

# DYNAPAC® Concrete Products Machine



The Dynapac® is a three-at-a-time concrete products machine that produces up to 1800 units (8"/200 mm equivalents) per hour. The Dynapac produces consistent and precise concrete units at speeds up to ten cycles per minute.

**BESSER**  
Trusted Since 1904



# DESIGNED FOR QUALITY, DURABILITY AND FLEXIBILITY

## STANDARD FEATURES

### Cam Driven

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

### Frequency Drive on Block Moving Device

A variable speed frequency drive replaces the standard variable speed pulley drive. The variable speed frequency drive is remotely controlled from the SLC 5/05 control panel, compared to manually adjusting the variable speed pulley.

### Automatic Lubrication

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

### AB Control Processor

Many of the operating functions of the Dynapac can be easily adjusted by accessing the controller through the graphics display unit. This control panel:

- 1) automatically pinpoints problems and displays information for making corrections fast, and
- 2) improves quality control.

The control panel swivels on a floor-mounted pedestal providing convenient access for the machine operator. This solid state unit provides 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.

### Rotary Position Sensor on Cam Shaft

The sensor 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.

### 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 of the machine, which extends the life of the components and reduces maintenance.

### Bescodyne Vibration

Standard Bescodyne vibration provides rapid engagement of vibrators to provide quick and smooth starts and stops, optimum compaction and consistent, uniform concrete products.

### 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.

**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

### Advanced Servo Vibration

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

### 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

Dual vibration utilizes a Bescodyne clutch/brake 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.

### Frequency Drive for Main Drive Speed Control

The frequency drive controls the main drive speed control so that specific segments of the machine cycle can be slowed down or sped up. This feature slows down the stripping speed without sacrificing overall cycle speed. The variable speed frequency drive is remotely controlled from the control panel.

### 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.

### Air Compaction

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



*The Dynapac® concrete products machine can handle the volume of standard block orders and still have time to produce architectural and landscape units.*

### Pallet Receiver Cam Inserts

Pallet receiver cam inserts allow for rapid height changeovers for certain mold configurations between 2" and 7-5/8" (50 mm - 190 mm). 60 mm, 3-5/8", 5-5/8" and 7-5/8" flat top molds can be run from the 7-5/8" position and do not require moving the inner frame. Other product heights may be able to run from this position depending upon the mold configuration. Please contact your Besser sales representative to determine the appropriate configurations for your specific requirements.

### 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. A lockout device is included for safety during maintenance.

### 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.

### Automatic Stripper Head Clamp

Clamping of the stripper head is easily accomplished with the use of hydraulically actuated wedge assemblies.





## SPECIFICATIONS

### Production Rates

- Machine Cycle Time (in seconds): 3.0
- Forming Time (feed, finish and delay - in seconds): 3.0
- Total Cycle Time (in seconds): 6.0
- Cycles Per Minute: up to 10
- Concrete Units (8" equivalents per minute): 30
- Concrete Units (8" equivalents per hour): 1800

Note: Optimum production rates depend upon many variables, therefore actual production may vary from this example.

### Horsepower

- Main Drive: 25 hp (18.6 kW)
- Automatic Feed: 1 hp (0.8 kW)
- Pallet and Block Delivery: 5 hp (3.7 kW)
- Feedbox Agitator: 2 hp (1.5 kW)

### Vibration

- Bescodyne Vibration: requires two 10 hp (7.5 kW each) motors, or
- AFC SmartPac® Vibration: requires two 10 hp (7.5 kW each) motors, or
- Dual Vibration (Bescodyne clutch/brake): requires two 10 hp (7.5 kW each) motors

### Dimensions/Weight

- Width: 10' 4-1/2" (3162 mm)
- Height: 10' 11-3/8" (3337 mm)
- Length: 15' 5-1/2" (4712 mm)
- Weight: 52,000 lbs (23,600 kg)
- Block Delivery Height: 33-9/16" (852 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" (51 mm) high – 12" (305 mm) high

### Voltages

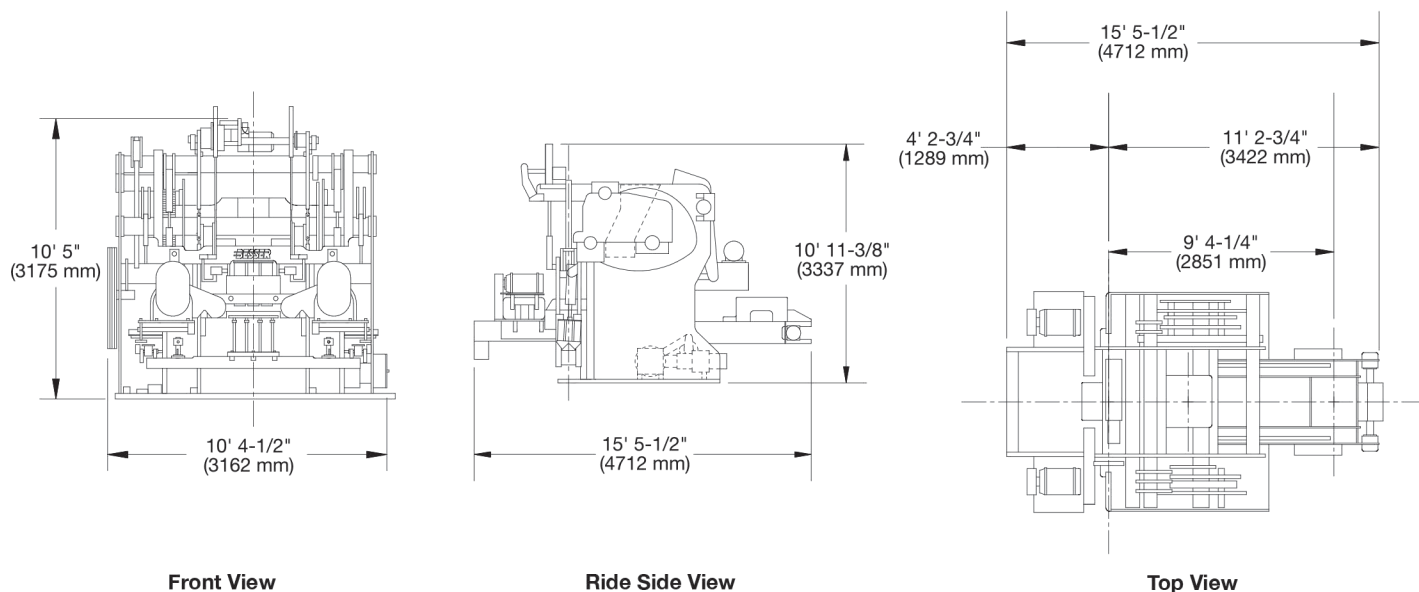
- Control Circuit: 120 VAC
- Motors: 230/460 V., 3 phase, 60 Hertz (other voltages are available)

### Air Supply

- 1 SCFM\* (.028 SCMM\*\*) for miscellaneous concrete products machine functions
- 9 SCFM (.255 SCMM) with AFC SmartPac Vibration
- 50 SCFM (1.400 SCMM) with air compaction
- All above at 80 psi minimum

\* SCFM = standard cubic feet per minute

\*\* SCMM = standard cubic meters per minute



Cover photo: The Dynapac® concrete products machine with AFC SmartPac® vibration is shown producing retaining wall units.

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