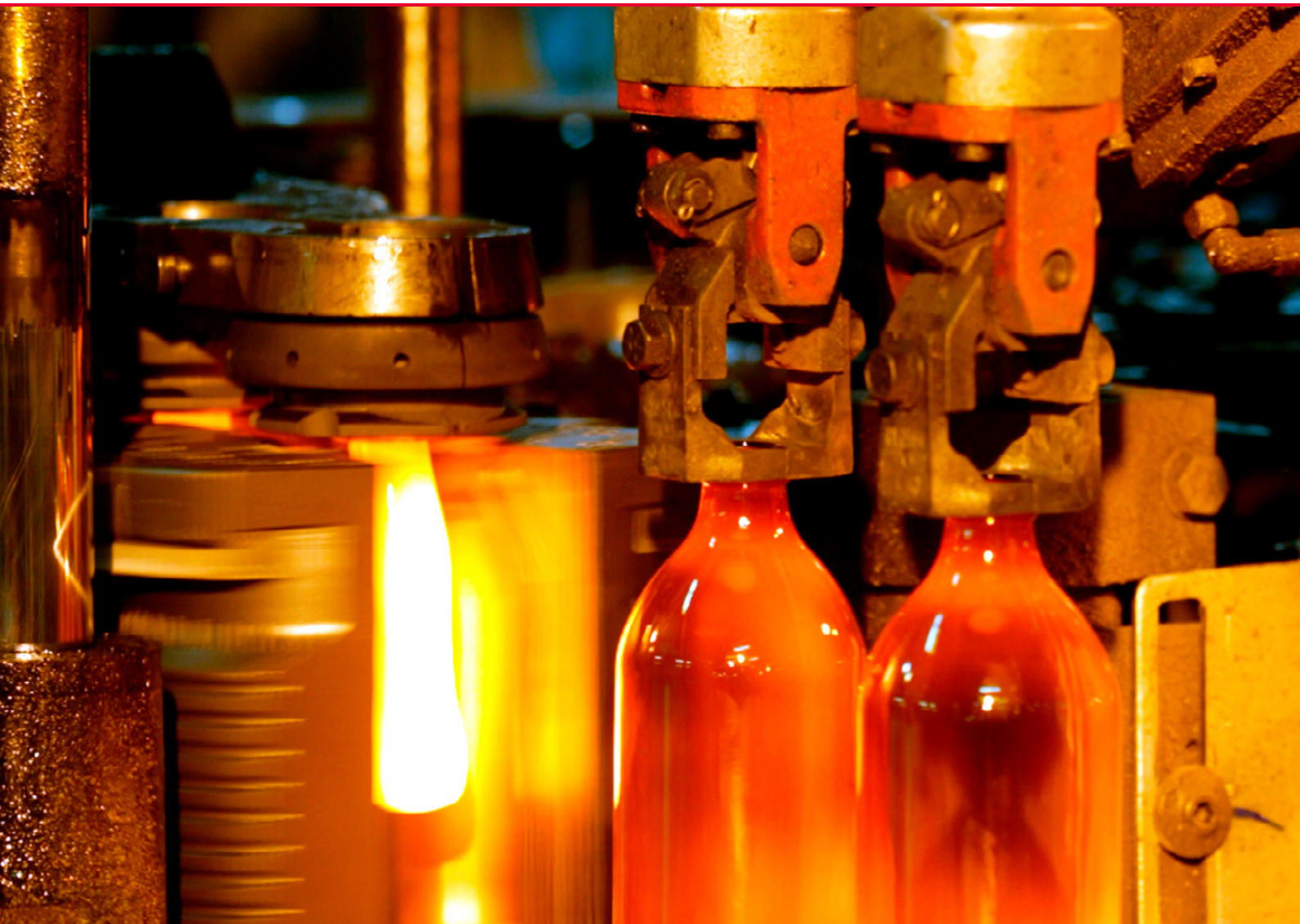
BUCHER
automation

Your system solution partner for the hollow glass production

Product overview



Content

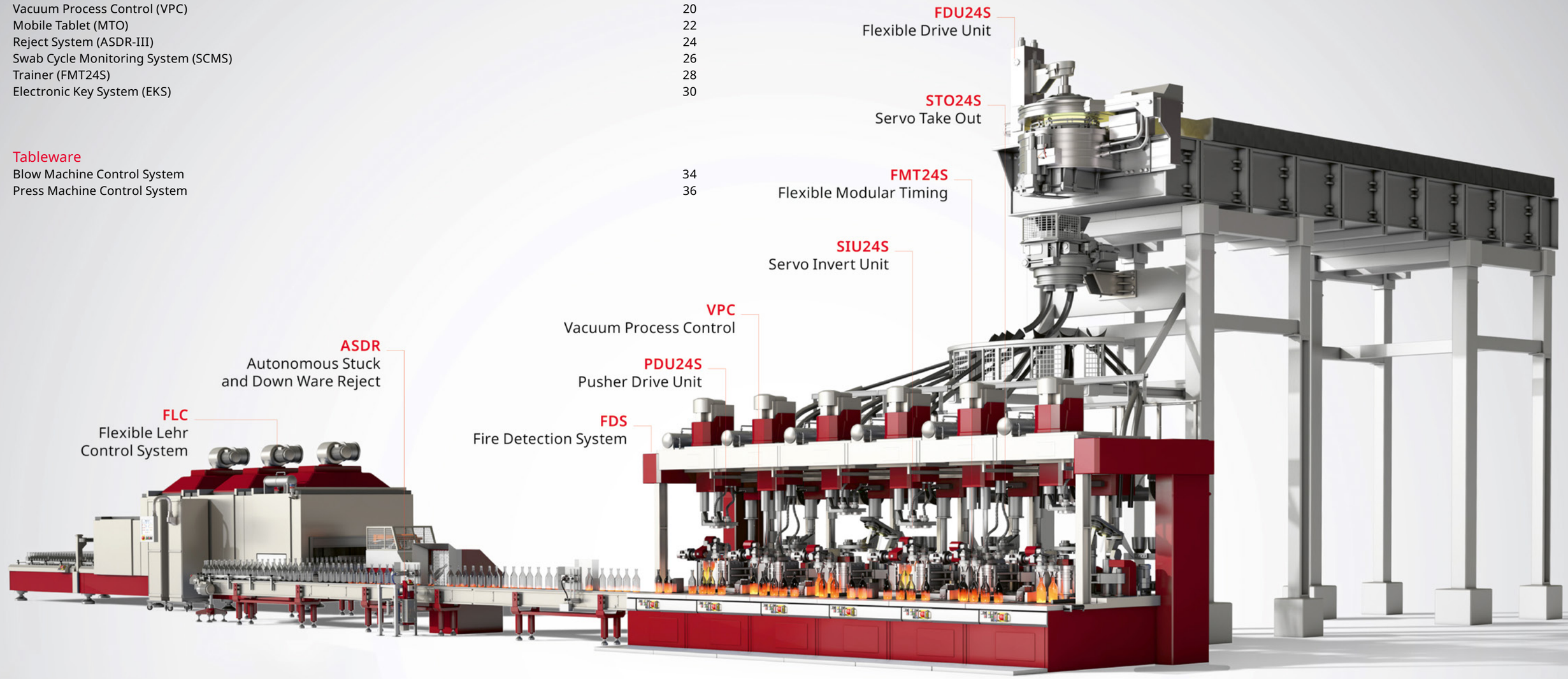
Container glass

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Hot End Control Solutions



Specifications are subject to change without notice. Errors and omissions excepted.

50 Years

Industry experience in the glass manufacturing sector is a real asset. However, with our innovative products and services, we have long since made a name for ourselves among suppliers and manufacturers in the field of industrial automation as well as in other industries.

80 Employees

At Bucher Automation Tettnang, around 80 highly qualified employees work on complex automation solutions and technological challenges. Committed, focused, high-performing. The goal: to always stay one step ahead and help our customers move forward.

50 Countries

In more than 50 countries around the globe, our customers rely on the reliability and precision of our control systems and drives. In the container glass industry alone, our technology sets the pace for several hundred machines and plants worldwide.

Steering your success together

At Bucher Automation Tettnang, expertise and experience, development know-how and innovative strength go hand in hand. For perfect solutions and reliably functioning systems. For more than 50 years. For customers all over the world. That is what defines us.

Bucher Automation Tettnang is one of the world's leading providers of complex automation solutions for machine and equipment manufacturers in the glass-producing industry.

High-quality automation solutions

The core competencies of our company lie in control technology, drive components, and programmable logic controllers (PLC). As a system provider, we offer you high-quality automation solutions – from design, development, programming, production, testing, and final acceptance to on-site commissioning. With more than 80 highly qualified employees and around 50 years of industry experience, we have the necessary capacities and expertise to develop perfect solutions and to design and install reliably functioning systems – with an excellent price-performance ratio. For a powerful partnership.

