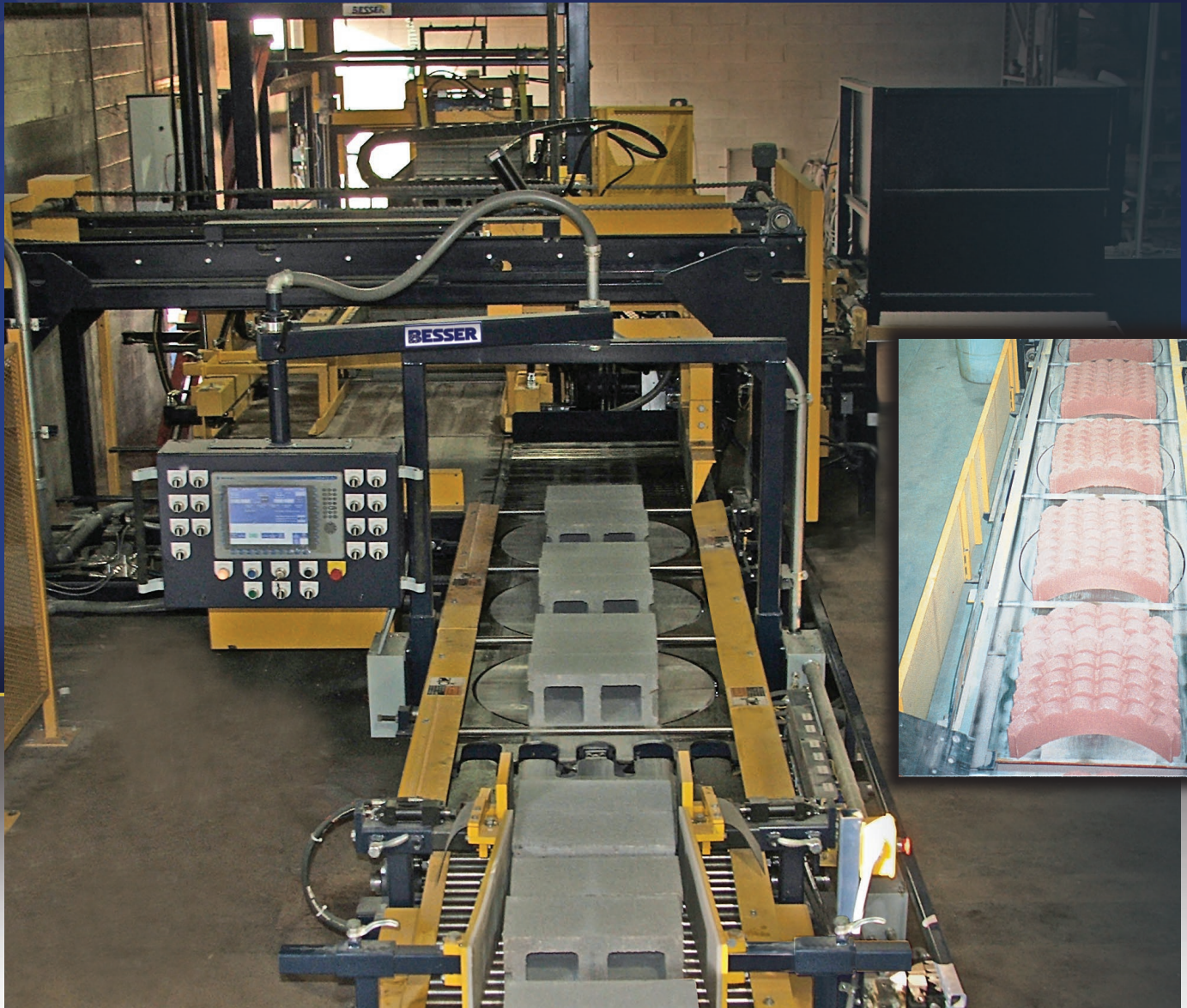


CUBERS

Built for Versatile Product Handling



The Besser automatic open front cubing system provides added safety features, reliability and impressive throughput. Besser staff will work with you to fit a cuber into your available plant floor space.

Besser cubers are engineered and built to provide the best long-term value for your toughest product handling requirements. Rugged, versatile and user-friendly, their innovative design, heavy-duty construction and top of the line components provide years of trouble-free operation. Cubers are available to handle cube sizes up to 48" x 54" (1220 mm x 1370 mm) or 48" x 64" (1220 mm x 1626 mm).

