

REA JET

INDUSTRIAL CODING AND
MARKING SOLUTIONS -
MADE IN GERMANY

Large Character Ink Jet Printer The Standard in its Class





The Standard in its Class: Large Character Ink Jet Printer (DOD)

The modular designed coding and marking systems for texts, dates or logos are available in printing heights up to 140 mm for each print head. For larger printings several print heads can be combined. The resolution meets the requirements of virtually all industrial

applications for marking and coding. These large character systems, with 7-, 16- or 32-nozzles print heads are easy to use, robust and due to the modular construction of the system components, highly flexible.

Applications:

- coding and marking with large range of inks in rough industrial environments
- application of laser-primers and further technical liquids
- absorbent and non-absorbent surfaces such as paper, cardboard, metal, glass, ceramics, stone, wood, plastic, rubber, foils, carpet, textiles, non-woven fabric, organic surfaces etc.
- under extreme environmental conditions such as dust, humidity, vibration and temperature fluctuations from -5°C to +45°C

Advantages:

- sparing use of consumables
- inks available in a wide variety of colors
- product speeds up to 300 m/min.
- IP65 protection class
- REA Plug & Print technology: high system availability and process reliability via quick-change system for module components
- REA Purge & Clean technology: rapid cleaning of the print head at the press of a button
- REA DSC-technology: dot size control, freely adjustable drop size for economical use of consumables
- suitable for pigmented and non-pigmented inks
- REA's patented swivel armature technology: robust and reliable

Print Head Variants:

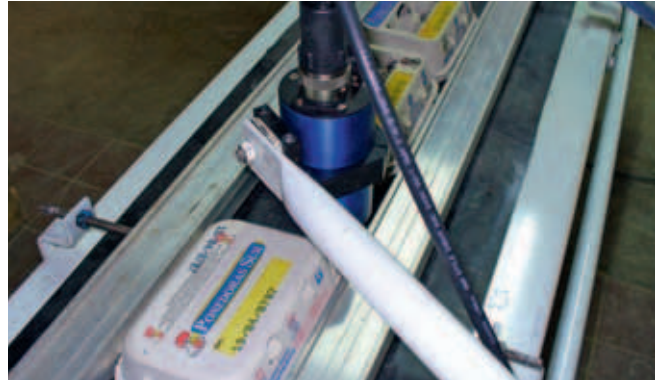
- 7-nozzles: one-line markings at heights of between 3 and 27 mm
- 16-nozzles: one- to two-line markings at heights of between 3 and 67 mm
- 32-nozzles: one- to five-line markings at heights of between 3 and 140 mm



