

ips-DSE

Co-rotating twin-screw extruder for compounding,
recycling and LFT production



Materials friendly. Efficient. Resource-saving.

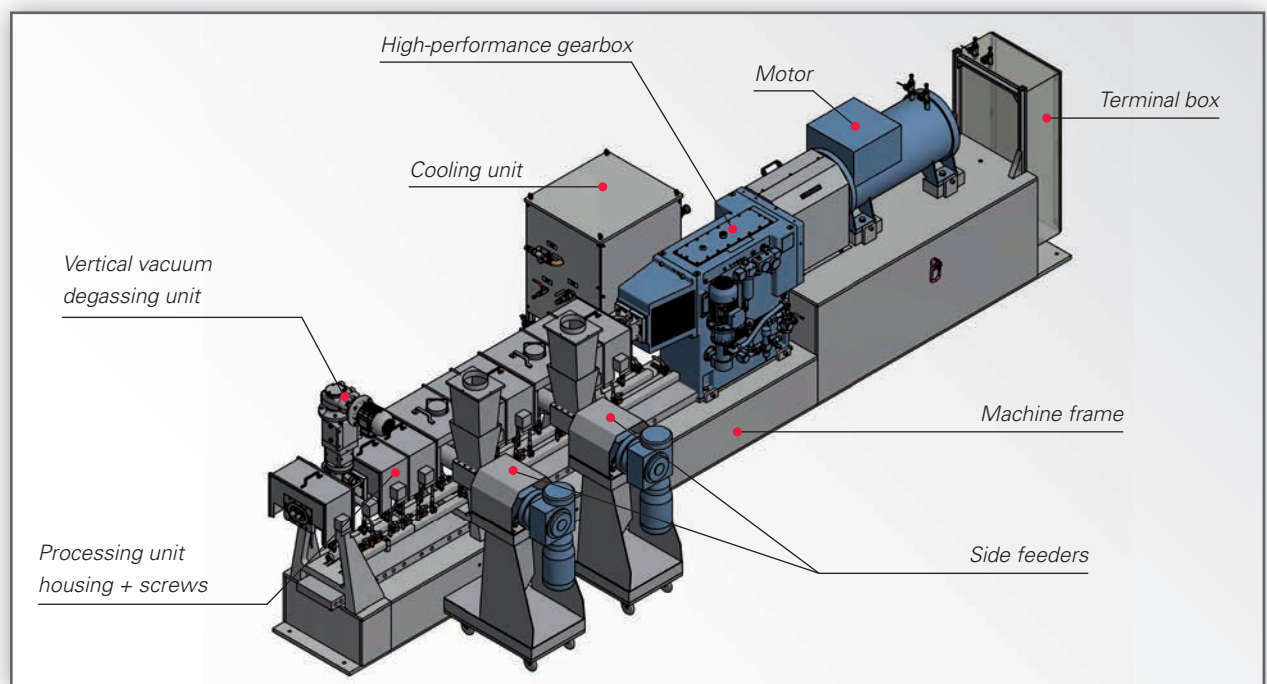
- Simple, clear, durable, flexible
- Excellent combination of torque and volume
- Large process window
- Convincing, robust gearbox
- Water-cooled drive motor
- Reliable cooling and heating of the cylinders
- Variable control concept and operator guidance

Intelligent plant design for the preparation and processing of thermoplastics

Thanks to its simple and robust design, the ips twin-screw extruder can be used for many compounding tasks and recycling applications:

- Manufacture of filled/reinforced plastics
- Alloying of plastics
- Degassing of plastics
- Processing of regrinds
- Repelletizing
- Manufacture of products from long-fibre reinforced thermoplastics in combination with the LFT complete system ips-LFT HP

Layout of the plant



- Modular process section for housing and screw elements
- Efficient temperature control at highest speeds and torques
- Tightly intermeshing, self-cleaning, co-rotating screw elements
- Modular, segmented design of housings and screw elements for maximum flexibility
- High-performance gearbox with overload clutch between motor and gearbox
- Integrated stainless steel cooling water distribution
- Thermal insulation – stainless steel bonnets
- Machine frame, designed as a torsion-resistant welded construction
- Extensive accessories such as side feeders, vertical or horizontal vacuum degassing device, cooling units

Housing



- Extruder housing made of various materials, nitrided steel or with high-alloy wear inserts
- Efficient internal water cooling of the extruder barrels, 4D or 6D, heated by means of heating cartridges or bronze heating shells

Screws / Screw shafts



- Screw elements in different flights and shapes as well as kneading, shearing and mixing elements
- Screw profile – tightly intermeshing scraper profile
- Modular system of screw shafts and conveying, mixing and kneading elements
- Screw shafts with multiple splines made of high-performance steel

Accessories – Side feeders

- Co-rotating, tightly intermeshing side feeds
- Large feed opening with specially designed feed geometry
- Special, optimised screw geometry
- Heated or cooled versions possible
- Supports the feeding of pellets, filler, powder or fibres

Accessories – Vacuum degassing unit

- Double screw hold-down device
- Vertical or lateral design
- Co-rotating, tightly wiping screws
- Prevents uncontrolled discharge of powder, gas or melt
- Improves the degassing line

Technical data

Size	ips-DSE 30	ips-DSE 45	ips-DSE 60	ips-DSE 75	ips-DSE 90
Screw diameter [mm]	32	45	60	75	90
Da/Di	1.55				
Max. torque shaft [Nm]	270	800	2,000	4,200	7,000
Spec. torque [Nm/cm ³]	15	16	16	17	17
Max. screw speed [min ⁻¹]	1,200	1,200	1,200	1,200	800
Max. motor power [KW]*	70	200	560	1,100	1,275

* Installed drive power according to the process task