



ECO-NX Smart Preformers

The Next Generation of Barwell Preformers



...a lifetime of reliability and support



SMART FACTORIES

The modern factory is now moving to what is known as the fourth industrial revolution or Industry 4.0. A smart factory is an environment where automation, data collection, and instant analysis ensures that the monitoring of machine performance improves production quality and efficiency, as well as enabling predictive maintenance and instant trouble-shooting to take place.

ECO-NX machines will help rubber processors to develop smart factories and become more efficient through data analysis and process-driven technology.

ECO-NX SMART PREFORMERS

The range is specifically designed for the accurate and efficient processing of rubber and synthetic polymer compounds across multiple industries.

It is a safe, operator-friendly and versatile processing system ensuring most types of compound can be processed to produce consistent and accurate product with minimal material wastage.

The next generation of Barwell Preformers will transform processors' rubber preforming by using a safe Internet Gateway and advanced technology will allow machines, devices, sensors, and people to connect and communicate with each other.

INDUSTRY 4.0

INDUSTRY 1.0



1784

Mechanization, steam power, weaving loom

INDUSTRY 3.0



1969

Automation, computers and electronics

INDUSTRY 2.0



1870

Mass production, assembly line, electrical energy

INDUSTRY 4.0



TODAY

Cyber Physical Systems, internet of things, networks



BASIC MACHINE FEATURES

- Large selection of batch sizes (1-80 litres)
- High-pressure options
- 400 cuts per minute speed (800 cpm option)
- The proven Barwell scales feedback system for automatic weight adjustment to ensure rubber blank control
- Accuracy of up to +/- 1% by volume
- Barcode reader
- Extended centre for easy cleaning
- Reversing conveyor
- Large 9" (230mm) widescreen colour touch-screen operator interface
- Quick product set-up due to a 5000 product database and an auto cycle option



SMART TECHNOLOGY FEATURES

- Provides Process Engineers with vital information and data from all points in the manufacturing process to aid decision-making and identify key areas that require development
- Shows data graphically for easy interpretation
- Provides Operators with alarms, production history, error logging, live tracking, service reminders, daily checks, Operator login and monitoring, and document storage to make daily tasks simple and trouble-free
- Ability to allow direct remote access to the machine's control panel for solving urgent problems from anywhere in the world
- Able to connect via an IP camera to view the machine remotely providing instant support to help machine owners
- Process data stored even if the Internet connection is lost to management systems
- Compatibility to third party software to extract to factory management systems
- Includes improved safety features and panelling to keep Operators safe during their working day and to meet international safety standards



ENHANCED SAFETY

Health and safety is a primary concern for those responsible for machine maintenance and operator safety.

Barwell machines are manufactured with safety in mind and are supplied with a number of features to ensure safe operation.

Barwell machines are compliant with CE regulations.



APPLICATIONS

Barwell ECO-NX preformers help companies to process products in a number of industries and sectors.

- Footwear
- Sports and leisure
- Aerospace
- Automotive
- Pharmaceutical
- Construction
- Military
- Agricultural
- Oil and gas
- IT and communication
- Masterbatch
- Extrusion profiling
- Pelletizing
- And many more including ceramics

PROCESSING MATERIAL FLEXIBILITY

The ECO-NX range is capable of processing most types of compound, including:

- Silicone
- NBR
- FKM
- CR
- HNBR
- ACM
- EPDM
- SBR
- EVA
- And many more

SUPPORT

Barwell has always taken the approach that a customer needs to be supported for the lifetime of the machine.

- Machine specification expertise
- Commissioning and servicing packages available
- Operator training
- Technical support
- Genuine Barwell Spares and Consumables to ensure optimum performance
- Expert material processing advice

barwell Support 
Advice | Spares | Service



Machine Information

| Model | ECO5-NX Plus | ECO20-NX | ECO40-NX | ECO40R-NX | ECO60-NX | ECO60R-NX | ECO80-NX |
|---------------------|--------------------|--------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Length | 3445mm / 136" | 4115mm / 162" | 5055mm / 199" | 5870mm / 231" | 5870mm / 199" | 7200mm / 284" | 7200mm / 199" |
| Width | 1090mm / 43" | 1090mm / 43" | 1090mm / 43" | 1090mm / 43" | 1090mm / 43" | 1090mm / 43" | 1090mm / 43" |
| Height | 1800mm / 71" | 1885mm / 74" | 1820mm / 72" | 1820mm / 72" | 1820mm / 72" | 1820mm / 72" | 1820mm / 72" |
| Batch size (Litres) | 5 | 20 | 40 | 40 | 60 | 60 | 80 |
| Pressure | 210 bar / 3045 psi | 210 bar / 3045 psi | 240 bar / 3480 psi | 240 bar / 3480 psi | 240 bar / 3480 psi | 240 bar / 3480 psi | 240 bar / 3480 psi |
| Max. Output (Kg/hr) | 75 | 270 | 450 | 600 | 600 | 650 | 700 |
| Max. Die Size | 76mm / 3" | 127mm / 5" | 190mm / 7.5" 320mm* / 12.6" | 190mm / 7.5" 320mm* / 12.6" | 190mm / 7.5" 320mm* / 12.6" | 190mm / 7.5" 320mm* / 12.6" | 190mm / 7.5" 320mm* / 12.6" |
| Max. Blank Weight | 100g / 3.53 oz | 300g / 10.58 oz | 2000g / 70.55 oz | 2000g / 70.55 oz | 2000g / 70.55 oz | 2000g / 70.55 oz | 2000g / 70.55 oz |
| Total Power (Kw) | 13 | 19 | 26 | 31 | 31 | 31 | 31 |

* with 320mm head option. Note: High pressure versions (350 bar / 5000 psi) are also available. Please request dimensions.



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