

BELCO Medical Tray Sealers



*The Solid
Framework
for Productivity*

800-833-1833

BELCO Medical Tray Sealers

Total Efficiency... No Ifs, Ands or Bolts

Standard On All Machines

- Class 10,000 Cleanroom Compatible
- Welded and Powder Coated Tubular Steel Frame
- Fully Enclosed Stainless Steel Seal Chamber
- Stationary Aluminum Heat Seal Platen
- Platen Heat Shroud
- Temperature Overlimit Safety Circuit
- Teflon Coated Top Tool
- Oilless Air System
- Coalescing Exhaust Filter
- Out of Temperature Alarm
- Validation Ports for Time, Temperature and Pressure (*optional item on BM Standard machine models*)
- Locking/Non-marring Casters and Leveling Screws (*on all floor models*)
- Comprehensive Documentation/ Owner's Manual

Machine Options

- Extended Seal Chamber Pass Through Clearances
- All Stainless Steel Construction
- High Temperature Sealing Package
- High Pressure Sealing Package
- Different Voltages
- Spare Parts Kits
- Custom Platen Sizes
- Custom Engineering
- Custom Manufactured Seal Fixtures
- Start-up Supervision and Training
- CE Certification

You'll profit from the solid advantages of Belco Medical Tray Sealers. These ruggedly-built machines provide the framework for greater productivity and less maintenance, which means higher profitability for you. Year after year, Belco's durable, heavy-duty, fully-welded tubular steel frames give you dependable performance and consistent results... and that's crucial in the medical packaging industry.

Belco Medical Tray Sealers, reinforced at all pressure points, are built to last. No bolts to loosen and weaken the machine. No shaking and rattling to affect production performance or accuracy. No machine components failing or jamming in critical situations. What you get are total performance medical tray sealers that are simple to operate and easy to maintain.

Performance Packaging

Increased production rates only mean greater productivity if superior quality control is achieved. Belco Medical Tray Sealers utilize proven components that assure you of the highest levels of process control at even the closest tolerances. Cleanroom production environments as well as prototype work benefit from the minimal maintenance, fast tooling setup and repeatability provided by Belco Medical Tray Sealers.

Take a closer look... you'll see how our precision controls and built-in safety features prevent bad seals and compromised production. For example, the temperature alarm circuit assures that sealing only occurs at the proper temperature. It warns the operator of any temperature differential by not allowing the machine to be cycled. Poor seals can't happen inadvertently. Quite simply, process control is the hallmark of our design philosophy. Our medical tray sealers offer you four levels of sophistication with one unwavering commitment to excellence.

Strength of Product, Strength of Company

It's not surprising that the most accurate... and consequently, most dependable... medical tray sealers on the market are made by Belco Packaging Systems, Inc. The largest manufacturer of medical tray sealing systems on the West Coast, Belco engineers every product for long life, maximum productivity and adherence to your strictest requirements. Inside and out, from top to bottom, Belco creates a framework for efficiency... a machine that pays for itself. All Belco machines are backed by our factory service and repair, a

friendly, knowledgeable staff and one of the most comprehensive warranties in the industry. We're committed to your total satisfaction. **No ifs, ands or bolts.**

"As a contract medical device manufacturer, the equipment we use must be versatile and productive. To optimize productivity, quick tooling changeovers are essential. Belco's one piece top tooling design makes rapid tooling changeovers a reality."

*Jim Reimers,
Medical Device Manufacturing
& Ventures, Inc.*



Welded tubular steel frame



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BM Standard – The Solid Framework for Dependability

Models BM Standard 2020, BM Standard 3025

When you need productivity, reliability and accuracy, you can count on Belco's BM Standard models. You get consistent quality seals with built-in safety and performance features. Designed to provide operator confidence and process control, these capable units are affordably priced for situations where your primary concerns include both quality and budget.



BM Standard Options

- Independent Station Timer
- Low Air Pressure Safety Switch
- Two Gallon Air Reservoir
- Validation Ports

"We built our new plant from the ground up. We could have chosen any other manufacturers' tray sealers... but we chose Belco. Their frames are built stronger. We have found that they are more dependable and more consistent than any other machine we have ever used."