Container glass

In the course of more than five decades, Bucher Automation Tettnang GmbH has gained a reputation for innovative and reliable controls and drives for container glass machines and equipment.

To date, several hundred of our systems are in operation worldwide. Many of them have been performing impeccably for thirty years or more now, living up to even the highest client expectations day by day. Our specialists can draw on extensive control engineering expertise, a profound understanding of the production processes in the glass industry and considerable practical experience.

The perfect solution – designed, built and installed

We are therefore ideally placed to develop perfect solutions and design and install efficient systems offering excellent value for money. We don't need to tell you that we are always on the ball and that we take an active interest in future technologies. And with more than eighty highly qualified staff on our payroll, we have the necessary capacity to form effective partnerships.

Always a decisive step ahead

As a Bucher Automation user, you too can reap the benefits and stay that decisive step ahead in the long term. After all, the future success of your manufacturing operations will be largely determined by your choice of automation system. Bucher Automation technologies are a sound investment in the future – and a decision you won't regret.



Machine Controller (FMT24S)



Description

The FMT24S flexible modular timing system is a decentralised machine controller that controls any sequence or process on an IS machine with up to 24 sections. Due to the consistent use of modern, low-maintenance bus technology, the system is arbitrarily scalable. This allows it to be adapted to the machines of different manufacturers and individual requirements in container glass production.

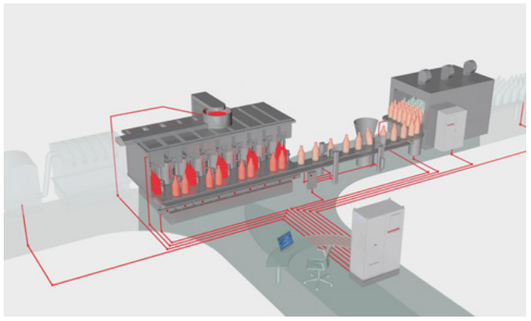
Applications range from low-budget variants to modernise a 4-section machine to the high-end solution with 24 sections. This guarantees the greatest possible flexibility for efficient production and maximum investment security.

