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[06/20]

CUSTOMER CARE

M a g a z i n e

JBT FOODTECH
Filling | Closing | Sterilization

jbt.com/foodtech



WELCOME



Dear Reader,

Over the past few years, many changes have been implemented by our customer care team in order to increase the asset intensity of your equipment and quality of our services.

Due to the amount of innovations we can offer, we have decided to release a first edition of our JBT customer care magazine.

Begin this year COVID-19 situation has presented all people and businesses across the globe with completely new challenges. In these difficult times we understand the importance of the operations in the food industry and the challenges we are facing to keep these operations secured.

Therefore, I like to inform you that we have taken the needed measures to maintain and adapt our support at highest possible level considering the safety and protection of everyone. (e.g. PRoSIGHT™)

It is our intention to serve you as good as possible and adapt our services to the current needs of the industry.

I hope you and your colleagues may find this magazine very useful and the complete customer care team and myself remain at your disposal for any further information.

Enjoy the reading!

Sincerely,
Johan Van Riet



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ABOUT JBT

JBT is part of **JBT Corporation**, with headquarters in Chicago, US. **JBT Corporation** employs about 6,400+ people and generates an annual revenue of 1.95 billion US\$. **JBT** offers a broad range of freezing (under the Frigoscandia brand), protein processing, fruit and tomato processing and canning technologies. We are one of the largest suppliers of processing and packaging technology to the global food industry.

Since its foundation in 1884, **JBT** – formerly known as FMC – has installed more than 4000 fillers and closers, and more than 3000 sterilization systems worldwide. More than 50% of the world's canned food are filled, closed or sterilized on **JBT** equipment. This makes **JBT** the world's leading supplier to technology to the global canning industry.

JBT's European Centre of Excellence for canning technology is based in **Sint-Niklaas, Belgium**, located at 45 minutes from Brussels Airport. The **Sint-Niklaas, Belgium**, site has served the European canning industry since 1947. Besides experienced engineering and manufacturing capabilities, the Sint-Niklaas site houses **JBT** European Process Technology Centre and provides **JBT's** large installed base with spare parts and expert technical support.

JBT's mission is to help canners stay competitive in an increasingly competitive market. In order to do so, **JBT** continue to develop technologies and services that help canners produce at the lowest cost per unit produced, while achieving the highest product safety and quality.



WHY WORK WITH JBT?

10 good reasons to select JBT as your preferred supplier for this project

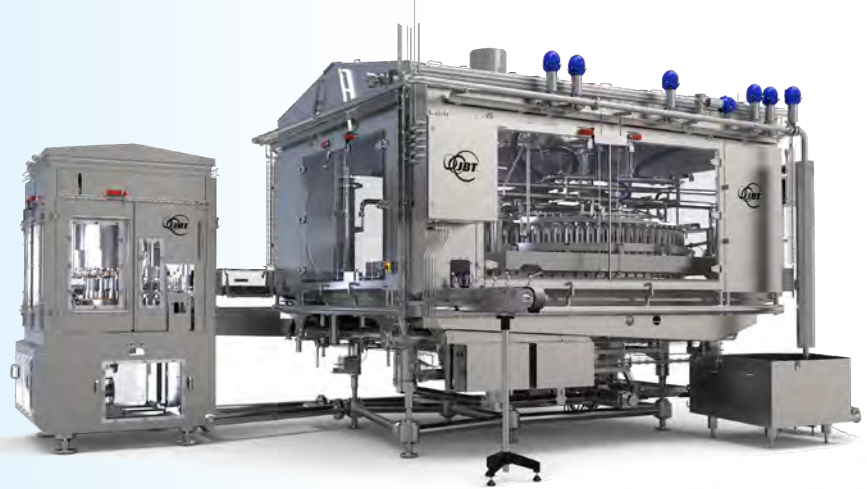
- 1 Financially stable and strong, as demonstrated by more than 100 years of uninterrupted business activity
- 2 Long term commitment to the canning industry, as demonstrated by our installed base
- 3 Reputation to deliver quality equipment
- 4 Reputation to keep promised equipment performance and project timing
- 5 Strong, global service and support organization
- 6 Professional project management team
- 7 Strict adherence to the highest quality assurance standards
- 8 Broad technical resources and support:
 - ✓ Thermal process expertise
 - ✓ Water treatment consulting
 - ✓ Mechanical and electrical engineering
- 9 Process Technology Center with pilot filling, closing and sterilization equipment
- 10 Differentiated, value adding filling, closing and sterilization technologies

We're with you, right down the line.™

JBT BELGIUM PRODUCT PORTFOLIO

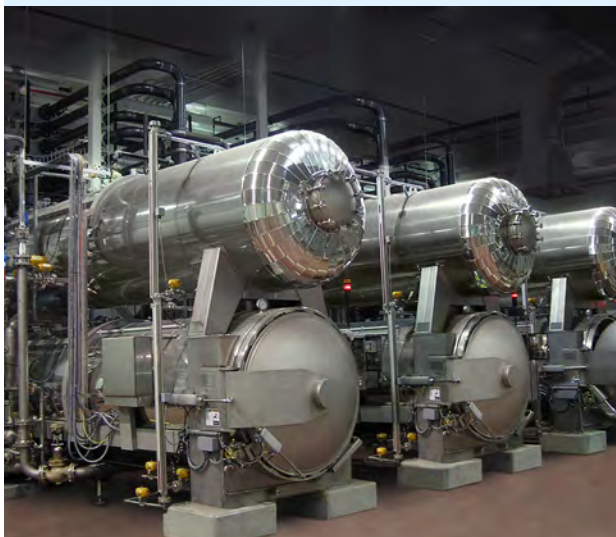
FILLING & CLOSING

- ✓ Full range of rotary filling technologies for **metal cans, glass jars, glass and plastic bottles**
- ✓ **Volumetric, vacuum, level and weight filling**
- ✓ Pre-heating, rinsing, decontamination, **filling and closing solutions** from one single source
- ✓ Integrated with **in-container sterilization** systems for an integrated, full packaging line solution
- ✓ Acquired **PLF International Limited**, a leader in powder processing



STERILIZING

- ✓ Leading global supplier of fully integrated industrial in-container sterilization systems with large installed base of batch retorts, rotary cooker/coolers and **Hydromatic®** units
- ✓ More than **50%** of the world's canned foods are sterilized on **JBT systems**
- ✓ Acquired Avure Technologies, a global leader in **High Pressure Processing**



