SKS METAPLAST

System solutions made of engineering plastics

We see ourselves as a partner who offers solutions to technical, material and constructive tasks in the plastics business.

- Automotive industry
- Sanitary and house equipment
- Bike industry
- Supply for the industry
Continuity is the basis of every target-oriented development. SKS-Metaplast has been around in the world of plastics since 1956. Our range of customers includes the automotive, bicycle and motorcycle, sanitary, household appliances, building and electrical engineering industries. The entire business process has been integrated in a continually evolving quality management system, which has been certified for years according to the international standard DIN EN ISO 9001:2008 and ISO/TS 16949:2009. Even at the early stages of every product we see ourselves as a competent and active partner in optimizing and achieving the goals set by our customers.

From the initial concept, design, component analysis, material selection, and prototyping to component testing and quality assurance, we are a partner who knows his business. SKS-Metaplast produces high-quality plastic components, being aware that their use can conserve energy and raw materials and thus make a contribution towards a sustainable quality of life. For this reason, we make sure that we use environmentally friendly materials and technologies and that the products can be recycled as completely as possible after their useful lives.
The project engineers’ expertise.

The development of feasible products and problem solutions requires networked thinking on the part of everyone involved in the development process. After all, 80% of the manufacturing costs of a component are determined by its design. You can rely on the expertise of SKS-Metaplast’s project engineers from the start. Their view is critical in the positive sense. It follows the designer’s material recommendation and joins with our experience in functionality and performance capability. According to the objectives, manufacturing strategies are developed and decisive parameters are optimized or modified by means of prototyping, if applicable.

Materials expertise. Basis for functionality.

The engineers, designers and customer service representatives are in close contact to the suppliers of raw material, who internationally define the state-of-the-art in plastics technology. We have experience in manufacturing parts and assembly-groups, which are exposed to extreme mechanical forces, have good insulating and dynamic friction characteristics and also are stable in dimension and pressure-proof. We make products that are meant to be long-lasting, remain scratch and impact resistant and must be highly weather and UV resistant. We are familiar with how to solve the problems of extreme thermal stress and high heat resistance. We work in industries where extraordinary demands are placed on the surface finish.
Prototyping and component testing.

At SKS-Metaplast, prototyping is more than just a method of making models quickly and at low cost early in the planning stage. By preparing the specifications, we reach a clear agreement on the product design and the appropriate choice of materials. Filling studies furnish indications with respect to the optimal component design, and help reduce costs and time. Finally, the model provides us with the basis for the mechanical and physical verification of the design concept, which is necessary for making the final models for eventual mass production.

In addition to in-house testing facilities for the finished component, we rely on the judgements of experts in external test houses.

Further comparative tests of mechanical, thermal and thermo-mechanical strength are used to verify and confirm the process parameters and material batches which we have specified. This will also ultimately confirm aspects of mould design.

**The development tools:**
- Pro / ENGINEER
- Auto-CAD
- Selective sintering

**Interfaces:**
- Pro/E, IGES, VDA, DXF
- Data transmission by ISDN, E-Mail, Odette
Quality Management

Objective
This document describes the Quality Management Systems of SKS-Metaplast GmbH. It is applied to all product categories and fulfils the requirements of ISO 9001:2008 and ISO/TS 16949:2009. This document ensures the appropriate identification of customer requirements by SKS-Metaplast GmbH due to the use of closed-loop procedures in all Management System processes and, thus, helps to achieve the customer satisfaction at which we aim.

Corporate Strategy
The purpose of the rules in this manual is sustainable customer satisfaction. This is achieved by matching up the properties of the products and services provided with specifications and by fulfilling and exceeding customer requirements, as well as by means of continuous improvement and preventive measures. Responsibility vis-à-vis the environment and employees is an integral part of the production process. Ultramodern technologies are used to this end. The strategy used by SKS-Metaplast GmbH is aimed at safeguarding and promoting the economic situation of the Company by optimizing productivity.

Requirements Placed on the Management System
SKS-Metaplast GmbH has defined and established the processes needed to ensure that products comply with customers’ requirements. As a means of implementing and visualizing defined processes, a documented Quality Management System has been established, which is permanently monitored, evaluated and further developed.