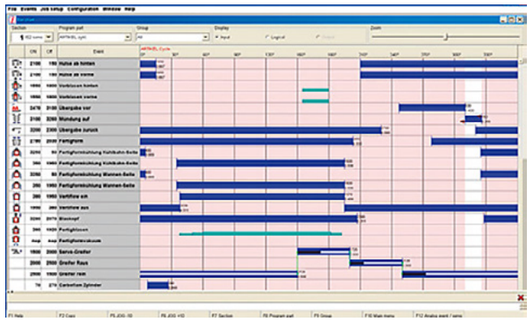
Features

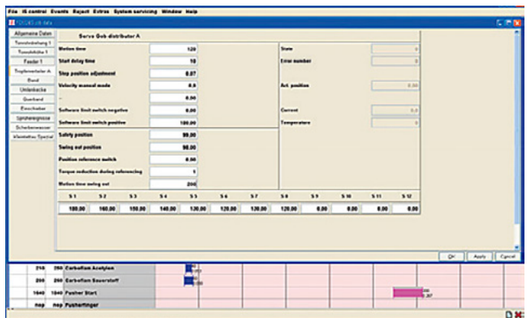
- Easy expandability
- Full servo integration
- Flexible production
- Usage of additional operating data
- Function monitoring
- Flexible user authorisation administration
- Permanent replacement parts guarantee
- Ease of maintenance
- Mobile operation using the MTO (Mobile Tablet for the Operator Terminal of the FMT24S)

Technical data

Dimensions (W x D x H)	1600 x 600 x 2000 mm
Weight	approx. 410 kg
Housing	Steel cabinet (Rittal)
Protection class	IP22 (optionally IP54 with air conditioner)
Overall connection power	3.000 W
Power supply voltage	3 x 320-575 VAC, 50/60 Hz
Power supply voltage tolerance	±5 %
Power outage bridging	4 s (internal supply only)
Ambient temperature without air conditioning	max. 25° C
Ambient temperature with air conditioning	max. 45° C (depending on model)
Relative humidity	max. 80%







Drive Unit (FDU24S)



Description

Our FDU24S flexible drive unit is characterised by maximum precision in the synchronization of individual movement sequences in the machine, as well as by its flexibility. Whether servo feeders, servo shears, or servo gob distributors, with the FDU24S any servo mechanism can be parameterised and monitored through a single, central control system.

The FDU24S is compatible with older Bucher Automation products such as the CIMOG or EPRO-IS machine controller as well as with controllers from other providers. But the drive system truly shows its full strength in combination with the FMT24S. The FDU24S has a modular design and is also available as a standalone solution. Existing systems can be upgraded without problems.

Features

- Easy expandability
- Full servo integration
- Flexible production
- Usage of additional operating data
- Function monitoring
- Flexible user authorisation administration
- Permanent replacement parts guarantee
- Ease of maintenance
- Mobile operation using the MTO (Mobile Tablet for the Operator Terminal of the FMT24S)

Technical data

Dimensions (W x D x H)	1200 x 600 x 1800 mm; Height with base: 2000 mm
Weight	approx. 250 kg
Housing	Steel cabinet (Rittal)
Protection class	IP22 (optionally IP54 with air conditioner
Overall connection power	600 W for controller plus the power for the motors connected
Power supply voltage	400-480 VAC, 50/60 Hz
Power supply voltage tolerance	±5 %
Power outage bridging	20 ms (400 VAC); 30 ms (500 VAC) for 24 V
Power electronics	Bucher Automation servo transformer
Control electronics	Bucher Automation JetControl 360
Operation	integrated into FMT24S or standalone browser user interface
Drive PC interface	Ethernet
Ambient temperature without air conditioning	max. 28° C
Ambient temperature with air conditioning	max. 45° C (depending on model)
Relative humidity	max. 80%



Pusher Controller (PDU24S)



Description

Our PDU24S (Pusher Drive Unit) is designed to control and drive almost any standard type of single or two-axis pusher from different manufacturers. Based on advanced servo technology, the PDU24S ships with a whole series of innovative functions and features. If necessary, for example, an additional hold position can be configured on the dead plate in order to extend the bottom air cooling time if necessary.

Both the single and the two-axis versions of the PDU24S integrate seamlessly into our proven FMT24S IS machine control system as an optional add-on. It can furthermore be retrofitted to any existing equipment featuring an FMT24S control system without any problem. We can also supply the PDU24S singleaxis system in a standalone version with a separate HMI independently of the FMT24S.

Features

- Servo control system for any standard single or two-axis pusher
- Integral drive for any pusher mechanism established in the market today
- Suitable for retrofitting to any IS machine model
- Any operating mode from single to quadruple-gob
- Simple, intuitive operation
- Multilingual HMI
- Built-in alarm and event reports
- Easy maintenance because standard components are used

Benefits

- Central control via the FMT24S interface
- Unified job database management via the FMT24S interface
- Single-axis system additionally available in a standalone version with a separate HMI
- Precise positioning of the pusher fingers
- High repeatability
- Accurate reproducibility
- Maximum flexibility in production
- Additional hold position on the dead plate
- Cost-effective solution

Technical data

Protection class	IP22 (IP54 with optional air conditioning)
Total connected load	1 kW
Power supply	400 to 480 VAC, 50/60 Hz
Power supply tolerance	±5%
Power electronics	Bucher Automation servo converter
Control electronics	Bucher Automation JetControl 365
Drive-to-PC interface	Ethernet
Operation	Integrated into FMT24S
Ambient temperature without air conditioning	max. 25 °C
Ambient temperature with air conditioning	max. 45°C (depending on model)
Relative humidity	max. 80 %