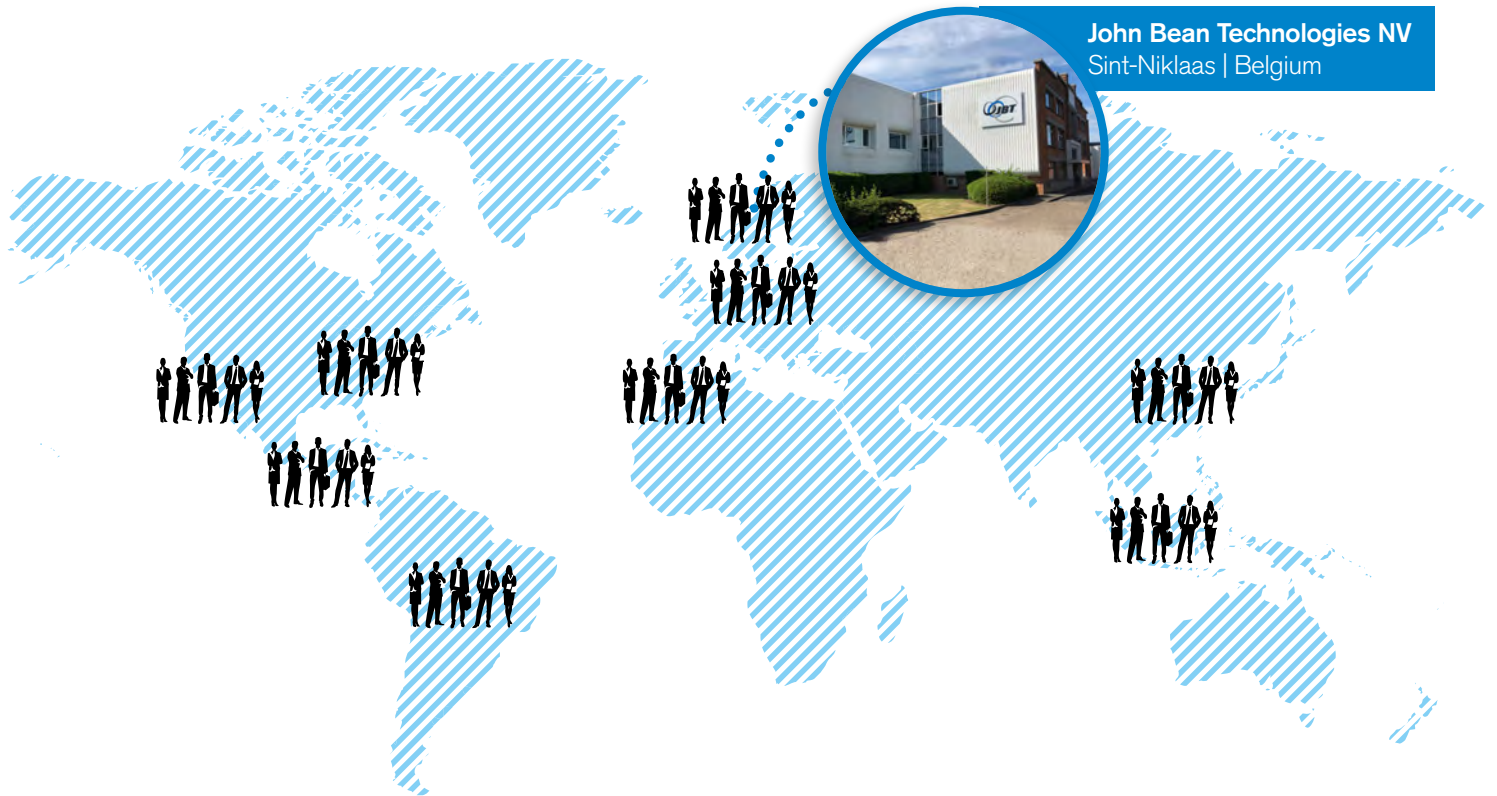


CUSTOMER CARE MISSION

Optimize performance for your continued success

JBT Customer Care's goal is to contribute to our customers' success by evolving the **JBT Customer Care** philosophy from a transaction-based mindset to one based on customer intimacy.

With the **JBT Customer Care** we find a service solution that fits you! Our wide variety of service options is backed up by our team of well-trained service staff able to offer worldwide assistance. For us, customer care is about our relationship with the people who are an essential part of everything we do.



✓ Global presence, we are active in over **40 countries**

✓ Large team; more than **100 skilled** service technicians

✓ **8 main service centers:** Sint-Niklaas, Parma, Amsterdam, Bangkok, Araraquara, Puebla, Madera, Lakeland

✓ More than **10.000 machines** installed

✓ Extensive stock of **spare parts**

✓ **Fast and accurate** response keeping downtimes minimized

MEET THE CUSTOMER CARE TEAM



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JBT CUSTOMER CARE OFFERING



Spare Parts

- ✓ OEM and certified parts designed for optimum performance, extended lifetime and lowest operating cost
- ✓ Commodity items
- ✓ Complicated spare parts (involving engineering)
- ✓ JBT food-grade lubricants
- ✓ 3D printed parts
- ✓ Cleaners & sanitizers
- ✓ Ceramic insulation for sterilizers
- ✓ Seamer tooling (rolls & chucks)
- ✓ Change parts



Technical Services

- ✓ Installation & start-up
- ✓ Commissioning (SAT)
- ✓ Repairs
- ✓ Inspection
- ✓ Overhaul
- ✓ Equipment Calibration



Training

- ✓ Operator training
- ✓ Process training
- ✓ Automation training
- ✓ Maintenance training
- ✓ Safety & cleaning training
- ✓ Thermal processing training



Options & Upgrades

Machine Rebuilt (Model R)



JBT CUSTOMER CARE OFFERING

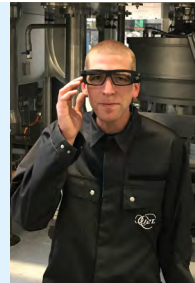
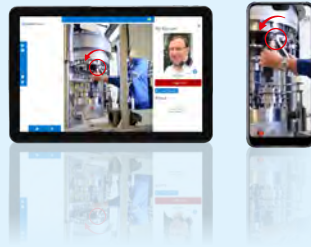
PRoCARE® Service Contracts

- ✓ Proactive health checks and deepinspection assessments
- ✓ Preventative maintenance
- ✓ Predictive maintenance
- ✓ Corrective maintenance
- ✓ Discount on spare parts
- ✓ Remote support (VPN)



Remote support

PRoSIGHT™
Augmented
Remote support



Remote support

iOPS® Gateway & IoT



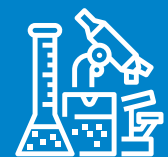
Total Productive Maintenance Programs

- ✓ Maintenance plans
- ✓ Critical parts on inventory advice
- ✓ Spare part kitting



Technology Center

- ✓ Product development assistance
- ✓ Filling, closing & sterilization tests on pilot equipment
- ✓ Heat distribution & thermal process validation
- ✓ CIP validation
- ✓ Food technology advice
- ✓ Metallurgical analysis
- ✓ Water treatment consultancy
- ✓ Authority (FDA) regulations



PRoSIGHT™ AUGMENTED REMOTE ASSISTANCE

The **PRoSIGHT** augmented remote assistance platform provides remote support by using the customers' own smart phone. The service can then be enhanced by providing the customer with

our smart safety glasses. With this new feature, customers can get support from a real-time **Customer Care** representative. The virtual connection allows our experts to feel like they are right there

with the customer when there is a complex job to complete. This **solution is the next best** thing to being on-site on the production floor.



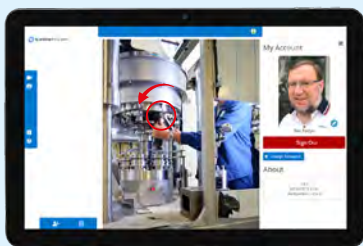
The **PRoSIGHT** system can be used for immediate troubleshooting and breakdown repairs, as well as for maintenance operations, inspections and assessments, commissioning and training-on-the-job by Field Service Engineers. It facilitates these services in quarantine areas, in dangerous conflict-zone areas and in countries where time consuming entry visa and vaccination requirements are needed prior to entry. **PRoSIGHT** remote assistance also helps to reduce the CO₂ environmental impact and cost of travel, contributing to JBT's and its customers' sustainability goals.

