

high tech injection molding

**srm injection molding machines**

**1983** The company was founded in Augsburg, Bavaria, by a mechanical engineer named Roderich Ettliger who began producing injection molding machines and other specialized machinery. The first machine within the "srm" range was delivered to a customer in Sweden.

**1999** Ettliger opens a new production facility to keep up with the growing demand.

**2004** Roderich Ettliger implements an idea that had been occupying him since the 1970's. His idea became a reality in 2004 with the first order for the ERF® 200, the patented melt filter system from Ettliger.

**2010** After 27 successful years in business Roderich Ettliger hands the company over to his son Thorsten Ettliger and Volker Neuber, who are both responsible for all future technical and commercial development of the company.

**2013** Ettliger North America LP opens a sales, service and spare parts facility in Wheaton Illinois near Chicago. Customers in the US and Canada have welcomed the new facility as they are now able to quickly get virtually any needed wear part for their Ettliger machinery.

The company with its headquarters located in Königsbrunn near Augsburg is active worldwide with representatives in all the major markets.

The core competence of the company is the development and production of injection molding machines and high-performance melt filters.

The injection molding machines are especially suitable for the production of plastic parts weighing up to 100 kg (or more) such as plastic pallets, fittings or manholes. Because of its integrated building-block system, Ettliger can offer low-cost solutions and flexible machine concepts for a very wide range of applications.

To meet the demanding requirements of high performance melt filtering, the company manufactures the continuously operating ERF® melt filter for highly contaminated plastics. This patented system filters out contaminants such as paper, aluminum, wood, silicones or high-viscosity plastics from all standard polymers.

### Benefits for Typical applications

► **Energy consumption down 60%:**

srn injection molding machines require significantly less clamping force than conventional equipment for the same shot volumes and identical cycle times. Put simply, the srm series achieves high performance with significantly less power – its smaller drives use less electricity and take up less space..

► **Significant savings on raw material purchases:**

Thanks to the innovative two-stage injection unit, srm injection molding machines can process both virgin and recycled material as well as mixed plastics .

► **Compact and optimally accessible from the side:**

srn injection molding machines are up to 40% shorter than conventional models leading to a comparatively small overall footprint.

With their twin-platen design, the srm line also has a large opening stroke with no tie bars in the way which leads to less complex part removal and more straightforward mold changes.

### Typical applications

► **Pallets**

- Returnable and non-returnable pallets
- Virgin or recycled material

► **Fittings**

- Tees
- Y - branches
- Pipe elbows

► **Manholes**

► **Waste water systems**



### srn injection molding machines

- **Shot volume:** 5.000 to 160.000 cm<sup>3</sup>
- **Clamping force:** 2.000 to 4.000 kN (three-platen system)  
6.000 to 30.000 kN (twin-platen system)
- For injection molded parts > 1000 g  
with wall thicknesses > 2 mm
- Customized solutions for non-standard applications

### Two-stage injection unit

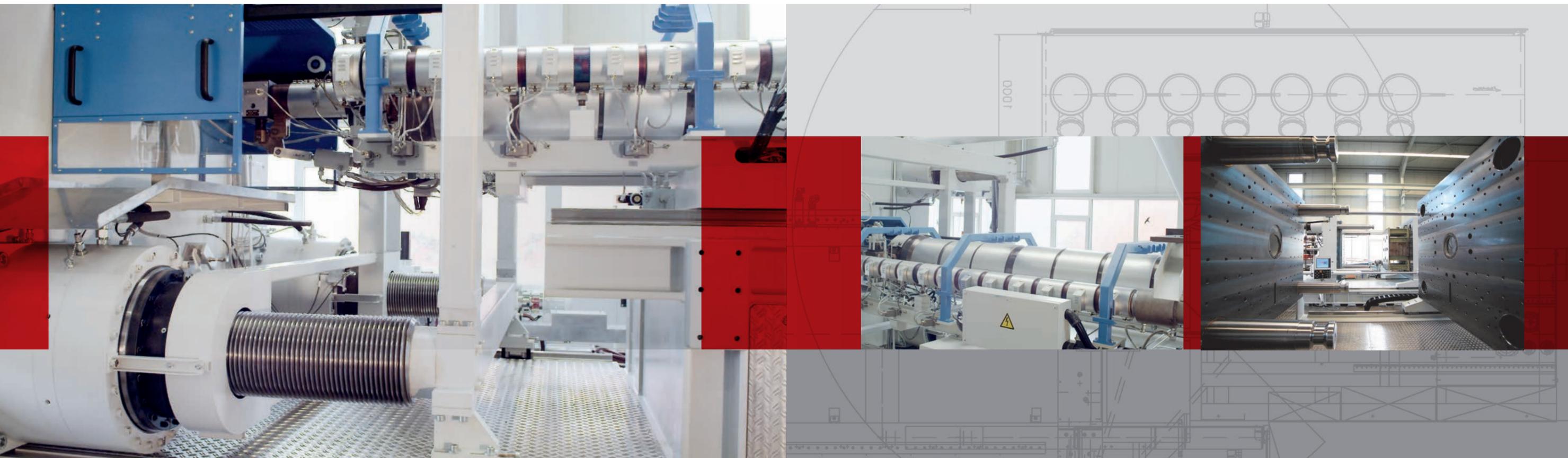
Dosing and plastication take place in a cylinder with a fixed screw („extruder“ drive, either electric or hydraulic). A separate accumulator with a plunger controls the injection process.

