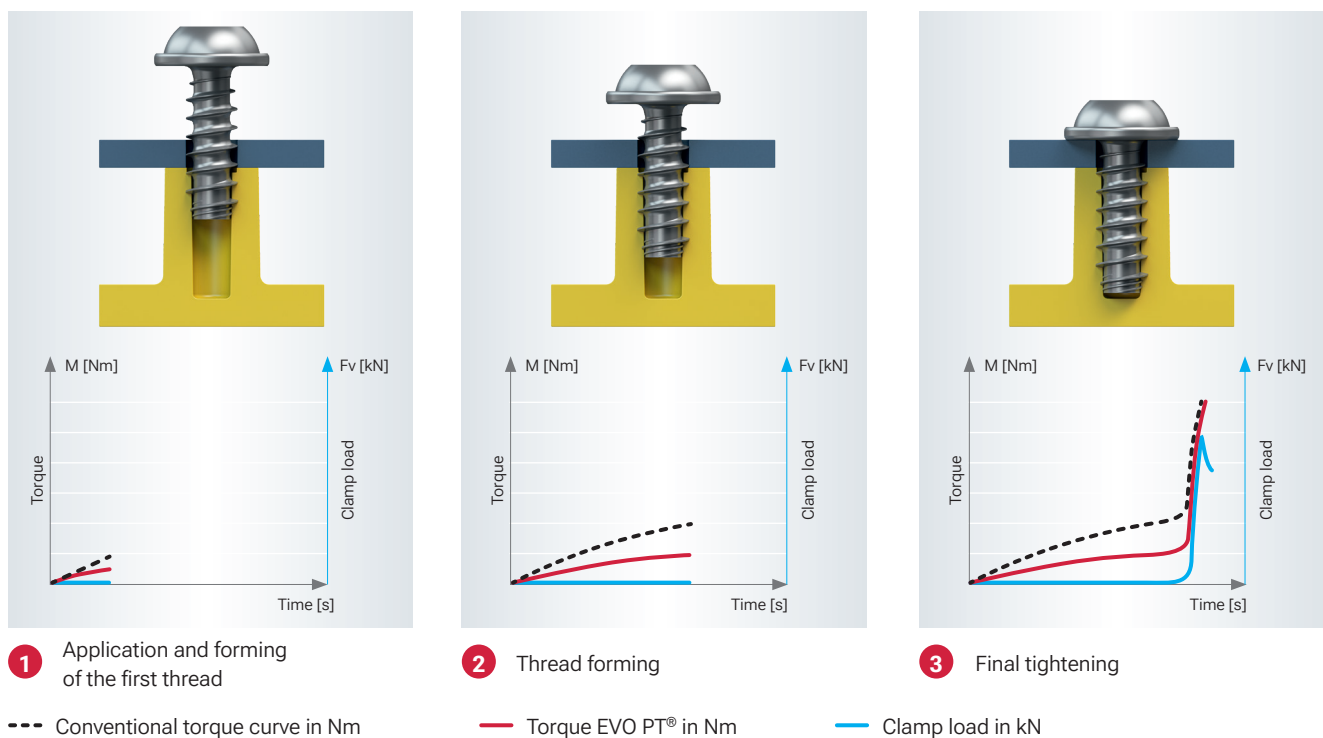


EJOT EVO PT®

The evolution of direct fastening into plastics

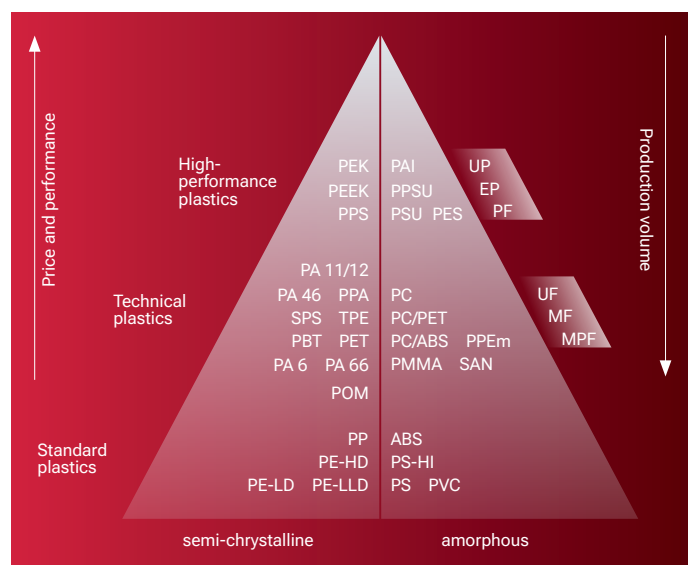
Direct fastening into plastics offers numerous advantages that positively impact various aspects of industrial assembly. By **eliminating** inserts, handling systems, screw locks, and complex core pins, the entire manufacturing process is significantly simplified. This not only reduces inspection efforts but also leads to significant **savings in cost, time and weight**. These