Tools

✓ Option 1

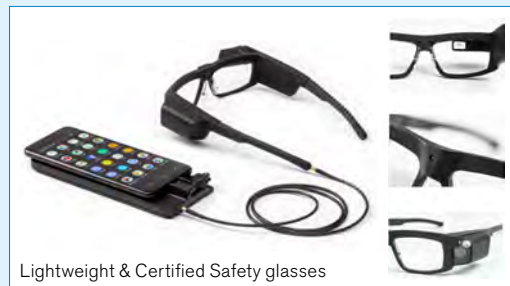
Smartphone or tablet

Communication through audio and bidirectional video (internet access needed)



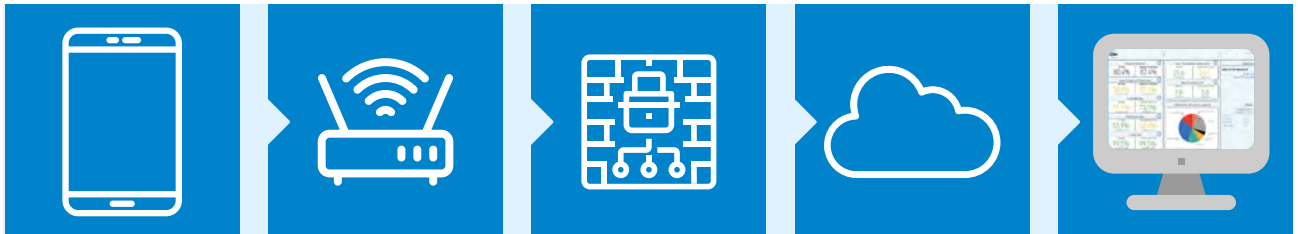
✓ Option 2

Smart glasses for "hands free" service; communication through audio and head-mounted bidirectional video.



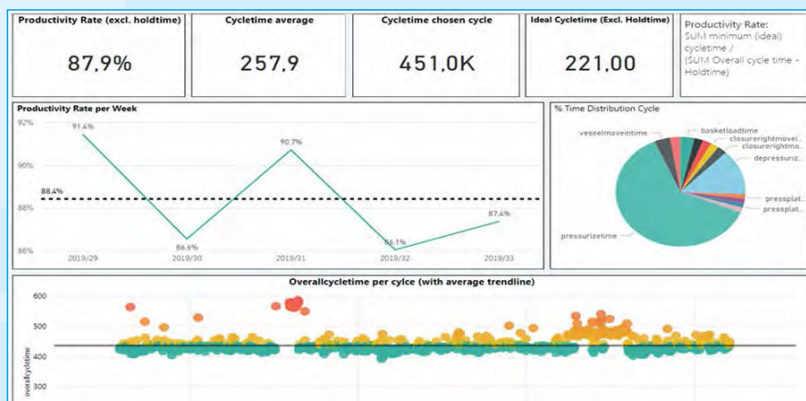
Lightweight & Certified Safety glasses

iOPS® GATEWAY FOR REMOTE MONITORING



Up-to-date status reports and analytics provide reduced unexpected downtime and improved efficiency

- ✓ Customers can access the visualization of this information through their laptop, mobile device or tablet.
- ✓ The data can be expressed in Key Performance Indicators (KPI's) that drive throughput and improve yields.
- ✓ JBT can monitor the machinery through iOPS to troubleshoot and suggest improvements.
- ✓ Multi-level passwords and credentials are arranged for the Customer.
- ✓ Connection through secured gateway to the JBT cloud



iOPS Provides:

- ✓ Up-to-date status/performance reports
- ✓ Alarm trending
- ✓ Triggers for production events or efficiency milestones
- ✓ Regularly updated/improved standard reports
- ✓ Customized visuals that meet your specific reporting needs
- ✓ End-to-End security compliant with Federal Information Processing Standard (FIPS)
- ✓ Keep track of maintenance cycles / preventative maintenance

Maximize

- ✓ Equipment uptime
- ✓ Profit per machine
- ✓ Labor productivity

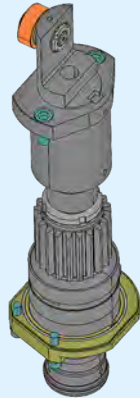
Minimize

- ✓ Equipment downtime
- ✓ Maintenance expense
- ✓ Cost of ownership
- ✓ Labor

Realize

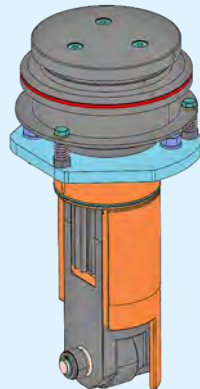
- ✓ Maximum ROI
- ✓ Optimum business results
- ✓ The promise of Industry 4.0

COMPLETE SPARE ASSEMBLIES FOR FASTER MAINTENANCE



Chuck shafts with:

- ✓ Knock-out shaft
- ✓ Sealed end cap
- ✓ Heavy duty drive gear
- ✓ Double bearing spindle



Stopper lifters with:

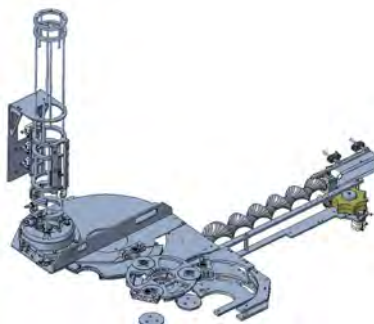
- ✓ Manual adjustable spring load
- ✓ Automatic adjustable lifting device
- ✓ Automatic stopping if no can
- ✓ Lifter table wear plate
- ✓ Built-in lubrication & circulation



Available for all machine versions of SeamTec, X52 and X59

The cover feed magazine assembly consists of the following items:

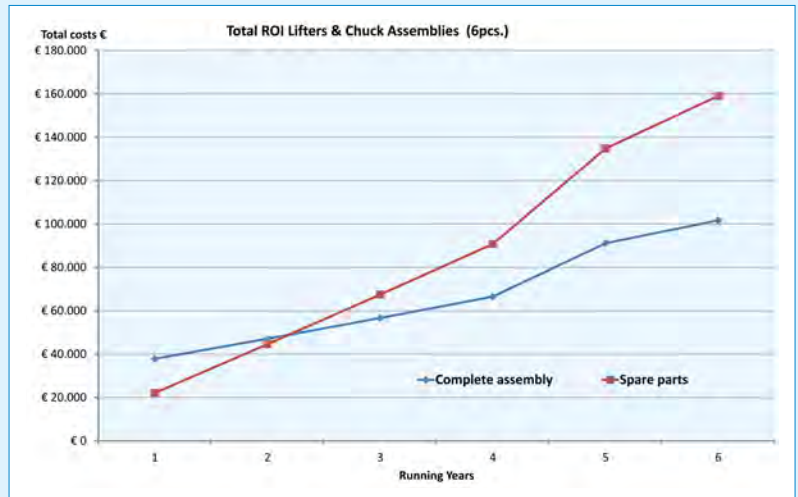
- ✓ Heavy duty drive unit
- ✓ Oil lubricated for hygienic reasons
- ✓ 'No Can - No Cover' actuating incorporated
- ✓ Easy adjustable wear strips
- ✓ Preset triple scroll executions



COMPLETE SPARE ASSEMBLIES FOR FASTER MAINTENANCE

Advantages:

- ✓ Reduce downtime significantly (more than 30 hours for 6 spindle seamer) hence increase available production time and OEE
- ✓ Reduce overall maintenance costs
- ✓ Revision can be done without time pressure by JBT mechanics or own technicians in more controlled environment and outside the high-care zone
- ✓ Reduced stocking costs at customers side (only 1 SKU)
- ✓ Always latest execution
- ✓ Instant availability of critical assemblies in case of breakdown.
- ✓ Your assemblies are shipped and stored in secured and dedicated flight cases.

