

Twin-screw extruder FED-MT



FEDDEM
Think Extrusion

FEDDEM GmbH & Co. KG
Member of the Feddersen Group



Tradition in engineering

FEDDEM GmbH & Co. KG belongs to the internationally active Feddersen Group based in Hamburg. In addition to trading in chemical and technical products, such as stainless steel, the group has focused strongly on engineering plastics over the last couple of decades.

plastics. Although founded as recently as 2009, FEDDEM has a skilled workforce with more than **25 years of professional expertise** in the development, design and construction of co-rotating twin-screw extruders and in the manufacture of key components for renowned extruder manufacturers.



The entire manufacturing and assembly of FEDDEM's compounding systems for flexible applications in the production of high-quality engineering plastic compounds and masterbatches is carried out in Sinzig - **Quality that is „Made in Germany“!** Leading compounders place their trust in our expertise in the production of their high performance compounds. FEDDEM does not focus exclusively on the sale of systems from its standard range, however. It also offers **customised solutions as well as project planning and the supply of turnkey systems, including peripheral equipment, on a worldwide basis.**

Feddem is a continuation of the „Construction of Extrusion and Compounding Lines“ division of the company Decroupet Maschinenbau, located in Sinzig. It now joins forces with K.D. Feddersen GmbH & Co. KG, who are specialists in the distribution and market development of engineering plastics, and with AKRO-PLASTIC GmbH, who specialise in innovative and application-oriented plastic compounds, to add the field of machine construction to the group's breadth of expertise in

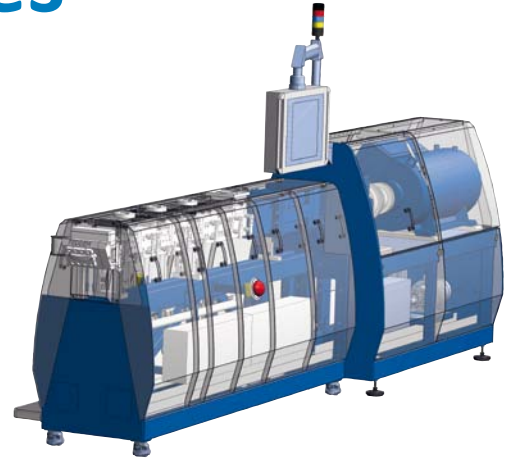
FEDDEM also provides a flexible spare parts service, a refurbishing service for existing plants, local customer service and other additional services.



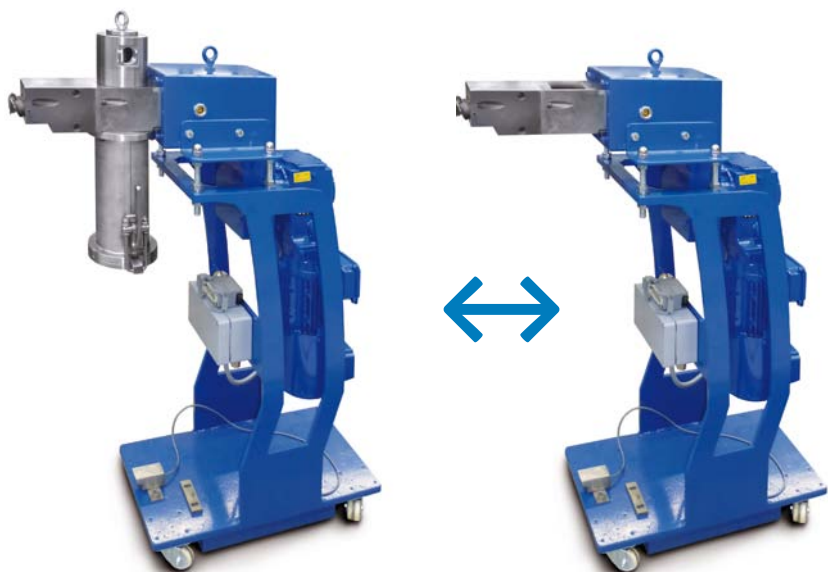
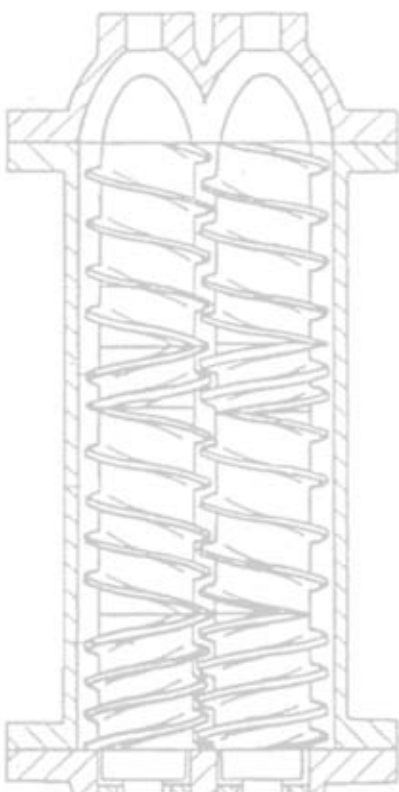
Our core competencies

