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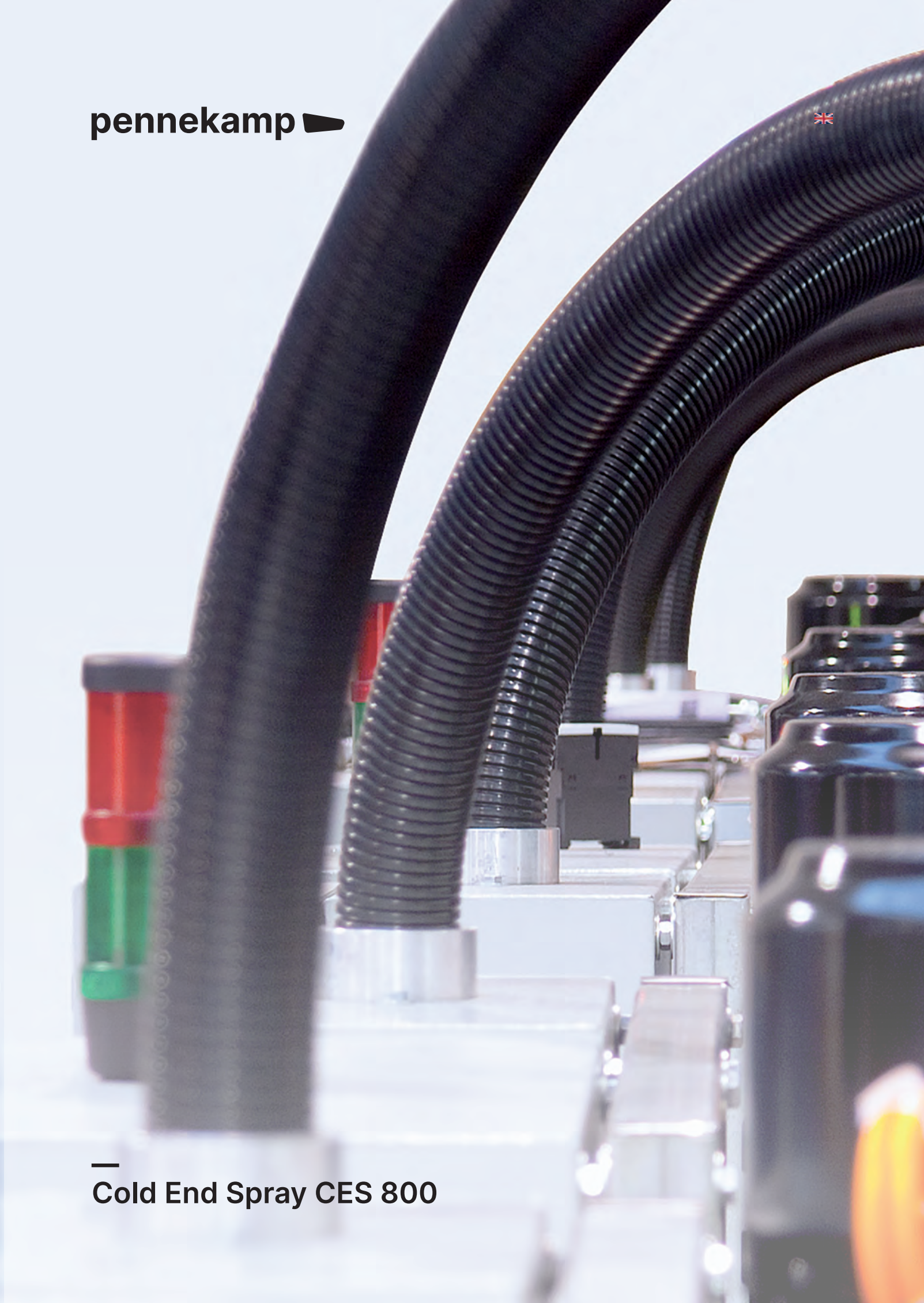


Cold End Spray CES 800

Cold End Spray

Cold End Spray CES 800

The cold end spray is required to provide a surface coating to the glass bottle in order to increase the scratch resistance during handling and filling. The unit is installed across the open end of the lehr in the area of a temperature range between 80 to 120°C (according to the coating material specification).

