

Aluminium Tube and Can Lines



TOMORROW IS TODAY

>> **MATERIALIZE YOUR VISION**

Our era is characterized by the rapid advances in technology and the constantly increasing demands made on men and machines. As individual as the requirements of the packaging industry may be, everyone wants to see productivity, quality and environmental friendliness optimized and running costs minimized. These are the demands which require tailor-made, efficient solutions. Solutions which achieve the desired benefits by expending a minimum of investment and energy. This takes experience and knowledge. PSG's comprehensive added value chain offers customers integrated solutions, from just one company. Using state-of-the-art technology, we produce innovative, user-friendly and reliable components and systems for the packaging industry which take into account economic and ecological aspects.

Our latest machine designs have been thought to contribute to the new environmental challenges of today. Power and oil consumption, footprint reduction, limitations of gas emissions and filtering devices are examples illustrating our concrete commitment to encourage a cleaner industry.

PackSys Global – excellence in packaging equipment solutions.

ADVANCED PACKAGING TECHNOLOGIES

Benefit from sophisticated packaging equipment solutions

PackSys Global is one of the world's leading technology companies for packaging equipment that enable customers to optimize their performance and to increase productivity in a sustainable way. We offer a broad range of products for the challenges facing our customers in their specific market. PackSys Global – smart solutions for the packaging industry to produce better quality at lower cost.

CUSTOMER FOCUS POLICY

PackSys Global serves customers throughout the world. Different cultures, different markets, but one thing in common: to create unique solutions for the challenges facing our customers in their sophisticated market. Our in depth understanding of specific market demands and our commitment to state-of-the-art technology enables the packaging industry to produce better quality at less cost. We have always been customer responsive, innovative, with a passion for precision and perfection. And that will never change.

TOTAL RANGE OF PACKAGING EQUIPMENT

PSG OFFERS A FULL RANGE OF COMPONENTS AND SYSTEMS FOR LAMINATE AND COSMETIC TUBE EQUIPMENT, ALUMINIUM MONOBLOC CAN AND ALUMINIUM TUBE LINES, METAL AND PLASTIC CLOSURES PRODUCTION MACHINERY, AS WELL AS CAN SHAPING EQUIPMENT.

AFTER SALES AND SERVICES

We are where our customers are. PackSys Global has a strong network of sales and service centers that can deal with our customers locally, in their own language according to their own customs. This gives us a strong capability across all continents. More than 25 PSG specialists are at your disposal. These highly trained individuals perform a complete range of services for laminate and plastic tube equipment, aluminium cans and tube decoration equipment, metal and plastic closures and can shaping equipment. They carry out repairs with a high degree of professionalism, but that's not all – they also install equipment, conduct preventive maintenance, provide planning services, hotline advice and newly offer remote service.

Eagle Owl is the exclusive PSG remote service from PackSys Global. We have engineered the latest communication technology and are able to operate on your machine, wherever you are in the world. Systems using simple and secured communication to the PLC, up to high definition cameras to assist you in the maintenance operation have been developed specifically by our IT specialists.

YOUR BENEFITS

- >> Professional maintenance and repairs of your machine carried out by routine service technicians – to secure and maintain the value of your investments.
- >> Increased productivity, through trouble-free functioning of the equipment.
- >> Enhanced quality, thanks to optimal equipment settings.
- >> Enhanced know-how, based on expert guidance.

WE OFFER CONCRETE SOLUTIONS FOR SPECIFIC PROBLEMS ENSURING COMPREHENSIVE SPECIALIST KNOWLEDGE AND SERVICES EVERYWHERE, AROUND THE CLOCK. WE ARE EVERYWHERE, WHEREVER YOU NEED US.

