

Compact and Efficient Food, Cosmetics and Compound Manufacturing with RONDOL's 21mm 30D Horizontal Twin-Screw Extruder

Performance, Weight and Cost-Efficiency in R&D and Manufacturing

Our unique set-up **improves material flow**, facilitates smoother mixing, provides superior **temperature management** and **preserves the integrity of sensitive components** with varying melt degradation properties, enhancing your medicines and medical devices performance.

RONDOL's 21mm 30D twin-screw extruder makes it possible to manufacture:

- Semi solids (ointments, creams, pastes, gels, suppositories)
- Transdermal (implants, films)
- Plant extractions
- Compounding of ingredients

Key Benefits of our Extruder:

Durable material contact parts: Experience minimal abrasion extended machine life span with our optimized components.

Easy to clean barrel: Ensure traceability with different sources of critical materials thanks to inside liners which are smooth and easy to disassemble and clean.

Versatile screw design and die options: Cater to diverse R&D and production applications with our flexible design features such as our cast film die with various width and thickness options.

Scalability of our continuous manufacturing process: Seamlessly transition from lab testing to industrial production with our scalable geometric proportions.

Precise monitoring of process temperature with autonomous control for each of the 6 zones up to 300°C (450°C optional).

Integrated controls for feeders: Enhance operational convenience with our advanced control panel and compatible feeders from which you can inject in-the-barrel additional materials, additives and even gases.



A Rondol line installed for a coloured polymer zipper manufacturer

21MM 30D HORIZONTAL SPECIFICATION SHEET

Nominal screw diameter	21mm
Length / Diameter	30:1
Machine material	Full stainless steel
Screw speed	0-300rpm (or 0-600rpm optional)
Screw configuration	Segmented screw design fully interchangeable
Footprint	1.47m ² / 15.83sq.ft
Dimensions	2000mm x 600mm x 1220mm (6.56ft x 1.97ft x 4ft)
Motor power	3.3KW
Electrical consumption	6.86kWh (standard's maximal temperature and speed: feeder + extruder)
Torque output	45N.m per shaft maximum
Number of barrel zones	6 temperature-controlled zones (heating / cooling)
Temperature range	15-300°C (or 15-450°C optional)
Dies	Standard: strand die Options: cast film, strip, tube, co-extrusion
Plug-and-play feeding	Options: top/side powder or pellet, liquid and/or gas feeders
Maximum output	Up to 8kg/hr (up to 16kg/hr optional)
Maximum pressure	100 bars
Product cooling systems	Options: Air cooling system or water bath
Plug-and-play downstream equipment	Options: haul off winder (filament, film or strip), varicut pelletizer, calendaring
Human machine interface	15.6" touch screen with PLC-controlled data logging and audit trail, remote diagnostic tool Option: controlled by PC or tablet
Electrical power Requirements	40 amp, 3 x 276/480V+1N+1PE, 50/60Hz (North America) 40 amp, 3 x 230/400V+1N+1PE, 50/60Hz (Europe)
Water supply requirements	4-6 bars