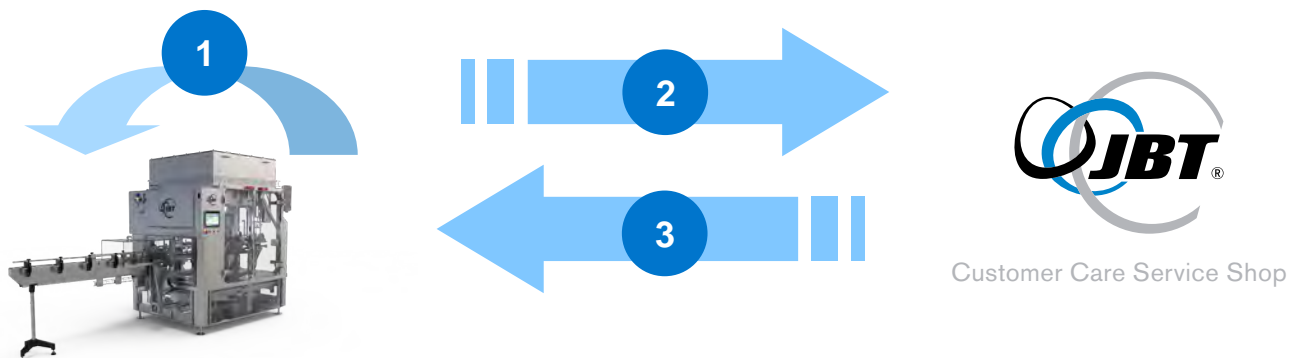


Example of ROI illustrating a pay-back in approximately 2 years !

How does it work?

There are 2 possible strategies:

- ✓ The set will be installed into the machine, the existing set is to be sent to JBT Sint-Niklaas for revision.
- ✓ After revision the set is sent back to the customer.



- Step 1:** Replace on-site the original chuck shafts or stopping lifters by the Complete Spare Assemblies
- Step 2:** Send the used chuck shafts or stopping lifters to the JBT Customer Care Service Shop
- Step 3:** JBT will completely revise your original set and send it back to your manufacturing location, ready for the next round (Step 1)

MODEL R REBUILT MACHINES

- **Complete machine rebuild refurbishment**

Your JBT filler/seamer is an important part of your installed base. Keep it in optimal condition with a complete machine refurbishment. The JBT Customer Care Workshop rebuilds existing JBT filling and seaming equipment in order to keep your lines operating at optimal specifications. A JBT filler/seamer rebuild starts with the complete disassembly of the equipment. All wear and tear parts are discarded and we conduct a risk assessment on all recycled parts. In the next step we build-up the machine with new and recycled parts after thoroughly checking the recycled parts. In the end, your machine is updated to the current standards.

- **Re-engineered to your specific line requirements**

We rebuild the machine in accordance with your application, product and packaging, other peripheral devices and line controls.

- **Executed to the new industry standards**

We update the machine to legal standards and common safety regulations. Controls and the PLC are also taken to a higher level and smoothly integrated in your line management system software.

- **Warrantied and guaranteed performance**

We think of a rebuild essentially as an order for a complete new JBT machine. Consequently, the rebuild operation is supervised by a dedicated Project Manager. You receive equal warranty conditions as that of new JBT equipment, including Factory and Site Acceptance Testing. Finally we ensure installation, commissioning and on-site training of your operators.



MODEL R REBUILT MACHINES

By choosing a Model R solution to rebuild your filler/seamer you renovate your future uptime ensuring product quality, food safety and low Total Cost of Ownership

We perform rebuilds of stand-alone seamers including synchronization with fillers or worm in-feed table applications.

Complete machine rebuild of a 10-head X59 seamer synchronized with a high-capacity filler with 66 fill stations. Output 800 to 1200 cpm. Upgraded with full automatic lubrication and C.I.P. skid for dairy applications.



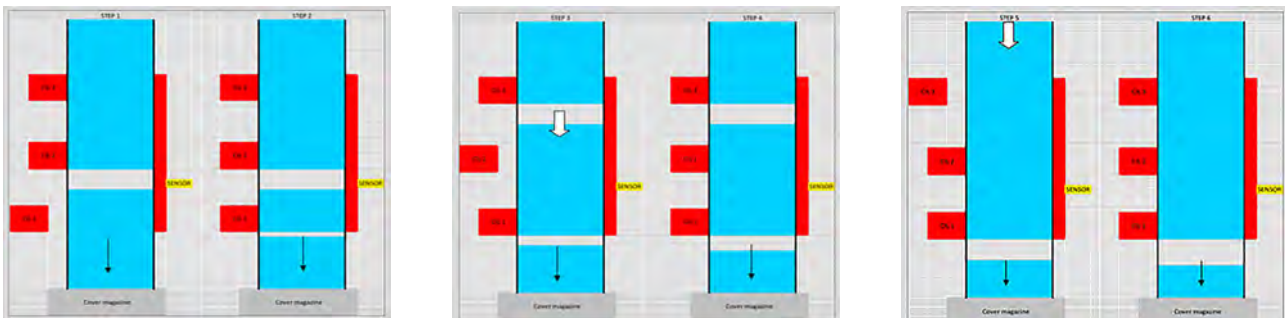
Mid-range filler-closer group (300-600 cpm). Upgraded with full C.I.P. features and a nitrogen doser for beverage applications.



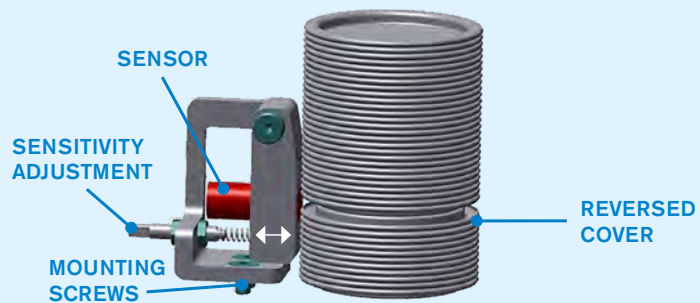
REVERSED LID DETECTION & GAP CONTROL FOR SEAMERS

The **GAP control system** controls the pressure of the cover or lid stack on the cover feed magazine by maintaining a small gap at all time between the lids coming from the stack and the magazine. As of this smooth transfer of the lid to the cover feed unit consequently the can is guaranteed and less production stops will happen.

This system works on 3 different cylinders independently actuated and controlled by a separate control unit. Below how the sequential activation of the various elements.



