

# LINE CONTROL

Efficient material flow for the „Cold End“

# bertram

## Optimised material handling technology

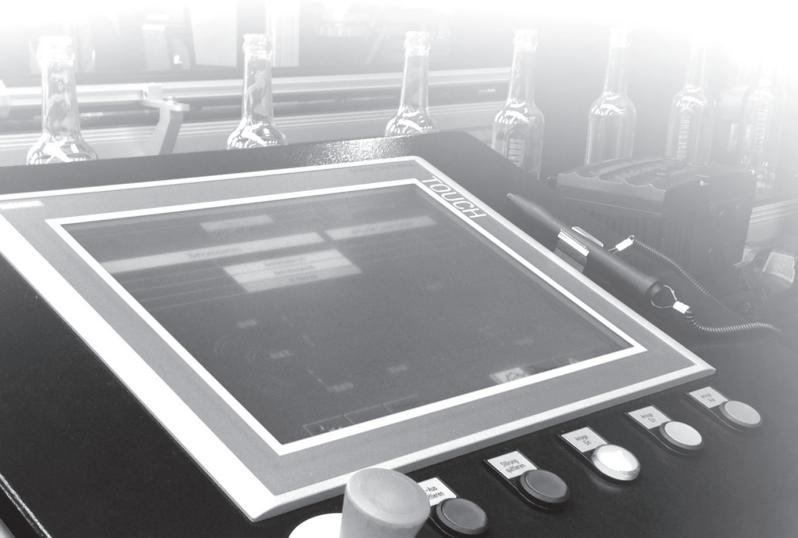
Our LINE CONTROL system has been designed specifically for the “cold end” of the container glass industry. It includes electrical and control technology engineering, switch gear manufacturing, installation and on-site start-up. Bertram Elektrotechnik has become an innovation pioneer in control systems for glass container transport, due to its extensive experience and knowledge of the material and the particularities of the industry.

Adjustments during a job-change represent unproductive times, which need to be minimised. For the material flow in glass plants precise adjustments need to be made to the belt speed for each product along side the mechanical adjustments. As our LINE CONTROL system automatically calculates the product specific speed, it contributes to an increase of productivity in the container glass production process.

This complete solution enables the drive and control technology to be adjusted to the product that needs to be transported with the press of a button. This is comparable to the automated suspension settings in a car - the LINE CONTROL independently adapts the material flow parameters during a job-change. This self optimisation can be started by the operator on the HMI-device (touch panel). In practice, therefore, only the corresponding container needs to be chosen and the rest is taken care of by the LINE CONTROL in the background on the basis of the set parameters. Our system has easy to operate input masks for all necessary parameters in the case that a new product needs to be entered into the system. The formula data is then saved securely.

Not all material handling technology is the same. As a system integrator, we are included in the planning process for the conveyor system. This is a guarantee for perfect coordination between the control and transport systems and, thus, optimal material flow. Our way of optimising makes all the difference.

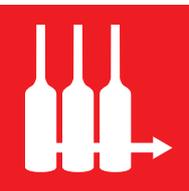
- Optimising the material flow
- Quick job change with product data management
- High energy efficiency, availability and reliability
- Innovative automation concept
- Intuitive user interface



| Betriebsarten       |                            |
|---------------------|----------------------------|
| Produktionsrichtung | Rundläufer EIN             |
| Orientierer         | nicht Betriebsbereit       |
| Einschleusung       | Betriebsbereit             |
| Separierung         | Feigabe an Transport fehlt |

| aktuelle Liniendaten |               |
|----------------------|---------------|
| Prüflinie 1 -Aussen- | 0 Artikel/min |
| Prüflinie 2 -Innen-  | 0 Artikel/min |
| Separierung          | 0 Artikel/min |

The diagram shows a conveyor layout with stations: Orientierer, Einschleusung, Separierung, and Ausschleusung. There are also labels for 'Prüflinie 1' and 'Prüflinie 2'.



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## FUNCTION

The glass industry “cold end” material flow’s core function is to transport containers quickly, reliably and with low noise emission. The high demand for reliability leads to the technical equipment needing to be precisely tailored to its application - ultimately in order to be able to work more efficiently and energy efficiently. Our LINE CONTROL system contributes to this by deactivating unused parts when temporarily not needed and using energy efficient components.

| Artikelbezeichnung                    |                 |
|---------------------------------------|-----------------|
| Glassec 2012 / BERTRAM Elektrotechnik |                 |
| Artikel vom Kühllofen                 | 120 Artikel/min |
| Zugabe vom Stautisch                  | 0 %             |
| Artikeldurchmesser                    | 67 mm           |
| Artikelhöhe                           | 100 mm          |
| Produktionsrichtung                   | Rundläufer EIN  |

| berechnete Liniendaten     |                 |
|----------------------------|-----------------|
| Produktion inkl. Stautisch | 120 Artikel/min |
| Rundlauf Aussen            | 120 Artikel/min |
| Rundlauf Innen             | 120 Artikel/min |

| aktuelle Liniendaten |               |
|----------------------|---------------|
| Separierung          | 0 Artikel/min |
| Prüflinie 1 -Aussen- | 0 Artikel/min |
| Prüflinie 2 -Innen-  | 0 Artikel/min |



## COMPANY

Bertram Elektrotechnik was founded more than 60 years ago and has more than 20 years of image processing experience. Throughout these years Bertram has built up an impressive expertise in electrical engineering and image processing. Through constant research, development and innovation the company continues to evolve year on year. This family owned company, from Bevern in the south Lower Saxon district of Holzminden, works mainly in the glass, wood and packaging industries as a strong partner in automation technology and machine, system and switch cabinet manufacturing as well as industrial image processing. Bertram Elektrotechnik is known as an innovation pioneer in orientating and allocating glass containers in the material flow in glass plants, bottling plants and packaging plants. Glass has always been a tradition in the Weserbergland region. The material has shaped the region since the middle ages.

**ELEKTROTECHNIK**

**BILDVERARBEITUNG**

**ANLAGENBAU**

**bertram**

Elektrotechnik GmbH

Philipp-Reis-Straße 3  
D-37639 Bevern

Telefon +49 55 31 99 55 - 0

Telefax +49 55 31 99 55 - 50

info@bertram-elektrotechnik.de

www.bertram-elektrotechnik.de