

## Engineering

- Design and engineering
- Prototyping
- Project management

## Production

- Customer specific injection moulding parts
- Taylor made connectors
- Micro injection moulding
- Thin walled parts
- Multi component injection moulding
- Coil bobbins
- 
- Mechatronic components
- 
- Insert- und outsert-injection moulding
- 
- Precision moulds

## Assembly



# Who we are



SPRITZGUSS + FORMENBAU  
ENGINEERING + PRODUKTION + MONTAGE

- Mid-sized injection moulding company
- Founded in 1979 by Winfried Rosenberger
- Own toolshop
- 65 employees
- Assessed acc. to DIN EN 9001:2000 and ISO/TS 16949:2002
- Turnover in 2011: 10 Mio €



# Our company in Romania



SPRITZGUSS + FORMENBAU  
ENGINEERING + PRODUKTION + MONTAGE

## S.C. Rosenberger ROM S.R.L

### Founded:

- September 2010
- Location Medias

### Development:

2011

- 3 employees
- 2 presses
- Production for german and romanian markets

Our goal 2012:

- 5 employees
- 3 presses
- Production for german and romanian markets
- Production of automotive components



# Our customers



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Amphenol

*Schroff*



*katek*



bosal oris

PRETTL

BACH  
MANN



Continental  
CONTITECH



staiger



Source: The above mentioned OEM  
Logo is owned by the specific OEM

# OEM customers



Mercedes-Benz



PORSCHE



Wir leben Autos.





# Projects – made by Rosenberger

- Projectmanagement according to Automotive Standards
  - Analysis of feasibility, benchmarking
  - FMEA
  - Mold-Flow-Analysis
  - 3D-Design
  - Industrial Engineering
  - Scheduling
- Prototyping with various methods and technologies
- Mould-making in our own workshop in Besigheim
- Initial sampling, makeup and ISIR in Besigheim
- Production in D or RO – Quality made by Rosenberger

# Design

- Development partner for automotive suppliers
- Design and engineering of mechanic assemblies
- Engineering
- Prototyping
- Project management
- Serial production



# Mould making

- 3D-CAD Pro Engineer
- 2D and 3D- CAM  
I-DEAS, Coscom as well as  
Powermill of Delcam
- HSC- mills
- Wire and spark erosion
- High precision spark  
erosion center
- Plane grinding and profile  
grinding
- CNC-milling





# Injection moulding

- 29 presses
- Clamping force from 120 kN up to 1800 kN
- Production area 1.800 m<sup>2</sup>
- Shot weight:  
1 – 450gr (in PS)
- Processing of technical plastics and high performance plastics



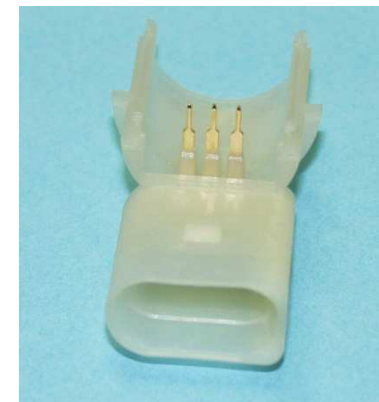
# Multi component injection

- 2K-technology
- Monosandwich
- Fluid assisted moulding possible (unit is prepared)



# Applied robotic

- 3 robot operated cells to produce connectors fully automated incl. 100% testing
- 1 of it including stamping and bending
- Annual capacity 1,2 – 1,6 Mio pcs per cell





