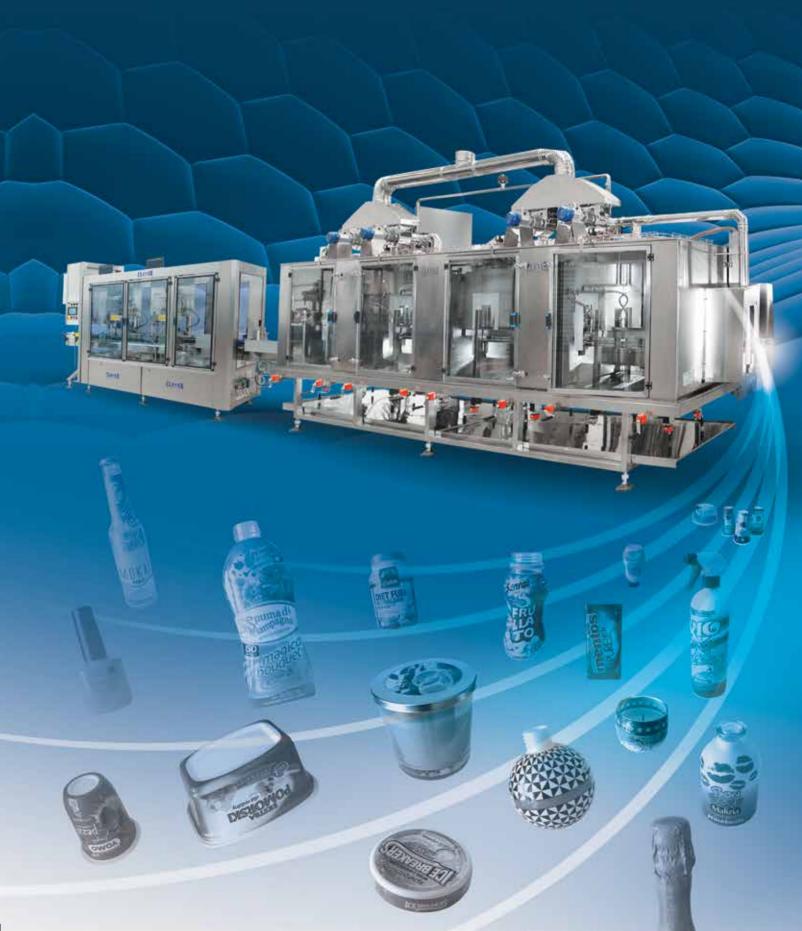


# **TECHNOLOGIES** FOR SLEEVE **APPLICATIONS**

English catalogue













# **COMPANY**

Clever s.r.l. designs and manufactures sleeve applicator machines, with the style and philosophy of a dynamic company that looks to the future and to technological innovation. The strength is certainly the experience and the absolute dedication to research and develop solutions that will satisfy the most demanding customers.

The machines are designed to perform total and partial sleeve decorations on containers with diameters and shapes of variable size. They can also make sleeve applications for tamper evident or promotional combination. The machines can range from an hourly production rate of 3,000 pieces / hour up to 52,000 pieces / hour.

Thanks to 30 years of experience achieved by its staff, a wide sales network and a fast and well organized after-sales department, today Clever is a landmark at international level for the production of sleeve applicators on sectors like food industry, beverage, cosmetic, chemical and pharmaceutical.

Clever consists of a technical staff that operates continuously in research and development of innovative solutions, sometimes carried out also with the collaboration of the customer, which brought through time to deposit several patents recognizing to the company a high value and international credibility.

The market requires a continuous challenge that Clever is willing to welcome every day constantly being close to its customers in key services to improve the quality, efficiency and expertise in the delivery of spare parts and in technical operations.

Only through these values you can increase competitiveness in the technology market for sleeve applications.

# **PRODUCTION**











#### **Production 3.000 pcs/hour**



Some products

# SLEEVE APPLICATORS 3.000 / 6.000 pcs/hour

The model GS 101 is a compact machine, dedicated to the beverage sector of gallon bottles water. Its sturdiness and reliability, allows you to apply tamper evident seals on the cap of the gallon bottles without any problem of efficiency. It 's a rotary machine, fitted with a star for

products transport, a sleeve loading reel and an application head. Important feature of this model is its simplicity in working large size products.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 101	3.000 pcs/hour	1	rotary	tamper evident seal



# **GS 201**

#### Production 3.000 pcs/hour



Some products

The model GS 201 is a compact and versatile machine made for companies that do not have the need for an high speed production. It 'a rotary machine, equipped with a star for an intermittent products

transport, a sleeve loading reel and an application head. Important features of this model are simplicity and flexibility.