The unit itself is made from a combination of stainless steel and aluminum, to prevent particles coming off. Any part above the bottles is shielded off for additional protection. In order to meet the correct coating temperature area, the cold end spray may be repositioned on a rail system, within a length of 2,25m.

The motion across the belt width is executed by the maintenance free, inverter controlled linear drive with toothed belt. The drive motor/gear assembly will be installed on the operational side, next to the control panel itself. The second, individually operated electrical drive is for the compensation of the lehr belt motion during the actual spraying cycle.

The stroke length of this motion is calculated for each cycle based on the combination of cross speed and lehr belt speed.

The article based height adjustment of the spray nozzle(s) is executed by use of a spindle system that needs to be adjusted manually before the production start.

The spray nozzle (head) is equipped with a pneumatic lifting device in order to coat the bottles normally below the bottle finish only. It will be automatically raised in case of misaligned bottles in a row.

The spraying nozzle may be stopped at the far side for service and adjustment by simply pressing a selector switch.

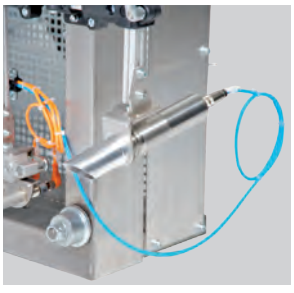
In addition, a flow sensor is installed to monitor the flow of coating material and to ensure a good quality coating.

The required pneumatic components, including the maintenance unit, are installed within a cabinet on the side of the control panel.

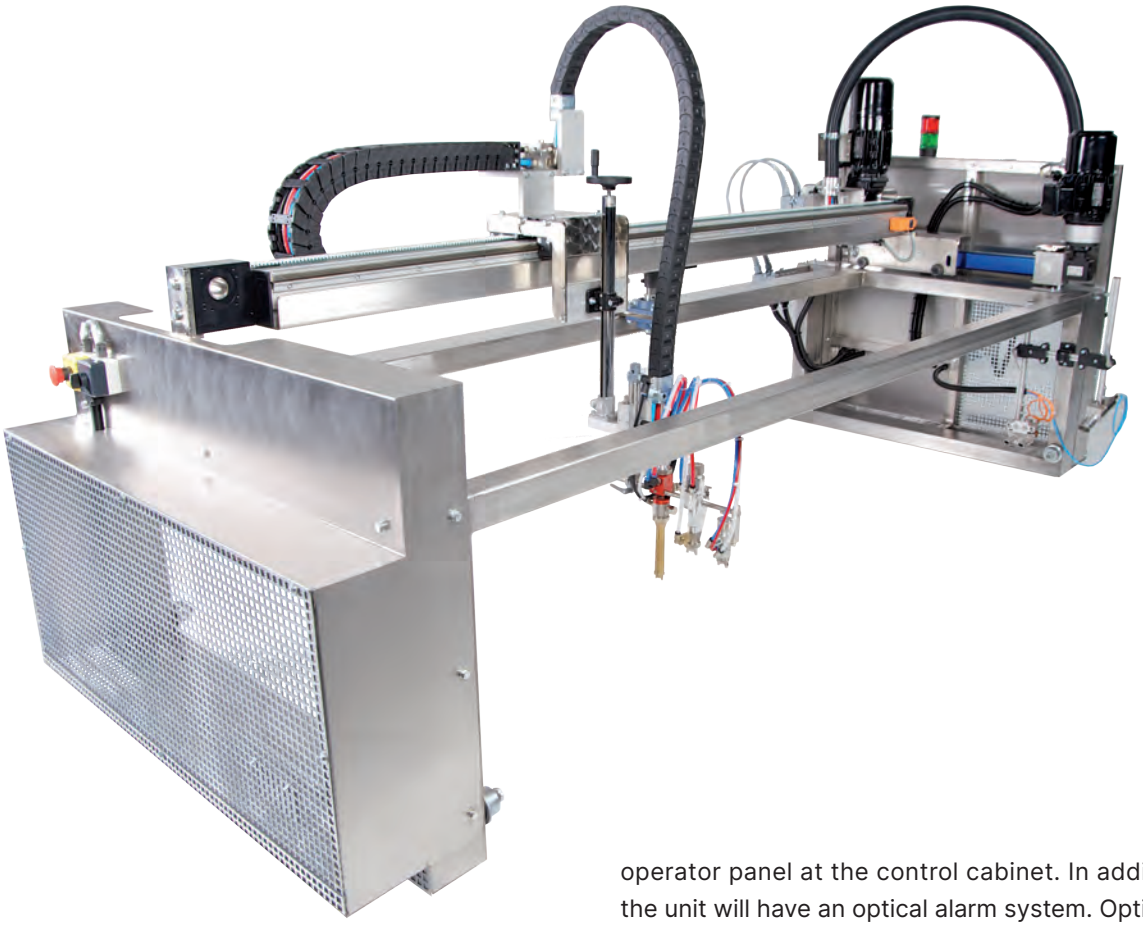
All mechanical and electrical parts and components are installed directly on the coating unit and tested prior to shipment. No wiring or piping is required for installation, other than the main supply of power, compressed air and coating material.