LAMINATE TUBE EQUIPMENT



COSMETIC TUBE MACHINERY



ALUMINIUM TUBE AND CAN LINES



PLASTIC CAPS AND CLOSURES PRODUCTION MACHINES



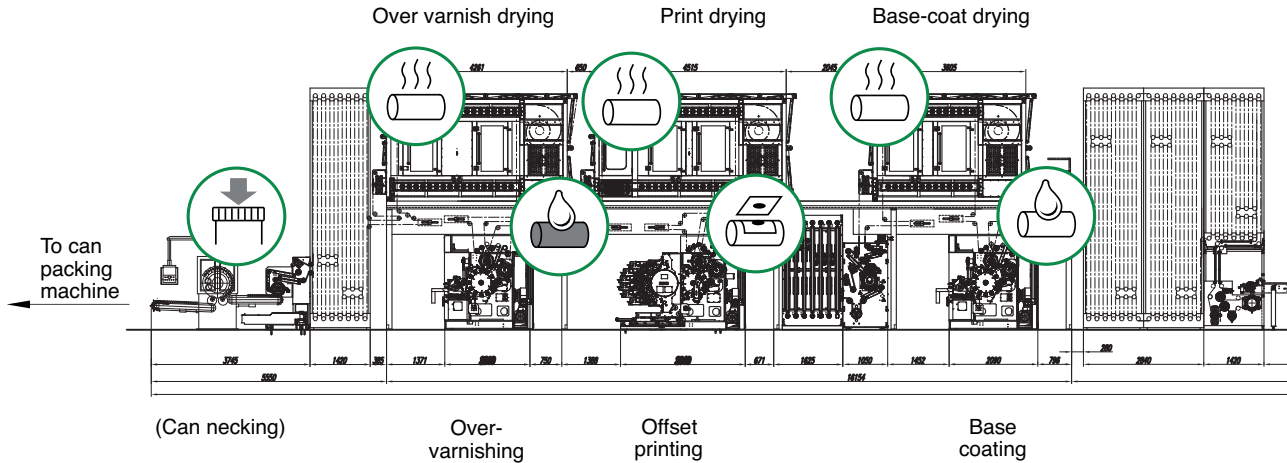
METAL CAP LINES



MONOBLOC AEROSOL CAN PRODUCTION LINES



PRODUCTION
SPEED
UP TO 200 CPM



PSG offers complete turnkey lines for monobloc aluminium aerosol cans and bottles. High quality equipment including trimming/brushing machines, internal coating machines and complete decoration plant including 9 colour offset printing equipment, drawing upon the company's 35 year history in tube and can decoration technology. All accumulators and ovens are designed and assembled in house at our spacious fabrication and design facility in Thailand.

Medium speed machines for production speed up to 165 cpm

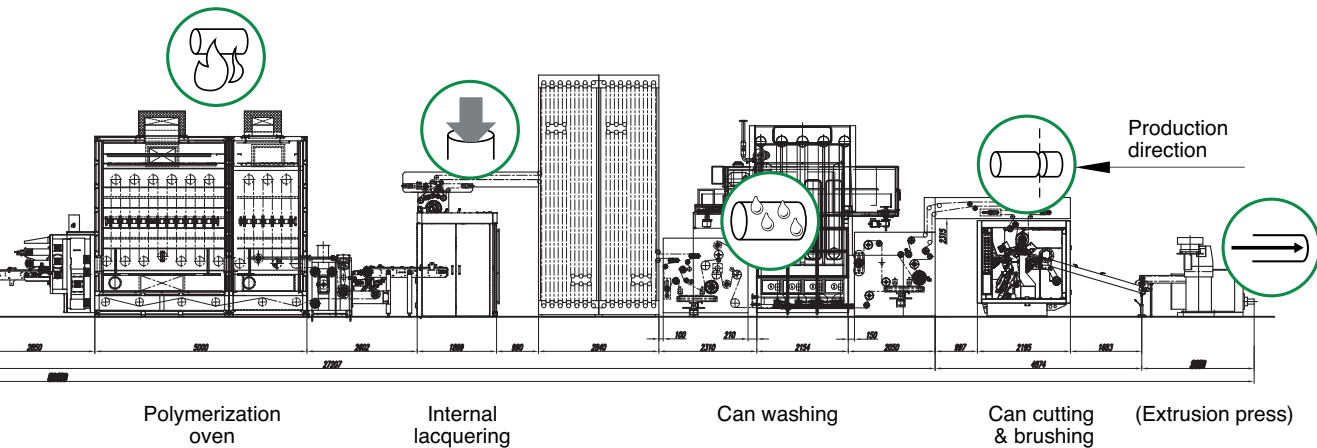
Machine	Type
Can-Cutting & Brushing Machine	CCB 12
Internal Lacquering Machine	JLD 40
Base Coating Machine	CMA 12
Offset Printing Machine	PMA 12
Over-varnishing Machine	CMA 12