Don Preecs, Bard Access Systems

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Medical Packaging Dependable Packaging Solutions

BM EL – Digital Precision and Productivity

Models BM EL 1010, BM EL 2020 and BM EL 3025

Belco's EL series of Medical Tray Sealers offer greater flexibility by providing independent seal time controls for front and rear shuttles. Seal parameter settings and status can be individually set and visually confirmed by viewing the convenient eye level mounted digital displays, providing a higher level of process control. Each operator may seal different packages, such as an inner and outer tray, thus increasing both flexibility and productivity.

Digital Seal Time Controllers with lockout. (front and rear)

Eye Level Viewing and access to all controls allow the operator to visually confirm all process control parameters.

Microprocessor Based Digital Temperature Controller with alarm.

Control Panel On/Off switch

Digital Pressure Display (front and rear) provides easy operator verification of pressure settings.

Rear Shuttle Panel with independent time control plus pressure and temperature displays results in production flexibility.

Precision Air Pressure Regulator assures accurate process control of the seal pressure.

Fast Seal Fixture Change Out design allows for no tools required changeovers.

System Alarms for temperature and pressure disable machine cycling when out of specified tolerances.

Validation Ports for time, temperature and pressure.



CE



CE Versions Available



Model Shown
BM EL 3025



BM EL 1010 (Tabletop Model)

BM EL Option

- Two Gallon Air Reservoir

"Belco's Medical complex process via integrated validation simple and accurate monitoring seal pressure equipment does what we had to do. They delivered temperature and pressure control. Frankly we didn't know we could do it."



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Ends on Precise Reliability Options at Every Level

BM PLC – Control That Instills Confidence

Models BM PLC 1010, BM PLC 2020, BM PLC 3025 and BM PLC 3830

Enhance your process control, packaging flexibility and productivity with this advanced model. Offering independent pressure and seal time settings for each shuttle side increases production flexibility. The air system program features *tunable* seal pressure control to compensate for inconsistent air supplies, providing increased confidence in your package seal quality. The BM PLC models also offer security password protection.

Besides all the important standard features, look at what is included!

- Stores and recalls up to ten pre-programmed set-ups.
- Constant monitoring of the air supply system compensates for any deviation in the seal pressure.
- Security Password Protection prevents the chance of accidental parameter changes or tampering by unauthorized users

Microprocessor Based Digital Temperature Controller with alarm.

Graphic PLC Operator Interface Terminal for easy input of *time* and *pressure* parameters.

Separate **time and pressure controls** for front and rear shuttles allow sealing of two different package set-ups.

Seal Cycle Timing begins when the input pressure 'set' point is reached.

Closed Loop Pressure Control System assures precisely regulated sealing pressures.

System Alarms for *temperature, pressure, tray position* and *cylinder position* disable machine cycling when out of specified tolerances.



Validation Ports for *time, temperature* and *pressure*.



Model Shown
BM PLC 2020
with extended seal
chamber pass through



BM PLC 1010 (Tabletop Model)

BM PLC Option

- Cycle Stop Interrupt Switch

Tray Sealers make validation easy. Their validation ports provide a accurate means of parameters. Belco's what it's supposed or uniform seal temperature that quite get from others." n Barcan, DBI Inc.

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Designed to the Highest Standards Committed to Improvement

BM PC – Complete Accountability, Total Validation

Models BM PC 2020, BM PC 3025 and BM PC 3830

The ultimate in process control, the Belco PC Series provides Data Acquisition Software (DAS) (Windows NT™) for complete traceability of every seal cycle. Designed to insure the highest level of consistency and repeatability, Belco's PC units are the machines of choice for companies requiring bar-coding, real time package data management and the most exacting precision controls. With the Belco BM PC models, you will find the ultimate in performance, combining our proven standard features and state-of-art enhancements.



Swing Arm Mounted Touch Screen provides an easy to read and use operator interface.

A Closed Dual Loop Digital Feedback Pressure Control System with external transducer precisely regulates actual sealing pressures by constantly monitoring the air system and automatically compensating for any deviations, providing the highest accuracy seal cycle pressure control available.

State-of-the-Art Voltage Sensitive Temperature Control provides industry leading seal platen temperature accuracy.

Network Monitoring of all seal cycle processes allows data retrieval of every machine cycle from remote locations for increased management control.

Validation Ports for *time, temperature and pressure.*

BM PC Options

- Custom Data Acquisition Packages
- Bar-code Scanners
- Cycle Stop Interrupt Switch
- Customized Programming

Process Monitoring of Machine Functions for *time, temperature and pressure* are key components of the DAQ monitoring system.

