



- Stretch blow molding
- Rinsing / Inspection
- Filling
- Capping
- Labeling

## Processes in a bottling plant

In high-efficient plants for industrial bottling of liquids, the single process steps are generally arranged on carousels. Every single step of such a bottling plant has its specific requirements in terms of transmission of current, data, compressed air or liquids to the rotating platform.

In modern bottling plants, the single plant elements or process steps are digitally networked with each other, and they are controlled and monitored centrally. Fast and reliable transmission of high data volumes with modern data bus systems are the prerequisite for this increasing digital networking.



### Process step

#### Stretch blow molding

This process manufactures finished PET bottles from special plastic blanks.

#### Rinsing / Inspection

No errors are allowed here. Hygiene and bottle quality are paramount. Every bottle is cleaned and checked for leaks and foreign matter.

### Requirements for slip rings

- Current and compressed air transmission for the blow molding stations
- Signal / data transmission for regulation and control tasks

- Supply of the single elements with current, signals and liquids
- Ethernet data communication

### Kübler slip ring solutions

SR120



SR160



SR250H

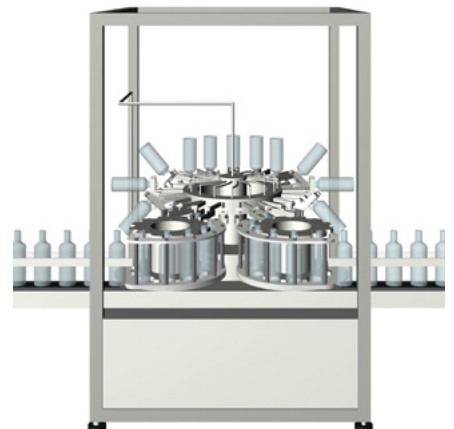
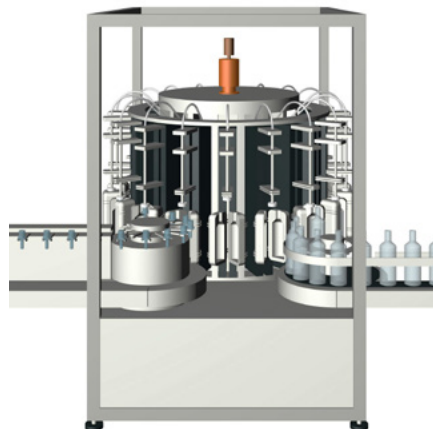


SR160

Customer-specific mounting and connection solutions

SR250H

Load transmission up to 80 A and more



Besides the known requirements for the transmission of high currents, signals and liquid and gaseous media, this places great demands on data transmission quality in the whole transmission chain, and in particular also on the slip rings. Kübler's slip rings are tailored individually to your requirements. Their high-quality contact technology and an innovative shield concept offer you extremely reliable data transmission, even at high data rates up to 100 Mbits per second. They therefore are ideally suitable for data communication in the branch of industrial automation based on Industrial Ethernet, up to Fast Ethernet.



### Filling

The core process of every bottling plant. Every bottle is filled quickly and precisely to the milliliter.

- Interference-free signal transmission
- Ethernet data communication
- Current supply for the rotating platform



### Capping

The bottles are capped immediately after the bottling operation and forwarded to the last process step.

- Current transmission for the capping stations
- Signal / data transmission for control tasks



### Labeling

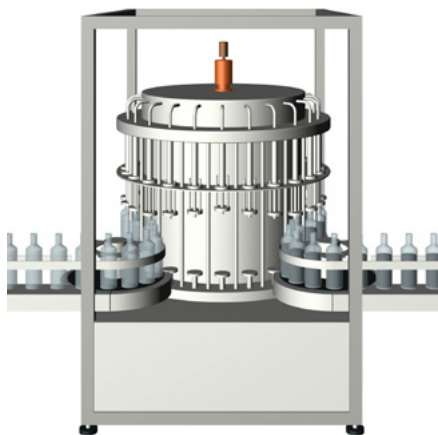
This is where the bottles get their identity. The pre-printed label must be affixed accurately and instantaneously.