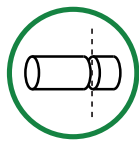
High speed machines production speed up to 200 cpm

Machine	Type
Can-Cutting & Brushing Machine	CCB 200
Internal Lacquering Machine	JLD 42
Base Coating Machine	CMA 200
Offset Printing Machine	PMA 200
Over-varnishing Machine	CMA 200

Low speed machines for production speed up to 120 cpm

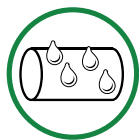
Machine	Type
Can-Cutting & Brushing Machine	CCB 10
Internal Lacquering Machine	JLD 40
Base Coating Machine	CMA 10
Offset Printing Machine	PMA 10
Over-varnishing Machine	CMA 10





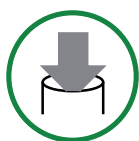
CAN CUTTING & BRUSHING MACHINE (CCB Series)

High precision machines for trimming and wall brushing of rigid cans. Excellent accessibility, with standard open front design, including vacuum drum in-feed and innovative butterfly grippers for can take-off. 2nd can brushing station can be added for special decoration effects.



HOECKH-PSG CAN WASHING MACHINE

type WDW with: 3-6 washing zones for reduced detergent and water consumption. Automatic dosing for liquid detergent, water heating in washing and rinsing zones, conductivity Sensor in in washing and rinsing zones, Can dryer, Siemens control and servo drive system



INTERNAL LACQUERING MACHINE (JLD Series)

Available for a wide variety of lacquer applications, including cans for deodorants and hair care products. Machines range from a standard three spray gun machine up to 9 guns as well as an eight-gun double spray station machine with intermediate drying.



POLYMERISATION OVEN (TDE/TDG Series)

For curing of the internal lacquer material, available with either electric heating components or gas-fired combustion. Also available with separate flash-off zone, for controlled removal of solvent gases prior to full curing, in single or up to three row ovens.



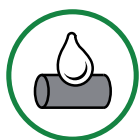
BASE COATING MACHINE (CMA Series)

For smooth application of all varieties of base coating lacquers to the can wall with the 3 roller coating unit. the machine is build with easy-access open front design for fast and simple size changes. All process speeds are controlled and set at the touch panel.



OFFSET PRINTING MACHINE (PMA Series)

For the high quality decoration demands of your customers, we offer machines with up to 9 inking units. With servo-motor driven ink rollers, all inking unit functions are individually controlled at the touch panel. Open machine design ensures a clear view of the printing operation and easy access for operators.



OVER-VARNISHING MACHINE (CMA Series)

For the application of clear lacquers to the printed can, this machine includes exactly the same design and features as the Base Coating machine, including the simple, easy to operate, three roller coating unit with optional bottom coating features.



STANDARD OPTIONS FOR CAN PRODUCTION LINE

■ **Machine parameters and settings from touch panel in alternative language.**

■ **Fully automatic QC-system**

For print quality check and for visual inspection of printing defects, such as color standard, missing dots and colors, distortion, text, dirt and print register.

■ **For internal lacquering machine**

Automatic gun cleaning device for JLD 45/40 including individual solvent spraying nozzle, timing of cleaning mode can be selected via operation panel lacquer heating and re-circulation system, as well as can pre-heating system can be added as an option.