Dimensions of the PDU24S single-axis system

Steel cabinet (W x D x H):	800 x 600 x 1800 mm
Height with base:	2000 mm
Weight:	up to 300 kg

Dimensions of the PDU24S two-axis system

Steel cabinet (W x D x H)	
6 and 8 sections 10 and 12 sections	1200 x 600 x 1800 mm 1800 x 600 x 1800 mm
Height with base	2000 mm
Weight	up to 450 kg

Servo Invert Controller (SIU24S)



Description

Our SIU24S servo invert control system is designed to control and drive almost any servo invert mechanism established in the market today. The SIU24S HMI allows operators to preset the acceleration and deceleration of the swivel motion when an article is transferred from the blank mould to the blow mould – individually, accurately and reproducibly. Article quality is significantly improved as a result. The advanced servo technology moreover permits an ultra-fast revert motion, so that even very short cycle times are possible.

The SIU24S integrates seamlessly into our proven FMT24S machine control system as an add-on. The servo invert control system is controlled centrally via the job database menu of the FMT24S HMI. The SIU24S can be retrofitted to any existing equipment featuring an FMT24S control system without any problem.

Features

- Control system for all established servo invert units
- Option for machines from different manufacturers, also as a retrofit
- Revert motion times up to 400 milliseconds possible
- Freely selectable motion profiles
- Controlled acceleration and deceleration of the swivel motion
- Ultra-fast motion profiles enable shorter cycle times
- Position holding function
- Time sequences presented in a bar chart
- Built-in alarm and event reports
- Simple, intuitive operation
- Easy maintenance because standard components are used
- Multilingual HMI

Benefits

- Central control via the FMT24S interface
- Unified job database management via the FMT24S interface
- Also available in a standalone version with a separate HMI for any standard IS machine
- High repeatability
- Accurate reproducibility
- Maximum flexibility in production
- Cost-effective solution
- Significantly improved quality

Technical data

Dimensions (W x D x H)	1200 x 600 x 1800 mm
Height with base	2000 mm
Weight	max. 300 kg
Housing	Steel cabinet (Rittal)
Protection class	IP22 (optionally IP54 with air conditioner)
Power supply	400 - 480 VAC, 50/60 Hz, TN-S
Power supply tolerance	±5 %
Total connected load	ca. 8 kW
Power electronics	Bucher Automation servo converter
Control electronics	Bucher Automation JetControl 365
Drive-to-PC interface	Ethernet
Operation	Integrated into FMT24S or standalone HMI
Ambient temperature without air conditioning	max. 25 °C
Ambient temperature with air conditioning	max. 45 °C (typabhängig)
Relative humidity	max. 80 %

Servo Take Out (STO24S)



Description

Our STO24S servo take-out control system is designed to control and drive almost any servo take-out mechanism established in the market today. The system ships with a whole series of innovative functions and features. Amongst other things, additional parameters allow the machine operator to determine the set-down position more flexibly and more precisely than is possible using conventional control systems. Our STO24S helps reduce the number of faulty glass containers and achieve a measurable improvement in product quality.

Based on advanced servo technology, the STO24S integrates seamlessly into our proven FMT24S machine control system. It is controlled centrally via the job database menu of the FMT24S HMI. The STO24S is available as an option for all IS machines equipped with Bucher Automation controls and drives. It can be retrofitted to any existing equipment featuring an FMT24S control system without any problem. We can also supply the STO24S in a standalone version for integration into the control infrastructure of other manufacturers.

Features

- Control of all standard servo take-out systems
- Integral drive for any take-out mechanism established in the market today
- Option for machines from different manufacturers, also as a retrofit
- Time sequences presented in a bar chart
- Built-in alarm and event reports
- Simple, intuitive operation
- Easy maintenance because standard components are used
- Multilingual HMI

Benefits

- Far fewer faulty glass containers in the neck region
- Precise positioning of jobs on the dead plate
- Central control via the FMT24S interface
- Unified job database management via the FMT24S interface
- Also available in a standalone version with a separate HMI for any standard IS machine
- High repeatability
- Accurate reproducibility
- Maximum flexibility in production
- Cost-effective solution

Technical data

Dimensions (W x D x H):	1200 x 600 x 1800 mm
Height with base:	2000 mm
Weight:	ca. 300 kg
Housing:	Steel cabinet (Rittal)
Protection class:	IP22 (IP54 with optional air conditioning)
Power supply:	400 to 480 VAC, 50/60 Hz
Power supply tolerance:	±5%
Power electronics:	Bucher Automation servo converter
Control electronics:	Bucher Automation JetControl 365
Drive-to-PC interface	Ethernet
Operation	Integrated into FMT24S or standalone HMI
mbient temperature without air conditioning:	max. 25 °C
Ambient temperature with air conditioning:	max. 45°C (depending on model)
Relative humidity:	max. 80 %

Lehr Control System (FLC)



Description

The traditional safety technology in the control station for annealing lehrs is outdated. To meet the demanding requirements of the complex cooling processes in glass production, Bucher Automation has developed an innovative control system that widely automises quality-sensitive operating processes in annealing lehrs. Thus optimal operating conditions are always the norm in the heating and cooling zones, which is essential for product quality. In addition, the new operating terminal enables the operator to detect, localise and eliminate disturbances easier and more quickly. As a result, the new control system significantly decreases refitting time as well as the error rate due to incorrect input, thereby operating costs are reduced.

