



## Marking systems

Make your mark! In quality and logistics

**komax**



The Komax ims 295 inkjet systems open the way to flexible marking solutions for the wire processing industry, featuring

- High productivity (marking the wire as it moves at speeds of up to 9m/s)
- Well-adhering marking
- Marker operated from the machine controls
- Marker useable with most Komax machines or offline.

As an alternative, Komax also offers the flexible Komax 26 hot-stamp marker.

### **ims 295 inkjet marking system**

#### **The operation of the ims 295**

The ims 295 inkjet systems with continuous inkjet technology mark cables while in motion. The marker and the machine are ideally coordinated with each other. The machine adjusts its speed automatically to the marking process. Unmarked sections of the cable are transported at maximum speed.

Top quality marking is ensured even during maximum acceleration and deceleration.

The marking texts can be defined in a user friendly way on the monitor or using the machine controls or with a control system via WPCS. The marking texts are sent automatically to the marker.



▲ **Marking samples** Done on the ims 295 BC and ims 295 BS

The ink system meters out just the amount of solvent required and constantly measures ink density to ensure economical and ecological operation. An optional solvent recovery system additionally minimizes solvent use and emissions.

### Application

Wire marking is a key part of logistics and quality control in today's market. It enables:

- Unambiguous identification (article number, ID)
- Product traceability (date made, batch, machine)
- More efficient assembly of the cable (function, connection, installation instructions).



▲ **Ink system** Neat and reliable

The marking can be ideally positioned on the cable as required:

- Up to 10 markings at the beginning
- Up to 10 markings at the end
- A repeating marking in the middle, also with alternating reading direction.

Other default settings are normal and bold font, font height and width, double spacing, inverse font and automatic adjustment of the center line to the cable diameter. This centering is provided for use with automatic cable change (Zeta-machines).



▲ **Marking head** With magnetic jet locking system

A large selection of specialty inks ensures best writing quality, high contrast and good adhesion even for special requirements. Black and white ink ensures optimal contrast on light or dark cables. Other ink colors are available as well as oil-resistant and UV-curable inks.

### Machine integration

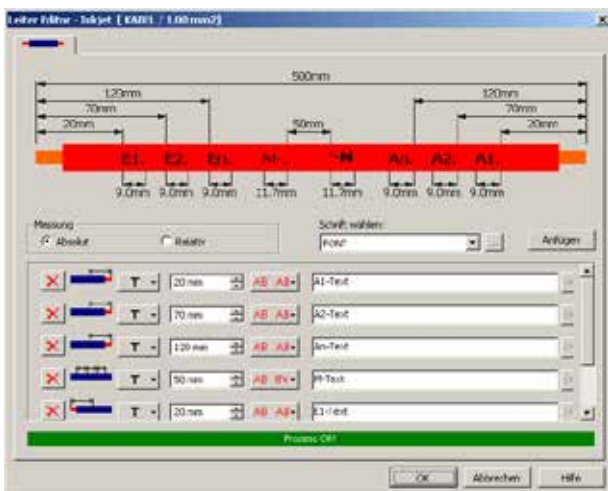
The ims 295 inkjet systems are ideally coordinated for use on fully automatic wire processing machines in the Kappa, Alpha, Gamma and Zeta series. They have an Ethernet interface (TCP/IP) and an RS232 interface and are compatible with future, current and earlier machines. With the leadset editor of the machine control, the marking text, the font and the (marking) position can be easily defined.



▲ **ims 295 on Alpha 455** Minimal zero-cut, as the print head is positioned close to the cutting head



▲ **Automatic marking head changer on Zeta** Cable replacement without operator intervention, thanks to automatic text centering



▲ **TopWin** Leadset editor



▲ **Marking sample** Printed with ims 295 BS, 0.13mm<sup>2</sup> cable (AWG26)

### Your benefits

ims 295 inkjet

- High-performance and economical marking solutions
- High throughput (marks moving cable)
- High marking quality
- Filling without interrupting production
- Investment with multiple uses: on nearly all machines and stand-alone printing solutions
- User-friendly operation from monitor of wire processing machine
- Complete solution from a single source, i.e. one contact partner

Komax 26 hot stamp marker

- Fast foil change thanks to cartridge system
- Minimal wear on marking wheel due to locking element
- Simple standard interface

### Offline operation

With the corresponding displacement table, the printer can be also used machine-independent, e.g. for the printing of connectors and other components. Thus, the ims 295 is the investment protect printing solution for all cases.