Paper marking



Marking of cardboard boxes



Coding of egg cartons



Marking of paper bags

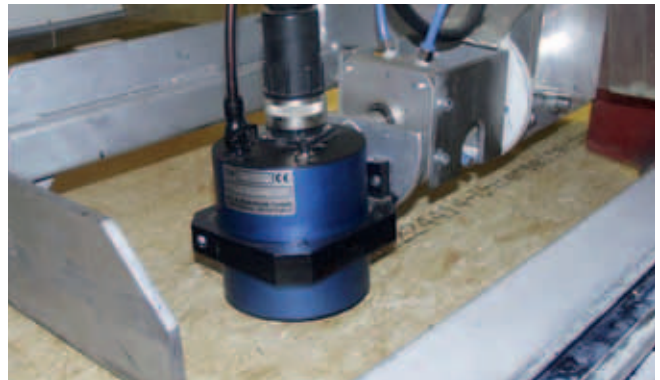


Marking of fiber drums

Coding of wood



Marking on rough sawn timber boards



Coding of plywood boards



Large marking of board stacks



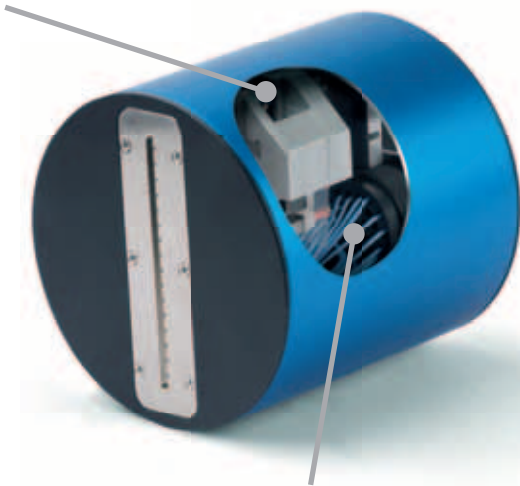
IPPC-marking

Print Head-Features and their Advantages



High quality stainless steel components. Sturdy design for use in rough industrial environments with REA JET inks and primers.

REA JET Heavy-Duty

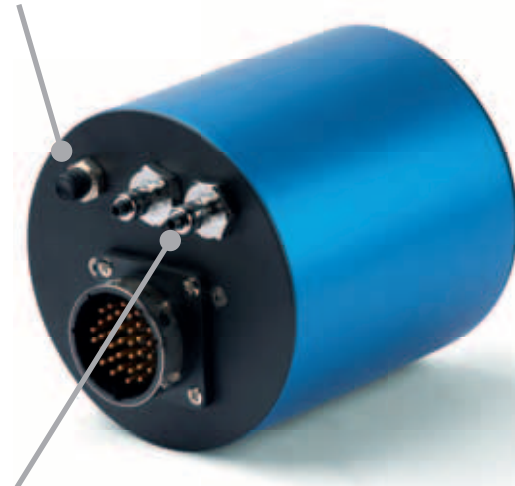


Freely adjustable drop size for efficient use of consumables.

REA JET Dot-Size-Control

Quick nozzle cleaning at the push of a button, no complex flushing system

REA JET Purge & Clean



Quick exchange of system modules to minimize production interruption

REA JET Plug & Print Technology

Typical Advantages and Features :

- REA JET Heavy-Duty stands for the uncompromising use of high quality components for maximum system availability and durability of the systems
- REA Purge & Clean Technology refers to the rapid cleaning of the print head at the press of a button without interrupting the production process. No need for cleaning with solvents. The most widely available assortment of REA JET-approved industrial inks world wide is available for this system. A wide range of proven water-, solvent- and pigment-based specialty inks for almost every application is already available. We can find the right ink for your application.
- REA DSC technology (Dot Size Control). Freely adjustable drop size for efficient use of consumables.
- REA Plug & Print Technology refers to a high level of system availability and process reliability. Nozzles do not dry out during long periods of non-use. Quickest exchange procedure for modular components including: print head, input terminal, control unit, and ink supply unit.
- designed for original REA JET inks and primers of various types and in a wide variety of colors
- suitable for pigmented and non-pigmented inks
- economical use of consumables
- up to 140 mm print height with only one print head
- print texts of 1m in height through cascading print head arrangement
- quick change system for modular components
- REA's patented swivel armature technology: robust & reliable
- security of investment through sustainable company policy: Production of all devices, along with parts provisioning, at company location in Germany: Supplier = manufacturer!

We offer our customers proven and reliable technology through the combination of robust mechanical engineering, modern interface and control technology, and a tested line of ink products.

Marking of Metal



Marking of steel pipes



Coding of aluminium plates

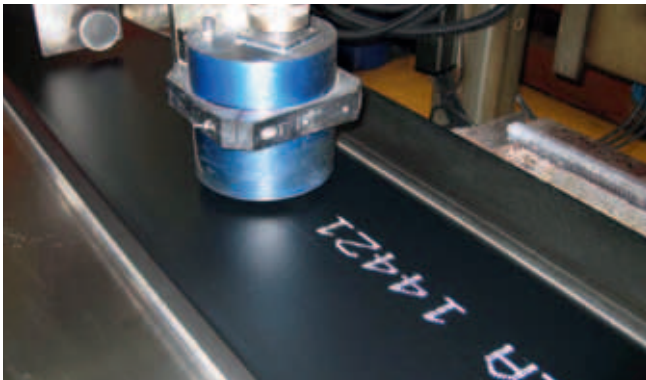


Marking of rectangular tubes



Marking of H-beams

Marking of Rubber



Marking of raw rubber tread



Marking rubber hose



Colored striping on finished tires



Marking of green rubber sheet

Print Heads and Control



Input Terminal for Text Input for 7- and 16-nozzle REA JET Print Heads

The ST200 input terminal is used to configure your 7- and 16-nozzle REA JET system and to provide you with an overview at all times of your settings and the texts which are currently assigned.

