

VIBRAPAC® Concrete Products Machine



The Vibrapac® is a three-at-a-time concrete products machine that produces up to 1620 units (8"/200 mm equivalents) per hour. The Vibrapac consistently produces dense, strong, aesthetically pleasing standard, architectural, retaining wall units and pavers with exceptional cost efficiency at speeds up to nine cycles per minute.

BESSER
Trusted Since 1904

RUGGED, DEPENDABLE AND EASY TO MAINTAIN

Legendary Besser quality and durability

STANDARD FEATURES

Cam Driven

The Vibrapac is cam driven to provide consistent speeds and movements. The precise indexing of the cams achieves uniform product quality even in variable operating conditions.

Automatic Lubrication

Precisely measured amounts of lubricant are automatically supplied to key bearings and pins. This routine maintenance function insures optimum performance of the Vibrapac.

AB Control Processor

Many of the operating functions of the Vibrapac are easily adjusted by accessing the controller through the color graphics display unit. The control panel automatically pinpoints problems and displays information for making corrections fast which positively impacts quality control.

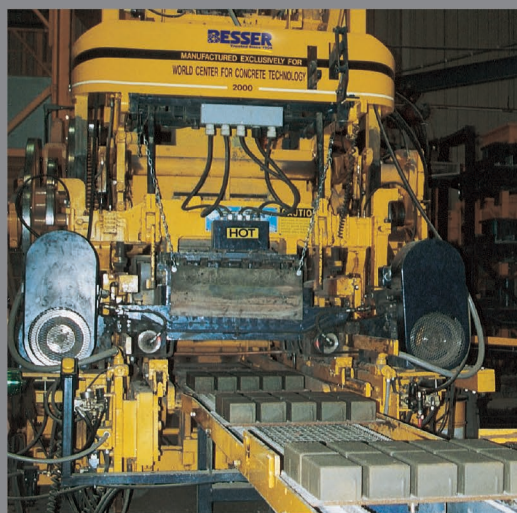
The color graphics display swivels on a floor-mounted pedestal providing convenient access for the machine operator. This solid state unit has push-button command of the sequencing, on/off, interlocking and status monitoring functions. Plant personnel can easily program new products using intuitive touch screen controls.

Automatic Feed Control

Automatic feed control adjusts the feedbox for uniform filling of molds. Routine maintenance is simplified with a standard C-face motor and separate gear box allowing independent replacement of either part.

Resolver

The resolver provides cam position information to the controller. This allows adjustments to be made to the machine set points while the concrete products machine is operating. Adjustments are made through the color graphics display unit.



The pallet scraper is mounted on the pallet indexer.

Bescodyne Hydraulic Clutch/Brake

A Bescodyne oil shear clutch/brake system is used on the main drive to provide quick and smooth starts and stops. The system is designed to handle the energy of rapid acceleration and deceleration, which allows for increased productivity. This clutch/brake also reduces stress on motors and other components in the machine, which extends the life of the components and reduces maintenance.

OPTIONAL ENHANCEMENTS

Advanced Servo Vibration

Servo motors smooth out the machine cycle resulting in the production of higher quality concrete products and extending the life of machine and mold parts.

Precisely controlling the acceleration and deceleration of the bull gear maximizes the life of machine parts by reducing the force to the machine components. Synchronizing vibration, by accurately controlling the movement of the vibrator shafts, increases mold parts life by 30% or more.

Servo motors smooth out the machine cycle to produce the highest quality concrete products and extend the life of machine and mold parts.



Since ASV is direct drive, there are no sheaves or belts to adjust or maintain and no air is required. Installation is simple and requires minimal changes to existing concrete products machines by utilizing mold guidance blocks or pin guidance.

Quality Highly skilled staff follow stringent quality guidelines during the design, manufacture, assembly and testing of the equipment. All Besser equipment is manufactured with precision machinery, ensuring consistent quality.

OPTIONAL ENHANCEMENTS

Main Drive Servo

Replaces mechanical components (clutch and brake), and the related wear and tear, with electronic components. Provides control of the machine cycle so operation can be tailored to the specific concrete units being produced, increasing overall cycle speed

Operating the servo motor on the Main Drive creates power during deceleration. This power is sent to the main electrical panel for use by either the main drive during acceleration or by the Advanced Servo Vibration (ASV).

AFC SmartPac® Vibration

By employing independent amplitude and frequency control, vibration is tunable to specific molds and product requirements. The ability to control both amplitude and frequency results in more rapid compaction and quicker finish times than can be obtained with conventional vibrating systems. Vibration can be engaged or disengaged multiple times within a single machine cycle.

AFC SmartPac and Posapac® Dual Vibration

Dual vibration utilizes both a Bescodyne clutch/brake and AFC SmartPac vibration which allows the concrete products machine to use Posapac weights for short production orders. This is beneficial if several existing molds are owned with weights attached. AFC SmartPac can then be used for longer production orders or for manufacturing specialized products. This allows you to take advantage of reduced mold wear as well as independent amplitude and frequency control to facilitate improved feeding and finishing of products.

Bescostop™ Oil Shear Brake System

Bescostop oil shear brake system is used on the vibrators to provide quick and smooth starts and stops.

Air Compaction

The use of air compaction reduces finish time, which shortens overall cycle time. Air cylinders supplement the force on the mold exerted by the weight of the machine head. The addition of compressed air restrains the stripper head, bringing the height pins together sooner, compacting the unit faster and more effectively.

Pin Guidance

Manually inserted pins align the mold with the mold throat which extends mold life.

