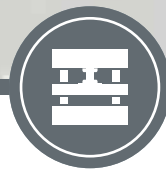


EXTRUSION SYSTEMS



The new M μ cro extruder
Small, smaller, smallest



The new Mµcro extruder

Small, smaller, smallest – solutions for micro extrusion from Boyke Technology

We're often told that size isn't everything, and it's true. In conceiving the new small-volume extruder, **Boyke Technology** is breaking new ground and facing up to the problems and challenges posed by micro and small-volume extrusion.

With a uniform mass flow, optimum dwell times, constant pressure build-up on the tool, plus accurate machine control, the extruder sets new benchmarks.



To ensure completely fault-free use, no detail has been overlooked. Interchangeable feed bushes with different groove geometries, heatable feed zones for processing hightemperature materials, interchangeable plastication units for use of screws with a diameter of 12 – 18 mm and different length-diameter ratios of 20 – 30, high performance material for all machine parts to prevent corrosion on the plastication unit, flanges and tools.

The high-performance drive ensures that adequate reserve capacity is available for a wide variety of tasks, while motor self-cooling prevents re-suspension of dust from the atmosphere and protects against unwanted temperature influences on the tool. Feedback allows for precise speed control and optimum process control.

The extruder can be cleaned with ease, is straightforward to maintain and can be converted quickly. The Mµcro is suitable for use in the laboratory or in production processes.

To ensure that its products are suitable for the widest variety of applications, **Boyke Technology** offers its customers a comprehensive selection of accessories, such as degassing systems, filter discs, coupleable cylinder segments, different screw types and material handling and drying apparatus.

Whatever your need, we can provide a tailored concept from a single source.

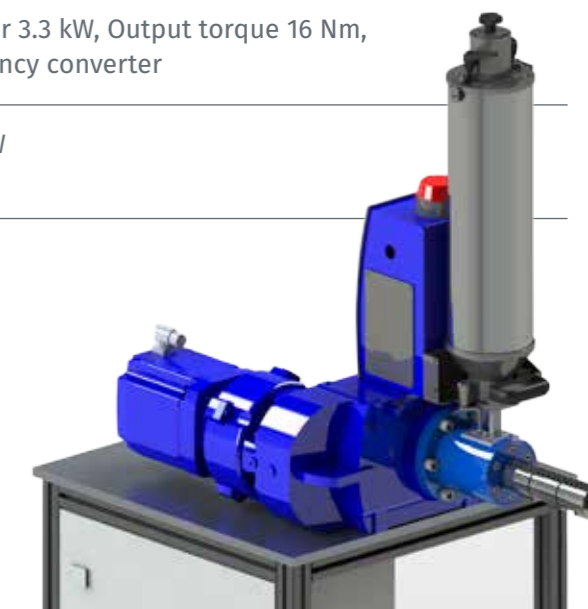
Mµcro extruder for medium and small-volume extrusion Stable throughput, compact and flexible

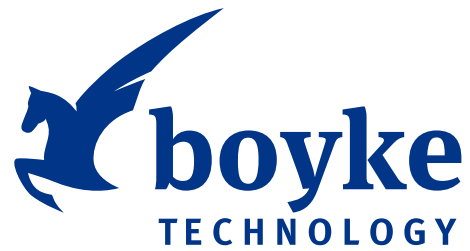
Type / Range	Screw-φ	Screw length	Screw speed	Throughput	Drive power
MEX 12 - 22	12 mm	22 - 30 D	0 - 160 U/min	0.2 - 1.2 kg/h	3.3 kW
MEX 14 - 22/30	14 mm	22 - 30 D	0 - 160 U/min	0.4 - 1.4 kg/h	3.3 kW
MEX 16 - 22/30	16 mm	22 - 30 D	0 - 160 U/min	0.6 - 3.0 kg/h	3.3 kW
MEX 18 - 22/30	18 mm	22 - 30 D	0 - 160 U/min	0.8 - 5.0 kg/h	3.3 kW

Factsheet

Mµcro-Extruder „MEX“ 12 x 22 D – FLUOR

Screw	Diameter 12 mm, screw length 22 D, 3-zone geometry, corrosion-resistant designed for use in fluorine applications, speed range 0 - 160 rpm, highalloyed chromium-nickel steel – C4 alloy
Cylinder	High-alloyed chromium-nickel steel – C4 alloy with 3 heating zones
Feed	Temperature-controllable feed – electrical heating with ceramic heater and cooling with controlled water cooling
Feed bush	Interchangeable feed bushes with different groove geometries for optimum and continuous feed behaviour
Heating	Special ring heater for continuous temperatures up to max. 450 °C
Gear unit	Two-stage extrusion gear unit with maximum torque of 191 Nm
Power transmission	Shaft coupling / motor flange
Drive	Self-cooled synchronous servo motor, power 3.3 kW, Output torque 16 Nm, control with SIEMENS SINAMICS S120 frequency converter
Heating power (Cylinder)	Special heaters with 2 x 440 W and 1 x 420 W
Control	Extrusion package BTEC 2.17 <ul style="list-style-type: none"> ■ 9" Comfort touchscreen display ■ Recipe management ■ Clock timer for heating ■ Data exchange via Profibus or Profinet ■ Individual data logging and reports ■ Torque control ■ User Management ■ Intelligent temperature control ■ Customate design
Sensor system	<ul style="list-style-type: none"> ■ Melt pressure sensor, measuring range up to 500 bar ■ Melt temperature sensor, measuring range from -40 °C to +500 °C ■ Corrosionresistant and reinforced membrane
Tool	A range of tools is available. Profile and sheathing heads can be provided on request.
Performance data	Plasticising capacity approx. 0.2 – 1.2 kg/h according to material. Extruder usable for polyolefines and thermoplastic high-performance plastics such as FEP, ETFA, PFA, PTFE etc.





EXTRUSION SYSTEMS

WEAR TECHNOLOGY

PRESS SYSTEMS

Distribution and service for Germany, Europe and the whole world through established network structures directly onsite.



»Made in Germany« for your production and your process.