Besser fully automatic cubers offer a wide range of options for handling architectural, hardscape and standard units. Cubers have the flexibility to handle products ranging from 1" (25 mm) high patio slabs to 24" (610 mm) high units and can cube up to 3600* 8" (200 mm) equivalents per hour to keep pace with high-speed production facilities. Patternmakers, pallet dispensers and pallet/block dispensers allow cubers to be customized to suit your exact requirements.

BESSER
Trusted Since 1904

DEPENDABLE, GENTLE AND FLEXIBLE

Rugged Construction

- The long-term value of Besser cubers is proven by the fact that more than 200 cubers have been operating in the field for over 30 years
- Heavy-gauge tubular steel frames and abrasion resistant wear surfaces stand up to the most demanding production requirements
- The sidefeed pusher, tier pusher and carriage assembly each have a dual drive motor with #80 chain to handle the heaviest concrete products with ease
- Variable volume, moderate pressure hydraulic systems maximize component life and minimize operating costs. Larger ports and hoses increase operating speeds and extend oil life.

Innovative Control Design

- Electronic controls are responsive and easy to use
- All manual control functions are incorporated into the color graphic touch human machine interface (HMI) and programmable logic controller
- Proportional hydraulic control and digital positioning/feedback allow you to program the optimal speed curve (acceleration/deceleration) for each product and store it as part of the cube program
- The proportional hydraulic controls extend the working life of mechanical components and eliminate the need for manual flow adjustments
- Proportional valves and digital position sensors for the overhead sidefeed pushers, tier pusher, cuber lift, cuber carriage and patternmaker bar conveyor provide smooth speed changes to streamline the cubing cycle. Proportional valves ramp up and slow down the speed of these components before they make contact with the product ensuring gentle product handling and accurate product positioning.

User-Friendly

- Modular construction makes it simple to install Besser cubers and to upgrade them when production changes and as technology advances
- The cuber has six legs for ease of clean-up; legs are telescoping for ease of installation



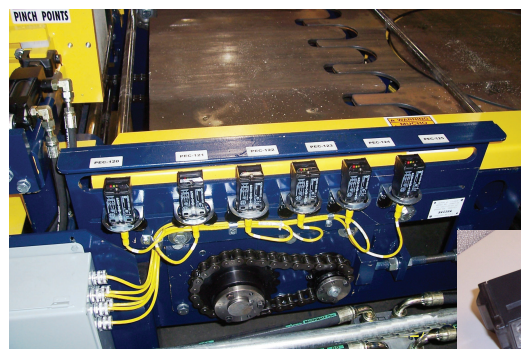
The remote panel houses the touchscreen operator interface along with the emergency stop and perimeter guarding reset



A centralized valve station provides the ability to adjust speeds from one place rather than from remote valve locations



The carriage plate has dual drive motors with tapered roller bearings and sprockets located on the motor output shafts. This design requires limited maintenance.



All proximity sensors and photo eyes are quick disconnect style for ease of maintenance

HANDLING OF CONCRETE PRODUCTS

Standard Features

- Overhead sidefeed with powered rollers (automatic model only), proportional valve and digital position sensor for making voids and handling contoured products
- Carriage assembly guided by solid steel uprights
- Carriage plate has dual drive motors with tapered roller bearings and sprockets located on the motor output shafts. This design requires limited maintenance.
- Dual opposing lift cylinders with digital positioning and proportional valves provide consistent level lifting of the carriage plate, precise positioning of product and for handling void tiers.
- Cuber frame constructed of heavy-duty square steel tubing for strength and rigid construction
- Increased clearances underneath the cuber for easy clean-out
- Tier clamps with 31" (787 mm) stroke digital positioning cylinder
- 24" (610 mm) gate with dual cylinders
- Load discharge non-powered rollers
- Open front discharge design
- Centralized valve station for simplified maintenance and adjustments
- Barrier fence guard system with interlocked gates
- Low oil level shut off switch for hydraulic power unit
- V-belt type turntable drive for increased drive life and positive turning
- Rollers feature ball bearings for long life
- Photo eyes and proximity sensors are a quick disconnect style for ease of maintenance

Patternmaker

Single, double, triple and quad turntables are available to fit your cube size and patterns.

- The patternmaker frame uses full length steel plates for added strength. All components are mounted to the frame which increases clearance underneath for easier clean-out.
- Patternmaker legs are telescoping to allow for easy leveling on uneven floors

The feed conveyor is incorporated into the patternmaker frame to eliminate the feed conveyor legs for easier plant clean-up. The shift plate is flush with the patternmaker wear plate to minimize plate wear and product chipping.



