ERO PB

ERO PBS

ERO ECO

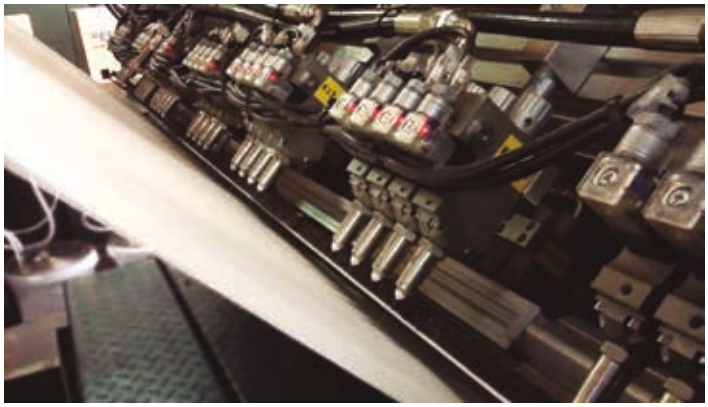
GTE 13/S 13/M

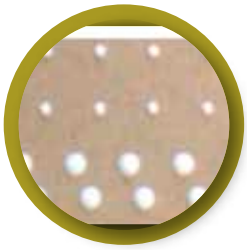
ERO
GLUING SYSTEMS
A Valco Melton Company

Gluing Systems for the Bag and Sack Manufacturing Industry

COMPLETE ELECTRONIC GLUING SYSTEMS

The introduction in the bag and sack industry of electronic glue systems that replace old glue pots is a revolution for manufacturers. The immediate benefits can be appreciated from the first day, when adhesive waste is reduced, thus cutting down adhesive usage and reducing downtime. Moreover, dot adhesive application mode allows significant glue savings while guaranteeing bond strength.





CUSTOM APPLICATION

The ERO glue system applies precise glue patterns according to the product requirements. The dot size and gap can be easily adjusted by the control device.

GLUE UPGRADING

Electronic glue systems replace existing open glue pots, reducing glue usage and downtime associated with cleaning tasks. Also, ERO systems do not require glue disposal at the end of the day.

TECHNICAL SUPPORT

ERO Gluing Systems Technical Service is always available to test the glue you are using and to adapt the gluing system to your production line requirements. ERO provides technical assistance from the first installation and at any time support is required.

NO MORE GLUE DISPOSAL

Electronic glue systems save glue and do not require glue disposal at the end of the day reducing downtime and eliminating disposal costs.

ADDITIONAL BENEFITS:

1. ADHESIVE SAVINGS

Dot mode adhesive application cuts down on glue consumption.

2. HIGH PRECISION

Non-contact adhesive guns provide high-precision application and avoid potential problems related to paper conditions.

3. FAST SET-UP

Unlike standard glue applicators, valve changeover is not required and set-up is much easier. The smart bracket design allows adjustments without moving the valves. Additionally, programming is easy and fast.

4. REDUCED DOWNTIME

Pot and roll systems have many moving parts which require daily cleaning and maintenance affecting productivity.

5. EASY HANDLING

ERO electronic glue systems are extremely easy to clean and program.

6. SIMPLE CONFIGURATION

ERO's user-friendly software is extremely flexible. Glue patterns and dot sizes can be easily and quickly configured from the control device.

7. FAST DRYING

Reducing glue volume also means reducing drying time, allowing sooner handling of the product.

8. LESS PARTS

ERO systems eliminate the need for expensive glue patches, rollers and belts, reducing cost and maintenance.

NON-CONTACT ELECTRONIC GLUE SYSTEMS FOR:

- Tuber Formation
- Pinch Bottom
- Pasted Bottom
- Other Paper Bag Applications

ERO gluing systems offer the best solution for your production line. We adapt and calibrate the gluing system and pump according to your glue characteristics, viscosity and the final product.

ERO PB

High-Pressure Gluing System

ERO-PB High-Pressure Gluing System works at the highest machine speeds with precision. It features a double piston pump specially developed by ERO and designed to avoid pressure loss.

ERO PBM

Medium-Pressure Gluing System

ERO-PBM includes the most important items of the high-pressure version. Available as an affordable option, it is equipped with a structure and a sliding device on the pump to guarantee easy glue refill of the bucket.