Three versions are available:

#### **ims 295 BC (black & color)**

Standard marker for pigment-based and lightly pigmented inks. Font point size about 1/3mm, minimum font height 1.3mm. Operates without compressed air.

#### **ims 295 MC (multicolor)**

Marker with special ink system for white and heavily pigmented inks. Font point size about 1/3mm, minimum font height 1.3mm. Operates with compressed air.

#### **ims 295 BS (black small)**

Marker for small fonts and pigment-based ink. Font point size about 1/4mm, minimum font height 0.9mm. Operates with compressed air.

### Komax 26 hot stamp marker

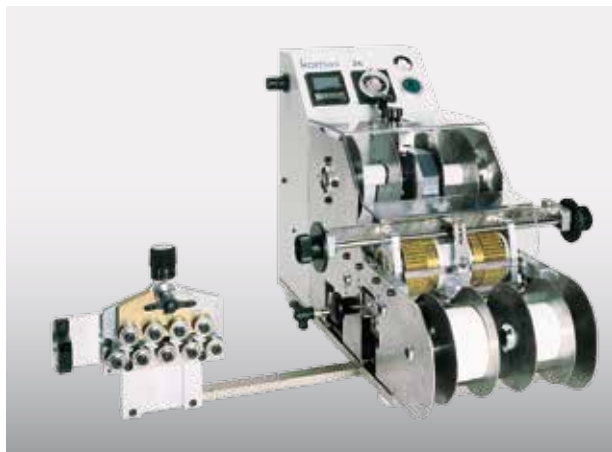
The Komax 26 marker uses the reliable hot-stamping method in which daisywheels permanently imprint the font on the non-moving cable at a given temperature and pressure.

The Komax 26 has a cartridge system that allows color changes to be made in a matter of seconds. The color foils can be put in the cartridge without interrupting processing.

The Komax 26 can mark conductors from 1.3mm to 10mm in diameter. This range of diameters can be covered with just two cable guides.

A special locking element ensures minimal wear on the marking wheels.

And the simple communication system allows the Komax 26 to be connected to all common wire processing machines.