■ **For inking unit**

Quick change ink duct system, dial system with 12 segmented doctor blades for advance ink flow management or single doctor blade with 12 setting screws. Ductor and oscillator roller can be prepared for cooling, and equipped with pneumatic controlled ink stirrer.

■ **For base coating and over varnishing machine**

Preparation for temperature control on varnishing unit for control of varnish temperature and viscosity. Squeeze roller and varnish tray are prepared to connect to a temperature control unit.

■ **Automatic coating and varnish supply**

Close loop supply of varnish from a dripping tray onto the lower squeeze roller. The excess varnish is collected in a tray, drained to the varnish tank and re-supplied to the dripping tray.

The system consists of:

- >> Dripping tray with flow control sensor.
- >> Special pump

■ **For Polymerization and decoration ovens**

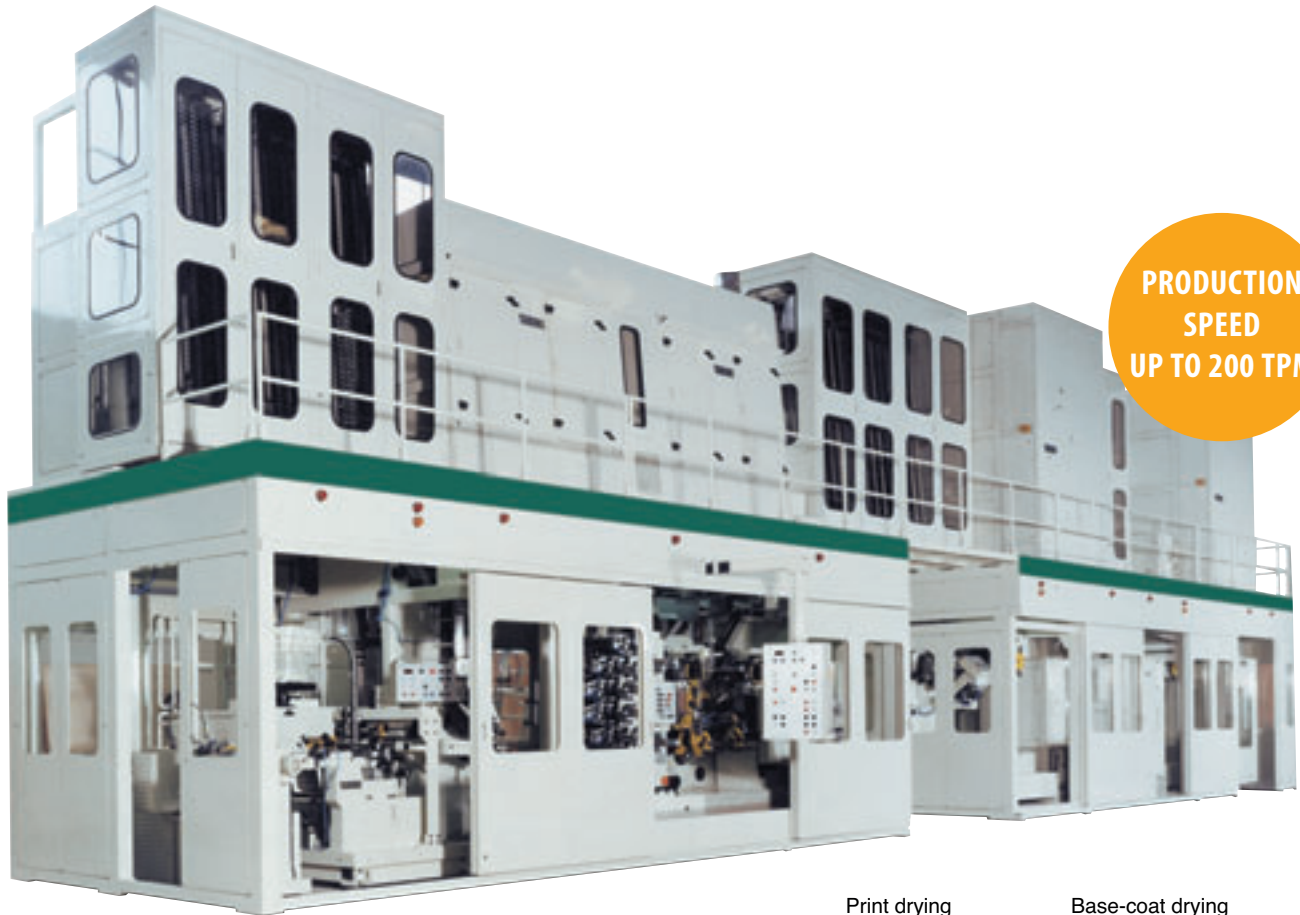
Lubrication system for chain and bearing on polymerization ovens, automatic spray pump for double chain lubrication and central lubrication and distribution system to all important bearings on the polymerization oven.

