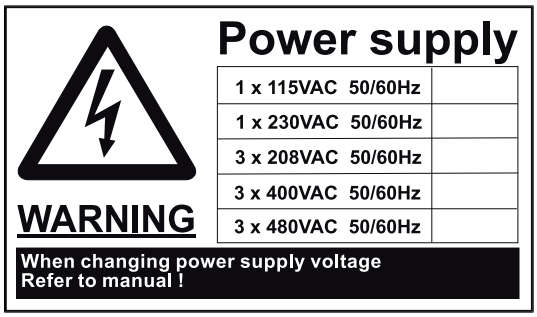

Fig. 3

1.1.3 Technical data

Processing data	
Shortest wire length, single-sided loading	240 mm (9.45 in)
Shortest wire length, double-sided jumper connection	300 – 540 mm (11.81 – 21.26 in) **
Shortest wire length, complex loading	300 – 760 mm (11.81 – 30 in) **
Maximum wire length	3000 mm (118.11 in) *
Length accuracy	±1 mm (0.039 in) or < 0.2% (depending on wire length)
Strip lengths	Up to 25 mm (up to 0.98 in)
Conductor cross sections*	0.13 – 2.5 mm²
Maximum wire diameter	4 mm (0.16 in)
Cycle time per loading	1.8 – 2.6 s ***
Usable transfer length, Omega 740	1880 mm (74 in)
Usable transfer length, Omega 750	2880 mm (113.36 in)
Wire draw-in speed	Max. 10 m/s (33 ft/s)
Wire changer	Max. 36 wires (in steps of six wires)
Wire storage (optional)	30 storage sites
Connections	
Electrical connection	■ 3 × 208 - 480 V, 50/60 Hz, 4 kVA (basic machine) ■ Secure the service connection with a fuse or circuit breaker of least 32 A (at 3 × 400 V)
Compressed-air connection	■ 5 - 8 bar (73 - 116 psi) ■ Compressed air, dry, filtered (10 µm), oil-free ■ 20 m³/h (706.29 ft³/h) (without modules) ■ Connected to the maintenance unit with ½ inch inner thread
Recommended operating pressure****	6 ± 0.5 bar (87 ± 7.25 psi)*****
Network connection	Ethernet
Exhaust connection	Upon request
Mass and weight	
Dimensions of Omega 740 (L × W × H) (height with safety cover closed)	4785 × 2050 × 2060 mm (188.4 × 80.7 × 81.1 in)
Dimensions of Omega 750 (L × W × H) (height with safety cover closed)	5745 × 2050 × 2060 mm (226.2 × 80.7 × 81.1 in)
Height with safety cover open	2870 mm (113 in)
Minimum clearance around equipment for maintenance work	1500 mm (59 in.)
Weight of Omega 740	approx. 1900 kg (4188.78 lb)
Weight of Omega 750	approx. 2573 kg (5672.49 lb)

Weight of blockloader	approx. 850 kg (1873.93 lb)
Surroundings	
Noise level	< 75 dB (without crimp modules)
Floor load capacity	500 kg/m²
Floor conditions	■ Level, stable, clean and vibration-free bearing surface ■ Bearing surface for machine bearing points, made from a continuous base plate of concrete ■ No expansion joints between machine bearing points ■ Slip-proof bearing surface ■ No plastic or asphalt paint finishes
Ambient conditions	■ Temperature during operation 15 - 40 °C ■ Humidity 50 - 85% ■ Electromagnetically compatible ■ No one-sided direct sunlight ■ No one-sided drafts

* Line lengths outside of specifications upon request

** Depends on wiring harness structure

*** Cycle time depends on components and wiring set structure

**** The correct function of peripheral devices may be impaired outside of the recommended operating pressure range. Please also observe the technical data for peripheral devices.

***** Maximum permissible operating pressure: 6.5 bar

1.1.4 Space requirements

TIP

Additional space needs

- ▶ Include calculations of the space requirements of additional systems.
- ▶ Provide a minimum space of 1500 mm around the machine.