The reversed cover detection is placed in the cover infeed part. A sensor that is mounted on a pivoting holder who moves along with the lid stack measures the **GAP** created by the reversed cover



- 1 Low Stack Sensor

- 2 Cylinder 3

- 3 Cylinder 2

- 4 GAP Control Sensor

- 5 Cylinder 3

- 6 Reversed Cover detectie

- 7 GAP Control Run Empty Sensor

COATED TOOLING FOR SEAMERS ROLLS WITH CERAMIC BEARINGS

Bearings: Ceramic roller bearings

No corrosion possible
 Lower friction, so less possibility of lacquer pick-up or damage
 Lubrication: 1x/week only 1 shot

Seal: labyrinth-seal

Better sealing: no grease on the outside of seaming roll.
 No water intrusion possible

Seam setting

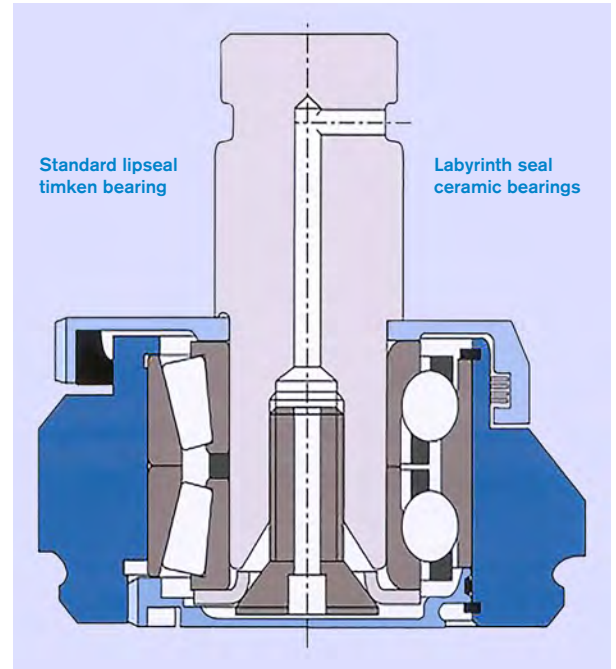
Very seldom, hardly any bearing wear
Price: relatively high
Price versus standtime: relatively low especially in wet or corrosive circumstances

Choice of materials:

440 C stainless steel (standard)
 Stoody stellite

Choice of coatings:

440 C: No coating
 TiN (Titanium Nitride) - PVD
 Stoody: TiN (Titanium Nitride) - CVD >70 HRC
 TiC (Titanium Carbide) - CVD > 90 HRC

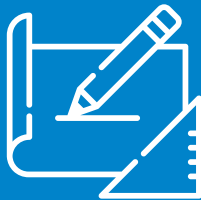


	Chuck 440C and Roll 440C No coating	Chuck 440C and Roll 440C with TiN coating	Chuck 440C and Roll stoody with TiN coating
Life time (Estimated)	3-4 million cans	3-5 time longer	Chuck 3-5 time longer Roll 5-10 time longer
Chuck	1X	1.5X	1.5X
Seaming roll	1X	1.5X	2X

ENERGY RECOVERY SYSTEM FOR STATIC RETORT STERILIZERS (ERS)

Solution

Use of a **Hot and Cold water tank**, which acts as a battery and transfers energy between the Come-up and Cooling portions of the retorts thermal process.

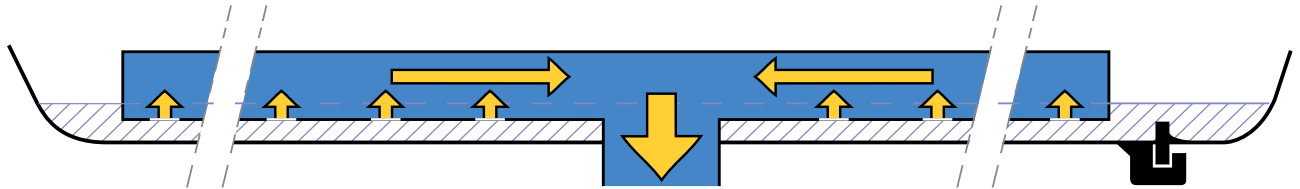


DESIGN DETAILS

- ✓ Hot and cold tanks, pumps, valves and instrumentation
-
- ✓ PLC - System interface
-
- ✓ Can be combined with LESS

FEATURES	BENEFITS
Energy Storage	Does not send superheated water back to your cooling tower
	No cold water from the cooling tower in the first part of cooling
	Collects energy from the hot process water during the first portion of the cooling phase
Energy Recovery	Transfers energy to the cold process water during the first portion of the come-up phase
	No Steam consumption during the first part of the come-up phase

LOW ENERGY SUCTION SYSTEM FOR STATIC RETORT STERILIZERS (LESS)



Solution

Passive suction system which draws in water evenly along the length of the retort. This allows less water to be used in the retort during the thermal process which means **less steam is needed to heat** and **less cooling water to cool**.



DESIGN DETAILS

- ✓ SST plenum with multiple suction points
-
- ✓ Modified Conveyor
-
- ✓ Guided wave radar level control

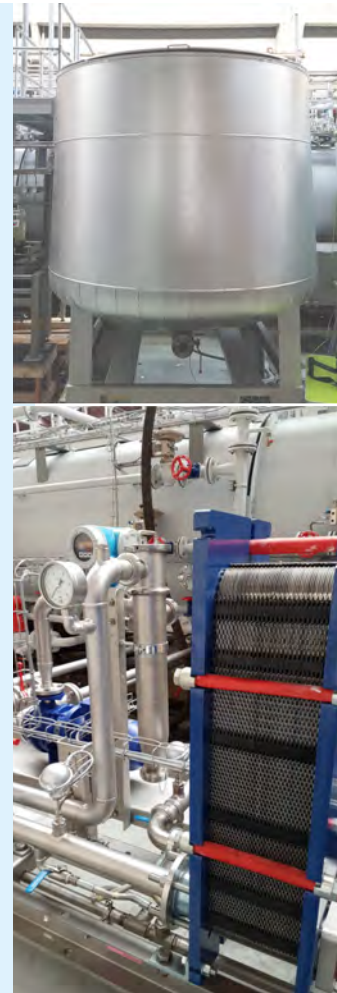
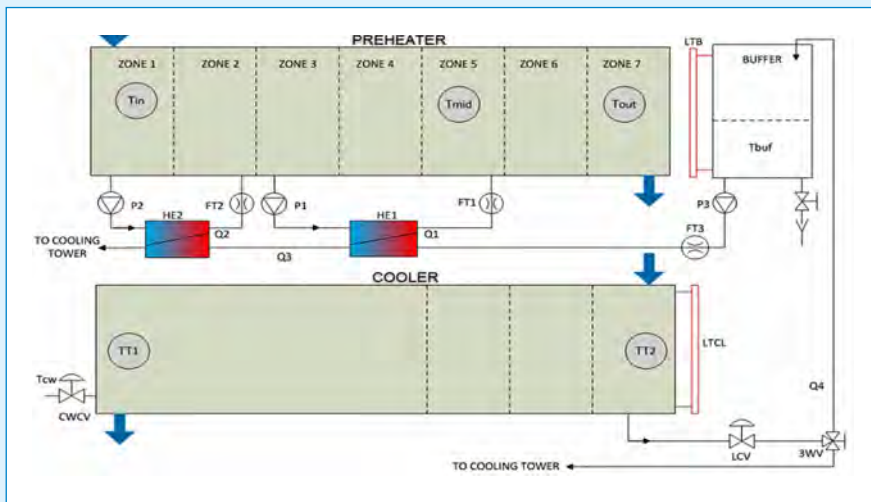
FEATURES	BENEFITS
Achieves lower process water levels in retort, than standard pump suction	~45% less process water needed inside the retort
	Fast Come-up time
	Less steam used to heat process water
	Less cooling water used to cool process water

HEAT RECUPERATION SYSTEM (HRS) FOR ROTARY STERILIZERS

Principle

The heat recovery system is designed for a continuous rotary sterilizer which processes cold filled products and makes use of a wet preheater. The heat generated during the cooling process is used to heat up the cans in the wet preheater shell by using plate heat exchangers to avoid cross contamination.

