

## Injection molding technique

With injection moulding technique it is possible to quickly and economically manufacture complex shaped plastic parts in nearly every size.

It is also possible to choose the character of the surface of the plastic product. Smooth surfaces for optical applications, grained surfaces for touchable applications, grooves and engraved surfaces are all available as samples.

Simplified, the process is the following: with an injection moulding machine, plastic granulate is heated within a cylindrical spiral. This produces a homogenous compound which is easily shapeable. This compound is pressed into the appropriately shaped injection moulding tool under high pressure. Both halves of the tool are held together with high pressure and after a short cooling time they open again. The finished injection moulding part is ejected by an ejection system.



In addition to pure injection moulded parts, we are also able to manufacture sub-assembly specifications with an additional assembled sealing.

We continuously modernise and improve the technical processes to ensure exceptional quality of our injection moulded parts. The processes are also online quality monitored.

With our internal die shop we are able to manufacture tools according to individual customer requirements.

Our development division is equipped with CAD workstations so it is possible to exchange drawings in formats like Solid Edge, Auto Cut, Step and Iges online.

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The following injection molding machines are used by us:

- Engel

Clamping force: 250 t  
max. injection capacity: 2000 cm<sup>3</sup>  
max. clamping area : 700x1000mm  
Materials: ABS, PVC, PP, PA, PS, TPE

- Engel

Clamping force: 90 t  
max. injection capacity: ca. 200 cm<sup>3</sup>  
max. clamping area: 220x500mm  
Materials: ABS, PVC, PP, PA, PS, TPE

- Boy 22 horizontal machine-no. 39191,  
vertical machine-no. 39217 und 33184

Clamping force: 22 t  
max. injection capacity: 44 cm<sup>3</sup>  
max. clamping area: 250 x 200 mm  
Materials: ABS, PVC, PP, PA, PS, TPE, EPDM

- LWB machine-no. 332367  
Type HCE-TPE/EPDM

Clamping force: 100 t  
max. injection capacity: 250 cm<sup>3</sup>  
max. clamping area: 400 x 400 mm  
Materials: TPE, EPDM

- LWB machine-no. 312184

Clamping force: 30 t  
max. injection capacity: 250 cm<sup>3</sup>  
max. clamping area: 290 x 260 mm  
Materials: EPDM