The Purpose of the Management System is:
• to verifiably ensure that quality requirements with respect to products are fulfilled in all phases;
• to exclude, as far as possible, errors by means of planning and control
• to detect and correct errors as soon as possible and to define appropriate action to avoid repetitive errors;
• to constantly monitor the effectiveness of QA activities and - if necessary - to arrange for corrections to be made;
• to be used as a guideline for internal system, product and process audits, as well as for audits carried out by customers or customers' agents or by impartial external bodies.
SKS METAPLAST is one of the members in the Karl Scheffer-Klute GmbH & Co. KG (SKS)

Managing Associates
Willo Blome - Michael Beste

General Management: Michael Arnold, Michaela Fleige
Sales Management: Dietmar Schake
Quality Management: Michael Meisterjahn
Purchase Management: Bernd Müller
Development: Sven Kordes
Design: Daniel Osebold
Special Purpose Machine Engineering: Ulrich Teicher
Toolshop: Benjamin Lionnais

Staff: ca. 300
Structure:
Manufacture: 215
Commercial Positions: 40
Development and Design: 7
Engineers: 10
Industrial Trainee: 18
Commercial Trainees: 10

DIN EN ISO 9001:2008
ISO/TS 16949:2009
Quality Improvement through Mould Optimisation

Combining precision based on traditional craft with modern CAD/CAM technology

Manufacturing equipment:
Machining centre
High-Speed milling machine
Vertical eroding machine
Coordinate measuring machine (Zeiss)
Machinery

Reaching the maximum productivity by using documented quality

Our manufacturing equipment:

60 injection molding machines 35 t - 350 t
component weight 0,5 g - max. 900 g

20 extrusion machines
manufacturing spectrum
Diameter
min. 2,5 mm - max. 160 mm

Materials:
PVC, ABS, PA, PPA, PS, PPS, PP, PE,
PU, POM, ASA, PMMA etc.
Ready for Sale – Manufacturing and Assembling

The range of processing opportunities

- Finishing processes by means of machines or single processing
- Connecting by means of friction, circular or ultrasonic welding
- Embedding cases
- Mounting of assemblies
- Complete or partial automation, manual mounting
- Assembling and finishing
- Final tests, e.g. leakage testing
The World of Products – Combining Materials

Automotive – supply industry

VDA quick connector for cooling system

Injection moulding
PA
Assembly group
O-Ring mounted
Integrated blocking ring
ultrasonic welded
Locking spring steel, mounted
The World of Products – Combining Materials

Automotive-supply industry

VDA QC´s NW6 till NW 32

Cooling-Water Component

Injection moulding
plastic-material: PA
Assembly group
O-ring mounted
Integrated blocking ring
ultrasonic welded
Locking spring steel, mounted

T-Part with VDA Connector NW16
The World of Products – Combining Materials

Automotive supply industry

VDA quick connector with thermostat for cooling system

Injection moulding / Mounting of assembly groups
Plastic materials: PA and PPS

Installation of a thermostat made from injection moulding components including spring and wax element
The World of Products – Combining Materials

Automotive-supply industry

Friction bearing for Steering column shaft

plastic-material: PA
Assembly group Sliding ring mounted Casing halves Ultrasonic welded
The World of Products – Combining Materials

Automotive-supply industry

Friction bearing for Steering column shaft

plastic-material: PA
Assembly group Sliding ring mounted Casing halves Ultrasonic welded
The World of Products – Combining Materials

Automotive-supply industry

**Non return valve, Cooling system**

Valve body, PPA
Valve piston, PPS
Valve ring, PPS
Spring wire
Completely mounted
The World of Products – Combining Materials

Automotive-supply industry

Non return valve
negative pressure
for Diesel engine

Injection moulding / Mounting
of assembly group
Plastic materials: PA

Casing from injection moulding components,
Including: spring, o-ring, seal element and sleeve
The World of Products – Combining Materials

Automotive-supply industry

Charge air component
Turbo Outlet with Resonator

Injection moulded /
Assembly group
Plastic-material: PA 46

Casing welded
(Friction welding)

Bushing (Steel) press-fitted
captive screw with
reinforcing sleeve mounted

Leakage test 100%
The World of Products – Combining Materials

Automotive-supply industry

Charge air component
Charge air pipe double-leaf with and without Resonator

plastic-material: PA 46 and PA66 GF 35
The World of Products – Combining Materials

Automotive-supply industry

Several Injection moulding components

Threefold clip made from TPE (with welding base)

Single clip made from TPE

Socket for welding with fastener made from PA
Steel bush, press fitted
The World of Products – Combining Materials

Automotive-supply industry

Plastic components for Seat adjustment

- Lever made from PA6 GF30
- Guide inner from PA66/6
- Base Plate from PP LGF 40 (with inmoulded screws)
- Slider made from PP GF30
What can we do for you?
Make use of our Know-How!

You will get to know us as a partner who considers conceptional and constructive thinking to be the crucial aspect of all actions;

Who is able to master the latest challenges of physical and technical modifications of a variety of materials;

And who is able to integrate injection moulding and extrusion into the composites with metal.

SKS metaplast Scheffer-Klute GmbH · Postfach 1701 · 59844 Sundern
Tel.: +49(0)2933.831-0 · Fax: +49(0)2933.831-218
E-Mail: plastics@sks-germany.com