System Alarms for *temperature, pressure, tray position and cylinder position* disable machine cycling when out of specified tolerances.

Internal PC Workstation utilizing Microsoft Windows NT™ and Visual Basic programming.

DAQ Software Package for *time, temperature and pressure* is a complete software solution providing 100% traceability and validation utilizing Windows NT™ operating platform.

12-Point Thermocouple Monitoring of the sealing platen provides on-screen visual confirmation of actual seal platen temperature.

Separate Time and Pressure Controls for front and rear shuttles allow sealing of two different package set-ups.



Shown Above is the optional hand held barcode scanner which speeds the input of package data into the machine database.



Model Shown BM PC 2020 in optional stainless steel

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Standards of Dependability Moving on Excellence

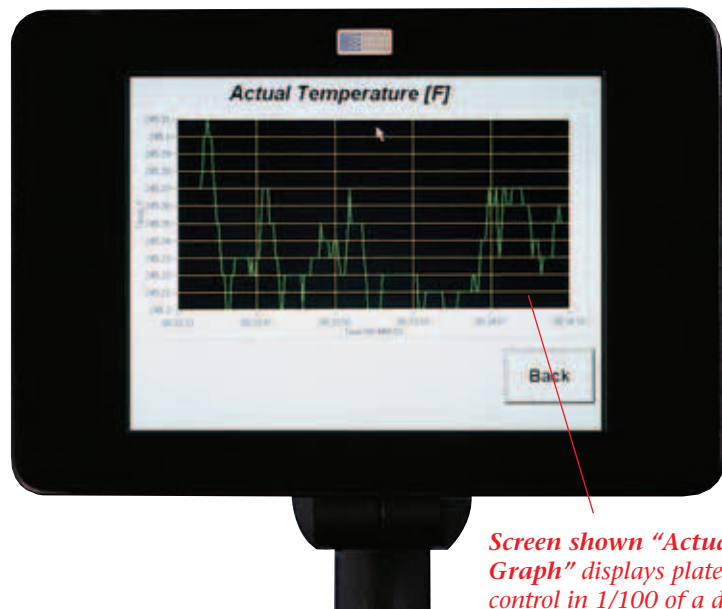
Typical Information Screens

Start Up and Operational Screens

- ◆ Keyboard Access
- ◆ Setup Parameter Screen
- ◆ Event Log
- ◆ History Log
- ◆ Cycle Counter
- ◆ Cycle Start
- ◆ Temperature Adjustment
- ◆ Platen 12 point Temperature Monitor
- ◆ Actual Temperature Graph
- ◆ Last Cycle Pressure Graph
- ◆ Temperature Adjustment in Process
- ◆ Open Thermocouple Alarm
- ◆ Pressure Alarm Message
- ◆ Shut Down/Restart

Database Setup Screens

- ◆ Password Database
- ◆ Tool Database Setup
- ◆ Tool Database Editor
- ◆ Product ID Database Editor
- ◆ Seal Fixture Database Editor
- ◆ Matching/Cross Reference to Product ID
- ◆ Custom Display Screens

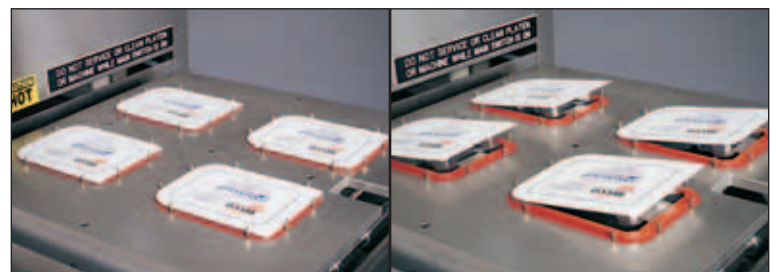


Screen shown "Actual Temperature Graph" displays platen temperature control in 1/100 of a degree F°

Customized Seal Fixtures



Belco provides customized seal fixtures for all machine models and sizes. Our staff works closely with you during the design phase and documents the process to assure complete satisfaction. You'll find that our experience in manufacturing, utilizing state of the art equipment and technology, results in seal fixtures of the highest caliber. Our seal fixtures are guaranteed to provide the finest seal quality, consistency and productivity.