▲ Komax 26 Hot stamp marker with straightening station

## Technical data

|  | Komax 26                             | ims 295 BC   | ims 295 MC                    | ims 295 BS                    |
|--|--------------------------------------|--|-------------------------------|-------------------------------|
| <b>Integration in Komax machine</b>                          | I/O control                          | TopWin/KappaWin  | TopWin/KappaWin               | TopWin/KappaWin               |
| <b>Interface connection</b>                                  | IOCS                                 | RS232/Ethernet TCP/IP  | RS232/Ethernet TCP/IP         | RS232/Ethernet TCP/IP         |
| <b>Maximum marking speed</b>                                 | –                                    | 8m/s* (315in./s)*  | 8m/s* (315in./s)*             | 9m/s* (354in./s)*             |
| <b>Number of writing heads/<br/>number of marking wheels</b> | 2×16<br>marking wheels               | 1 writing head<br>84kHz/60µm   | 1 writing head<br>84kHz/60µm  | 1 writing head<br>120kHz/40µm |
| <b>Minimum font height</b>                                   | –                                    | 1.0mm (0.04in.)  | 1.0mm (0.04in.)               | 0.8mm (0.031in.)              |
| <b>Maximum font height</b>                                   | 2.3mm (0.09in)                       | 4.5mm (0.18in.)  | 4.5mm (0.18in.)               | 4.4mm (0.17in.)               |
| <b>Minimum cable outer diameter</b>                          | 1.3mm (0.051 in.)                    | 1.2mm (0.047 in.)  | 1.2mm (0.047 in.)             | 1.0mm (0.039in.)              |
| <b>Minimum cable cross section</b>                           | Approx. 0.35mm <sup>2</sup>          | Approx. 0.35mm <sup>2</sup>  | Approx. 0.35mm <sup>2</sup>   | Approx. 0.13mm <sup>2</sup>   |
| <b>Minimal text distance</b>                                 | –                                    | 40mm   |                               |                               |
| <b>Positioning accuracy</b>                                  | –                                    | Typical ± (1...2mm +0.1...0.2 of length)   |                               |                               |
| <b>Character matrix</b>                                      | Marking wheels                       | 5×5 (normal and tower) by font height <1.3mm 3×5 or 4×5<br>7×5 (normal and tower), 11×7, 3(8) Fastprint***                         |                               |                               |
| <b>Text length</b>   | –                                    | max. 39 characters per print position;<br>Group printing up to 195*** characters per print position                                |                               |                               |
| <b>Number of marking texts</b>                               | –                                    | 10***× marking at beginning, 10***× marking at end and 1×continuous marking in the middle  |                               |                               |
| <b>Character</b>   | –                                    | Bold type, symbols, barcode  |                               |                               |
| <b>Character parameter</b>                                   | –                                    | Normal and Bold type, font width, font height, double character spacing  |                               |                               |
| <b>Alpha, Gamma, Zeta parameter</b>                          | –                                    | Marking print (forward, backward), continuous printing (forward, backward, alternating)  |                               |                               |
| <b>Kappa parameter</b>                                       | –                                    | Marking print (forward, backward, adjacent alternating),<br>continuous printing (forward, backward, alternating), text repetitions |                               |                               |
| <b>Tank volume ink/solvent</b>                               | –                                    | 1.25 liter (0.33gal.)  |                               |                               |
| <b>Inks</b>  | –                                    | Non/lightly pigmented  | Non/lightly/heavily pigmented | Non pigmented                 |
| <b>Length of supply tube</b>                                 | –                                    | 3m (118in.)  |                               |                               |
| <b>Ambient temperature</b>                                   | –                                    | +5 to +40°C** (41–104°F)**   |                               |                               |
| <b>Maximum relative humidity</b>                             | –                                    | 90%, non condensing  |                               |                               |
| <b>Power supply</b>  | 115–230V 50/60Hz                     |  |                               |                               |
| <b>Compressed air supply</b>                                 | 5–8bar (72.5–116psi)                 | –  | 6bar (87 psi), filtered       | 6bar (87 psi), filtered       |
| <b>Dimensions (W×H×D)</b>                                    | 350×320×500mm<br>(13.8×12.6×19.7in.) | 418×630×325mm (16.5×24.8×12.8in.)  |                               |                               |
| <b>Weight (net)</b>  | Approx. 18kg (40lb)                  | Approx. 26kg (57lb)  | Approx. 30kg (66lb)           | Approx. 30kg (66lb)           |

\* These are maximum values. Limitations of the machine or the cable are possible.

Unmarked sections of the cable are automatically detected and processed at maximum speed.

\*\* Depends on the ink used.

\*\*\* TopWin-specific

## Options and accessories

|                                   |  |
|-----------------------------------|--|
| Options for inkjet<br>ims 295     | Assembly sets for cutters and strippers (Kappa)  <br>Assembly sets for automatic crimpers (Gamma/Alpha)  <br>Assembly sets for automatic loaders (Zeta)  <br>Assembly sets for machines from other makers  <br>Offline translation stages   Solvent recovery   Signal lights  <br>Translation stage, air conditioner   Marking head holder  <br>Wire guides   Switch box for two inkjets |
| Accessories for ims 295<br>inkjet | Inks with matching solvent   Maintenance kits  <br>Ultrasonic cleaning bath  |
| Komax 26                          | Mounting sets   Marking wheels   Straightening station  <br>Stamp foil cartridge   Production tables   |