SMOOTHFLOW® 130 LB.
Automated Batch Tunnel Washing System

ISO 9001 Certified
U.S.A.
All Braun Products are Proudly Manufactured in the U.S.A.
gabraun.com
All SmoothFlow Series products are built and sourced in the U.S.A. providing for exceptional parts and service support. With Braun you will not be subjected to lengthy lead times for parts and service or made to carry extensive parts inventories.
CUSTOMER–DRIVEN DESIGN PHILOSOPHY
Braun batch tunnel washer systems are designed to provide you with an extremely durable and efficient machine that is easy to operate, simple to maintain, and that will provide many years of profitable service.

Field tests have proven that the SmoothFlow system eliminates many process and maintenance-related problems that can lead to downtime—problems that can cost a launderer thousands of dollars in a matter of minutes.

Due to the simplicity of design, maintenance and reduced parts costs, operators will realize an increase in overall plant productivity and decreased personnel due in part to the minimization of material handling. The laundry facility will also see the opportunity to grow its business by taking on additional capacity.

This unique design eliminates the necessity for the cumbersome maintenance-intensive double-drum system.

As a result, there is a very limited amount of moving parts and therefore, the cost of maintaining the Braun batch tunnel washer is lower than tunnels with the double-drum design.

WASHING ABILITY/MULTIPLE APPLICATIONS
Braun’s Batch Tunnel Washers can accommodate a wide range of applications including scour bleach for dye processing, healthcare, hospitality linen products such as napkins and tablecloths and commercial and industrial linen rental and dust control.

Braun SmoothFlow Batch Tunnel washers are able to process classifications from light to heavy industrial soiled textiles and are capable of producing stain-free hygienically clean healthcare linens.

Braun’s single drum, coupled with our positive transfer, open helicoid process, allows for maximum utilization of the machine’s processing capacity. This maximizes mechanical action, optimizes load efficiency and assures exceptional wash quality with low water, chemical, and energy costs.
EFFECTIVE COUNTERFLOW IS KEY TO SYSTEM EFFICIENCY

BATCH TUNNEL WASHER PROCESSING
Braun accomplishes counterflow inside the machine through the compartment walls, which eliminates inside seals that are difficult to monitor and service. Counterflow occurs in both the wash and rinse zones. Within each zone, the lower half of the compartment walls are perforated to enable water to counterflow through the goods enhancing the wash process and allowing maximum recovery and reuse of water, chemicals and energy. Between zones, solid compartment walls keep all wash solutions separated. In the normal standby and transfer positions, total separation exists between batches and 100% batch integrity is assured.

This direct method of chamber control eliminates the need for redirecting and pumping water outside the body of the machine through pipes and weir boxes, where the solution is not able to perform its function as efficiently as direct counterflow.

_Braun’s process of counterflow is proven! This, coupled with the design characteristics of the Smoothflow Tunnels provides exceptional wash quality, overall system efficiency and an inexpensive operating environment._

BATH EXCHANGE
Braun Batch Tunnel Washers feature bath exchange compartments. Each has a rapid drain, programmable to a preset time.

This provides flexibility in processing a range of soil classifications. All bath exchanges offer programmable refills after the rapid drain is completed. Additionally, there are up to three drain and fill events programmable for each cycle.

TEMPERATURE CONTROL SYSTEM
External tank and inline steam injection allow heating to be accomplished without steam injection fittings directly attached to the tunnel drum.
Drive System

The drive system of the Braun tunnel washer is simple, rugged and reliable. There are no chains or belts to stretch and break, or any sprockets that wear.

Fresh Water Tank

Braun’s fresh water reservoir guarantees continual fresh water regardless of fluctuating water pressure in the plant.

Heating

Unique to the Braun tunnel, the external heating source eliminates direct contact of steam to the goods. This assures the quality of the process.
KEY FEATURES:

- Proven ability to wash most every product processed in the laundry industry
- Dependable proven track record
- Single-drum design eliminates cumbersome maintenance as with double-drum systems
- Single drum, coupled with our bottom transfer process, allows for maximum utilization of the machine’s processing capacity.
- Contoured and welded inner walls for strength and positive transfer
- Friction drive eliminates chains and belts
- Easy to replace motor — can be changed without having to change gear box
- Automated wash and rinse flow controls
- Easy-to-replace rubber seals allow water in, chemical injection and water out
- Flexible and simple-to-use controls
- Allows for an efficient processing environment
- Minimizes linen replacement and downtime costs
- Optimum productivity and operational reliability
- Minimal total overall processing and operating costs
- Can be mounted on curb or jack stands
- Can be loaded with pocket loader or by rail

