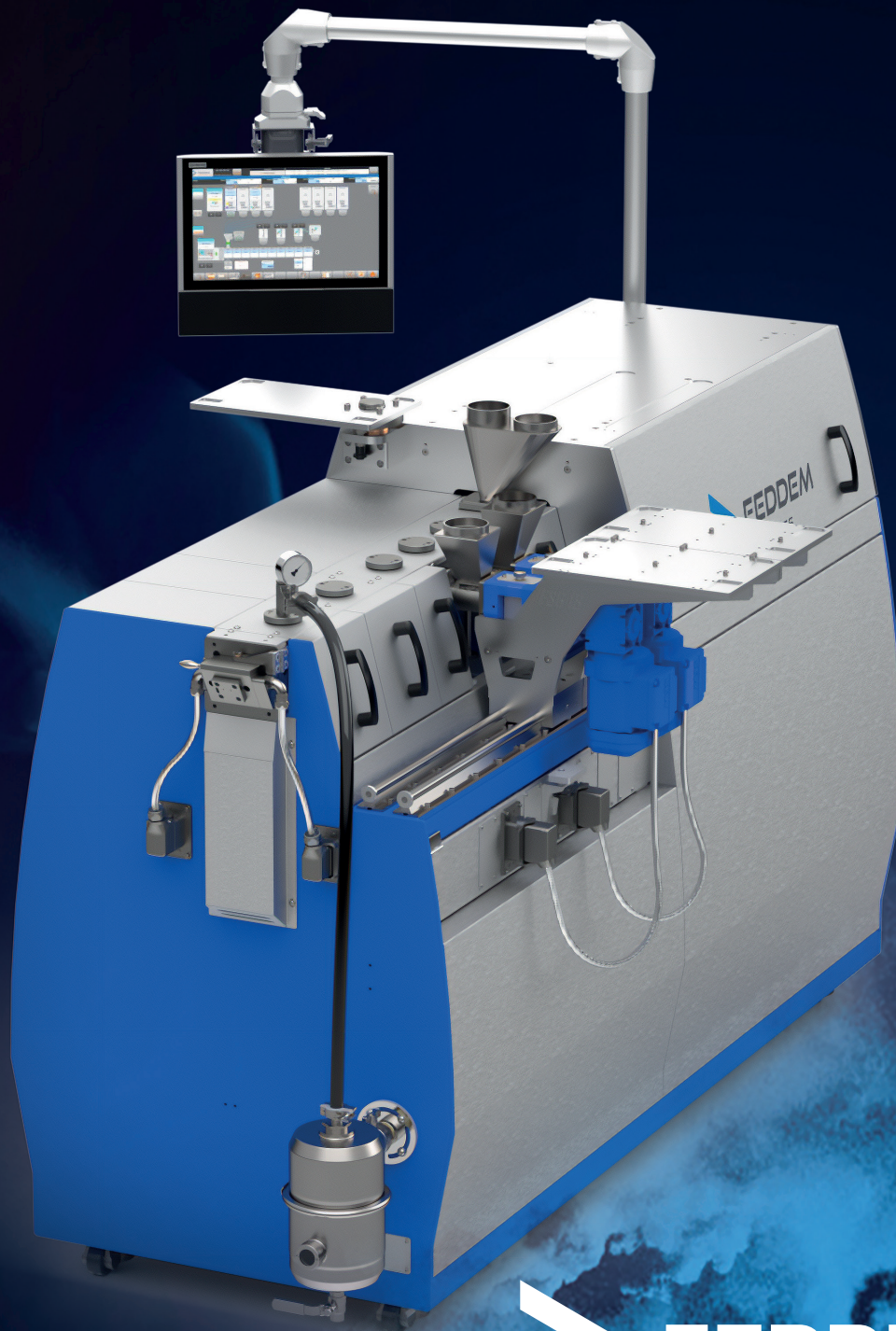


FED 18 MTS

Compact laboratory extruder
for maximum flexibility



 **FEDDEM**
COMPOUNDING LINES

One system – many possibilities

Practical benefits for compounders

Compact laboratory extruder for research, development and small sample quantities of compounds and masterbatches.

Small-scale formulation and product development possible before costly production trials begin.

Additional equipment (side feeders, side degassing) available → practical replication of production extruders.

Direct benefits for scale-up: findings from the laboratory extruder can be transferred to larger systems.

High flexibility thanks to a wide range of configuration options for the process section.

Efficient use of resources thanks to low process volume and rapid process stabilisation.

Reproducible results → reliable data basis for optimisation.

Improvement of production processes in terms of sustainability and cost efficiency.

Added value in application

Efficient production of small sample quantities with minimal time and resource expenditure.

Maximum flexibility with only one extruder size → quick adaptation to different formulations.

Very short set-up times thanks to plug-and-play concept and modular design.