1.1.4.1 Space requirements with 6 wires

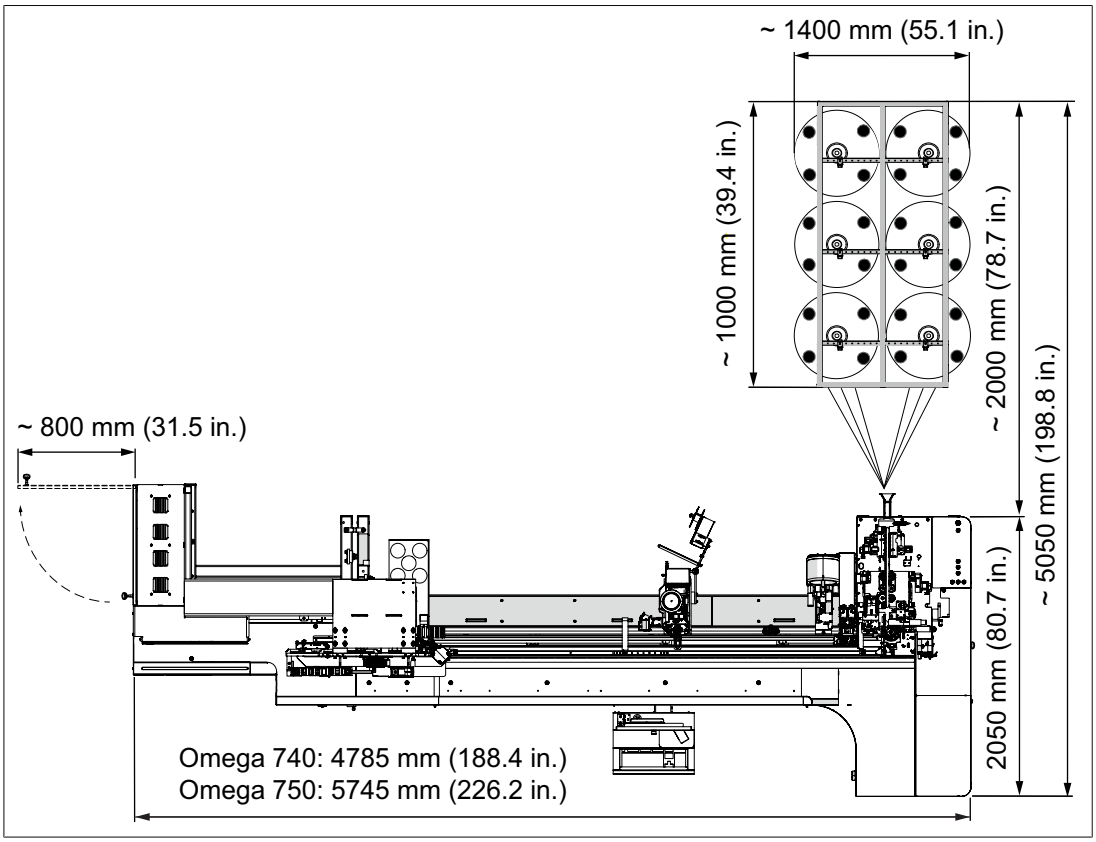

Fig. 4

1.1.4.2 Space requirements with 36 wires

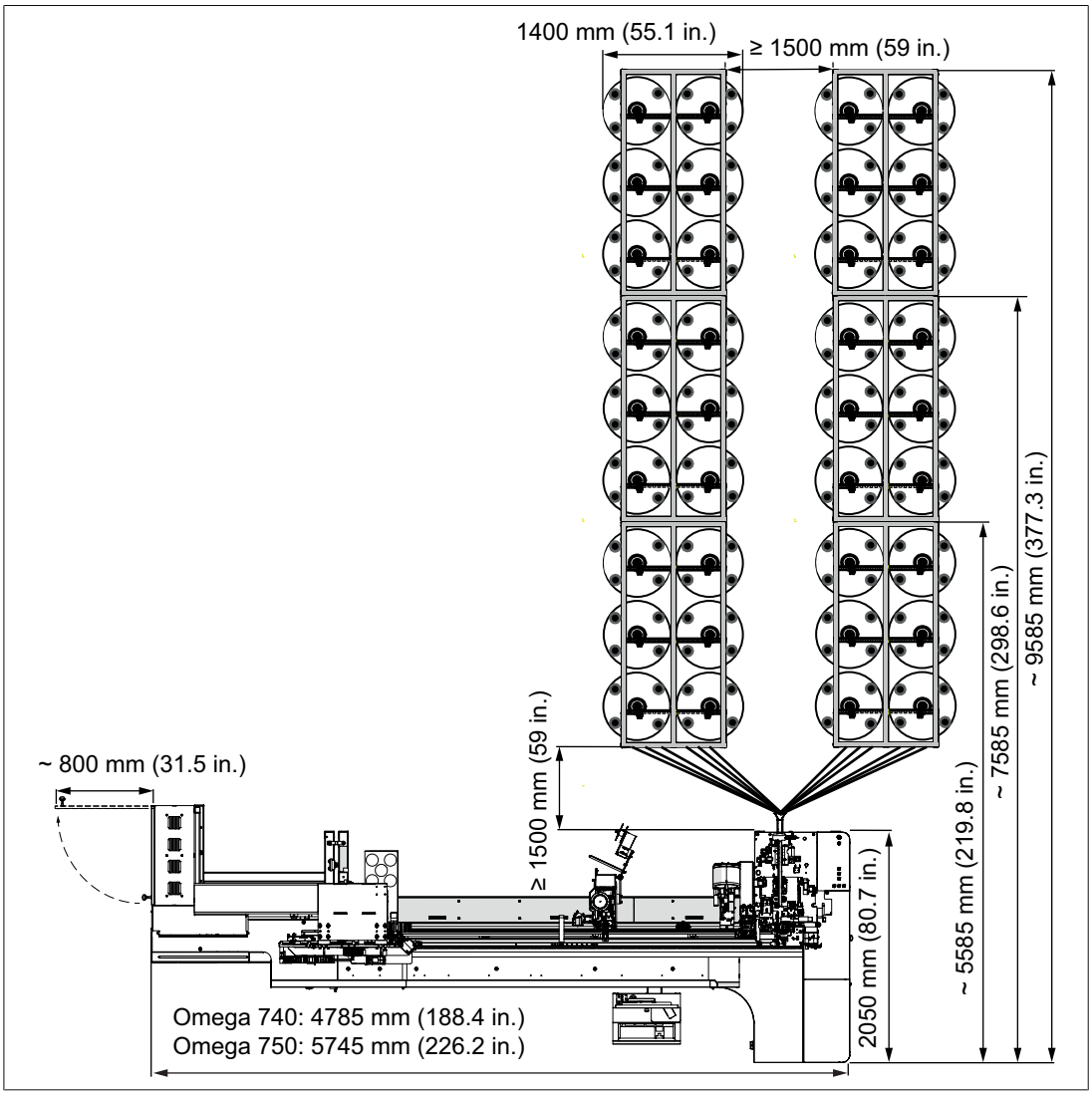

Fig. 5

1.1.5 Conformity

Manufacturer / authorized representative for compilation of technical documents	Komax AG Industriestrasse 6 6036 Dierikon Switzerland Phone: +41 41 455 04 55 Fax: +41 41 450 42 66
The product conforms with the relevant provisions laid down by these guidelines.	■ Machinery Directive 2006/42/EC ■ EMC Directive 2014/30/EU ■ RoHS Directive 2011/65/EU
Applied harmonized standards	■ EN 61000-6-2 electromagnetic compatibility (EMC), Generic standards - Immunity standard for industrial environments ■ EN 61000-6-4 electromagnetic compatibility (EMC), Generic standards - Emission standard for industrial environments

1.2 ABOUT THE INSTRUCTIONS

1.2.1 Structure of overall documentation

The complete documentation of the machine consists of the following documents:

- Operating instructions
- Pneumatic diagram
- Wiring diagram
- I/O list
- Software instructions, TopWin
- Installation instructions, TopImage
- Documentation for process modules (customer specific)
- Documentation for quality-monitoring modules (customer specific)
- Documentation for accessories (customer specific)
- Replacement parts catalog (electronic)
- EC declaration of conformity / machine inspection protocol

1.2.2 Layout conventions

These instructions are laid out as follows:

TIP

Designates user tips and other useful information.

Tip is not a signal word for hazards.

Instructions

Instructions consist of one or more optional requirements, one or more action sequences, and optional results.

Requirements

- This is a requirement for an action.

▶ This is an action sequence.

  → This is an intermediate result from a single action sequence.

→ This is the result of a complete set of instructions.

Numbered lists

1. This is a numbered list.

List

- This is a non-numbered list.
  - This is a second-level bullet point.

Markup elements

Legend numbers for images are designated as in the following example:

Place setup gauge [1] into guide-tube holder [2].

Software elements are designated as in the following example:

Press **OK**.

1.2.3 Saving the instructions

These instructions are a component of the product. Keep the instructions at hand so that they are always readily accessible for any needed information.