SPECIFICATIONS

10 COMPARTMENT

<table>
<thead>
<tr>
<th>Maximum Capacity</th>
<th>130 lbs. per chamber</th>
<th>3,120 lbs. per hour (2.5 minute cycle time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle Time Range</td>
<td>60 – 240 seconds *</td>
<td></td>
</tr>
<tr>
<td>Cylinder Dimensions</td>
<td>72&quot; diameter; 24&quot; compartment length</td>
<td></td>
</tr>
<tr>
<td>Chamber Configuration</td>
<td>10 total (2 pre-wash, 4 main wash, 3 rinse, 1 finishing)</td>
<td></td>
</tr>
<tr>
<td>Water Usage</td>
<td>0.5 – 1.0 Gallons per pound of linen*</td>
<td></td>
</tr>
<tr>
<td>Steam Usage</td>
<td>0.4 – 0.8 Pounds per pound of linen*</td>
<td></td>
</tr>
</tbody>
</table>

13 COMPARTMENT

<table>
<thead>
<tr>
<th>Maximum Capacity</th>
<th>130 lbs. per chamber</th>
<th>3,900 lbs. per hour (2 minute cycle time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle Time Range</td>
<td>60 – 240 seconds *</td>
<td></td>
</tr>
<tr>
<td>Cylinder Dimensions</td>
<td>72&quot; diameter; 24&quot; compartment length</td>
<td></td>
</tr>
<tr>
<td>Chamber Configuration</td>
<td>13 total (2 pre-wash, 5 main wash, 4 rinse, 2 finishing)</td>
<td></td>
</tr>
<tr>
<td>Water Usage</td>
<td>0.7 – 1.0 Gallons per pound of linen*</td>
<td></td>
</tr>
<tr>
<td>Steam Usage</td>
<td>0.4 – 0.8 Pounds per pound of linen*</td>
<td></td>
</tr>
</tbody>
</table>

16 COMPARTMENT

<table>
<thead>
<tr>
<th>Maximum Capacity</th>
<th>130 lbs. per chamber</th>
<th>5,200 lbs. per hour (1.5 minute cycle time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle Time Range</td>
<td>60 – 240 seconds *</td>
<td></td>
</tr>
<tr>
<td>Cylinder Dimensions</td>
<td>72&quot; diameter; 24&quot; compartment length</td>
<td></td>
</tr>
<tr>
<td>Chamber Configuration</td>
<td>16 total (3 pre-wash, 6 main wash, 5 rinse, 2 finishing)</td>
<td></td>
</tr>
<tr>
<td>Water Usage</td>
<td>0.7 – 1.0 Gallons per pound of linen*</td>
<td></td>
</tr>
<tr>
<td>Steam Usage</td>
<td>0.4 – 0.8 Pounds per pound of linen*</td>
<td></td>
</tr>
<tr>
<td>Material of Construction</td>
<td>12 gauge, 304 stainless steel</td>
<td></td>
</tr>
</tbody>
</table>

* Ranges will depend on goods soil classification and wash process.
Braun SmoothFlow Single-Stage Batch Extraction Presses are manufactured for 100% cotton, polyester/cotton-blended fabrics, 100% synthetics and special textile items such as incontinence pads.

Additional specialty items that can be processed are membrane fabrics for surgical applications and clean rooms such as GORE-TEX® and mops.

**PRECISION-COUPURED MATERIALS OF CONSTRUCTION**

With the SmoothFlow Press, all metal surfaces that contact the goods are made of 304 stainless steel, and all non-stainless steel parts are either plated with electroless nickel or painted for superior corrosion resistance.