ERO PBS

Low-Pressure Gluing System

ERO-PBS Low-Pressure Gluing System works at speeds over 250 m/min. It features a double-diaphragm pump, easy to maintain and capable of working with a large range of viscosities.

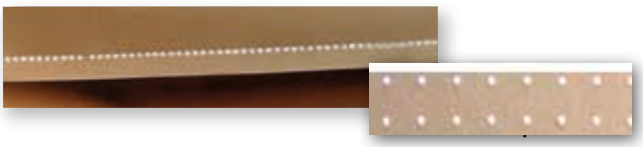
INLINE SEAM-LONGITUDINAL GLUING ON TUBER MACHINES

During this process, overlapped plies of different materials are glued together (paper + paper, HDPE + paper, etc). Our electronic glue system, consisting of 1, 2, 3 or more valves (configuration varies according to the number of plies), replaces the existing, inefficient glue wheel systems.

ERO electronic gluing systems replace the previous glue pots alowing significant glue savings. Furthermore, they allow extremely precise glue application and dot adjustment.

- No glue disposal problems
- Accurate glue dosage
- Non-contact application and dot mode guarantee glue savings
- Precise glue dosing adjustments and easy programming
- Minimal cleaning downtime
- Extremely low maintenance
- Wide range of options available

Electronic systems reduce adhesive usage and waste when compared to pot and roll systems.



Electronic guns can apply in dot mode to save adhesive while maintaining a good bond.

Seam glue application can be monitored from an intuitive iPad as standard. Programming is easy and fast.

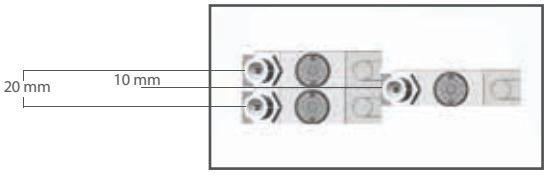
CROSS PASTING NON-CONTACT GLUE SYSTEM ON TUBER

When joining different plies together on the complete width of the bag or sack, the electronic glue system represents a revolution for the industry. Electronic glue systems eliminate glue disposal problems, resulting in immediate glue savings.

- Eliminate glue disposal
- Considerable glue savings
- Intuitive parameter setting and programming
- iPad as a standard control panel
- Minimal maintenance and cleaning downtime

MODULAR VALVE CONFIGURATION

A battery or manifold of modular valves is configured to your specific working needs. We consider the maximum and minimum sizes of your bag/sack production, as well as the interval for the cross pasting, to determine the number of valves and the space between them.

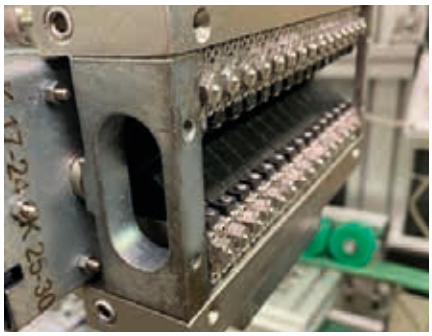


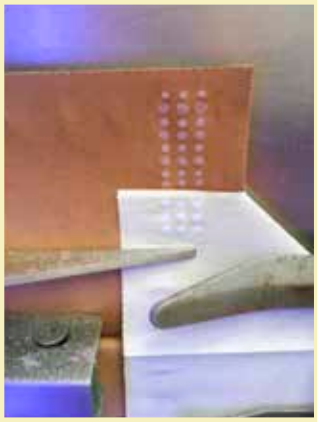
Reduced space between centers is available.

BOTTOM PASTING STATION ON BOTTOMER MACHINES

For bottom pasting, ERO has designed a battery of modular valves that apply precise dot patterns. The number of valves depends on the minimum and maximum size produced by the customer.

ERO compact applicator GTE-153 reduces space requirements and minimizes distance between dots down to 5mm. Different valve options are also available.





Example of 7.5mm glue gaps. Smaller and larger glue gap options are also available

SOFTWARE

Our software for bottom pasting has been developed internally. It allows easy customization of the glue pattern to adapt the adhesive application to the final product.