- Current transmission for the drives
- Control data transmission for the single labeling stations

#### SR120 SR160

Reliable transmission thanks to the three-chamber system with cable connections

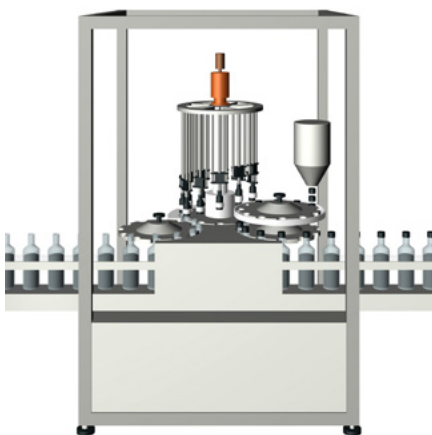
Reliable transmission thanks to the three-chamber system with cable connections and connectors



#### SR120 SR160

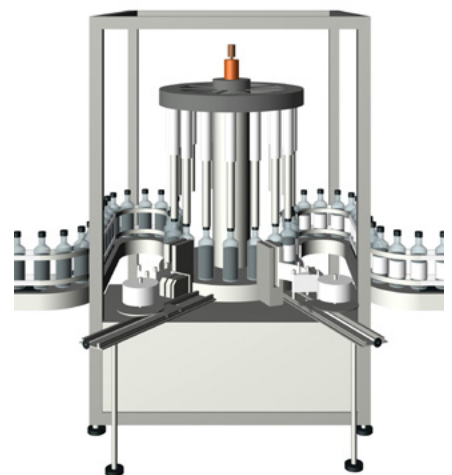
Innovative contact technology

Reliable Ethernet transmission



#### SR120

Reliable Ethernet transmission



## Kübler slip rings - Reliable and flexible

Kübler slip rings with aluminum or stainless steel housings and a protection level up to IP67 ensure reliable operation in harsh environments. Their modular structure allows obtaining the suitable product for every application.



	Slip ring SR120	Slip ring SR160	Slip ring SR250H
Dimensions	<ul style="list-style-type: none"> <li>· ø 120 mm</li> <li>· Length depending on the number of channels</li> </ul>	<ul style="list-style-type: none"> <li>· ø 160 mm</li> <li>· Length depending on the number of channels</li> </ul>	<ul style="list-style-type: none"> <li>· ø 250 mm</li> <li>· Length depending on the number of channels</li> </ul>
Three chamber system	<ul style="list-style-type: none"> <li>· Parallel transmission of load, signals, data and Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>· Parallel transmission of load, signals, data and Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>· Parallel transmission of load, signals, data and Ethernet</li> </ul>
Media lead-through	<ul style="list-style-type: none"> <li>· Media lead-through for air</li> </ul>	<ul style="list-style-type: none"> <li>· Media lead-through in air or hydraulic variant</li> </ul>	<ul style="list-style-type: none"> <li>· Media lead-through in air or hydraulic variant</li> </ul>
Modular structure	<ul style="list-style-type: none"> <li>· Individual number of transmission channels</li> <li>· High versatility and flexibility</li> </ul>	<ul style="list-style-type: none"> <li>· Individual number of transmission channels</li> <li>· High versatility and flexibility</li> </ul>	<ul style="list-style-type: none"> <li>· Designed for highest adaptability: You are provided with your individual customer-specific solution</li> </ul>
Load current max. (load channels)	25 A	50 A	80 A (higher load currents on request)
Ethernet transmission	yes	yes	yes
Protection level max.	IP65	IP65	IP67
Rotary speed max.	300 min <sup>-1</sup>	150 min <sup>-1</sup>	150 min <sup>-1</sup>
Maintenance intervals	maintenance-free (can reach 100 million revolutions)	maintenance-free (can reach 100 million revolutions)	maintenance-free (can reach 100 million revolutions)