Features

- An item management system allows, for instance, the individual control unit parameters in the annealing for more than 200 glass container types to be saved in the control system
- A freely configurable Ethernet interface enables connec tions to superordinated process guidance systems for trans mitting system states and evaluating productivity
- The connection to the Bucher Automation E-timer also allows order status information such as job changes or section-reduced operation to flow into the system – this information is essential for temperature control in the annealing lehrs and therefore for quality assurance
- Graphical overview displays all of the aggregates including important parameters such as temperatures in the different heating and cooling zones or speed of the conveyor belt
- In the user management section up to 50 different users can be configured and ten user levels defined
- Management of access rights for administration, maintenance and actual operation
- The system logs all usage in order to quickly detect and resolve the causes of any disturbances
- Data transfer via integrated Ethernet interface or USB stick
- Optical and acoustic signal alerts in case of disturbances

Hardware

- Siemens S7-1500 PLC controller
- Siemens G120 frequency curves converter motor
- Siemens TP1200 Touch panel
- Eurotherm control unit for emergency operation
- Freely configurable Ethernet interface
- Remote maintenance via VPN



Vacuum Process Control (VPC)


Fotos: O-I Germany

Description

Our vacuum process control system (VPC) makes sequences in the vacuum process visible. Sensors supply data for each section on parameters such as the duration of the vacuum cycles, the increase or decrease in pressure, the maximum value and the response times of the vacuum valves. This data is visualised practically in real time on the operator terminal. The operator thus keeps a constant eye on the functionality and wear of the valves, fi lters and blow mould. In the event of deviations, they can react quickly and correct any malfunctions before they result in defects, without having to interrupt operation.

The VPC is available as an option for all IS machines equipped with our proven FMT24S machine control system. It can be retrofi tted to existing equipment without any problem. The VCS is implemented seamlessly into the FMT24S's OT software. The VPC can additionally be supplied in a standalone version for integration into the control infrastructure of other manufacturers.

Our vacuum control system ships with a control unit, a splitter box together with the necessary pressure sensors and a matching cable harness.

Features

- Suitable for retrofitting to any machine model
- Integration into the operating data menu of the FMT24S
- Built-in alarm and event reports
- Blow mould vacuum monitored separately for each section
- Central monitoring of the vacuum supply pressure
- Visualises all sequences in the vacuum process
- Detects the wear condition of components

Benefits

- Avoids manufacturing and system problems
- Unified control and job database management via the FMT24S interface
- Also available in a standalone version with a separate HMI for any standard IS machine control system
- Optimised production and productivity

Technical data

Power supply tolerance	± 5%
Control electronics	Bucher Automation JetControl 350
Drive-to-PC interface	Ethernet
Ambient temperature with air conditioning	Max. 25°C
Relative humidity	Max. 80%

Integration into FMT24S

Dimensions (W x D x H)	320 x 50 x 130 mm
Weight	Approx. 2 kg
Total connected load	100 W
Power supply	24 VDC
Drive-to-PC interface	Ethernet
Operation	Integrated into FMT24S

Standalone

Dimensions (W x D x H)	500 x 210 x 500 mm
Weight	Approx. 5 kg
Total connected load	1000 W
Power supply	100-120/200-240 VAC, 50/60 Hz
Drive-to-PC interface	Ethernet
Operation	OT-PC software

Mobile Tablet (MTO)



Description

The MTO Mobile Tablet for the Operator Terminal of the FMT24S control system offers excellent operating convenience. Save steps and time going back and forth from the PC, and configure setups directly at the machine. The MTO makes it possible, is extremely tough, and can be operated easily and intuitively on a touch screen.

In addition to all Operator Terminal (OT) functions, all Main Control Terminal (MCT) functions are also available without restrictions. The MTO comes with the latest FMT24S software and can be used in parallel with the FMT24S PC.

Features

- Industrial tablet with touch screen designed for the harsh conditions of the industrial machine environment
- Full availability of OT and MCT functions
- Can be used in the docking station with familiar keyboard and mouse

Hardware

MTO industrial tablet
MTO tablet stylus
MTO tablet docking station*

* in the docking station, we recommend using the MTO tablet with keyboard and mouse





Reject System (ASDR-III)



Description

Compact, small and versatile – Bucher Automation's new hot-end reject system ASDR3 detects and removes containers from the conveyor if they are smaller or larger than a freely selectable diameter, are too close together, have fallen over or are broken (cullet, fragments).

The optional IR sensors detect and reject faulty products with more than one parison (so-called double parisons). Two additional light barriers can be supplied as an option to detect congestion ahead of the hot-end coating tunnel and count the quantity of good products, for example downstream of the ware transfer. The optional IS machine control system allows faulty containers to be rejected either manually by pressing a key on the section or automatically, e.g. after lubrication.

The control unit is just 380 x 380 x 210 mm in size and can also be installed underneath the conveyor without any problems to save space. All inputs and outputs are pluggable. The system is designed for ambient temperatures up to +85°C; power is supplied from the 115 VAC / 230 VAC mains. If the power supply is interrupted, all data is stored in a non-volatile memory and can be accessed again the next time the unit is switched on.