- dust-proof and water-resistant - protection class: IP65. For rigorous industrial use
- deliberate omission of dirt-sensitive operating interface, even solvent-resistant
- texts and logos can be edited directly or assigned via interface (RS232, RS422)
- after transmission of data, the input terminal can be disconnected from the controller
- you only need one input terminal for any number of REA JET large character systems that are required to meet your production needs
- customized programming using script language
- dimensions: 48 x 253 x 167.5 mm
- weight: 1300 g

REA JET Controller Modular Component for 7- & 16-Nozzle Print Heads

The REA JET controller (SG) receives the print texts and the related parameters via the input terminal ST200 or a suitable PC interface. These are transmitted from the controller to the connected print heads.

- up to four different large character print heads can be connected
- connection of shaft encoder for measurement of product speed
- connection of product sensor to begin printing (trigger signal)
- setting the drop size (REA JET DSC Technology = Dot Size Control)
- connection of input terminal (ST200)
- integrated power supply
- dimensions: 109 x 149 x 262 mm
- weight: 4350 g

7-Nozzle Print Head

16-Nozzle Print Head

32-Nozzle Print Head



7- and 16-Nozzle Input Terminal

7- and 16-Nozzle Controller



32-Nozzle Input Terminal with integrated Controller

Text Input for 32-Nozzle REA JET Print Heads

The SGLK terminal is used for the operation of 32-nozzle print heads. Unlike the ST200, the SGLK input terminal has a controller integrated within the housing. In addition, the scope of functionality of the SGLK input terminal is identical with that of the ST200.

- dimensions: 66 x 254 x 169 mm
- weight: 1600 g

Marking of Plastic



Coding of extruded PVC-pipes



Marking of plastic profiles



Coding of shrink hoods



Marking of styrofoam blocks

Marking of Stone



Mobile marking of concrete pipes



Marking of lime sandstones



Marking of precast concrete pipes

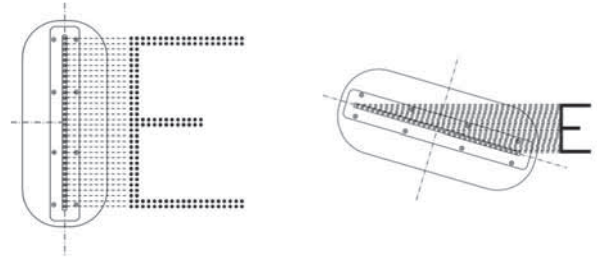


Coding of precast concrete elements

Print Heights and Print Possibilities



For all REA JET Large Character ink jet printers, the required print height is adjusted by simply rotating and tilting the print head.

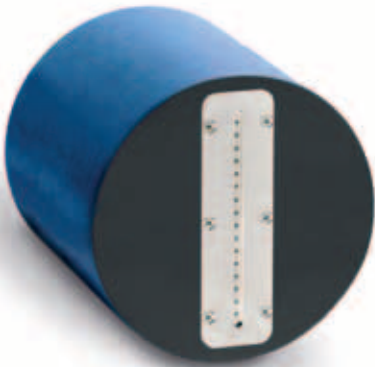


7-Nozzle, 3 - 27 mm



€ PROD-CODE

16-Nozzle, 3 - 67 mm



€ 473-9

32-Nozzle, 3 - 140 mm

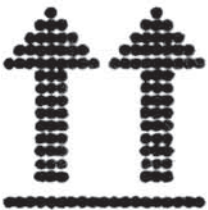


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Print Possibilities:

- character orientation normal, upside down, forwards, backwards, inverted, chimney print orientation
- character spacing and character width adjustable
- universal counter with variable incrementation and 6-digit, incremental and decremental numbering
- real-time clock with variable calendar
- automatic text repeat
- serial numbering
- Bar codes Code 39, 2/5 Interleaved
- 2D-Codes as bitmap and via software
- operator selectable print delay
- operator adjustable print height / print width
- combination of variable and fixed texts within same print line
- internal clock (Production date / time, "Sell by", "Best Before", "Use by" etc.)
- freely programmable layout for graphics and logos
- stored print messages retrievable via codes

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LOT N

Original print samples

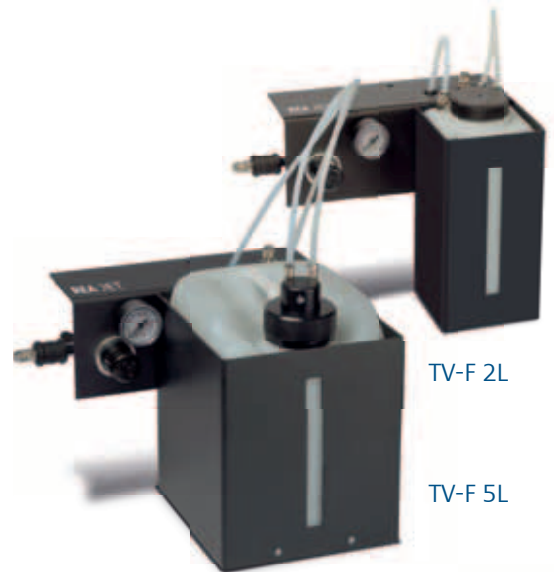
Ink Supply Units



REA JET offers the probably most comprehensive assortment of inks and cleaning agents worldwide for the use in Large Character ink jet systems. To supply the systems with consumables, special ink supply systems are available.

REA JET Ink Supply Units for Non-Pigmented Inks:

- ink supply unit with compressed air connection for permanent print readiness
- model for external air connection: TV-F (operating air pressure, filtered)
- model for internal air: TV-E (air pressure is generated via integrated small-size compressor)
- volume: 2 Liter, 5 Liter - other sizes available by request
- accessories: Ink pressure- and ink fill-level indicator, warning indicator
- dimensions and weights:
 - TV-F 2L: 242 x 305 x 193 mm, 1800 g
 - TV-E 2L: 217 x 250 x 192 mm, 2100 g
 - TV-F 5L: 203 x 300 x 280 mm, 2700 g
 - TV-E 5L: 203 x 250 x 280 mm, 3000 g



TV-F 2L

TV-F 5L



TV-PP

REA JET Ink Supply Units for Pigmented Inks:

- ink circulation: as a result, no settling of pigments, permanent print readiness
- model for electric pump operation: TV-PP
- model for permanent air driven operation: TV-PL
- volume: 2 Liter - other sizes available upon request
- accessories: Ink pressure and ink fill-level indicator, warning indicator
- optional: potential-free contacts for indication of pump and operating status, as well as ink level
- special model for tire industry: TV-RPS for naphtha inks (marking on green rubber)
- dimensions and weight:
 - 480 x 380 x 210 mm, 18000 g

Ink Level Indicator with Warning Light



Potential-free Contacts

Accessories:

- **Ink Level Indicator with Warning Light**
Provides a warning so the system does not run dry
- **Potential-free Contacts**
Pass signal on to super-ordinate systems (PLC, alarm, general device status)
- **Ink Pressure Gage**
Comfortable monitoring and adjustment of the ink pressure



