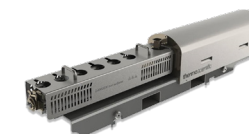


Pharma Twin-Screw Extruder selection guide

Choose the optimal extrusion platform for your HME, TSG, or continuous processing workflows

From limited-API feasibility studies to scalable HME and TSG workflows, Thermo Scientific™ Pharma™ twin-screw extruders support solvent-free, continuous processing across formulation development, process optimization, and manufacturing scale-up.



Thermo Scientific™ Twin-Screw Extruder	Pharma mini HME Learn more	Pharma 11 Learn more	Pharma 16 Learn more	Pharma 24 Learn more	Pharma 24 TSG Learn more
Workflow fit	Limited-API feasibility, early formulation screening, implant/drug delivery development	Lab-scale HME, solubility enhancement, early process development	HME process development, research-to-pilot scale-up, formulation optimization	Manufacturing-scale HME, continuous processing, production workflows	Continuous wet, dry/ melt granulation and line integration
Typical throughput HME*	3 g batch or 100 g/h	20 g/h to 2.5 kg/h	0.5 kg/h to 10 kg/h	1 kg/h to 30 kg/h	N/A
Typical throughput TSG*	N/A	Up to 3 kg/h	Up to 20 kg/h	Up to 80 kg/h	Up to 80 kg/h
Screw design	Conical, co-counter rotating	Parallel, co-rotating	Parallel, co-rotating	Parallel, co-rotating	Parallel, co-rotating
Maximum torque	5 Nm / shaft	6 Nm / shaft	18 Nm / shaft	52.5 Nm / shaft	18 Nm / shaft
Downstream/integration	- Take-off belt - Laser-based calibration - Cutting device	- Conveyor belt - Pelletizer - Chill-roll - Sheet take-off	- Conveyor belt - Pelletizer - Chill-roll - Face-cut pelletizer	- Conveyor belt - Pelletizer - Chill-roll - Face-cut pelletizer	For line integration
Dimensions (L x W x H)	58 x 37 x 34 cm	83 x 48 x 41 cm	210 x 76 x 176 cm	210 x 85 x 173 cm	195 x 32 x 42 cm

* Actual throughput dependent on formulation.

Need help selecting the right platform?
Learn more or talk with a pharma extrusion specialist at
thermofisher.com/drugformulation

thermo scientific

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