The model GS 206 is a compact machine, for companies that need a low/medium production speed. It 'a linear machine, fitted with spiral screw for products transport, a sleeve loading reel and an application head. The machine also has some additional modules that enrich it

technologically, such as a double sleeve reel storage that allows to have no downtime during the change of the reel. Important features of this model are its reliability and simplicity in the format change.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 201	3.000 pcs/hour	1	rotary	Total / partial top and bottom / tamper evident seal

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 206	6.000 pcs/hour	1	linear	Total / partial top and bottom / tamper evident seal



#### **Production 12.000 pcs/hour**



Some products

# SLEEVE APPLICATORS 12.000 pcs/hour

The model GS 301 is a compact machine, for companies that need a medium production speed. It 'a linear machine, fitted with spiral screw for products transport, a sleeve loading reel and an application head. The machine also has some additional modules that enrich it

technologically, such as a double sleeve reel storage that allows to have no downtime during the change of the reel. Important features of this model are its reliability and simplicity in the format change.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 301	12.000 pcs/hour	1	linear	Total / partial bottom



The model is a compact machine, for companies that need a medium production speed for a partial application of sleeves. It's a rotary machine, provided with a central rotating carousel for the transport of products and an application head.

The machine also has a movable double sleeve reel storage which allows replacement of the reel without downtime.

Important feature of this machine is its rotary system insertion that allows to stop properly position of the sleeve when the application is partial or tamper evident seal. Reliability and versatility in making all the different applications, complete the high technology of this machine.





**GS 321** 

#### Production 12.000 pcs/hour



Some products

The model GS 321 is a compact machine, for companies that need a medium production speed. It's a linear machine, fitted with double spiral screw for products transport and an application head. The machine also has a movable double sleeve reel storage which allows replacement of the reel without downtime. Important feature of this machine lies in its application head which has the ability to move

in the 4 axis and being also rotatable, manages to position an oriented sleeve in the shaped products. By having a double spiral screw transport products, this model also performs the sleeve application on various types of promotional combination products. Reliability and simplicity in the format change, complete the high technology of this machine.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 321	12.000 pcs/hour	1	linear	Total oriented/ partial bottom oriented / promotional combination



#### Production 18.000 pcs/hour



Some products

### SLEEVE APPLICATORS 18.000 pcs/hour

The model GS 401 is a compact machine, for companies that need a medium/high production speed. It's a linear machine, fitted with double spiral screw for products transport, double sleeve reel storage which allows replacement of the reel without downtime and an application head.

The machine also has some additional modules that enrich it technologically, such as the vertical / horizontal sleeve perforation device, allowing an easy opening of the sleeve on the cap. Important features of this model are its reliability and simplicity in the format change.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 401	18.000 pcs/hour	1	linear	Total / partial bottom



The model GS 407 is a compact machine, for companies that need a medium/high production speed for partial sleeve application. It 'a rotary machine, provided with a central rotating carousel for the transport of products and an application head.

The machine also has a movable double sleeve reel storage which allows replacement of the reel without downtime. Important feature

of this machine is its rotary system insertion that allows to stop properly position of the sleeve when the application is partial or tamper evident seal.

Reliability and versatility in making all the different sleeve applications, complete the high technology of this machine.



**GS 421** 

**Production 18.000 pcs/hour** 



Some products

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The model GS 421 is a compact machine, for companies that need a medium/high production speed. It's a linear machine, fitted with double spiral screw for products transport and an application head. The machine also has a movable double sleeve reel storage which allows replacement of the reel without downtime. Important feature of this machine lies in its application head which has the ability to move

in the 4 axis and being also rotatable, manages to position an oriented sleeve in the shaped products. By having a double spiral screw transport products, this model also performs the sleeve application on various types of promotional combination products. Reliability and simplicity in the format change, complete the high technology of this machine.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 407	18.000 pcs/hour	1	rotary	Total / partial top and bottom / tamper evident seal

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 421	18.000 pcs/hour	1	linear	Total oriented/ partial bottom oriented / promotional combination

# Pro

# **GS 412**

#### Production 28.000 pcs/hour



Some products

### SLEEVE APPLICATORS 28.000 pcs/hour

The model GS 412 is a compact machine, for companies that need an high production speed. It's a linear machine with dual sleeves application head, fitted with double spiral screw for products transport that passes through both application heads, two movable double sleeve reel storage which allows replacement of the reel without downtime.