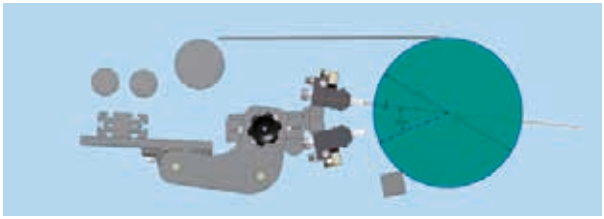
All our units, even if they are located on different stations of the machine, are driven by an iPad as standard.

BOTTOM PATCHING STATION ON BOTTOMER MACHINES

Bottom patching stations strengthen the sack by sealing a patch reinforcement on the bottom. ERO has designed a multiple valve system consisting of two parallel valve banks.

The valve bank on the left side, made by 1 group of 5 non-contact valves and 1 group of 4 non-contact valves has been developed to glue the bottom on the sack body. This configuration allows the best optimization of the glue dosage, resulting in big glue savings and minimal glue disposal.

The unique support bracket allows fast, easy and precise valve positioning.



With the 2 valve banks, the space between dots gets reduded. For example, with standard GTE-13S/M guns the distance between dots would be 20mm. Installing two valve banks, it gets reduced to 10mm. Different valves can be used to get a smaller distance between nozzles.

Glue dosage optimization

Solution adapted to your needs

Complete bottom sealing

Easy valve adjustment

Bottom patch sealed by glue dots

ERO PB

HIGH PRESSURE GLUING SYSTEM

ERO-PB high-pressure gluing system has been designed for normal and extremely high-speed machines.

The ERO-PB system includes the following standard features:

- 4-channel control panel as standard. 2, 16, 32 and up to 100 channels are available on request.
- iPad as standard control panel
- High pressure double piston ERO® glue pump
- High pressure ERO® flow regulator
- Digital electronic air pressure control valve
- Electromagnetic glue applicator type GTE-13/S
- Encoder or proximity switch glue & air hoses, pump support and bucket cover
- Optionally equipped with non-return and/or low-level glue alarm
- Connection to the general system available
- Special glue filter for starch-based adhesives
- Movable bracket structure available as an option

Maximum speed of product: over 500 m/min
Maximum error at 500 m/min: +/- 1 mm
Dimensions: L = 400 mm, H = 1510 mm, W = 660 mm
Weight: 60 kg without glue

HIGH PRESSURE GLUE PUMP

Double-piston ERO® glue pump
No pressure loss allowed
Low maintenance & high reliability
Driven by an electrical board
Easy seal replacement

All ERO® high-pressure systems are provided with a double-piston ERO® glue pump.

This pump has been specifically designed by ERO to tackle the problems often inherent in other pumps. While most piston pumps on the market have a single piston, ERO pump is the only one in the market featuring two. The second piston begins its stroke before the first piston has finished, thus avoiding any loss of pressure.

The pump is calibrated according to the glue type (PVA or starch glue) and to the glue viscosity range. In case of biodegradable glue, a double glue filter is usually installed.

ERO PBS

SIMPLIFIED LOW PRESSURE GLUING SYSTEM

ERO-PBS high pressure gluing system has been designed for normal and extremely high-speed machines.

The ERO-PBS system includes the following standard features:

- 8 channels control panel as standard
- Low-pressure, double-diaphragm glue pump, directly installed on the glue bucket
- Low-pressure flow regulator
- Digital proportional valve and complete air treatment group
- Complete device optionally equipped with check valve and low glue level alarm
- Encoder with support and pulley, laser photo-eye, glue filter, glue air hoses, pump suppport fitted with sliding device and stainless steel cover
- Electromagnetic glue applicator type GTE-13/S
- Glue bucket with 250 micron glue filter inside
- Driver box and software

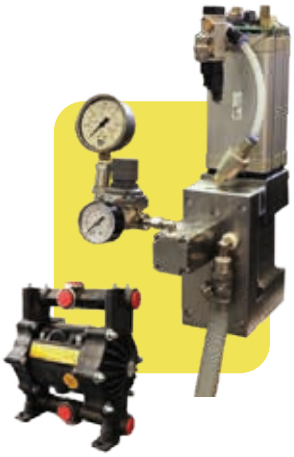
Maximum speed of production: over 250 m/min.
Maximum error at 250 m/min: +/- 1 mm.
Dimensions: L = 410 mm, H = 1200 mm, W = 770 mm.
Weight: 25 kg

Low and Medium Pressure Pumps

Double diaphragm glue pump
Low maintenance & high reliability
Easy seal replacement

Low-pressure systems are provided with a double-diaphragm glue pump. Easy and fast to maintain, the pump is optimal for certain glue viscosity ranges.