Automatic chain lubrication system for decoration ovens.

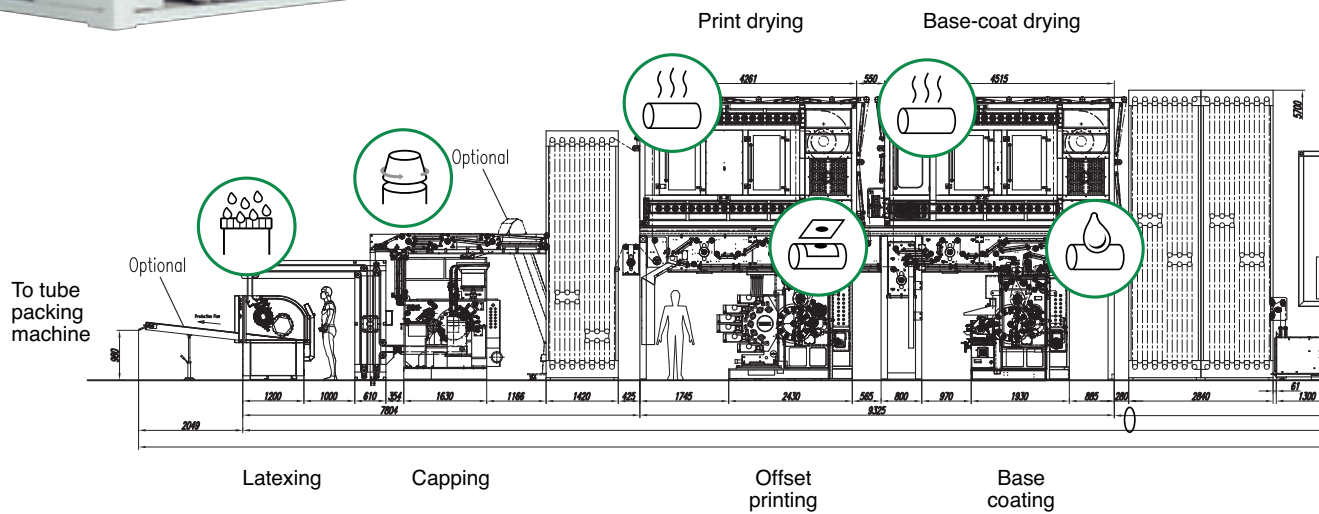
Energy saving features are of course included in all PSG production lines.



COLLAPSIBLE ALUMINIUM TUBE PRODUCTION LINES



PRODUCTION
SPEED
UP TO 200 TPM



PSG offers complete production lines for collapsible aluminium tubes and is presently the only company making all machines in the line in-house, except for the extrusion press. This gives our customers complete confidence in having one point of contact for all their needs: machine upgrades, service on all parts of the line, etc. PSG has delivered lines to all markets across the world and has special know-how in clean room installations for pharmaceutical tube production, in particular to the Japanese market.