Hydraulic shut-off nozzles are used instead of a non-return valve.

### Clamping systems

The clamping systems of our srm injection molding machines achieve fast opening and closing movements and are also extremely compact. This is possible thanks to the low-friction guide rollers that are used to position the moving platen.

The systems are available with a twin or three-platen design and can also be combined with core pullers on the machine side.



**Fittings manufacturing (examples):**



**srm 800:**

<b>Clamping force</b>	8,000 kN
<b>Shot volume</b>	20,000 cm <sup>3</sup>
<b>Platens (H x V)</b>	2,100 x 2,000 mm
<b>Tie bar clearance (H x V)</b>	1,550 x 1,400 mm
<b>Dimensions (L x B x H)</b>	8.4 x 2.2 x 2.8 m



**srm 2000:**

<b>Clamping force</b>	20,000 kN
<b>Shot volume</b>	130,000 cm <sup>3</sup>
<b>Platens (H x V)</b>	2,800 x 2,440 mm
<b>Tie bar clearance (H x V)</b>	2,000 x 1,600 mm
<b>Dimensions (L x B x H)</b>	13.8 x 3.5 x 3.78 m

**Pallet manufacturing (example):**



**srm 2500:**

<b>Clamping force</b>	25,000 kN
<b>Shot volume</b>	40,000 cm <sup>3</sup>
<b>Platens (H x V)</b>	2,600 x 2,600 mm
<b>Tie bar clearance (H x V)</b>	1,750 x 1,750 mm
<b>Dimensions (L x B x H)</b>	15.0 x 5.0 x 5.0 m

**Customized solutions for non-standard applications are available on request  
Ettlinger's core competency!**



**srm 300 RT:**

With rotary table (4 stations)  
**for manufacturing beacon bases and speed bumps**

<b>Clamping force</b>	3,000 kN
<b>Shot volume</b>	32,000 cm <sup>3</sup>
<b>Dimensions (L x B x H)</b>	10.7 x 3.2 x 2.4 m



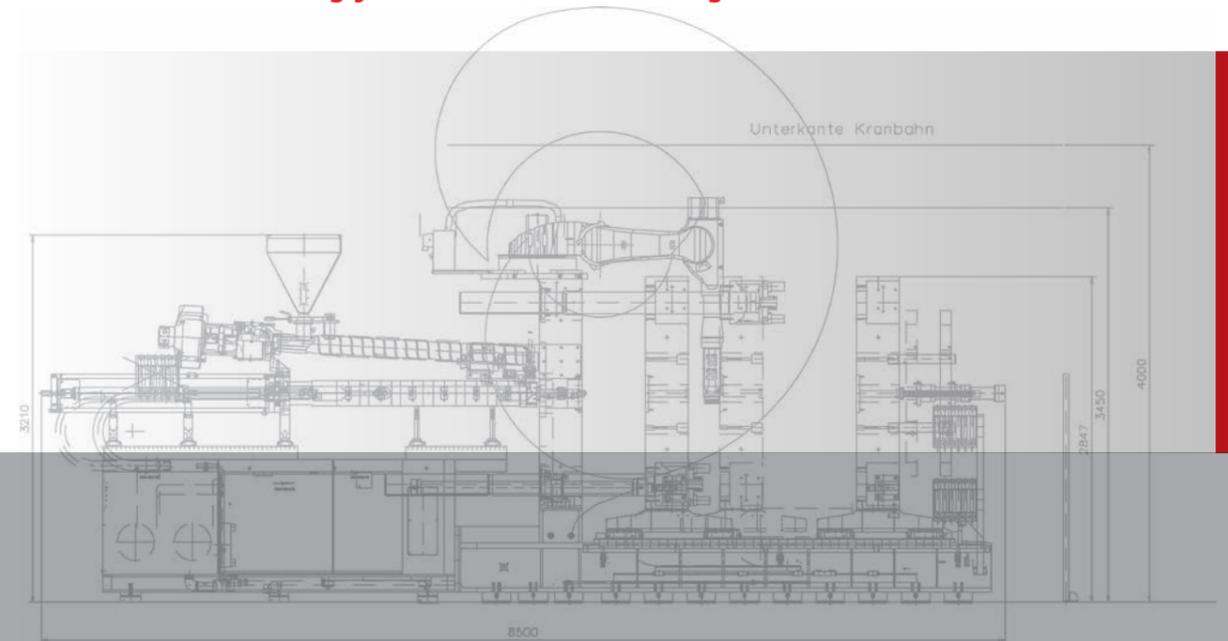
**srm 800:**

With integrated, continuous ERF melt filter  
**for processing contaminated feedstock; no need for a complete repelletizing line**

<b>Clamping force</b>	8,000 kN
<b>Shot volume</b>	20,000 cm <sup>3</sup>
<b>Platens (H x V)</b>	2,200 x 2,100 mm
<b>Tie bar clearance (H x V)</b>	1,650 x 1,500 mm
<b>Dimensions (L x B x H)</b>	13.0 x 2.8 x 2.8 m

**Thirty years of expertise in the development, design and manufacture of plastic processing machines underpin our reputation as a specialist for customized solutions and non-standard applications.**

**We look forward to tackling your most difficult challenges!**



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