

baker perkins

A BRAND OF COPERION

High Output Continuous Production Extruders

Baker Perkins' MPX30 to MPX80 Production Extruders are specifically engineered twin-screw extruders for small batches of 100kg/hr to high-output continuous production (up to 2,900kg/hr). The extruders are designed for all types of powder coating formulations, including epoxy, hybrids, polyester, acrylics and fines recycling.

Unique MAX³ feed system for increased throughput

Baker Perkins' patented MAX³ feed system features unique feed port and screw designs to improve flow of material into the extruder barrel and air out of it, contributing to higher throughput. Lightweight, low density materials are now handled more efficiently, eliminating the need for side feeding, reducing capital cost, floor space and running costs.

Consistent quality with low production and maintenance costs

High torque-capacity, high free-volume geometry and uniform barrel heating ensure that consistency is maintained under all operating conditions. Quick start-up, reliable operation and rapid changeover keep operating costs low. All wear parts are long-lasting and easily replaced and, when combined with the ultra-low maintenance drive train, result in minimal maintenance costs.

Easy to use and easy to clean

Straightforward set-up and adjustment means that very little operator attention is required for efficient running. The clamshell barrel can be opened quickly and easily for regular cleaning or changing the screws, while the open-frame design and high ground clearance mean that it is very easy to keep the area around the machine clean.



High Output Continuous Production Extruders

Features:

Advanced barrel cooling system decreases response times

The surface area of the new multi-directional barrel cooling channels has been increased by 138% to increase cooling capacity, while the channels are now closer to the process material being cooled for greater efficiency.

Through-shaft cooling minimises the risk of pre-curing (MPX 50, 65 and 80 extruders)

Drawing heat from the agitator shaft and the screw elements as well as the barrel minimises the risk of pre-curing. This allows material with curing temperatures as low as 100°C to be processed reliably and enables coatings for a range of temperature-sensitive substrates, such as wood, to be produced.

Easy access barrel for safe removal of shafts

The top and bottom of the barrel open independently. Opening only the top leaves the shafts supported so even long, heavy shafts may be removed safely, without risk of damage or operator injury; the bottom of the barrel opens for cleaning.

Multiple feed options

Feeding options include a gravimetric feeder to provide improved accuracy, a pivoting mount to assist with calibration and cleaning, and a purge feeder. This provides an accurately metered and consistent flow of purge cleaning materials into the barrel which guarantees maximum effectiveness while using the minimum amount of purge material.

Simplified maintenance

The old-fashioned gland packing has been replaced by bronze bushes that are easily lifted out when replacement is required. The wear sleeves on the shafts are a simple push-fit that may be replaced as easily as changing an agitator element. The sleeves are now made from a harder metal and with a PVD (Physical Vapour Deposition) coating for longer life. The stuffing box – where the shafts enter the barrel – is now split with the top and bottom halves opening with the barrel to provide instant access for maintenance.

Industry 4.0 ready

All Baker Perkins powder coating extruders are Industry 4.0 ready. Industry 4.0 harnesses data from all the machines, devices, sensors, and people in a manufacturing operation and enables them to communicate with each other via a local network or the internet to make informed and timely decisions. Remote access enables Baker Perkins' engineers to log in to a machine anywhere in the world for fault-finding and software updates.

Range:

Model	MPX30	MPX40	MPX50	MPX65	MPX80
Barrel diameter (mm)	30	40	51	65	80
Barrel length (L/D)	17.5	17.5	17.5/25	17.5/25	17.20
Motor power (kW)	16.6	40.5	63	126	206
Screw speed (rpm)	900	900	900	900	750
Typical outputs (kg/h)	100 – 250	250 – 550	400 – 1,000	800 – 2,000	1,500 – 2,900
Through-shaft cooling	✗	✗	✓	✓	✓

OPTIONS

Water cooled motor

Gearbox condition monitoring system

Extension frame

Feed options to suit process:

- Gravimetric
- Volumetric
- Side feed
- Purge feed



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