The pump is calibrated according to the glue type (PVA or starch glue) and to the glue viscosity range. In case of starch-based glue, a double glue filter is usually installed.



CONTROL DEVICES

An iPad is offered as the standard control panel. iPad is the upgrade of the standard and traditional control panels, allowing independent monitoring from any place.

Control devices drive both longitudinal and cross gluing applications, even if different machines and pumps are being used.

CONTROLLERS

GTE 13 S/M & GTE 153

COLD GLUE APPLICATORS

The GTE-13S and GTE-13M single and multiple applicators can operate at the highest speeds. These non-contact electromagnetic guns can reach 210 m/min when working in dot mode.

GTE-13/S Single Applicator

Dot distribution mode for glue savings
High precision and maximum cleaning
Slides for automatic nozzle cleaning as an option
24 VDC and 6 VDC coil available

ERO® electromagnetic glue applicators type GTE-13 feature ceramic stem spheres and nozzles that prevent and inhibit glue blockage.

Each applicator comes standard with an inductive photo-eye. Sliders for automatic cleaning are available as an option. When no box is detected by the machine for more than 1 second, sliders automatically close and clean the nozzle.

GTE-13/S & GTE 13-M

Maximum speed: 1000 cycle/sec
Dimensions: L = 52mm, H = 122mm, W = 20mm
GTE-13/S weight: 0,300 Kg. **GTE-13/S weight:** 0,320 Kg
Power: 5 W
Standard coil: 6 VDC
Standard nozzle: 1 hole Ø 0.4 mm (available size: 0.6 and 0.8 mm) and 2 holes nozzle
Maximum glue pressure: 28 bar
Minimum cycle time: 0,6 m/sec
Glue viscosity range: Min. 500 mPas, Max. 1200 mPas

GTE-13/M Modular Applicator

The compact size of the GTE-153 allows easy installation in narrow spaces, fitting in almost any machine. It is the ideal solution for bottom pasting, which usually requires a complete adhesive patch coverage in order to seal the bag bottom, preventing the content from leaking.

GTE-153

Maximum speed: 1000 cycle/sec
Dimensions: L = 50mm, H = 55mm, W = 10mm
GTE-13/S weight: 0,300 Kg. **GTE-13/S weight:** 0,320 Kg
Power: 2,5 W
Maximum glue pressure: 14 bar
Minimum cycle time: 0,35 m/sec
Glue viscosity range: Min. 100 mPas, Max. 500 mPas

GTE-153 Compact Applicator

ECO-FRIENDLY APPLICATION

ERO ECO GLUING SYSTEM FOR ECO-FRIENDLY GLUE

End users insist on sustainable alternatives in the packaging industry. ERO Gluing Systems supports your switch to biodegradable adhesives and offers a fully-equipped adhesive application system for your eco-friendly glue.

- High-speed production & innovative technology at a reasonable price
- Minimal cleaning required & precise glue application
- Low maintenance & easy-handling
- Enclosed gluing system results in minimal glue waste
- Over 30-40% glue savings operating in dot application mode

ERO's Engineering Department has perfected each and every element of the gluing system to perform efficiently with the special conditions of biodegradable adhesives, which can be less refined and filtered than conventional adhesives.

The ERO system is manufactured for the use of biodegradable adhesives. Pumps calibrated for optimal performance and double filtered valves with ceramic nozzles are your guarantee of consistent application.

Most unlined paper sacks using biodegradable adhesives are recyclable and improve the overall environmental impact of your product.

SWITCH TO GREEN WITH ERO

PB

PBS

ECO

13/S

153

13/M

ERO

GLUING SYSTEMS

A Valco Melton Company

www.ero-gluers.com

ERO S.R.L.
Via Preferita 7 - 25014 Castenedolo (Brescia) ITALY -
Tel.: 0039 (0) 30 2731503 - Fax: 0039 (0) 302 132523

KEB 000003 EN 001