Ink Pressure Gage

REA JET Large Character Systems comparison table



	7-dot (SK7)	16-dot (SK16)	32-dot (SK32)
Patented REA JET Print head technology (in Heavy-Duty Design)	✓	✓	✓
Protection class IP 65 (dustproof+ protected against splash water)	✓	✓	✓
Versions for pigmented and non-pigmented REA JET water- and solvent based inks	✓	✓	✓
RPS Version (optional, for rubber printing)	✓	✓	✓
REA JET DSC-Technologie (Dot-Size-Control) Adjustable dot size for economical use of consumables	✓	✓	✓
Available nozzle sizes for different dot sizes (80, 130, 180, 270, 350 micron)	✓	✓	✓
REA JET Plug & Print-Technologie (quick change of system modules to minimize production interruption)	✓	✓	✓
REA JET Purge & Clean-Technologie (quick nozzle cleaning at the push of a button, no complex flushing system)	✓	✓	✓
Printing heights	3 to 27 mm	3 to 67 mm	3 to 140 mm
Number of printing lines	1 line	1 to 2 lines	1 to 5 lines
Printing matrix (font)	5x5 (1 line) 7x5 (1 line)	5x5 (up to 2 lines) 7x5 (up to 2 lines) 10x10 (1 line) 16x10 (1 line)	5x5 (up to 5 lines) 7x5 (up to 4 lines) 10x10 (up to 3 lines) 10x10 bold (up to 3 lines) 15x10 (up to 2 lines) 15x10 bold (up to 2 lines) 32x20 (1 line) 32x20 bold (1 line)
Max. printing speed	up to 300 m/min – depending on application		
Text, logos, graphics	✓	✓	✓
Barcodes (Code 39, 2/5 Interleaved)	✓	✓	✓
DataMatrix-Code (ECC 200)	✗	✓ as bit map	✓
Special heated version (optional, for any weather condition)	✓	✓	✓
Dimensions, standard version (length x width x height in mm, weight in grams)	60 x 60 x 101 mm 500g	100 x 100 x 101 mm 1100g	180 x 73 x 104 mm 2350g

The most Comprehensive Assortment: Inks and Consumables



REA JET develops and distributes the most comprehensive assortment of inks, paints, primers, solvents and cleaning agents worldwide, for virtually all coding, marking, and spray mark applications. Chemical compatibility and interaction with all components in the REA JET product families is the top priority in being approved for processing in REA JET coding and marking systems and this ensures trouble-free operation of

REA JET industrial printers in your production. Only by using original REA JET inks, colors and cleaning agents can you ensure reliable operation of our systems. The over 400 standard and special inks in our product range enable us to provide our customers with a wide offering. Modern design and testing methods guarantee the quality of our inks, colors and cleaning agents

- over 400 standard and special inks in our product range
- packaging sizes from the HP cartridge to the 200 liter (50 gallon) drum
- industry solutions and formulations for medical and pharmaceutical, building materials, plastics, foodstuffs, tire industry, metal, wood, stone, carpet, non-woven fabric and rubber
- customer specific developments of inks, paints and primers
- modern development and testing methods assure the quality of our inks, paints and cleaning agents

Special Inks and Typical Applications:

- water-based inks (VOC-free application)
- pigmented MEK inks (for the best contrast and shortest drying time)
- primers for color change by laser
- foodstuff inks (for direct marking of food)
- Acetone inks (marking on oiled surfaces)
- RPS inks (water- and naphtha-based for the tire industry)
- UV inks (marking visible only under special lighting)
- high temperature inks (400 °C up to 1300 °C)
- etching inks (permanent metal marking)



Special Inks in Typical Applications



Carpet marking with water ink



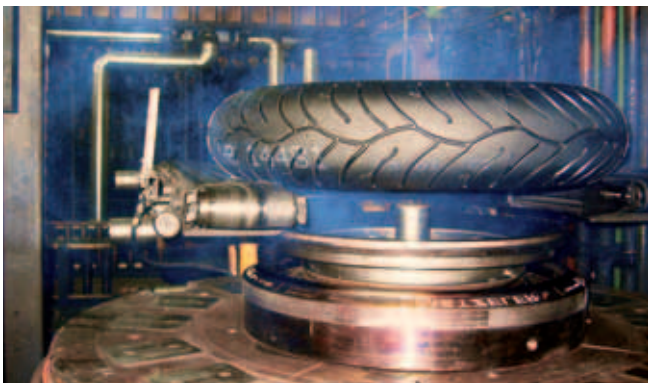
Steel tube marking with pigmented MEK ink