The PLC based control allows operating and monitoring the cold end spray. The settings and status visualization is done by use of a graphic operator panel at the control cabinet. In addition, the unit will have an optical alarm system. Optionally, the cold end spray unit may be equipped with a pyrometer, in order to monitor the actual glass temperatures. In case of a deviation from the set temperature, it may generate an alarm or interfere actively in the prior glass cooling, such as lehr and/or blast cooling.

Spray nozzles
Possible variations of the spray nozzles after consultation with customer



IR-temperature sensor
Monitoring and possible control link to lehr (Pennekamp)



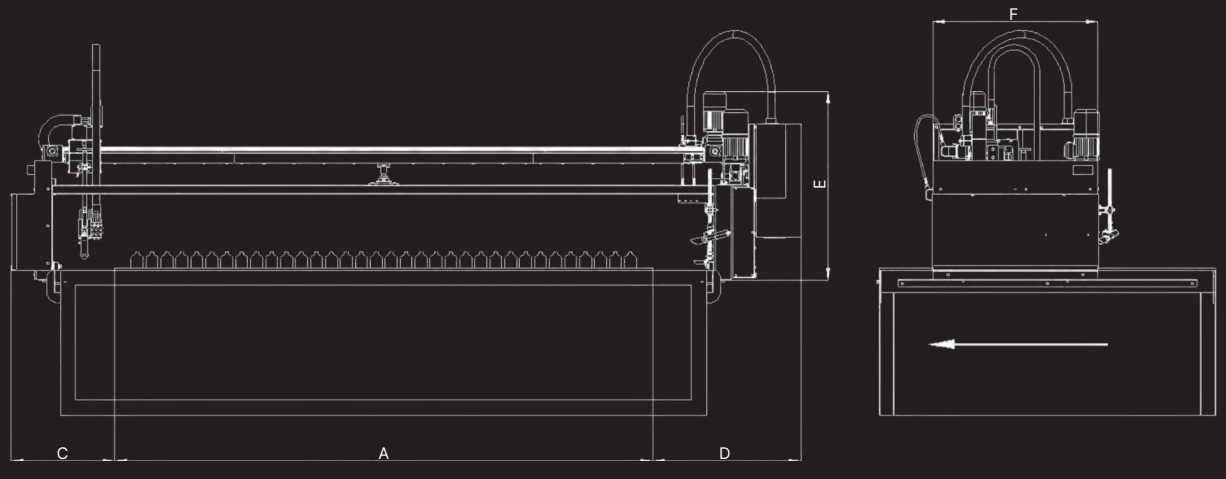
Features

- Electrical drive system by inverter and toothed belt
- Speed setting for the lateral movement
- Stroke length setting
- Belt speed compensation by electrical drive system
- Selector switch for permanent or light sensor operation
- Stop of the switch spray nozzle for service and adjustment
- Flow sensor
- Error messaging
- Rail for cold end spray positioning

Options:

- Automatic dosing system
- Execution with two spray nozzles (monitoring of two rows at the same time)
- Pyrometer temperature sensing and control
- Control panel air conditioner

Cold End Spray CES 800	
Length/Depth	F = 1.100mm
Width	C/D = 690/990mm
Height	E = 1.265mm (+300mm)
Belt width	A = 1.200mm - 5.700mm
Voltage	400V 50HZ*
Prefusing	10A
Compressed Air Pressure	4 - 6 bar 56 - 84 PSI
*others on request	



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