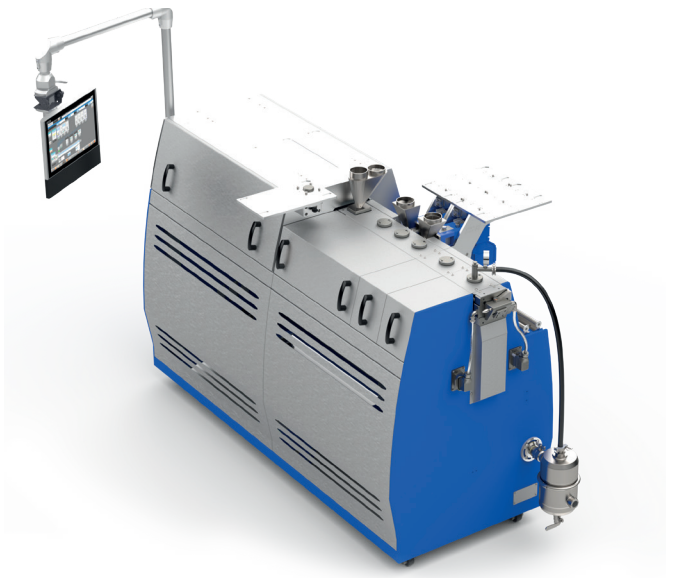
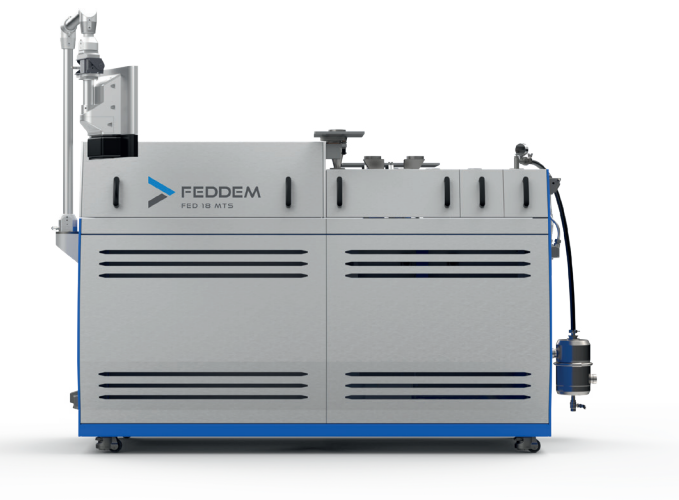
Easy handling and maintenance → quick cleaning, conversion and calibration.

Compact design ensures clarity in laboratory operation.

Optimal conditions for scale-up to production thanks to practical configuration.

Performance data

Property	Specification
Footprint (without granulator)	approx. 2,150 x 900 mm (without granulator)
Control system (PLC), power electronics	Control cabinet in the base frame
Operation	Touchscreen, mounted on a swivel arm
Drive power	10 kW (f/c AC motor, water-cooled)
Max. screw speed	1,200 rpm
Screw diameter	18 mm
Da/Di ratio	1.55



Technical details

Maximum flexibility with one extruder size: The process length can be changed in 10 L/D increments from 32 L/D up to 52 L/D without making any adjustments to the frame, cooling system or electronics.

Process housing with plug connection: The process unit can be extended or shortened and the housing rearranged directly on the extruder. Thanks to a central plug connection for heating and sensors, process housings can be quickly removed and/or added.

Removable process unit: Thanks to sophisticated plug-and-play solutions for cooling and heating, the extruder's process unit can be completely separated from the rest of the frame in less than an hour and conveniently reconfigured on the workbench.

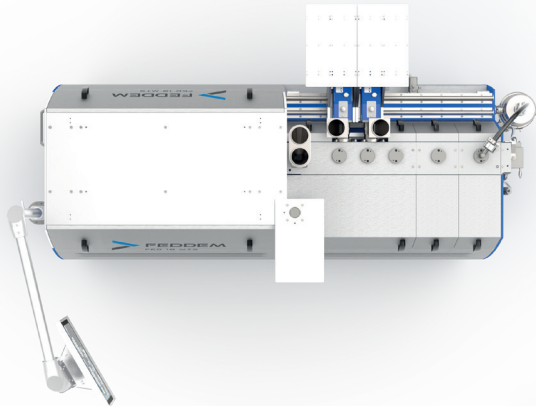
Design with roller guides: The entire drive train and process unit are mounted on roller guides and can be adjusted to the required processing length by simply sliding them into position.

Pluggable supply lines: The supply lines to the dosing units, vacuum pump, cooling unit and optional peripherals are pluggable, so components can be easily disconnected for cleaning, maintenance or disassembly.

Flexible dosing system: The dosing units can be swivelled out to the side for calibration or emptying of the hoppers without having to be lifted out of their racks.

Flexible positioning: Side dosing units can be moved between different positions on guide rails along the entire length of the process section.

Compact design and ease of use: Integrated frames for the dosing units ensure a compact design. This eliminates the need for bulky support structures or confusing cladding parts. Centralised control of the extruder and peripherals via a touch display measuring up to 19" makes operation easy.



Optional components for laboratory use

- FSB-side feeder for additional materials
- FSV-side vacuum degassing for intensive degassing
- Up to 4 dosing devices for flexible raw material feed
- Vacuum pump integrated into the base frame of the extruder
- Plug-in cooling system
- Plug-in underwater granulation





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