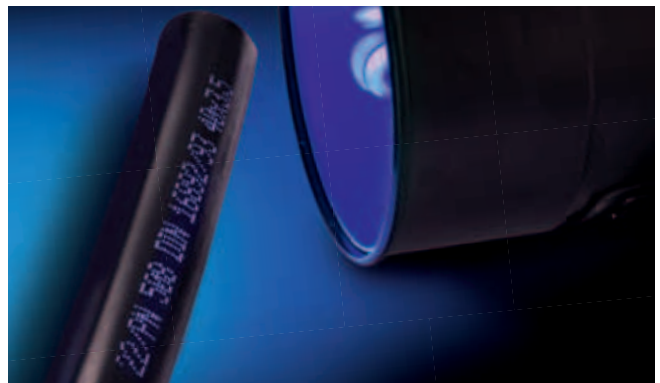
Coding of pork carcasses with food ink



Coding of oiled metal sheets with acetone ink



Tire marking with Naphtha-ink



Marking of plastic pipes with UV ink



Steel sheet marking with etching ink



Refractory stone marking with high-temperature ink

Accessories

The smooth integration of the systems into existing production infrastructures is an important factor for the trouble-free operation of industrial marking technology. For this purpose, REA JET supplies a wide range of accessories.

Product Sensor for Trigger Signal:

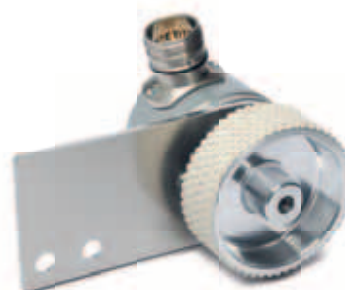
- reflex sensor version: Standard product sensor for most applications
- light barrier version: with an opposing reflector for product surfaces that are difficult to detect



Product Sensor

Shaft Encoder:

- for accurate print control at variable product speeds
- DG 3000: Standard shaft encoder with friction wheel (circumference 200 mm) for most applications
- DG 5000 / DG 10000: for speed detection at transmissions or shafts and for friction wheels > 200 mm circumference



Shaft Encoder

Text Selection Box:

To avoid misprinting with the manual selection of predefined print texts.

Interfaces:

- RS232: for cable length up to 15 m
- RS422: for cable length up to 1500 m
- USB adapter to RS232 / RS422
- Ethernet connection via Com-Box



Text Selection Box

Print Head Multiplexer:

Signal multiplier to supply up to 10 Controllers via one product sensor / shaft encoder.



Print Head Multiplexer

Controller Network:

Up to 16 control units are interconnected in a network and can be simultaneously operated from one input terminal (for 7- and 16-nozzle systems).

Flyback Compensating Device:

Compensates signals sent by turning shaft encoder with backwards running conveyor and sends correct print go signal with new start of production line.



Flyback Compensating Device

Accessories

Digital I/O

Digital communication interface for most complex control tasks (e.g. switching of print direction).

Distance Levelling Device

For ensuring a constant distance from the print head to the product surface, even with differing product sizes and heights. A trapeze version for vertical distance compensation. A swivel arm version to compensate differing horizontal distances.

Barrel Turning Device

For optimum positioning and rotation of barrels. Constant print head distance for best coding and marking results.

Mobile Marking Systems

To be used at any location. Maximum flexibility by means of integrated power supply.



Vertical distance levelling device



Horizontal distance levelling device



Barrel turning device



Mobile marking systems

We offer Turn-Key Solutions from a Single Source

Apart from the described accessories, we offer turn-key solutions for our customers, by developing specific solutions. From the projection phase, through to conception, engineering, system installation and training of operating staff. Everything from one single source.

REA JET



REA Elektronik GmbH

Teichwiesenstrasse 1

64367 Muehltal

Germany

T: +49 (0) 6154 638 0

F: +49 (0) 6154 638 195

E: info@rea-jet.de

www.rea-jet.com