ePak

ePak1200 • ePak1500 • ePak1800

Hawkeye Pedershaab
Concrete Technologies Worldwide™

- Gearless, electronic rollerhead drive system
- Precise production control • High output
- Fully automatic operation

e P a k

Electronic Direct-Drive Packerhead Machine

The ePak machine represents a major leap forward in packerhead production technology. At the center is the machine's revolutionary eDrive rollerhead drive system. Powered by a proprietary, gearless, direct-drive, 60-pole, brushless permanent magnetic motor, the eDrive develops much higher than conventional torques and has a wider torque/speed operating band - allowing precise packing control throughout the machine's entire production range.

Designed from the ground up, ePak innovations extend beyond the electronic rollerhead drive. Mechanically, the ePak's unique frame design permits the toptable, rollerhead drive unit, and bellpacker to continuously bear and smoothly travel on the machine frame, operating at speeds up to 25% faster than conventional frame designs. Additionally, the frame's bolted, two-piece construction makes for easier installation in existing buildings and lower shipping costs. The machine also features a sophisticated synchronized four-shaft bellpacker to direct up to four times more vibration into the pallet for better bell compaction.

Hawkeye Pedershaab
Concrete Technologies Worldwide ™

System Benefits

Fully automatic operation. ePak's automatic operation cuts labor costs and permits precisely repeatable production cycles, assuring that each product is as high-quality as the next.

Precise production control. Equipped with the industry's most sophisticated control hardware and software algorithms, the ePak's closed-loop control system increases the speed of the production process and the quality of the pipe – continually monitoring all the critical machine processes and performing the necessary micro-adjustments.

Faster machine motions. The ePak's unique Uniframe design features zero-gap machine-to-component clearances with true rolling contact, and a smaller turntable with no center post. The smaller turntable and vibration-free movements permit faster component travel speeds for improved operating rates.

High output. ePak's superior control technology and fast, smooth component travel speeds result in tremendous output capability. In a one-shift operation, the ePak is capable of manufacturing annual production approaching 100,000 tons. For specific production rates, see chart on back page.

Utilizes existing tooling. In addition to Hawkeye-Pedershaab tooling, the ePak also accepts existing tooling of other makes and brands, including both single directional and bi-directional tooling. The ePak rollerhead drive system can also be configured to run a combination of bi- and uni-directional tooling.

Operation

All ePak pipe-making processes are computer-controlled and fully automatic. Additionally, the finished pipe and form can be automatically transported from the machine, demolded, and returned to the machine. Forms can also be removed from the machine with a conventional forklift truck. The ePak can be installed as a stand-alone machine or integrated into a completely automatic facility.

Standard Features

- Heavy-duty cantilevered machine frame
- Gearless, electronic direct-drive rollerhead
- Toptable with wiper
- Synchronized four-shaft bellpacker
- Compact, centerpost-free turntable
- Central PLC-based control console with video display

Optional Features

The ePak can be equipped with the following additional features:

- Forklift mounted video controller
- Automatic pallet/cage feeder
- Pallet oiler
- Automatic header/top ring feeder
- Reinforcement centering

1. Uniframe Construction
The unique, single-tower machine frame results in zero-gap machine-to-component clearances, reducing machinery vibrations and permitting up to 25% faster component travel speeds than conventional machines.

2. Control Console
Central PLC based console with touch-screen interface for easy entry of machine settings, video display monitor, and closed-loop controls that continuously provide feedback to the operating system for precise and accurate production control.

3. Quality Pipe
The ePak features the industry's most sophisticated control hardware and software algorithms to precisely control concrete feed rate and compaction. The result is smooth, consistently dense concrete pipe without visible markings.

4. Bellpacker
A synchronized four-shaft bellpacker directs vibration into the pallet for faster, more effective bell compaction. Bellpacker is a self-cleaning design and directs excess concrete to a single discharge point for easy cleanup.

5. Fully Automatic Operation
The ePak's fully-automatic operation can be integrated into a fully-automated production facility, further reducing labor costs and increasing product quality. HawkeyePedershaab provides specially designed robotic components such as demolding and handling cranes, pallet and reinforcement feeders, and post-processing equipment to team with the ePak's fast cycle time.

6. Electronic Rollerhead Drive
The ePak's electronic 60-pole permanent magnetic rollerhead drive system increases power, speed and control of the filling and compaction process. As a direct-drive system, gears and transmissions are eliminated, reducing moving parts and the associated maintenance costs. The e-Drive's dual counter-rotating shafts, each with infinitely variable and independent torque and speed control, provide double the torque capacity of the industry norm.

7. Turntable
A compact, centerpost-free turntable allows forms to be mounted closer to the centerpoint of turntable - permitting faster rotation of the form sets into the filling and offbearing positions.

ePak		Model 1200	Model 1500	Model 1800
Diameter		Pipe/Hour	Pipe/Hour	Pipe/Hour
mm	inch			
300	12	57.5	54	49
375	15	50	47	43
450	18	50	47	43
525	21	47.5	45	41.5
600	24	43.5	41.5	38.5
675	27	41	39	36.5
750	30	40	38	35.5
825	33	40	38	35.5
900	36	37.5	36	33.5
1050	42	27.5	26.5	25
1200	48	23	22.5	21.5
1350	54	x	16	15.5
1500	60	x	14	13.5
1650	66	x	x	13
1800	72	x	x	12

Production rates are based on the manufacture of ASTM C76(M) B-Wall x 2.5M (8') concrete pipe.

Production rates may vary for specific applications and plants.

Hawkeye Pedershaab
Concrete Technologies Worldwide ™

The Americas
506 S. Wapello Street
Mediapolis, Iowa 52637 USA
Phone: +1 (319) 394-3197
Telefax +1 (319) 394-3977

Africa, Asia, Australia, Oceania, Europe
Saltumvej 25
9700 Bronderslev – Denmark
Phone: +45 9645 4000
Telefax: +45 9645 4040

info@hawkeyepedershaab.com
www.hawkeyepedershaab.com