With the inevitable gaps in production, an integrated buffer tank is included to ensure the heat recovery system is optimized.



Construction

The heat recovery system consists of two stainless steel skids:

- ✓ One skid contains pumps, plate heat exchangers, filters and flow meters
- ✓ The other skid contains the buffer tank with level sensor, a pump and flow meter

STANDARD	<ul style="list-style-type: none"> ▪ Y-filter ▪ CIP through DIN flange
OPTIONAL	<ul style="list-style-type: none"> ▪ Alfa Laval strainer ▪ CIP through SMS dairy coupling ▪ Fouling detection ▪ Energy monitoring (steam, water, air and electrical)

Maintenance

JBT engineers have designed the system to reduce maintenance requirements to a minimum.

Of course, filters should be cleaned regularly, but plate heat exchangers are designed to operate with minimal fouling.

CIP connections to the plate heat exchangers are present and CIP can be performed during production.

Additionally, a predictive fouling detection system can be offered as an option.

This systems provides a warning on the HMI that there is an imminent need for cleaning.

HEAT RECUPERATION SYSTEM (HRS) FOR ROTARY STERILIZERS

Installation process

Before installation:

Install a host PC to log the current process. This allows JBT engineers to analyze the data and to optimize the parameters of the heat recovery system.

Installation on site:

Pipework between the skids and the sterilizer accomplished with minimal electrical wiring. Some adjustments may be needed to the installed sterilizer.

Start-up:

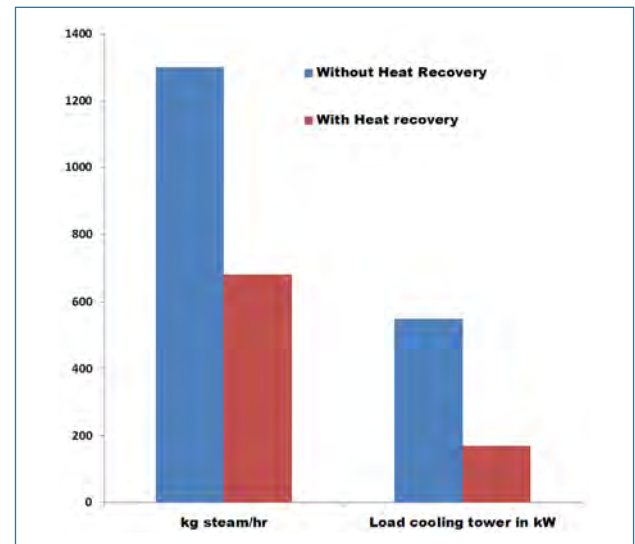
A JBT technician will make sure the heat recovery system runs as intended. The technician will also provide operator training on the heat recovery system.

After start-up:

Monitoring and further optimization of the process parameters.



Proven return



Calculated for a standard process of 160g evaporated milk cans at 650 cpm and assumes 100% loading of the sterilizer.

JBT's offering

JBT offers a complete upgrade package including the installation of a host PC to log data before and after installation. As a result, JBT engineers can make sure you get the optimal yield and savings from your equipment.

Benefits:

- **Up to 40% steam reduction**
- **Reduced thermal load on your cooling tower**
- **High return on investment**
(payback of 2 to 3 years based solely on steam cost reduction)

Requirements:

- Cold filled product
- Machine wet preheater
- 25 m² floor space
- PLC (*)
- Can tracking (**)

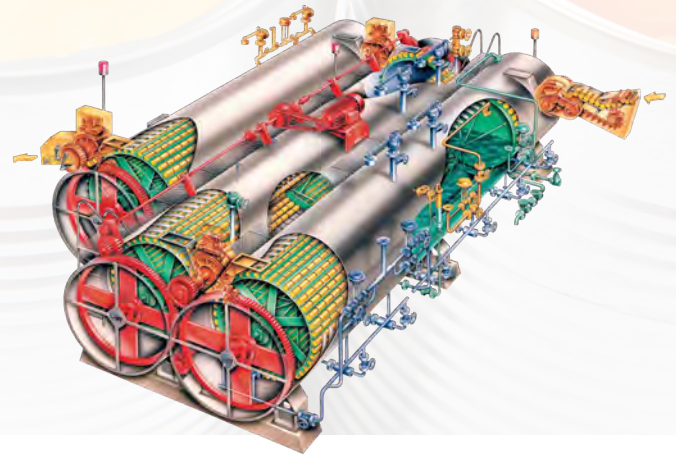
(*) Siemens S7-300 or higher and Rockwell RS logics v20 or higher

(**) Upgrade can be offered if not installed

GENTLE CAN HANDLING (GCH) FOR ROTARY STERILIZER



New transfer components reduce impact force by an average of 45%



The request: Increase efficiency with less container damage

For over 100 years, food processors have utilized the Rotary Pressure Sterilizer (RPS) to agitate and sterilize food products in hermetically sealed metal cans. In the early years, the "cans" that traveled through the RPS were built like tanks and rolled through the RPS on their ends (known as chimes). Over time, in the continuous effort to reduce cost and increase efficiency, processors have requested higher speeds from JBT and lighter weight cans from their suppliers. The early days of 25 cans per minute has evolved into speeds in excess of 1000 cans per minute for the modern RPS. For JBT, the higher speeds, lightweight cans and new can geometries (stackable, 2-piece, easy-open, necked-in ends, straight wall, etc.) resulted in occasional unacceptable damage to the cans in the RPS.

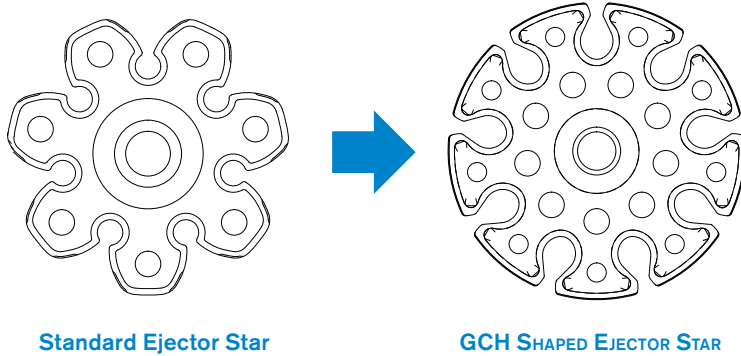
Solution: Reduce impact forces

Impact reduction was achieved when a global JBT team, consisting of engineers from South Africa, Belgium and the US, collaborated to design a new technology called Gentle Can Handling (GCH). GCH is a revolutionary can transfer system design that "gently" moves the can from the discharge of the rotary reel into the can valve.

Target Market: New and existing RPS

This technology can be applied to both new RPS equipment and retrofitted to existing RPS equipment. Gentle Can Handling transfer components are ready for 47 and 56 step machines. Other step sizes available upon request. If your transfer components are in need of replacement consider going with the new GCH technology.