Reasons for rejection

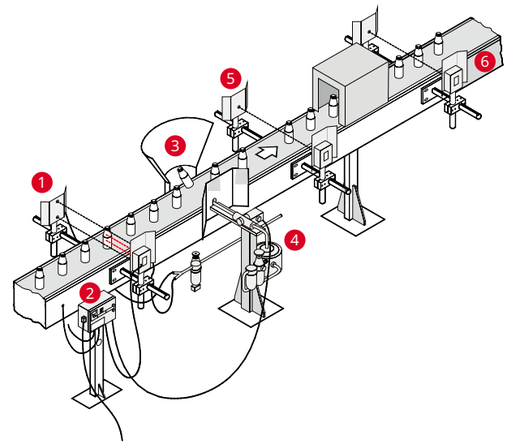
- Objects are smaller or larger than a freely selectable diameter
- Objects are stuck together
- Objects are too close together
- Objects have fallen over
- Objects are broken (cullet, fragments)

Benefits

- Quick and easy to install
- Very small footprint
- Suitable as a standalone control system
- Reject correction simply requires a reject
- signal from the IS control
- Compatible with all IS control systems

Additional functions

- Double parison reject system
- Monitoring function at the entrance to the hot-end coating tunnel (for detecting congestion); continuous reject mode is activated if necessary
- Good products counter, e.g. downstream of the ware transfer
- Advanced plant data collection with storage on a USB or PC via Ethernet



The ASDR3 is designed to work as a standalone system and is suitable for retrofitting to almost any production line. The structure and design reflect the harsh conditions prevailing in the IS machine's environment.

1. Light barrier unit 1

Two height-adjustable light barriers and two optional IR sensors for precise detection of faulty containers.

2. Control unit

Rugged industrial design with control and display elements. Used to activate "Teach mode". No further calibration required.

3. Cullet chute

Can be mounted at any point on the conveyor.

4. Reject nozzle

Broken or out-of-tolerance containers and containers that have fallen over or stuck together are rejected here.

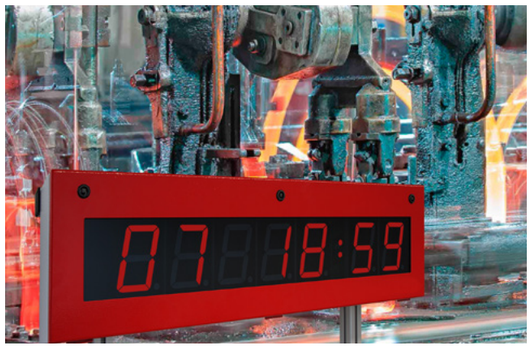
5. Optional light barrier unit 3

For detecting congestion at the entrance to the hot-end coating tunnel.

6. Optional light barrier unit 2

For counting the quantity of good products, e.g. downstream of the ware transfer.

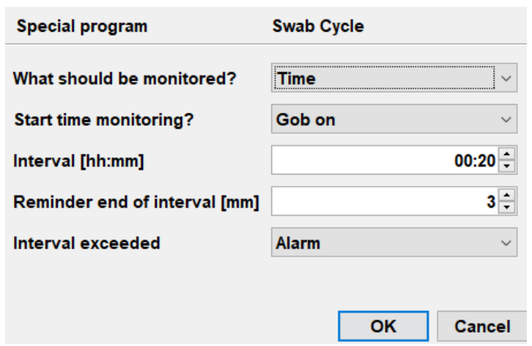
Swab Cycle Monitoring System (SCMS)



Description

The SCMS monitors the swab cycles and provides visual and acoustic warnings when the next one is due. When an LED timer is connected to the FMT24S, the time until the next swab interval is displayed. You start or reset the counter by activating the special program.

Different job-dependent swab times are stored and managed centrally in the MCT database. The SCMS is shipped with a robust industrial LED display and the necessary FMT24S software upgrade.



Trainer (FMT24S)



Description

Container glass production machines have a complex anatomy and electronic control systems are their heart. Although the production processes are nowadays monitored by computers, the human factor still plays a vital role – and with it the know-how and experience of the operator. In order to keep pace with the latest advances in mechanisms, software and production processes, ongoing training must be provided to the teams responsible.

Our FMT Trainer – a control system for up to two sections based on the FMT24S – was developed to enable essential training and continuing professional development. Operators have a unique chance to familiarise themselves with the FMT24S in a realistic and fully functional environment, practice using its various features and act out individual processes until they have mastered them absolutely. Our FMT Trainer also serves as a test or sample section which allows FMT24S components such as processors, output boards or operator panels to be function-checked before they are actually installed in a production-relevant FMT24S unit.

Features

– Training environment for the FMT24S
– Fully functional control system for up to two sections
– Operator training system for IS machines
– Ideal for testing components and mechanisms

Options

The FMT Trainer also serves as a spare parts container for the components of the FMT24S. Replacement components are stored in the Trainer's chassis under optimal conditions, leading to a significantly extended service life. If faulty components need replacing urgently in an IS machine control system, suitable spares are instantly at hand. Delays waiting for spare parts to be delivered can be avoided in this way.

Technical data

Dimensions (W x D x H)	600 x 600 x 1000 mm
Weight	ca. 100 kg
Housing	Steel cabinet (Rittal)
Protection class	IP22
Total connected load	1 kW
Power supply	400 - 480 VAC, 50/60 Hz
Power supply tolerance	±5 %
Drive-to-PC interface	Ethernet
Operation	via OT PC
Ambient temperature with air conditioning	max. 25 °C
Relative humidity	max. 80 %



Electronic Key System (EKS)



Description

The EKS Electronic Key System adds access software to the FMT24S Control System that can assign separate permission profiles to different user groups. Users can also use a security key (a transponder) as an alternative to ID and password when authenticating at the terminal.

