

# Shims

**Shims are products for underlaying and for simultaneously compensating production tolerances.**

By underlaying or inserting shims, production tolerances of components can be reduced: when joining components, these shims can reduce or replace processing costs from machining work which would otherwise be necessary. With regard to repair and maintenance, the use of shims reduces the cost of the work required.

## Variants

Shims can be divided up into many sub-groups:

- **Laminated sheets**, standard products in this area include various different base materials, the so-called M-Tech<sup>®</sup>L panels, from which other standard parts can be produced (e.g. slotted shims and ball-bearing shims).
- **Solid sheets**, standard products are also made from sheets and metal foils, see above.

As well as standard products, parts are also produced according to customer drawings in both areas.

Below is a list of the different product groups and their previous product names:

**M-Tech<sup>®</sup>L** - fully laminated metal foil material

**M-Tech<sup>®</sup>S** - solid shims

**M-Tech<sup>®</sup>P** - edge bonded, bundled shims

**M-Tech<sup>®</sup>F** - foil tape made of metal

## Scope of product definition

The selection of the base materials and the basic form constitute possible distinctions between these and other shim products. The base materials are usually strip stock made of metallic materials.

The forms of the parts are adapted to the stamping technique. This means that highly intricate structures such as those produced by laser processing or chemical caustic processes are not possible.

## Manufacturing method

In general, all separation methods can be used to manufacture shims. At Georg Martin GmbH, the favoured methods are a combination of shear separation, stamping and nibbling.