GENTLE CAN HANDLING (GCH) FOR ROTARY STERILIZER



Standard Ejector Star

GCH SHAPED EJECTOR STAR

As compared to the standard parts,
GCH transfer components
allow for a more controlled
can movement.

When to Upgrade

- ✓ When your transfer parts have reached end-of-life and need replacing
- ✓ Lighter weight cans
- ✓ Faster equipment speeds
- ✓ Necked-in cans
- ✓ Cans that roll on the can body
- ✓ Changing can types (3-piece to 2-piece)
- ✓ Rotary lines that sterilize multiple can diameters

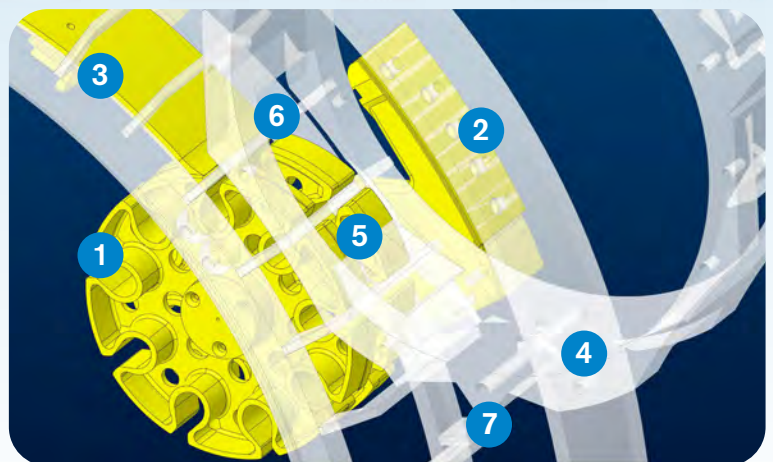
Benefits

- ✓ Smoother transfer between rotary shells
- ✓ Reduction of can damage
- ✓ More forgiving machine setup of transfer components
- ✓ Ability to run lighter weight cans that provide significant cost savings



Each GCH kit includes:

- 1 Ejector star
- 2 Ejector star bracket
- 3 Roll plate
- 4 Valve housing
- 5 Bridge
- 6 Cover plate
- 7 Detachable end section
- 8 Cam path side plate (if required)



Reduction of sharp impact thanks to the tangential path

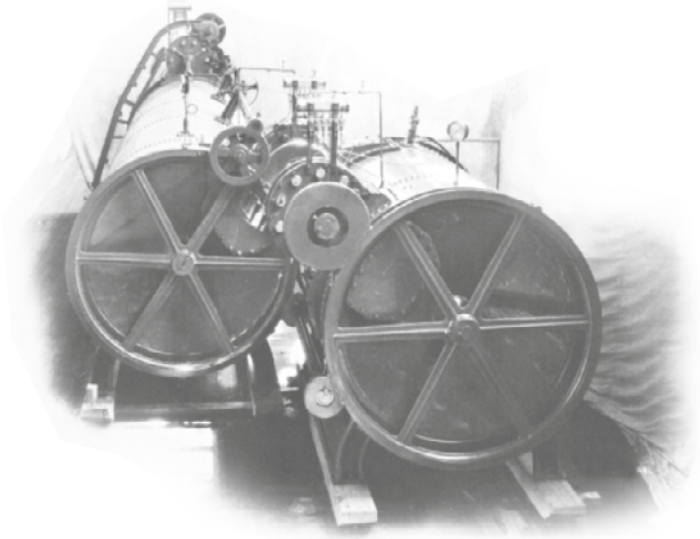
GCH technology creates a tangential path for containers to transfer from shell-to-shell and shell-to-outside while being processed in the RPS. The tangential path maintains container control as the ejector lifts the container out of the reel and over the leading edge of the valve bridge. This motion reduces sharp impacts experienced by containers in high speed lines.

VALVE REBUILD PROGRAM FOR ROTARY STERILIZERS

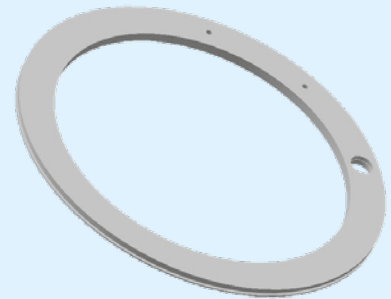
Upgrade to the latest version

A new type of side seal rings which seal the rotor inside the valve are available; this ring is slightly different from the 'old' standard rings and shows far better sealing properties which have advantages in multiple ways:

- ✓ Reduced consumption/loss of steam
- ✓ Reduced loss of oil
- ✓ Reduced level of noise

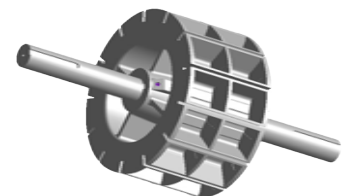
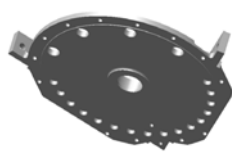
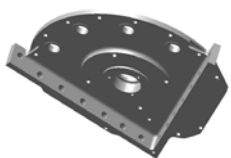


The new ring has no slot anymore and is equipped with an O-ring on its shoulder to seal off against the valve housing. The new rings are compatible and can be installed on older/other valves.



Benefits

- ✓ **Lower maintenance and warehousing costs**
No need to have each individual spare part in your own stock.
- ✓ **Reduce downtime / increase production time**
Replacement and revision of your valve with individually sourced spare parts takes significant more working hours compared to a rebuild at JBT factory.
- ✓ **Your assemblies are shipped and stored in a secured and dedicated flight case.**
- ✓ **All parts will be checked on wear and play (Rotor, housing, axle, bearings, springs, pockets).**



PLC & HMI UPGRADES

What's the problem?

Unfortunately, over the past few years Siemens Simatic S5 Systems have been discontinued, so spare parts and components have become increasingly difficult to source. Therefore, JBT has developed an upgrade in which the Siemens S5 PLC is replaced by the modern S7 unit to ensure that your filler can continue to meet the highest production demands and is compatible with the latest network systems.

During the upgrade we replace the

Siemens S5 PLC and reprogram with new S7 components together with installing a new serial communication system.

A new Siemens S7 PLC will be programmed and installed. Industrial PC will be mounted as well as a new HMI together with the latest Windows and Weightfiller software. As the experience shows that most Main Control Panels in case of a S5-S7 conversion, are outdated as well, it is recommended to replace the complete Control panel



Advantages:

- ✓ Guaranteed and maximum spare parts availability
- ✓ Shorter plant downtimes due to faster replacement of defective components
- ✓ Lower running costs
- ✓ Lower maintenance costs. Stock keeping of obsolete or discontinued electronic components no longer required. Faster access and repair by a JBT technician using the latest program.
- ✓ Expandable with remote assistance for quick trouble-shooting access.
- ✓ Connectivity to SCADA, MES or other centralized systems
- ✓ Upgradeable with the latest frequency drive technology
- ✓ PLC program code is secured on a memory card to ensure a quick restart after failure
- ✓ Make all your machines identical, one spare for all machines
- ✓ More user-friendly screens, more information, improved alarm handling



LOAD CELL RETROFIT FOR ROTARY FILLERS

What's the problem?

In the past the aluminium load cells were the most accurate load cells on the market and were therefore approved to be used on weight fillers which do check-weighing as well.

Nowadays the stainless steel load cells are quite available and are as accurate as the aluminium ones.

What will be modified?