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"Belco's Medical Tray Sealers provide an accuracy level we could not get from anyone else's machines. They are simple to calibrate and easy to validate. As such, they are up and running much faster. Belco's philosophy of 'one on one' technical support is excellent."

*Larry Brown, Lab Manager
Precision Measurement
Equipment Services*

How to choose which Belco Medical Tray Sealer is right for you?

When considering which model Belco Medical Tray Sealer to choose, there are two issues of primary consideration; Sealing Size and Required Levels of Process Control.

Sealing Size – The first consideration is the size range of your package components. Do your trays and lids fit within the maximum sealing area for each respective model size?

Other factors may affect and influence your desired results, such as total seal surface area, sealing flange width, thermoform material thickness and consistency. For more specific information, please consult with Belco’s experienced and knowledgeable medical sales group.

Required Levels of Process Control

As you step up in performance with each model, you gain an increased level of control and flexibility. The BM PC models add sophisticated levels of data acquisition. No matter which series you choose, all Belco models are capable of delivering the same high quality sealed package.

WARRANTY – The Belco medical tray sealers are built to exacting standards with the finest materials and the most skilled craftsmen. Rugged and durable, the frame is guaranteed for five years. The electrical components have passed precise measurement tests and are guaranteed for one year. The overall performance of your machine is guaranteed for one year on all parts. Extended warranty, preventative maintenance and spare parts kits are available. Belco inventories components and parts for all machines sold.

Belco Medical Tray Sealer models are available in four levels of process control.

BM STANDARD	BM EL	BM PLC	BM PC
<ul style="list-style-type: none"> • Cost effective • Easy Set up • Simple operation • Oilless air pressure system • Analog and Digital Controls • System Alarm for temperature 	Adds the following: <ul style="list-style-type: none"> • All digital controls • All controls conveniently located at operator eye level • Independent shuttle(s) time control • Validation Ports for time, temperature and pressure • System Alarms for temperature and pressure 	Adds the following: <ul style="list-style-type: none"> • Increased PLC control accuracy • Air system pressure validation program • Independent shuttle pressure control for front and rear • Enhanced System Alarms for multiple functions • Graphic touch screen operator interface terminal 	Adds the following: <ul style="list-style-type: none"> • Internal PC Workstation with Windows NT® operating system • Fully validatable DAQ capabilities • Increased PC control accuracy for all machine and package parameters • Easy to read/use operator interface • Set up and operation security features • Network compatible • Customizable software

	BM 2020	BM 3025	BM EL 1010	BM EL 2020	BM EL 3025	BM PLC 1010	BM PLC 2020	BM PLC 3025	BM PLC 3830	BM PC 2020	BM PC 3025	BM PC 3830
Maximum Seal Size Fixture	20 x 20"	30 x 25"	10 x 10"	20 x 20"	30 x 25"	10 x 10"	20 x 20"	30 x 25"	38 x 30"	20 x 20"	30 x 25"	38 x 30"
Maximum Tray Depth	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	8"	3 1/2"	3 1/2"	8"
Temperature Control °F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F	50-300° F
Electrical Requirements												
Voltage	208-240	208-240	120	208-240	208-240	120	208-240	208-240	208-240	208-240	208-240	208-240
Phase	1PH	1PH	1 PH	1PH	1PH	1 PH	1PH	1PH	3PH	1PH	1PH	3PH
Amperage	25	40	15	25	40	15	25	40	45	25	40	45
Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Air Requirements												
Maximum Input/PSI	125	125	125	125	125	125	125	125	125	125	125	125
Cubic feet/cycle	0.12	0.24	0.06	0.12	0.24	0.06	0.12	0.24	0.36	0.12	0.24	0.36
Cylinder Bore Size	8"	Dual 8"	4" Double	8"	Dual 8"	4" Double	8"	Dual 8"	Triple 8"	8"	Dual 8"	Triple 8"
Space Requirement												
Height	48	48	34	56	56	34	56	56	66	48	48	56
Width	26	36	18 1/2	26	36	18 1/2	26	36	48	26	36	48
Length	82	97	35	82	97	35	82	97	108	82	97	108
Shipping Weight	625	975	215	625	975	215	625	975	1800	625	975	1800

At Belco we are sensitive to the wants and needs of our customers. Therefore, we reserve the right to make improvements and make changes to specifications without notice.



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