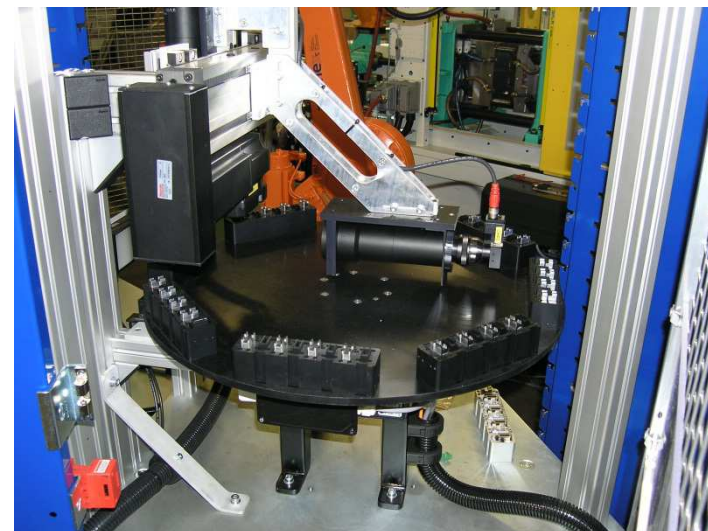
# Stamping

- Integration of stamping and injection moulding.  
Stamping of plated bands close to moulding press and immediate subsequent manufacture



# Flexible Automation

- Flexible automation cell with 6-axis-robot
- 100%-dimensional testing of airbag connectors by 2 camera systems
- Units separated by cavity numbers
- Measuring of the in-mould-pressure of up to 8 cavities





# Assembly techniques

- Automated assembly of mechanical structures
- Ultrasonic welding of high performance plastics material
- Multiple 100%-inspection and final automatic labeling
- Fail-safe-strategy and poka yoke



# Aktuator – VW PQ35-Plattform



Bild: VW Golf VI GTD  
Quelle: Wikipedia  
Autor: S 400 HYBRID  
Lizenz: Freie Verwendung





# Thermostat housing Porsche Panamera



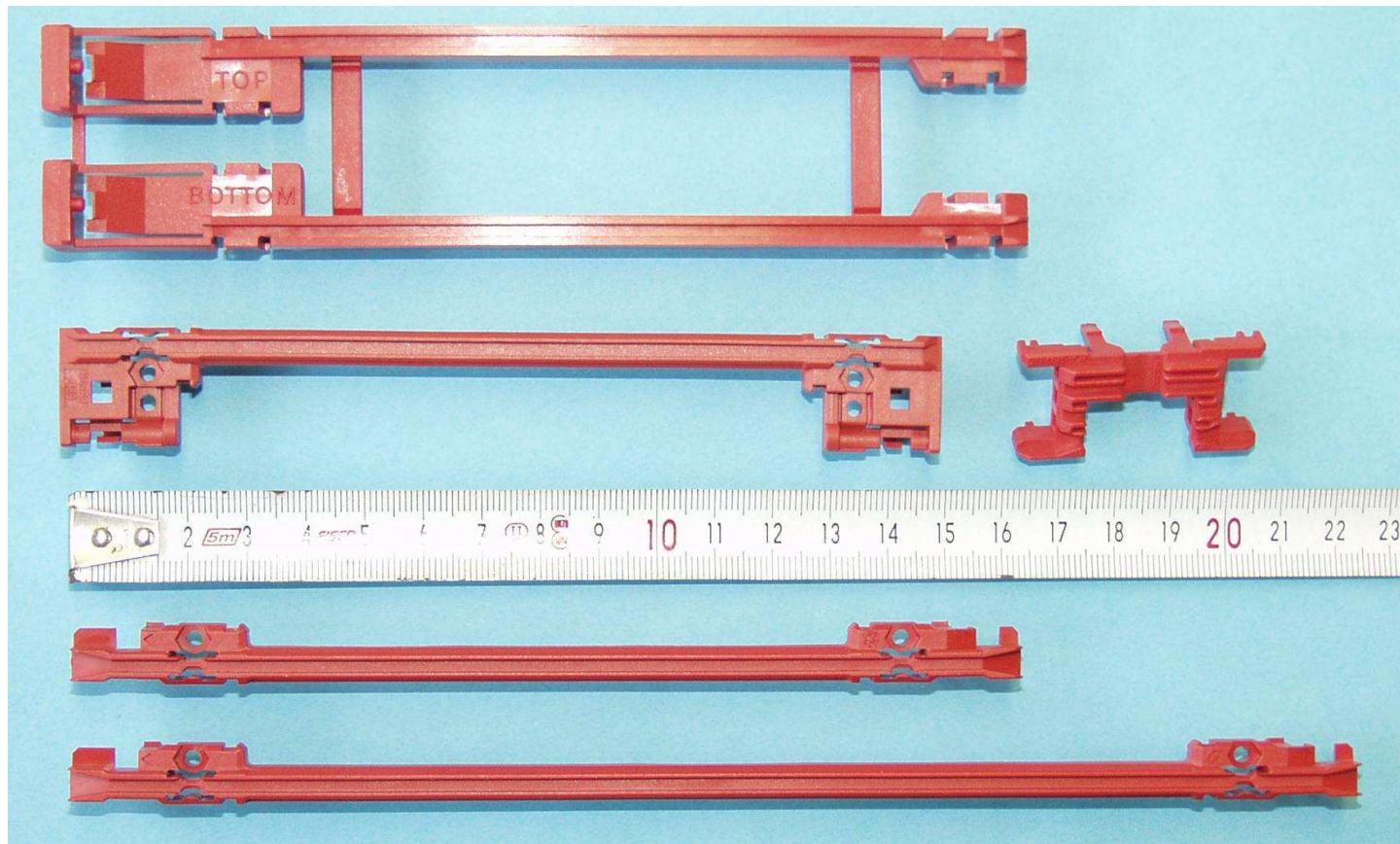
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Bild: Porsche Panamera (typ 970)  
Quelle: Wikipedia  
Autor: Pežot  
Lizenz: Creative Commons CC0 1.0 Verzicht auf das Copyright