The aluminium load cell is replaced by a stainless steel one.

What's the impact?

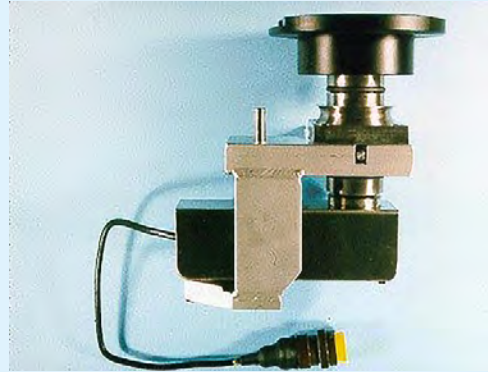
Downtime of approximately 9 days for a 32 head filler.

What are the benefits?

As the load cells are made of stainless steel, there's no more risk of corrosion, especially in a harsh environment or with intensive cleaning.

As the wire is sealed from the environment, no moisture can influence the accuracy of the load cell.

The protection class goes from IP65 up to IP67.



FILLER HEIGHT ADJUSTMENT FOR ROTARY FILLERS

History

Current JBT filler with both automatic or manual height adjustment provisions have chain sprockets who are secured by a taperlock.

What does it resolve?

Customer feedback showed that sometimes during maintenance it as difficult to secure the chain sprocket on the shaft.

What is the new functionality?

To overcome difficulties to secure the taperlock, the newly developed height adjustment jacks have a spline connection.

This will:

- ✓ Secure the chain sprocket without risk of slipping
- ✓ Easy assembly after maintenance

What will be modified?

Certain parts of the jack assembly will be replaced with the modified parts. During the modification, the chain sprocket of each jack and the chain itself will be replaced.

What's the impact?

For general machine adjustments a downtime of 4 hours has to be scheduled.

An additional 2,5 hours per jack has to be counted. This brings the total, depending on the size of the machine:

- ✓ PCD \leq 1680mm: 3 jacks: 11,5 hours
- ✓ PCD = 2240mm: 4 jacks: 13,0 hours
- ✓ PCD = 2800mm: 6 jacks: 19,0 hours

What are the benefits?

- ✓ Eliminates the risk of a slipping height adjustment during maintenance
- ✓ Fail-safe



IPC UPGRADE FOR FILLER CAPPING HEADS



What's the problem?

The present ZALKIN brushless technology (CMB1) has become obsolete. This concerns the following components:

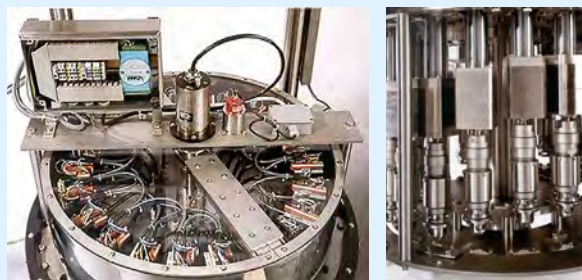
- ✓ The FESTO IPC
- ✓ The CMB1 drive of the capping for machines before 2006.

What is the new functionality?

The functionality will be the same but with up to date components.

What will be modified?

- ✓ The Zalkin CMM1 IPC replaces the FESTO IPC.
- ✓ The CMB2 drives replaces the CMB1 drive, when required (one per station).
- ✓ Profibus communication between filler PLC and capper brushless technology



What's the impact?

About two days will be required for the modification; one for the modification itself and one for testing. The exact time depends on the number of capping heads.

What are the benefits?

Up to date components resulting in less downtime caused by breakdowns and better and faster support from JBT when a breakdown occurs..

WEIGHT CONTROL UNIT UPGRADE FOR ROTARY FILLERS

History

If you have a Stork/JBT weightfiller built before 1998, we have an upgrade package available to improve availability, reliability and accuracy. The components in the old machine will no longer be available. After a while, trying to repair these cards, it's getting impossible to supply proper cards for the controls. For this reason JBT developed an upgrade package.

What does it resolve?

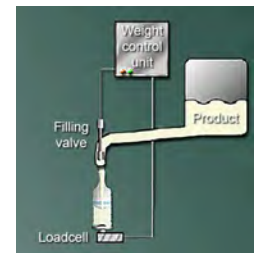
It has become impossible to manufacture any more WCU parts as the semi-conductor industry stopped using the old technology, whether it be CPU cards, measurement cards, etc.

A replacement stock of old generation WCU before 1998 is not available anymore.

Note: The PC also needs to be upgraded as well as the Operating System from DOS to Windows.

What is the new functionality?

All present JBT weightfilling machines are now equipped with a WCU Euro system loadcell controller mounted in a 19 inch rack. This unit and mounted measurement cards takes care of all weight calculations and dosings. It controls the filling valve directly between off, low flow or high flow. During operation, the WCU unit communicates via serial RS422 directly with the machine's PC and indirectly with the PLC. Via this communication, numbers are reported, but also modifications and settings can be downloaded to the WCU unit.



Advantages of a new weight control unit

- ✓ Increased reliability in obtaining spare parts and components.
- ✓ In the old situation one processor controlled 12 loadcells. In the new situation every loadcell will be equipped with an individual processor, resulting in a higher accuracy per loadcell.
- ✓ At the bottle infeed the bottle detection will be done on weight. The critical adjustable infeed photocell will be removed.
- ✓ In the old situation taring and zeroing is done on a fixed position and filling is started on a fixed position. In the new situation filling will be started immediately after taring is done, which will positively influence the capacity.
- ✓ Flow control was only carried out in the fast filling phase. In the new situation flow control can be carried out during all phases of the filling process.

What will be modified?

During the change over every loadcell will get its own processor which means that the system speed is much higher, actually resulting in higher accuracy.

What's the impact?

Removal of the existing unit, mounting, wiring and testing of the new WCU weight unit will require access and downtime of an estimated 5 days.

What are the benefits?

- ✓ No prolonged unexpected downtime due to component failure/obsolescence
- ✓ Higher fill weight accuracy
- ✓ Better and more communication resulting in more operator information

PROCARE[®] MAINTENANCE CONTRACTS

The best way to get the most out of your investment in JBT equipment

Your business earnings and profits are directly related to how much you can produce in a given time, which in turn depends on the performance, reliability and availability of your equipment.

JBT's greatest value in **PRoCARE[®]** services comes from preventing unexpected costs through smart, purposeful, and timely maintenance based on unmatched knowledge and expertise. **PRoCARE** services ensure that your production always meets planned goals with a **JBT** service agreement tailored to your specific needs.

PRoCARE service agreements are a maintenance partnership that we offer you in five service levels depending on your ability to recover production and to manage raw material costs and lost line profits.



What does it comprehend?

- ✓ Proactive health checks and deep inspection assessments
- ✓ Preventative maintenance
- ✓ Predictive maintenance
- ✓ Parts, lubricants, cleaners
- ✓ Inventory advise & minimization
- ✓ Telephone support & hotline
- ✓ (Augmented) remote assistance
- ✓ iOPS
- ✓ Training
- ✓ Original high quality wear & tear parts as defined in the Total Preventative Maintenance (TPM) list of the equipment
- ✓ Continuous update of TPM List
- ✓ Discount on spare parts

Concept

- ✓ Tailored & fitted onto the organization's size & nature of operation
- ✓ Range of services can be revised yearly
- ✓ You can start with a basic level and later include more services





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