We build on the expertise of our experienced **project and process engineers**. The long-standing and trusting relationships that we maintain with our cooperation partners enable us to provide the kind of customised solutions for the **planning and installation of your entire lines** that you can rely on.

The core of our expertise lies in co-rotating, intermeshing twin-screw extruders of the type **FED-MT (MT = Multi Task)**. MT stands for the diversity of applications for which the extruder can be used and for quick change-overs from one product to another.



Further key components are the extruder process unit with the side-connectable **FSB** twin shaft side feeder or the **FSV** twin-shaft side vacuum-degassing screw, which can be fitted on the same side. If atmospheric side venting is called for, an **FSE** twin-shaft side vent screw can be fitted opposite the FSB side feeder.



FSB and FSV are fitted on identical frames, and the process unit can be converted from FSB to FSV in just a few simple steps.

FEDDEM process technology

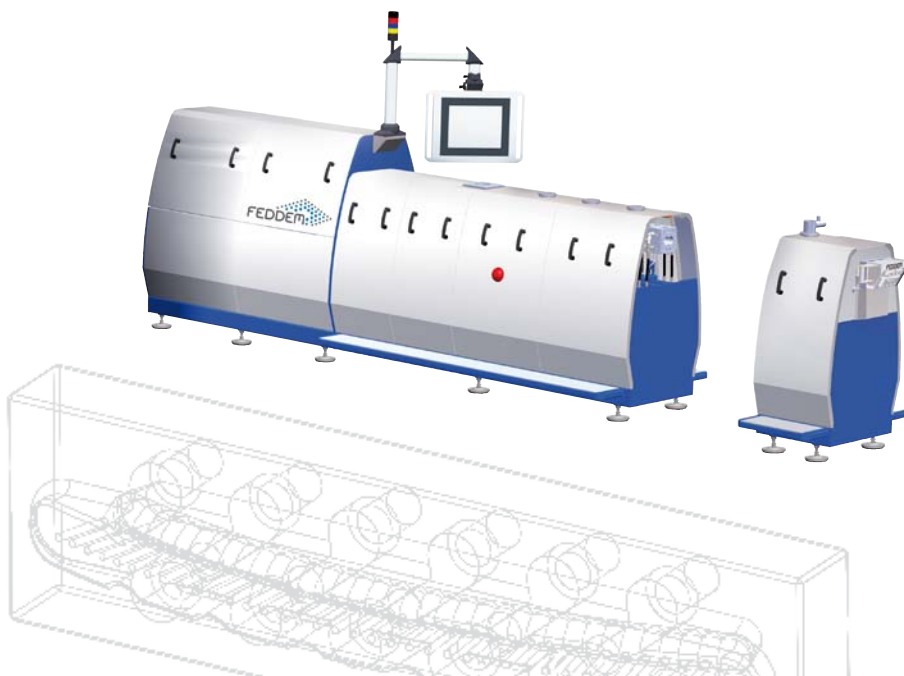
Excellent product quality, especially with thermally sensitive compounds, can only be achieved if the temperature of the product in the extruder is kept as low as possible. Higher speeds usually also result in higher product temperatures. Consequently, the maximum possible output in the extruder can only be achieved if the screw elements can provide the energy input required for the particular processing task without causing local overheating of the product.