Simply inserting the key into the reader opens the access-protected operating menu. The key is held by a spring clip. Once the user removes the key, the user interface immediately returns to the „no key“ permission level. Existing systems can easily be upgraded with new software and a reader.

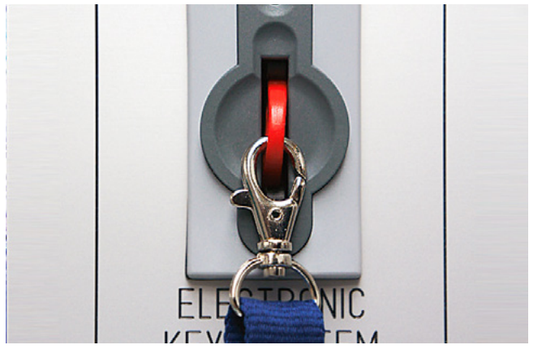
Features

- Authentication of users using transponder keys
- Clear responsibility, since each key is assigned to a specific person
- Reliable protection of critical processes while still providing convenient operation
- Easy upgrade for existing FMT24S systems

Hardware

Transponder key
Chip reader
USB connector cable from chip reader to the FMT24S OT/MCT PC
Tabletop housing for chip reader*

* as an alternative to the tabletop housing, the chip reader can also be installed in a free slot of the FMT24S OT/MCT PC.



Tableware

It all began with control systems and automation solutions for container glass production. In the meantime, the tableware segment, too, is profiting from the know-how and experience of Bucher Automation Tettnang acknowledged experts.

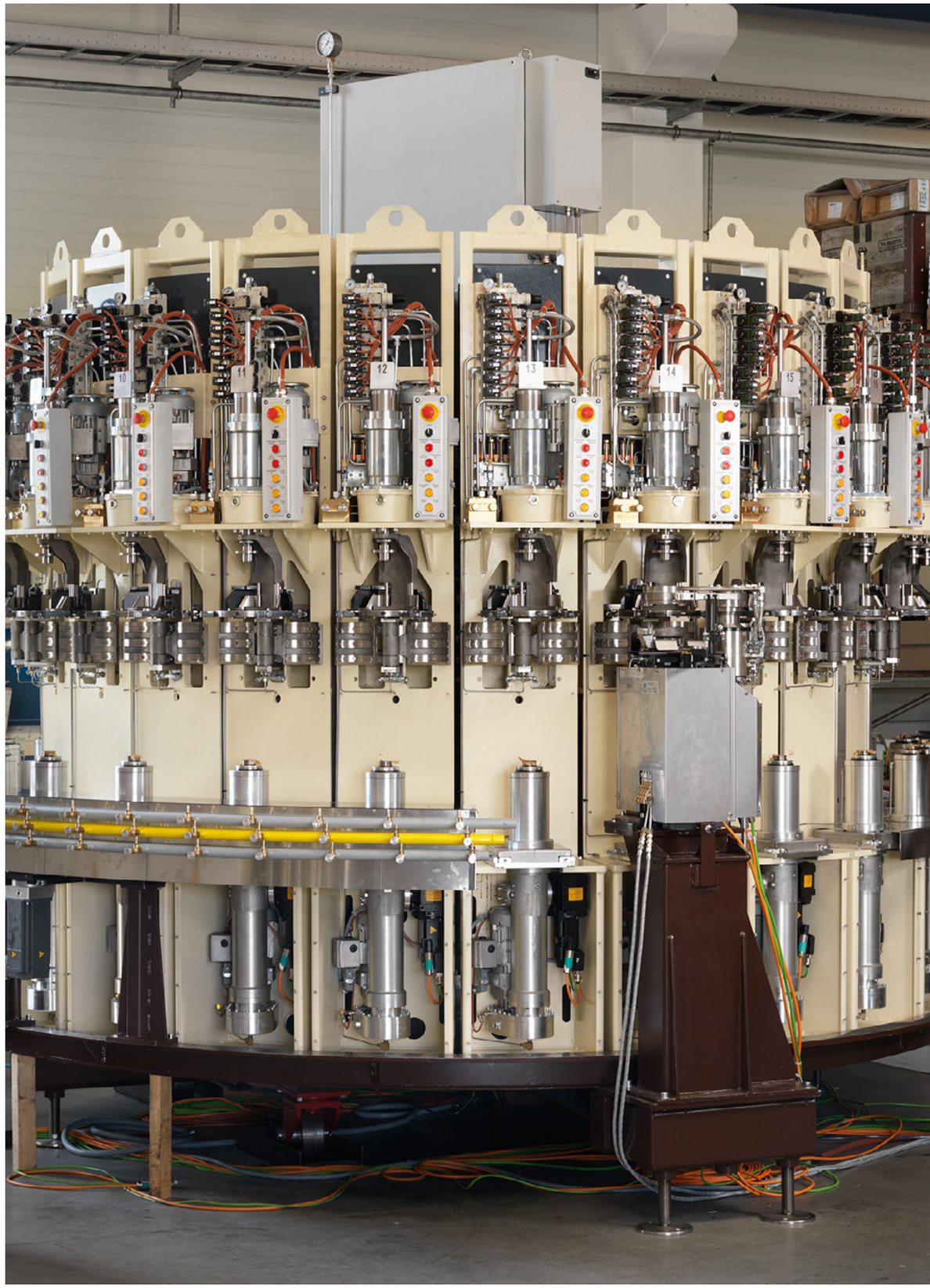
The goals: more reliable production processes, higher product quality and improved productivity. At the same time, the start of our partnership with a renowned plant manufacturer marked a milestone in the development of this business segment at Bucher Automation Tettnang.