Pallet Scraper

Material build-up on pallets is automatically removed during each machine cycle. The tension forcing the scraper blade down on the pallet is fully adjustable to meet specific cleaning needs.

Vibrator Motor Air Bag Lift

The vibrator motor air bag lift is an easy and quick way to raise the vibrator motors for mold changes. A lever operated pneumatic valve is moved to the up position allowing air to flow into the air bags. When the bags inflate both vibrator motors rise. This allows the operator to remove the belts and begin the mold change procedure. Once the mold change is completed, the belts are reinstalled on the sheaves. The lever is moved to the down position, allowing the air bags to deflate and the vibrator motors to lower. A safety lockout device is included for safety during maintenance.

Mold Insertion Device

The time needed to change molds is shortened and simplified with the mold insertion device. This pneumatic powered mechanism lifts/lowers the entire mold assembly off/onto the mold throat. The mold assembly is manually rolled into/out of the mold throat area.

Core Puller

A core puller is a concrete products machine attachment. It can be wheel or leg-mounted and is installed in front of the mold on the concrete products machine, above the front delivery conveyor (green block conveyor). Core pullers are used to produce horizontal openings in many of concrete products popular today.



SPECIFICATIONS

Production Rates

- Machine Cycle Time (in seconds): 5.1
 - Forming Time (feed, finish and delay - in seconds): 1.6
 - Total Cycle Time (in seconds): 6.7
 - Cycles Per Minute: up to 9
 - Concrete Masonry Units (8" equivalents per minute): 72
 - Concrete Masonry Units (8" equivalents per hour): 1620
- Note: Optimum production rates depend upon many variables, therefore actual production may vary from this example.

Horsepower

- Main Drive: 15 hp (11.2 kW)
- Automatic Feed: 1 hp (0.8 kW)
- Feedbox Agitator: 2 hp (1.5 kW)

Vibration

- Posapac Vibration (Warner or Bescostop brakes): requires two 10 hp motors (7.5 kW each), or
- AFC SmartPac® Vibration: requires two 10 hp motors (7.5 kW each), or
- Dual Vibration (Bescodyne clutch/brake): requires two 10 hp motors (7.5 kW each)
- Advanced Servo Vibration: requires two servo driven motors

Pneumatic Requirements

- 1 SCFM* (.028 SCMM**) for miscellaneous concrete products machine functions

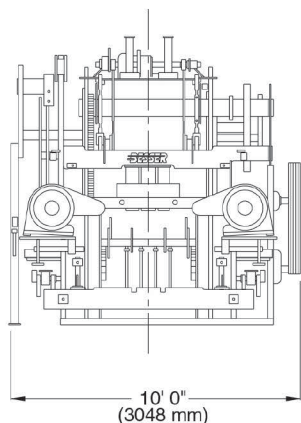
- 9 SCFM (.255 SCMM) with AFC SmartPac® Vibration
 - 20 SCFM (.560 SCMM) with Dual Vibration
 - 28 SCFM (.784 SCMM) with Air Compaction Device
 - All above at 80 psi minimum
- * SCFM = standard cubic feet per minute
** SCMM = standard cubic meters per minute

Dimensions/Weight

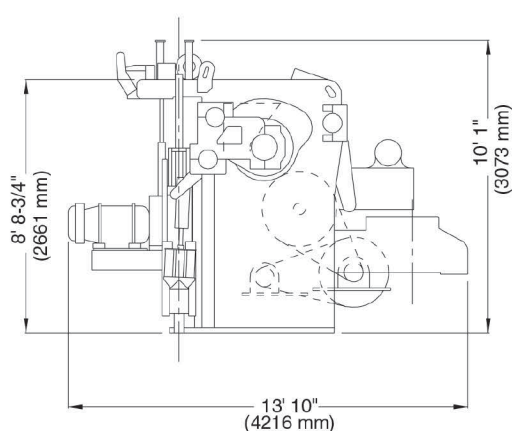
- Width: 10' 0" (3048 mm)
- Height: 10' 1" (3073 mm)
- Length: 13' 10" (4216 mm)
- Weight: 36,000 lbs (17,000 kg)
- Block Delivery Height: 36-5/16" (922 mm)
- Pallet Size: 26" x 18-1/2" x 5/16" (660 mm x 470 mm x 8 mm)(other pallet sizes available)
- Product Height: 2-3/8" (60 mm) high – 12" (305 mm) high

Voltages

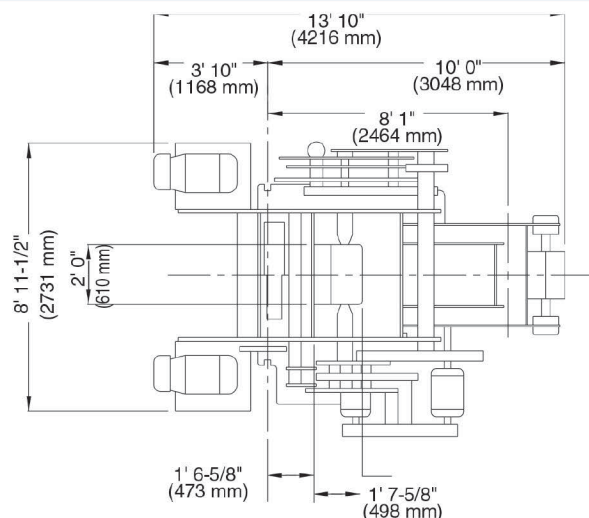
- Control Circuit Inputs: 24 V. DC (120 V., single phase, 60 Hertz optional)
- All outputs are 120 V.
- Motors: 230/460 V., 3 phase, 60 Hertz (other voltages are available)



Front View



Ride Side View



Top View



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