benefits can be realized with the EVO PT® by direct fastening into thermoplastics. For this screw, EJOT has combined manufacturing and application expertise with new methods based on computer simulations. Overall, **direct fastening** with the EVO PT® enables more efficient and economical production as well as resource-saving implementation of the application in the project.



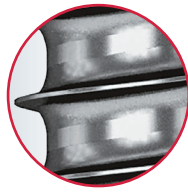
Features

- > **Dynamically secure** – High self-locking capability and pull-out strength, backlash-free mating of screw and female thread
- > **Releasable** – Recyclability, disassembly, repairability
- > **Process reliability** – Wide installation window, reliable automated assembly even with large component tolerances
- > **Customizable** – Screw adaptation to customer requirements (e.g. screw material, head shape, or surface)

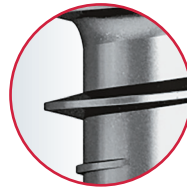
Direct fastening of all listed plastics with EJOT screws

Bringing it together.



Bionic contour

- > High mechanical strength for demanding applications



Thread forming zone

- > High assembly reliability due to enlarged installation window



26° flank angle

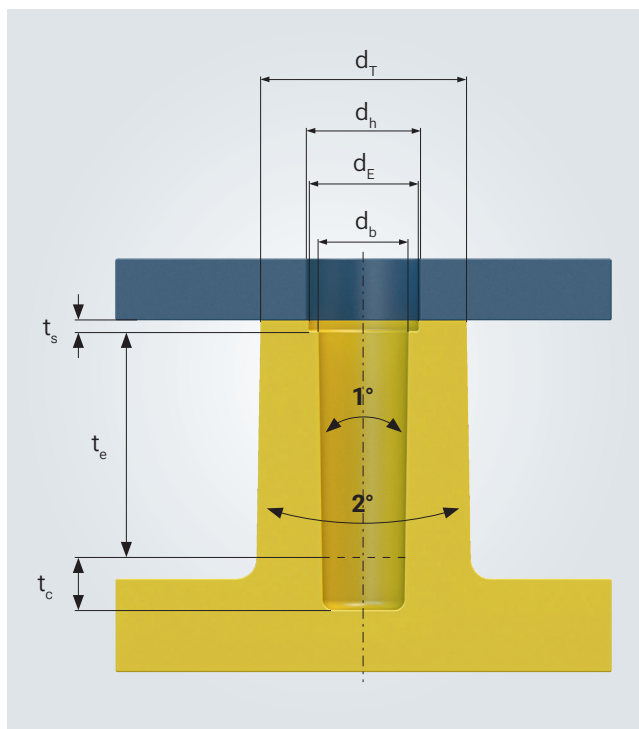
- > Excellent plastic forming



Lead thread

- > Automatic centering of the screw in the screw hole
- > Compensation for hole position tolerances

Design recommendation



Nominal diameter of the screw in mm: d_1

Counterbore diameter: $d_E = d_1 \times 1.05$

Hole diameter: $d_b = 0.85 \times d_1 \pm 0.05 \text{ mm}$

Installation depth: $t_e = 2 \times d_1$ or deeper

External boss $\varnothing$: $d_T = 2 \times d_1$

Clearance hole $\varnothing$: $d_h = 1.05$ to $1.1 \times d_1$

Counterbore depth: $t_s = 0.1 \times d_1$

Hole depth allowance: $t_c = 0.5 \times d_1$

Digital service for optimized components

The digital calculation service EVO CALC® enables you to pre-calculate torques and clamp load forces, as well as clamp load relaxation under temperature and time. Additionally, EJOT provides an individual FEM-based component analysis, allowing you to save time and costs starting from the design phase of your component.



TOBI®
DRIVE - SYSTEM

The high-performance screw drive system

- > Secure hold without magnetic bits or vacuum systems
- > Axial alignment of screw and bit
- > Longer bit life due to enlarged contact area (up to 70 x higher)
- > Reverse compatibility with standard internal hexalobular bits

More information at <https://www.semblex.com/> or please contact
Phone: +1-630-833-2880, e-mail: sales@semblex.com