Controls

- The main control panel houses the Allen-Bradley Compact Logix™ controller and modem
- A small remote panel is mounted on the patternmaker. The remote panel houses the color graphics touch HMI along with E-stop and perimeter reset.
- An ethernet modem, located in the main control panel, provides access to online troubleshooting, program changes and technical support

Semi-Automatic Cuber



The semi-automatic cuber uses manual operation to form patterns for cube tiers

Semi-automatic cubers can handle the same types of concrete products as automatic cubers. They are built using the same frame and components as automatic models. If your product handling needs change in the future, it is simple to convert them to fully automatic operation.

The semi-automatic cuber can handle up to 2000 8" (200 mm) units/hour. The small, remote, operator control panel is located on a stand located near the cuber infeed conveyor for easy access.

Pallet Dispensers & Pallet and Block Dispensers

Pallet dispensers, and pallet and block dispensers maintain positive control for smooth handling and precise positioning of pallets or block bases in the load building area of the cuber. The dispenser is designed to feed onto the cuber without interrupting the cubing process.

The pallet or base course is staged on a transfer conveyor. The dispenser lift raises the entire stack off the bottom pallet or layer so it can be freely pushed into place in the cuber. This lessens the potential for jamming of pallets or block bases. Once the slider plate discharges a completed cube and retracts back, the staged pallet, or base course is immediately transferred onto the load building rollers. As soon as the staged pallet or base is in position, the slider plate places a layer of product on it.

OPTIONAL ENHANCEMENTS

- Special product guides and contoured pushers allow automatic cubing of special products such as rounds, scalloped edges, manhole block, etc. Product guides have quick adjust handles for easy changeover with no tools required.
- Tier turntable for cross-tied cubes
- Spring loaded segmented clamps for improved handling of irregular product shapes
- Hydraulic segmented clamps for making voids across the width of cubes
- Gate positioning for offset layers
- Extended powered roller discharge conveyor for high speed operation
- Pallet dispensers, or pallet and block dispensers for injecting pallets or block bases onto the load building area of the cuber without interrupting the cube building process
- Central grease system for faster maintenance
- Extended overhead sidefeed for additional product accumulation for high speed operation*
- Dual overhead sidefeed for maximum system output*

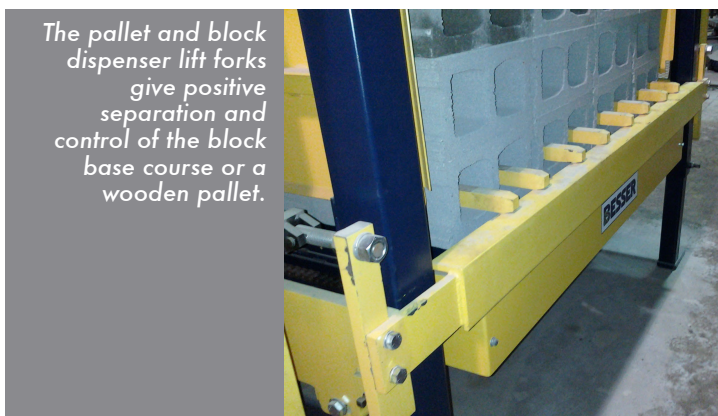
* Fully automatic model only



801 Johnson Street
Alpena, Michigan 49707 USA
+1.989.354.4111 sales@besser.com
besser.com



Segmented clamps provide additional control of tier placement, which is especially helpful for contoured products.



The pallet and block dispenser lift forks give positive separation and control of the block base course or a wooden pallet.

SPECIFICATIONS

Production*

- Semi-automatic - up to 2000 8" (200 mm) units/hour
- Single infeed automatic up to 2400 8" (200 mm) units/hour
- Dual infeed automatic up to 3600 8" (200 mm) units/hour (64" cuber model only)

Cube Capacity

- Length: up to 64" (1600 mm)
- Width: up to 50" (1270 mm)
- Height: up to 57" (1448 mm)
- Tier weight: up to 3500 lbs (1599 kg) maximum

Hydraulic Power Unit

- Semi automatic - Single pump unit, 45 gpm/25 hp (171 l/18.5 KWs)
- Fully automatic - Dual pump unit, 90 gpm/50 hp (342 l/37 KWs)

Voltage (other voltages available)

- Power: 460 V, 3 phase, 60 Hz
- Control: 120 V, single phase, 60 Hz

* Rate subject to cube patterns

For better viewing, all guards, safety devices and signs are not necessarily shown. Some of the equipment shown or described throughout this brochure is available at extra cost. Besser Company reserves the right to change or improve product design and specifications without prior notice. Since the time of printing, some of the information in this brochure may have been updated, ask your Besser sales representative for details.