Medium speed machines for production speed up 165 tpm

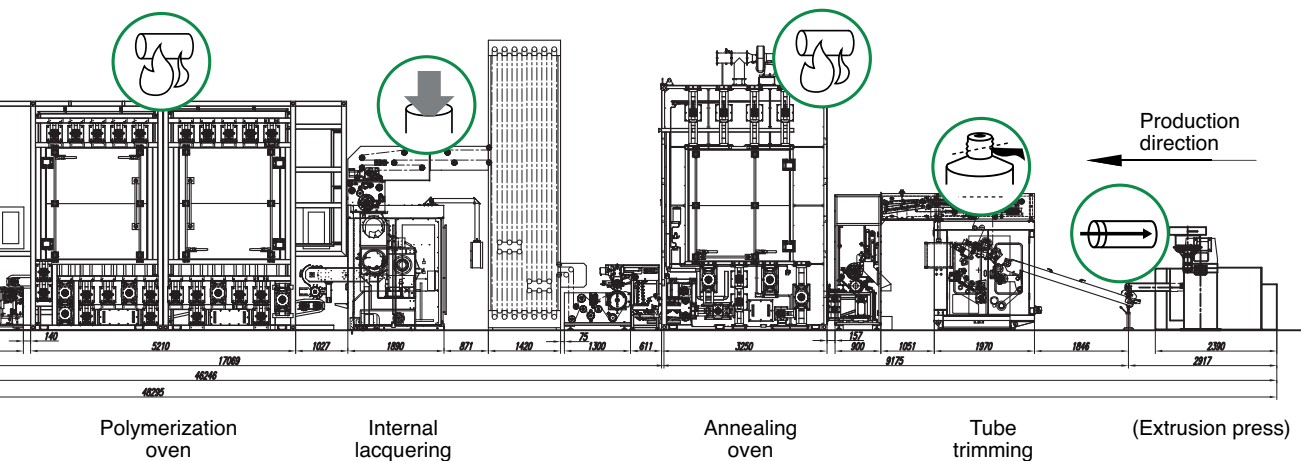
Machine	Type
Tube Trimming Machine	TLA 12
Internal Lacquering Machine	JLT 40
Base Coating Machine	CMA 12
Offset Printing Machine	PMA 12
Tube Capping Machine	CA 16
Tube Latexing Machine	LA 150

High speed machines production speed up to 200 tpm

Machine	Type
Tube Trimming Machine	TLA 200
Internal Lacquering Machine	JLT 42
Base Coating Machine	CMA 200
Offset Printing Machine	PMA 200
Tube Capping Machine	CA 200
Tube Latexing Machine	LA-H

Low speed machines for production speed up 100 - 120 tpm

Machine	Type
Tube Trimming Machine	TLA 10
Internal Lacquering Machine	JLT 40
Base Coating Machine	CMA 10
Offset Printing Machine	PMA 10
Tube Capping Machine	CA 12
Tube Latexing Machine	LA 45





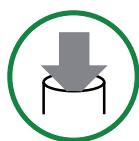
TUBE TRIMMING MACHINE (TLA Series)

High precision machines for trimming, thread forming and brushing, including quick change cutting tools. Excellent accessibility, with standard open front design, including vacuum drum in-feed and innovative butterfly grippers for tube take-off.



TUBE ANNEALING OVEN (AFA Series)

New oven for annealing tubes at high temperature (up to 550°C). Its design includes features to reduce energy consumption and ensure a consistent treatment of the tube.



INTERNAL LACQUERING MACHINE (JLT Series)

Available for a wide variety of lacquer applications, from tubes for cosmetics and hair care products, to sensitive high-grade pharmaceutical creams. Machines range from a standard three spray gun machine to an eight gun (double spray station) machine with intermediate drying. Servo controlled gun stroke.



BASE COATING MACHINE (CMA Series)

For smooth application of all varieties of base coating lacquers to the tube wall, the machine is built with easy-access open front design for fast and simple size changes. Optional tube shoulder coating device is available.