The machine also has some additional modules that enrich it technologically, such as the vertical / horizontal sleeve perforation device, allowing an easy opening of the sleeve on the cap. This model is dedicated to total sleeve applications or partial fitting at the bottom of the product.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 412	28.000 pcs/hour	2	linear	Total / partial bottom

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allows replacement of the reel without downtime. Important feature

**GS 427** 

#### Production 28.000 pcs/hour



Some products

The model GS 427 is a compact machine, for companies that need an high production speed for a partial sleeve application. It's a rotary machine, provided with a central rotating carousel for the transport of products and an a dual application head.

The machine also has two movable double sleeve reel storage which of this machine is its rotary system insertion that allows to stop properly position of the sleeve when the application is partial or tamper evident seal. Reliability and versatility in making all the different sleeve applications, complete the high technology of this machine.

MODELPRODUCTIONAPPLICATION HEADSLINEAR OR ROTARY MACHINETYPE OF SLEEVE APPLICATIONGS 42728.000 pcs/hour2rotaryTotal / partial top and bottom / tamper evident seal

**GS 422** 

#### Production 28.000 pcs/hour









The model GS 422 is a compact machine, for companies that need an high production speed. It's a linear machine with two sleeves application heads fitted with double spiral screw for products transport that passes through both application heads, two movable double sleeve reel storage which allows replacement of the reel without downtime. Important feature of this machine lies in both application heads which

have the ability to move in the 4 axis and being also rotatable, manage to position an oriented sleeve in the shaped products. By having a double spiral screw transport products, this model also performs the sleeve application on various types of promotional combination products. Reliability and simplicity in the format change, complete the high technology of this machine.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 422	28.000 pcs/hour	2	linear	Total oriented/ partial bottom oriented /
				promotional combination



#### **Production 36.000 pcs/hour**



Some products

### SLEEVE APPLICATORS 36.000 pcs/hour

The model GS 413 is a compact machine, for companies that need an high production speed. It's a linear machine with three sleeves application heads, with double spiral screw for products transport that passes through the application heads, three movable double sleeve reel storage which allows replacement of the reel without downtime. The machine also has some additional modules that enrich it

technologically, such as the vertical / horizontal sleeve perforation device, allowing an easy opening of the sleeve on the cap, or the sleeve reel storage that allows to change reels with the splice performed automatically.

This model is dedicated to make total sleeve application or partial sleeve in the lower part of the product.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 413	36.000 pcs/hour	3	linear	Total / partial bottom



**GS 437** 

#### **Production 36.000 pcs/hour**



Some products

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**GS 423** 

#### **Production 36.000 pcs/hour**



Some products

The model GS 437 is a compact machine, for companies that need an high production speed for a partial sleeve application. It's a rotary machine, provided with a central rotating carousel for the transport of products and three application heads.

The machine also has a three movable double sleeve reel storage which allows replacement of the reel without downtime. Important

feature of this machine is its rotary system insertion that allows to stop properly position of the sleeve when the application is partial or tamper evident seal. Reliability and versatility in making all the different sleeve applications, complete the high technology of this machine.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 437	36.000 pcs/hour	3	rotary	Total / partial top and bottom / tamper evident seal

The model GS 423 is a compact machine, for companies that need an high production speed for a partial sleeve application. It's a linear machine with three sleeves application heads, with double spiral screw for products transport that passes through the application heads, three movable double sleeve reel storage which allows replacement of the reel without downtime. Important feature of this machine lies in all application heads which have the ability to move in the 4 axis and

being also rotatable, manage to position an oriented sleeve in the shaped products.

By having a double spiral screw transport products, this model also performs the sleeve application on various types of promotional combination products. Reliability and simplicity in the format change, complete the high technology of this machine.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 423	36.000 pcs/hour	3	linear	Total oriented/ partial bottom oriented / promotional combination
				promotional combination

#### **Production 52.000 pcs/hour**



Some products



The model GS 602 is the biggest machine of our range, for companies that need an high production speed for a total, partial or tamper evident seal sleeve application. It's a rotary machine, provided with two central rotating carousels for the transport of products and with four sleeve application heads.

