Additive manufacturing







>>> Adding value through additive manufacturing. <<

In addition to a wide range of standard products from the modular profile system, mk also produces individual components by means of additive manufacturing using a 3D printer. Using fused filament fabrication, we create prototypes or small series based on your requirements.

Additive manufacturing opens up a variety of possibilities, especially for small batch sizes where traditional manufacturing methods such as injection moulding are not economical due to high tool costs. With 3D printing, we can produce batch sizes from one to several thousand units to suit your individual requirements.

3D-printed components can be used in a variety of ways, from made-to-measure covers for hazardous areas, sturdy workpiece fixtures or tailor-made conveyor technology components such as cams. We can also create visually appealing covers to replace angled sheets, individual components displaying your customer logo or cost-effective prototypes.

Please note, components manufactured using the FFF process typically have a ribbed surface.

Do you have an idea for a component that could be manufactured using additive manufacturing? Please don't hesitate to contact us! We can help you come up with a concept, test it and create the finished component, turning your vision into a reality.



Benefits

Fast production and delivery times

Thanks to the efficient 3D printing process, we can manufacture and deliver your components quickly, saving you time and money.

Flexibility

Changes to existing products can be implemented immediately without complex tool adjustments. This allows for maximum adaptability and agility in the product development process.

Cost efficiency for small batch sizes

Especially when producing small quantities, additive manufacturing is an economical alternative that eliminates high tool costs.

Weight-optimised components

The option to integrate grid structures means that components can be made lighter without sacrificing stability.

Environmentally friendly thanks to the limited use of materials

Compared to traditional manufacturing methods such as milling, 3D printing significantly reduces material waste and energy consumption, thus contributing to sustainable production.

Complex geometries

Additive manufacturing can also be used to produce highly complex components with freely definable geometries, which opens up completely new design options.

Applications

- Covers, end caps, plugs
- Cable Clips
- Cams, bucket conveying systems
- Workpiece fixtures
- Pushers
- Safety guards
- Tool holders
- Mounting supports, drilling jigs
- Components displaying your customer logo
- and much more





Example sketches for open slots





End caps

In addition to the end caps included in the standard portfolio, we can create customised end caps using 3D printing.

This includes variants with partially or completely open slots, for the attachment of connection systems for example, or end caps in different colours with an optional customer logo.

Material: Plastic



Custom applications



End cap for roller conveyor frame profile



End caps in special designs and for very large cross sections





Cable Clips

Cable clips for Series 40 and 50 profiles for individual or multiple cables with different cable cross sections.

A1 cable clips are pushed into the T-slot together with the cable. The clip can then be released together with the cable.

C1 cable clips are inserted into the T-slot and fixed in place by rotating 90°. Individual cables or cable strands can be secured in the clip both lengthways and crossways to the profile using cable ties. In contrast to A1 clips, C1 clips can provide a certain degree of strain relief.

D1 cable clips are pushed into the T-slot. Individual cables can then be pushed into the clip. It is possible to remove the cable without removing the clip. If necessary, the cable can be additionally secured with a cable tie. The clip can be removed from the T-slot by rotating it 90°.

Material: Plastic



Application example for D1, A1 and C1 clip (from left)



Clip A1



Clip C1



Clip D1



Cams

Customer-specific cams can be created for a wide range of product requirements and can carry out transport tasks including product separation, product portioning or transporting loose goods.

Cams are suitable for use in chain conveyors or timing belt conveyors.

Material: Plastic

Custom applications



Chain timing belt with cams produced using 3D printing



2-line timing belt conveyor with bolted-on cams





Conveyor technology components

Our impressive range of conveyor technology components includes customised components such as covers, holders, protective guards, pushers, spare parts, prototypes and more. 3D printing is particularly advantageous as it allows us to reduce complexity and integrate functions. Different components can also be printed one after the other quickly, cost-effectively and without changing tools.

Material: Plastic

Custom applications



Protective guard for the opening on the timing belt conveyor tail



Pusher used in the transfer line for separating folding boxes



Maschinenbau Kitz GmbH Headquarters of the mk Technology Group

Ampèrestraße 18 53844 Troisdorf Germany Phone +49 228 4598-0 info@mk-group.com