The FED-MT achieves this with the unique screw geometry in its melting and mixing elements, in which the product is allowed to remain long enough for the **dissipation of the required amount of energy without the occurrence of temperature peaks**. Since the melting pro-

cess as well as the mixing of fillers can be carried out using screw elements with the same geometry, **fewer spare parts need to be kept on stock**.

With respect to the geometry of the screws and the available torque, the MT series represent the ideal solution **for the most different compounding processes** – designed, as it is, to produce high throughput rates as well as outstanding product quality.

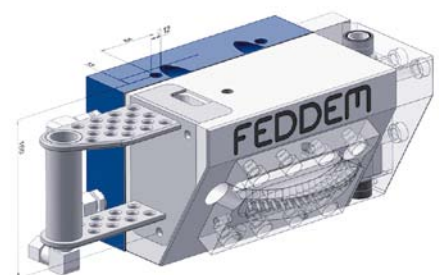
Speeds of up to 1,200 revolutions per minute are available. For most compounding jobs, such as alloying or reinforcing, a process length of 32 L/D is sufficient. In such cases, reinforcing fibres are usually added only with one FSB side feeder.



For volume-limited compounding jobs, such as filling with chalk or talcum, a process length of 42 L/D is recommended with up to three FSB positions. FEDDEM offers an extension unit for this comprising 3 barrels (10 L/D), which can be bolted on and connected via plug connectors within a short time.



A compact, foldaway **strand die head** improves strand pelletizing, as does the patent-pending **curved die plate**. The die plate can accommodate up to 25% more holes with the same hole spacing or a conventional hole count with greater hole spacing.





Spare parts and service

Parts and accessories:

We always keep a large selection of essential spare parts on hand in our warehouse. Even large extruder components such as standard-size motors and gearboxes can be delivered on short notice. We can custom-manufacture special components in our own well-equipped production facility at attractive conditions.

Amongst others, the standard product range from our in-house production includes:

- Barrels and screw elements
- Feeding and degassing domes
- Shafts and coupling sleeves
- Strand die heads and adapter
- Side feeders, side vents and side vacuum degassing units
- etc.

Wear measurement

Wear measurements of cylinders and screw units are carried out with our modern robot systems. We provide you with a written report including a graphical wear analysis and an optional replacement recommendation.



Our service staff provide the sensory and visual assessment of cylinders and screw units, since nothing beats years of experience!



Used machines and equipment

Our product offering regularly includes pre-owned extruders and complete extrusion lines, which undergo thorough inspection and overhauling at our Sinzig plant prior to delivery. We will also gladly provide leasing packages customised to meet your needs.

Basic overhaul of machines and equipment

We can conduct a basic overhaul, or retrofit, of your machine – covering everything from the mechanics, to the electrical system to the control technology. This will bring your extruder up to state-of-the-art technology, making your production competitive.

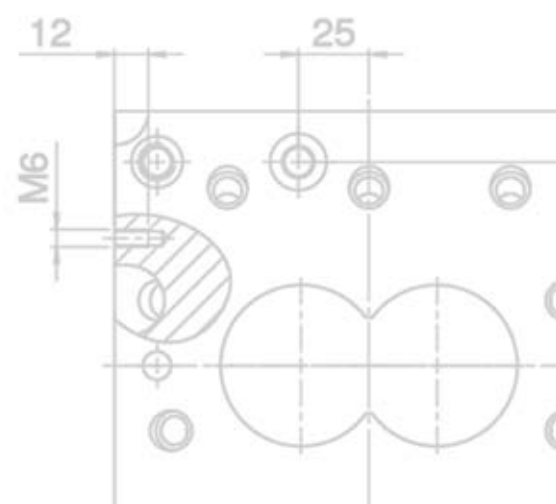
Process know-how application consulting

Our specialists provide consulting services for product changes as well as capacity and plant expansions:

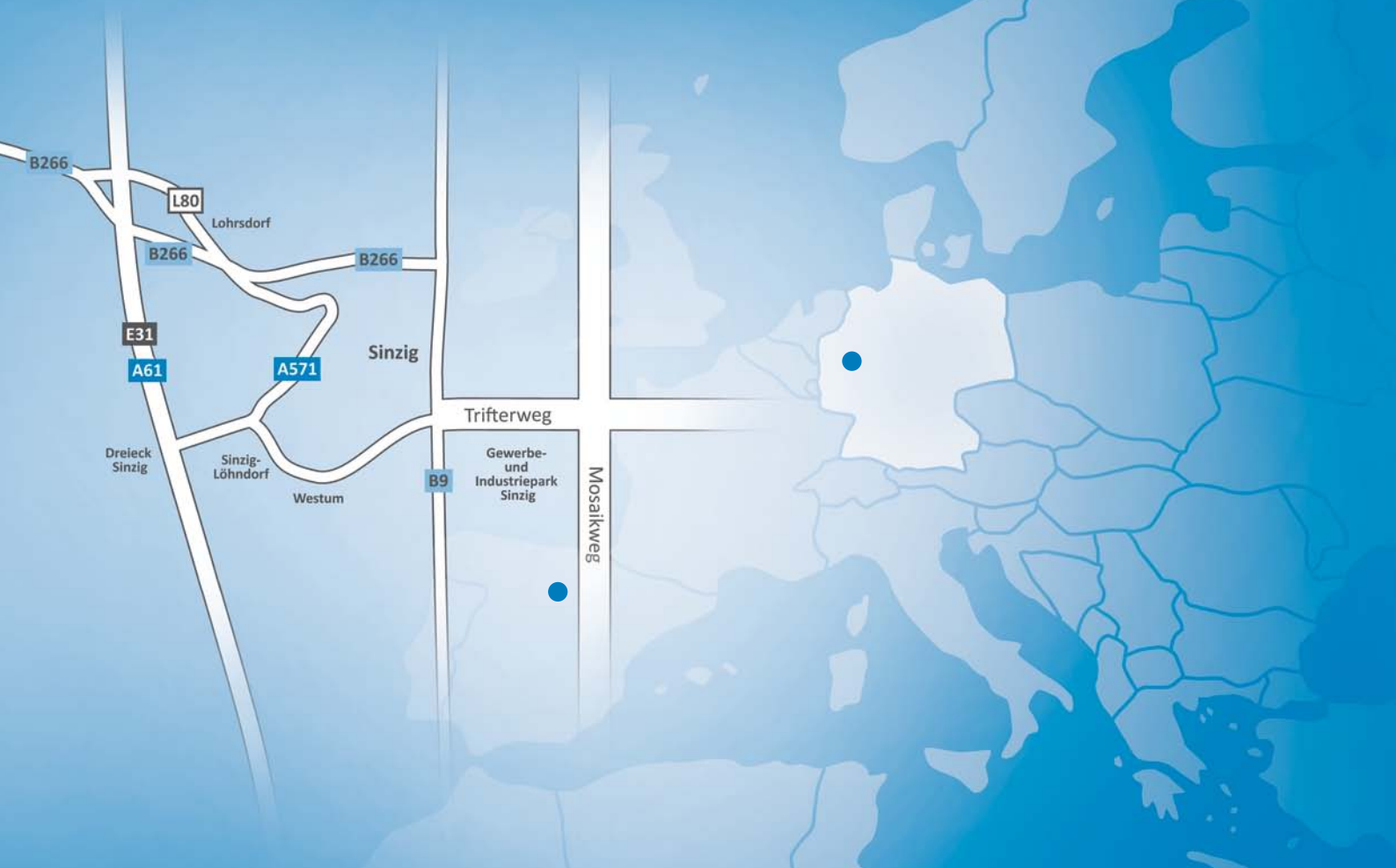
- Screw and barrel configurations
- Process consulting
- Machine design
- Project management
- Fitting and commissioning
- Training

Pilot plant

Our well-equipped pilot plant is available for testing, including tests conducted under production conditions. Test data can be recorded and analysed at a later date by means of integrated data systems. The accredited test laboratory connected to the facility also offers a range of analysis options.



We look forward to meeting with you!



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