Dual control solution

Together with a machine manufacturer, we have developed a control concept for rotary machines used in the production of stemware. The result is a dual control solution which unites the machine control and the synchronous drive on a common hardware platform. The “Bucher Automation Blow machine Control system” (FBC) combines the control and the synchronous drive for rotary blowing machines with up to 32 moulding sections. The “Bucher Automation Press machine Control system” (FPC) was developed by our engineers for controlling the presses that actually make the stems. The FPC is a modular control and drive system for use on rotating press machines with up to 20 sections or 32 double gobs. This novel automation concept covers the complete requirements profile from the feeder through the glass moulding equipment to the conveyor for the finished product.

Nachrüstung und Modernisierung älterer Anlagen

In keeping with the Bucher Automation philosophy, our FBC and FPC controls and drives also provide an inexpensive way to retrofit and modernise older lines. What’s more, system components which are especially quality sensitive are offered as standalone solutions in cooperation with Forma Glas. Blow moulding machines that are getting on in years can be retrofitted with highly precise servo gob transfer sections, for instance, which take the place of conventional pneumatic technology. The Bucher Automation portfolio additionally includes a control for servo feeders and servo shears, which can easily be integrated in your existing infrastructure as a standalone solution. Please ask for advice on other applications – we’ll see what we can work out.



Blow Machine Control System



Description

The FBC is designed as an „all-in-one system“ for use on rotating blow machines with up to 32 sections. It unites the machine controller and the synchronous drive on a common hardware platform. This new automation concept covers the complete requirements profile from the feeder through the glass moulding equipment to the conveyor for the finished product.

The desire to provide a controller that is suited not only for machines based on the very latest technology but also for retrofitting or modernising older lines was a top development priority. We are now optimally placed to offer our customers what they rightly expect from us as an experienced manufacturer of control solutions: a more reliable production process, higher product quality and significantly improved productivity.

Features

- Control and automation integration in a motion control system for up to 128 servo drives per machine
- High repeatability – the machine control system and all moulding sections communicate with one another in real time
- Transmission to the moulding sections via Industrial Ethernet using a contactless slip ring
- Event output visualised on a PC by means of a 360 degree bar chart
- Job archive for rapid storage and retrieval of job data Trend recording function with long-term archival of measured values
- Highest energy efficiency due to possible regenerative power feedback from the IGBTs of the drive system

Optionen

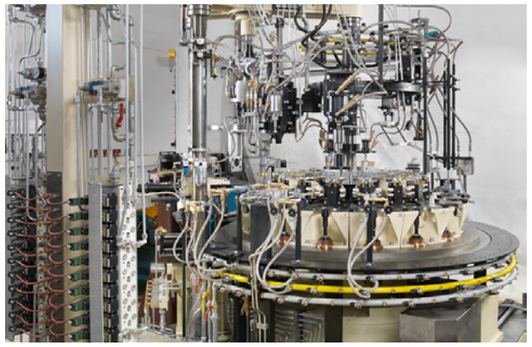
Connection of other plant components, e.g. fire polishing machine, power feedback from the DC link, light barrier unit for job counters, etc.

Technical data

Voltage	400 VAC/50 Hz
Fuse	250 A
Dimensions (H × W × D)	2400 x 2200 x 600 mm



Press Machine Control System



Description

The FPC is designed as an „all-in-one system“ for use on rotating press machines with up to 20 single sections or 16 double sections. It unites the machine controller and the synchro-nous drive on a common hardware platform. This new automation concept covers the com-plete requirements profile from the feeder through the glass moulding equip-ment to the con-veyor for the finished product.

The desire to provide a controller that is suited not only for machines based on the very latest technology but also for retrofitting or modernising older lines was a top devel-opment priority. We are now optimally placed to offer our customers what they rightly expect from us as an experi-enced manufacturer of control solutions: a more reliable production process, higher product quality and significantly improved productivity..

Features

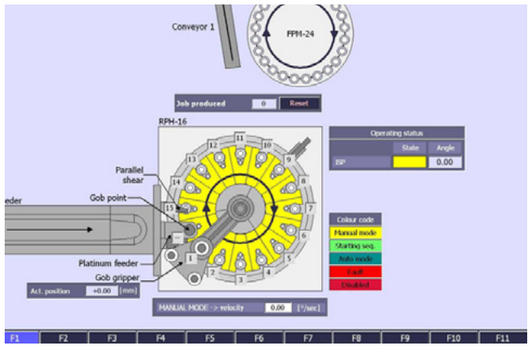
- Control and automation integration in a motion control system for up to 128 servo drives per machine
- Press table can be indexed by a servo-controlled Maltese cross or a gearless servo direct drive (double-axis integration)
- Platinum chute heating or servo feeder permits continuous glass feeding
- Precise position and pressure control assures absolute repeatability and automatic, section-dependent mould correction
- Event output visualised on a PC by means of a 360 degree bar chart
- Job archive for rapid storage and retrieval of job data, including pressing curves
- Trend recording function with long-term archival of measured values
- Highest energy efficiency due to possible regenerative power feedback from the IGBTs of the drive system

Optionen

Connection of other plant components, e.g. fire polishing machine, power feedback from the DC link, light barrier unit for job counters, etc.

Technical data

Voltage	400 VAC/50 Hz
Fuse	160 A
Dimensions (H × W × D)	2400 x 2200 x 600 mm



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