



SLIP RINGS
FOR BOTTLING PLANTS

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.

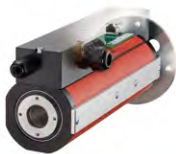
Rinsing / Inspection

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

Kübler slip ring solutions

SR085IE



SR120



SR130





This places great demands on the transmission quality in the whole network, 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 1 Gbit 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.

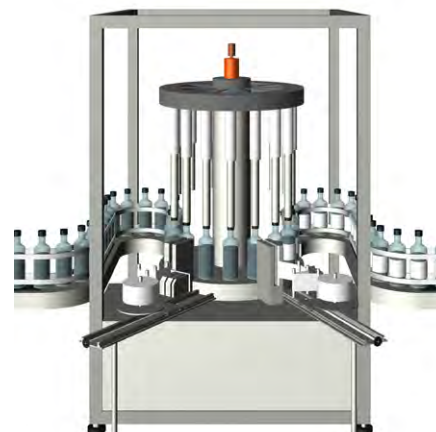
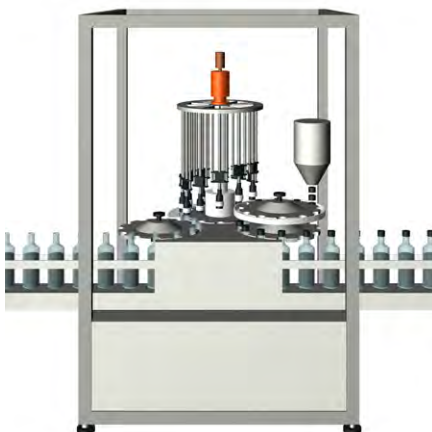
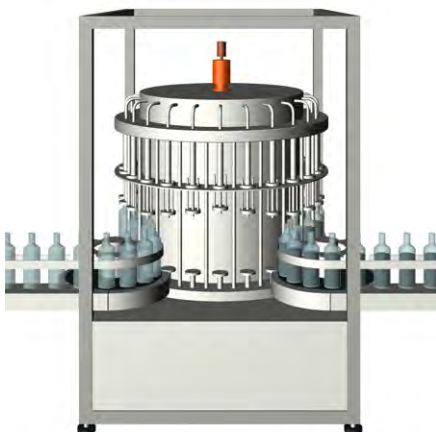
-
- Current transmission for the capping stations
 - Signal / data transmission for control tasks
-



Labeling

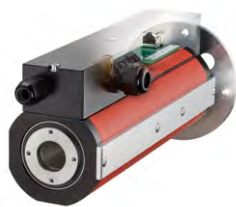
This is where the bottles get their identity. The pre-printed label must be affixed accurately and instantaneously.

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



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 SR085IE | Slip ring SR120 | Slip ring SR130 |
|-----------------------------------|---|---|--|
| Dimensions | <ul style="list-style-type: none"> • \varnothing 85 mm • Length depending on the number of channels | <ul style="list-style-type: none"> • \varnothing 120 mm • Length depending on the number of channels | <ul style="list-style-type: none"> • $\geq \varnothing$ 130 mm • Length depending on the number of channels |
| Modular structure | <ul style="list-style-type: none"> • Individual number of transmission channels • High versatility and flexibility • Parallel transmission of load, signals, data and Ethernet | <ul style="list-style-type: none"> • Individual number of transmission channels • High versatility and flexibility • Parallel transmission of load, signals, data and Ethernet | <ul style="list-style-type: none"> • Designed for highest adaptability: You are provided with your individual customer-specific solution • Parallel transmission of load, signals, data and Ethernet |
| Media lead-through | <ul style="list-style-type: none"> • Media lead-through for air | <ul style="list-style-type: none"> • Media lead-through in air or hydraulic variant | <ul style="list-style-type: none"> • Media lead-through in air or hydraulic variant |
| Load current max. (load channels) | 25 A / 400 V | 25 A / 400 V | 80 A / 800 V (higher load currents on request) |
| Ethernet transmission | 100 Mbit/s | 100 Mbit/s | 1 Gbit/s |
| Protection level max. | IP64 | IP67 | IP64 (higher on request) |
| Rotary speed max. | 800 min ⁻¹ | 300 min ⁻¹ | 100 min ⁻¹ |
| Maintenance intervals | maintenance-free (can reach 100 million revolutions) | maintenance-free (can reach 100 million revolutions) | maintenance-free (can reach 100 million revolutions) |

Kübler Group
Fritz Kübler GmbH

Schubertstrasse 47
78054 Villingen-Schwenningen
Germany

Phone +49 7720 3903-0
Fax +49 7720 21564
info@kuebler.com