The machine also has a four movable double sleeve reel storage which allows replacement of the reel without downtime. Important feature of this machine is its rotary system insertion that allows to stop properly

position of the sleeve when the application is partial or tamper evident seal. The machine also has some additional modules that enrich it technologically, such as the vertical / horizontal sleeve perforation device, allowing an easy opening of the sleeve on the cap, or the sleeve reel storage that allows to change reels with the splice performed automatically. Reliability and versatility in making all the different sleeve applications, complete the high technology of this machine.

MODEL	PRODUCTION	APPLICATION HEADS	LINEAR OR ROTARY MACHINE	TYPE OF SLEEVE APPLICATION
GS 602	52.000 pcs/hour	4	rotary	Total / partial top and bottom / tamper evident seal

### **APPLICATORS WITH ORIENTATION**

Clever, among its range, also produces sleeve applicator machines equipped with a systems of orientation of the containers, placed within the same monobloc. The orientation of containers can be carried out mechanically or by reading with photocells, sensors or cameras,

depending on the various needs and characteristics of the product. The range of these machines with orientation consists of several models covering different production speeds required.







Some products

Detail of orientation

# **Complete line**

Clever, among its range, also produces sleeve applicators for cups of different sizes and shapes.

We also offer the opportunity to have the supply of complete line, integrated with stacking and unstacking cups. The range of these

applicators and complete lines for cups consists of several models covering different production speeds required.





#### **Vertical cups loader**









Linear and rotary machine for stacking cups









# Movable double sleeve reel storage

#### with splice operation made manually

Movable storage with long range, with twin sleeve motorized reels and additional buffering for the replacement of the reel without stopping the machine.

In this storage the sleeve splice between the reels is done manually.



# **Automatic sleeve reels storage**



#### with automatic splice operation

Movable storage with long range, with sleeve motorized reels, and additional buffering for the replacement of the reel without stopping the machine.

In this storage the sleeve splice between the reels is automatic.

# **SHRINK TUNNEL**

# **Electrical tunnel**

Shrink tunnel sleeve consists of infrared panels combined with hot air blowers. The length of the tunnel is sized to the speed of production to be achieved and to height of the sleeve to be shrunk.

The general characteristics are:

- Tunnel structure in stainless steel
- Pre-chamber of heating with infrared panels
- Display for adjusting temperature of infrared
- · Hot air blowers with independent settings
- Supports for adjusting blowers position



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# **Drying tunnel**

Drying of the products made by knives which emit temperated air. These tunnels are soundproofed and can consist of several modules linkable to each other until you get the desired length.

The general characteristics are:

- Modular tunnel with independent drying system
- Soundproofing of the upper part of the tunnel, where the turbines are positioned
- Temperate air emission blades on drying module
- External adjustment of the air knives, with numerical counters for positioning control
- Transparent closing doors on tunnel for viewing internal conditions of drying

**SLEEVE UNWINDERS** 

# **Steam tunnel**



Steam shrinking tunnel, equipped with a new technology that allows the complete management by using electronic devices.

This tunnel may be composed of multiple modules, all with independent temperature, and the length of the tunnel is sized to the speed of production to be achieved and to height of the sleeve to be shrunk.

The tunnel can be integrated within the modules, with electrical heaters which allow to perform the heat shrinking with a low emission of steam.

The general characteristics are:

- Tunnel structure in stainless steel
- Modules of the tunnel with independent temperature
- Electronic control and management of steam
- PLC for displaying tunnel settings. This PLC allows to store all the parameters of temperature for each format
- Modulating valves for constant control of steam injection
- Aspiration steam managed by inverter
- Doors closing tunnel made of glass, allowing the visualization of the internal conditions of heat shrinking
- "Outdoor" settings of internal steam pipes, with counters for numerical control positioning
- Overheating steam by heating elements
- · Centralized draining of condensate and excess steam

#### **Steamjet 1**



#### **Steamjet 2**



#### **Steamjet 3**



# "Under-lap" The bottom of the product

This additional device that you can include in the machine, can also close the sleeve on the bottom of the container.





#### **Orientators**

We provide different systems of orientation for containers by reading with photocells, sensors or cameras.





#### **Precut**

This device can be included in the machine, making a vertical / horizontal sleeve perforation that allows an easy opening of the sleeve on the cap.







#### **Conveyors**

We provide complete standard and "customized" conveyor belts on request, with curves, motorized pulling head and product accumulation tables. We can also provide the conveyors complete with electrical panels and PLC for logical management.



#### **Control systems**

We provide different types of control devices to reject containers that do not comply, through the use of vision systems.





# **AREAS OF EXPERTISE**



#### **Chemical and detergent sector**