OFFSET PRINTING MACHINE (PMA Series)

For the high quality decoration demands of your customers, we offer machines with up to 9 inking units. All inking units are equipped with 2 servo drives for speed control of ductor roller, oscillating movement and motorized wash up. Functions of inking units are individually controlled from touch panel. Standard inking units now include two servo-motors for the duct roller drive and lateral oscillation. Machine settings are controlled and adjusted at the touch panel. Open machine design ensures a clear view of the printing operation and easy access for operators.



TUBE CAPPING MACHINE (CA Series)

We offer high precision capping machines with finely engineered parts for exact cap placement. Genuine double station machine, where caps are applied at half the line speed. Also available with a second vibration bowl for plastic nozzles.



TUBE LATEXING MACHINE (LA Series)

To ensure safe, secure end sealing after filling of the tube, the latexing machine applies a band of latex (via centrifugal force) to the open end of the tube. Precisely calculated cams ensure exact thickness and placement of the band. Discharge conveyor with heating elements for pre drying of latex band is available.



STANDARD OPTIONS FOR ALUMINIUM TUBE LINE

Gas or electrical fired oven

For using the gas fired ovens instead of electrical. Consisting of gas burners and separate combustion chambers.

Operating panel in alternative language to standard english

Machine parameters and settings from touch panel in alternative language.

For the tube trimming machine (TLA 12) «Cyclone» type chip removal device

For collection and disposal of aluminium chips from the machine.

For base coating and over varnishing machine

Preparation for temperature control on varnishing unit for control of varnish temperature and viscosity.

>> Squeeze roller is prepared to connect to a temperature control unit

Automatic coating and varnish supply

Close loop supply of varnish from a dripping tray onto the lower squeeze roller. The excess varnish is collected in a tray, drained to the varnish tank and re-supplied to the dripping tray.

The system consists of:

>> Support, tank with cover

>> Special pump and level control sensor

For offset printing machine and printing unit

Safety covers for plate cylinder and inking unit

>> Magnetic print cylinders

Quick change ink duct systems

Dial system with 12 segmented doctor blade for advance ink flow management or single doctor blade with 12 setting screws.

Tempered duct roller and oscillating rollers for control of ink temperature and viscosity

>> one duct roller with rotary joint for connection to temperature control unit

>> one set (2 rollers) including rotary joint for connection to temperature control unit

For annealing and decoration ovens

Automatic lubrication system for annealing and decoration ovens.

For the capping machine (CA 16) – Nipple setting device

For the application of threaded plastic nipples/onserts onto the tube neck prior to capping.

Pre torque unit (recommendable for small tubes) is available.





TOMORROW IS TODAY

YEARS OF EXPERIENCE COMBINED WITH INNOVATIVE IDEAS AND PROFESSIONAL
MANUFACTURE GUARANTEE TECHNICALLY DEVELOPED SOLUTIONS OF THE HIGHEST
QUALITY. WHEN YOU ORDER FROM US, YOU CAN BE SURE THAT DEADLINES WILL BE
MET AND THAT OUR COST-EFFECTIVENESS AND FLEXIBILITY WILL BE OPTIMAL.
WE ARE EXPERIENCED IN FULFILLING SPECIAL CUSTOMER REQUIREMENTS TO PERFECTION.

DEVELOPMENT OF NEW MARKET SEGMENTS, DYNAMIC INNOVATIVE STRENGTH,
THE PERMANENT INTEGRATION OF THE LATEST TECHNOLOGIES, AND KNOWLEDGE IN
DESIGNING COMPONENTS AND SYSTEM SOLUTIONS, ALL THIS PLUS THEIR INTERNATIONAL
PRESENCE, MAKE PSG AN ATTRACTIVE PARTNER. **FOR YOU, TOO.** _____ <<



**A STRONG PARTNER
WITH A WORLDWIDE
PRESENCE.**

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