**KEY FEATURES**

- Configurable tamping options
- Engineered base plate for optimal water removal
- Flexible and simple-to-use controls
- State-of-the-art SG4 touch screen controls
- Domestically supplied water-cooled hydraulics
- Extensive use of data-management tools through WASHNET®
- Circumferential & bottom perforations on solid stainless steel basket and belting allow enhanced water extraction
- Precision-contoured materials of construction: 304 stainless steel, chute and basket
- Ductile iron castings

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>130 BPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity:</td>
</tr>
<tr>
<td>Maximum Pressure:</td>
</tr>
<tr>
<td>Minimum Cycle Time:</td>
</tr>
<tr>
<td>Batch Diameter:</td>
</tr>
<tr>
<td>Press Basket:</td>
</tr>
</tbody>
</table>
SMOOTHFLOW® AUTOMATED SHUTTLE SYSTEMS

The automated delivery system can include single or multiple elevating shuttles, or a combination of separate stationary elevators and traveling shuttles, depending upon individual needs.

SMOOTH, ERROR-FREE TRANSFER OF GOODS

The flexibility of Braun material handling systems greatly affects washroom labor requirements. The ergonomics of loading and unloading Braun tunnels and dryers is greatly enhanced. Braun’s inverter driven smart shuttle systems basically eliminate much of the heavy work, providing a safe, smooth, error-free, and complete transfer of goods.

Tape switch safety guards are standard on all Braun Automated Shuttles and comply with all regulatory requirements.

ELECTRICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Service</th>
<th>208-3-60</th>
<th>240-3-60</th>
<th>480-3-60</th>
<th>600-3-60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire to End of Track</td>
<td>#14 (25A)</td>
<td>#14 (25A)</td>
<td>#16 (18A)</td>
<td>#16 (18A)</td>
</tr>
<tr>
<td>Rigid Metal Conduit</td>
<td>1/2’</td>
<td>1/2’</td>
<td>1/2’</td>
<td>1/2”</td>
</tr>
<tr>
<td>Disconnect Switch</td>
<td>30 A</td>
<td>30 A</td>
<td>30 A</td>
<td>30 A</td>
</tr>
<tr>
<td>Circuit Breaker</td>
<td>15 A</td>
<td>15 A</td>
<td>15 A</td>
<td>15 A</td>
</tr>
<tr>
<td>Hoist Motor 2.0 HP</td>
<td>7.15</td>
<td>6.2</td>
<td>3.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Belt Motors 0.5 HP</td>
<td>2.21</td>
<td>2</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Travel Motor 0.5 HP</td>
<td>2.21</td>
<td>2</td>
<td>1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

SHIPPING INFORMATION

<table>
<thead>
<tr>
<th>Overall Dimensions</th>
<th>107” W x 144” H x 72” L (Assembled)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Dimensions</td>
<td>107” W x 105” H x 72” L</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>3,000 lbs.</td>
</tr>
</tbody>
</table>
Braun dryers utilize a linear heat source. This provides evenly distributed heat along the full length of the dryer basket ensuring even, efficient drying. The computerized controls are fully programmable, and completely self-diagnostic, and they continually make precise adjustments to keep the dryer environment at the programmed temperature.

KEY DESIGN FEATURES
All doors, basket ribs and basket perforated panels are made of 304 stainless steel. All basket panels are removable and can be supplied with various coatings. The on-board lint collection screens are automatically blown down with air knives and the lint is removed via a central vacuum system at the beginning of each dry cycle.

EASE OF MAINTENANCE
The SmoothFlow Series Dryer faceplates are hinged so that they can swing out from the dryer shell in either direction to allow access to the basket seal or basket for maintenance without rigging.

KEY FEATURES
• No-tilt pass-thru design — fewer moving parts
• Microprocessor-controlled modulating gas valve — maintains basket temperatures accurately throughout the entire drying cycle
• Line-style gas burner with a combustion air blower — does not require a combustion filter
• Touch screen controls are fully programmable and completely self-diagnostic

• Continually makes precise adjustments to keep the dryer environment at the programmed temperature
• Central lint vacuum system
• Designed for easy access to all components to simplify maintenance (hinged face plates, access panels on basket, drive, doors and seals)
• The 300 PBS Dryer is available in a patent-pending chute load design as well as a side-by-side chute load configuration. With this machine’s true side-by-side design, no spacing is required with each set of dryers. All of the dryers are identical, minimizing the amount of spare parts needed and maximizing space.

