



b&m-REPTO[®]-Family

Threaded inserts for plastics with
different embedding methods

b&m-REPTO®-Familie

Threaded inserts for plastics with different embedding methods

Threaded inserts produce a highly repeatable form-fit connection with plastic parts. The connection is produced through overmolding, ultrasound, or heat embedding, and through a screw-in process.



Product	Areas of use
b&m-REPTO® M	Non-reinforced/reinforced thermoplastics (up to 50 % GF) and thermosets
b&m-REPTO® S	Non-reinforced/reinforced thermoplastics (up to 50 % GF) and thermosets
b&m-REPTO® U	Non-reinforced/reinforced thermoplastics (up to 50 % GF)
b&m-REPTO® W	Non-reinforced/reinforced thermoplastics (up to 50 % GF); particularly suitable for plastics sensitive to stress cracks, e.g. PC
b&m-REPTO® E	Non-reinforced/reinforced thermoplastics (up to 30 % GF) and non-reinforced thermosets

Material selection

Our threaded inserts are available in brass from stock as standard, and in a lead-free version on request. This achieves the same high strength combined with high corrosion resistance as the leaded variant. We can also manufacture from other materials for customized versions: aluminum, steel, and stainless steel, all without lead.

b&m-REPTO® M

Threaded insert for overmolding with different outer contours in plastics

The b&m-REPTO® M is a threaded insert for overmolding with the function of connecting metric screws with plastic components in a reliable and repeatable process.

Functional principle

Plastic flows around the component in a form-fit manner already during production of the component. With this method, the outer contour can be given any desired undercut and anti-rotation elements where the focus of the design is on the future stress. This optimized contour, which is bound to the plastic with form fit in injection molding, makes it possible to transfer high forces.

Features

- **Diameter:** M3 – M8
- **Length:** 6.9 mm – 12.7 mm
- **Torque absorption:** hexagon or knurl
- **Axial force absorption:** circular grooves and knurl

Benefits

- Undercuts can be filled with form fit and forces can be transferred in an optimum manner
- High reproducibility of the threaded connection
- Geometry can be adapted to customer requirements
- Universal application for a large variety of materials



b&m-REPTO® S

Threaded insert for screwing into plastics

The b&m-REPTO® S is a threaded insert for screwing-in and, with its internal thread, serves as the connection point for reliable and repeatable installation of metric screws.

Functional principle

The outer contour is an external thread – the b&m-REPTO® S is installed in the plastic like a screw. High loads can be counteracted due to the large contact area between insert and plastic.

Features

- **Diameter:** M3 – M8
- **Length:** 6 mm – 15 mm
- **Torque absorption:** friction and head support
- **Axial force absorption:** thread

Benefits

- No equipment or tool purchases necessary
- Simple process implementation
- High tensile loads possible
- Surface contour can be adapted to customer requirements



b&m-REPTO® U

Threaded insert for ultrasonic embedding into plastics

The b&m-REPTO® U is a threaded insert for ultrasonic embedding with the function of connecting metric screws with plastic components in a reliable and repeatable process.

Functional principle

The outer contour has a knurl and grooves that are optimally designed for tensile and torsional loads. During assembly, the surface of the plastic is melted by the generated friction and axial pressure so it can adapt to the outer contour.

Features

- **Diameter:** M3 – M8
- **Length:** 5.7 mm – 12.7 mm
- **Torque absorption:** knurl
- **Axial force absorption:** circular grooves and knurl

Benefits

- Fast process
- Reduced internal stresses in the tube
- Surface contour can be adapted to customer requirements
- High reproducibility of the threaded connection



b&m-REPTO® W

Threaded insert for heat-embedding into plastics

The b&m-REPTO® W is a threaded insert for heat-embedding with the function of connecting metric screws with plastic components in a reliable and repeatable process.

Functional principle

The inserts have a conical, knurled outer contour to provide a large contact surface for the heat transfer during the embedding process. The heat and pressure melt the surface of the plastic so it can adapt to the outer contour. The contour is surrounded by the plastic in a form-fit manner and can absorb both tensile and torque loads well.

Features

- **Diameter:** M3 – M8
- **Length:** 5 mm – 12 mm
- **Torque absorption:** knurl
- **Axial force absorption:** circular grooves and knurl

Benefits

- Fast and material-preserving process
- Reduced internal stresses in the tube
- High reproducibility of the threaded connection
- Universal application for a large variety of materials



b&m-REPTO® E

Threaded insert for expansion embedding in plastics

The b&m-REPTO® E is a threaded insert for cold-embedding with the function of connecting metric screws with plastic components in a reliable and repeatable process.

Functional principle

The outer contour is knurled with a slotted embedding area – an optimal design for tensile loads. The slotted application area additionally ensures easy installation. When a screw is installed, the b&m-REPTO® E spreads and the knurl penetrates into the plastic, ensuring that the threaded insert is firmly seated.

Features

- **Diameter:** M3 – M8
- **Length:** 5.7 mm – 12.7 mm
- **Torque absorption:** knurl
- **Axial force absorption:** circular grooves and knurl

Benefits

- Fast and simple assembly process
- Backwards installation for tight spaces possible
- High reproducibility of the threaded connection
- High safety under tensile and torsional loads
- Low investment for assembly tools





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