SPECIFICATIONS
Maximum Capacity: 300 lbs.
Main Blower: 25 HP/8000 cfm
Burner: 1,800-2,000 BTU/LB
H20 removed depending on goods classification
Combustion Blower: 2 HP/660 cfm
Basket: 66” diameter
118 cu. Ft. volume
3 HP drive motor
3 turns/hr. depending on goods classification
Water Removal Rate: Approximately 13 lb/min, depending on goods classification or wash process
WASHNET® HMI/SCADA SOFTWARE SOLUTION

SmoothFlow Series Tunnel Systems also feature Braun’s WASHNET® HMI/SCADA software solution. WASHNET provides plant operators access to real-time data so that they can make timely decisions proactively. Operators can monitor equipment, manage formulas, and view equipment alarm and production history. WASHNET also allows Braun technicians the ability to remotely support the technical needs of the operator. This is an exceptionally powerful tool designed to allow operation managers to optimize site performance through the use of real-time data.

HMI/SCADA SOFTWARE SOLUTION (GENERAL)
• Windows compatible
• Three levels of password protection

EQUIPMENT STATUS AND PERFORMANCE REPORT CAPABILITIES
• Customized screens and reports
• Exceptional access to real-time performance metrics and machine status
• Unlimited data query capabilities for performance analysis
• Daily production totals available per machine
• Alarms displayed in simple, meaningful text

DATA SHARING AND CENTRALIZED PROGRAMMING
• Provides an XML compatible platform for data sharing
• Provides a direct link to corporate networks so that anyone can access data via the network and their own PC (with security access).
• Formula programming
• Download formulas and machine configurations
• Remote support or client access via web based access protocols

DECISION SUPPORT SOFTWARE FEATURES
• Fully integrated system data accumulation
• Automatic import of data from all networked equipment
• SQL database using standard ODBC drivers
• Complete system tracking
• Numerous production reports available:
  – By time, date, shift
  – By formula and machine number
  – By alarm type

Note: Braun has a staff of hardware and software developers dedicated to supporting Washnet and its solutions platforms.

WASHNET® helps in the planning and controlling of the most efficient and effective laundry operation.
CUSTOMER SUPPORT

PROJECT MANAGEMENT
Braun’s project management team consists of CAD designers, sales veterans, office support staff, and engineers. The project management team ensures every project is on time, on budget and meets customer expectations. They use a system of checks and balances designed to streamline and simplify every aspect of sales and production.

The Braun team works directly with our customers to develop the project scope of work and installation timeline and to define training needs. They coordinate with contractors, other equipment manufacturers, and service technicians to see that equipment installations go smoothly and are properly executed. Braun will draw up floor plans to specifications, interface with engineers on major projects, schedule deliveries, and supervise installations.

PARTS SUPPORT
Braun’s parts support specialists are available to help you during our regular operating hours from 8 a.m. to 6 p.m. EST. Please call (800) 432-7286, and Dial 1. You may also visit our Web site at gabraun.com and register to order parts online. During after business hours and emergency or weekends call (800) 432-7286, and Dial 400.

SERVICE SUPPORT HELP DESK
Braun offers customers Free equipment technical support 24 hours a day, 7 days per week through our service support help desk. This unique support gives you direct contact with our highly experienced team of factory-trained service technicians. Regular service support hours are 8 a.m. to 5 p.m. EST. Please call (800) 432-7286, and Dial 2. During after business hours and emergency or weekends call (800) 432-7286, and Dial 400.

SERVICE SCHOOLS AND WELLNESS PROGRAMS
General Service Schools
All of Braun’s service schools are conducted within our manufacturing facilities. These courses are for those individuals responsible for the short – and long-term care of Braun laundry equipment. The objective is to assist your staff in developing maintenance proficiency and self-sufficiency to protect your investment in Braun equipment.

Custom Service Schools
Braun will travel to your laundry facility and train your staff on equipment function and required maintenance. These training sessions, which will be tailored to your specific needs, will combine hands-on demonstrations and classroom discussions.

Site Wellness Programs
With Braun wellness programs, a certified Braun technician visits the site and evaluates the state of the equipment and controls. This evaluation documents, with pictures, the parts, software, and labor required to bring the equipment back to an effective and efficient state. An implementation plan is then reviewed and enacted. The goal of the wellness program is to create a relationship that enables our customer’s maintenance team and the Braun service team to work together to keep Braun equipment productive for years to come. This service is designed to augment our customer’s captive maintenance program.

For more information regarding Braun customer support programs, please contact our field service coordinator at (800) 432-7286 x 237 or visit our Web site at gabraun.com.
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Parts Help Desk
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Service Help Desk
1-800-432-7286 X 2

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