# Guiding rails – switch board cabinets



# Parts for ultrasonic parking assistance



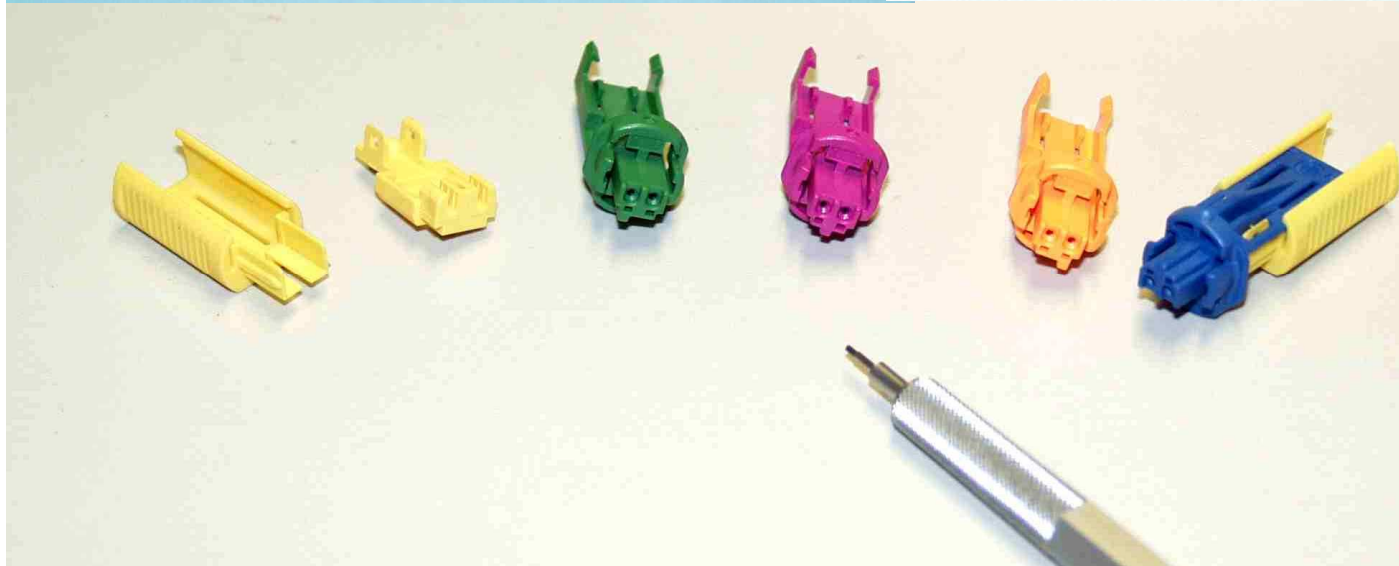
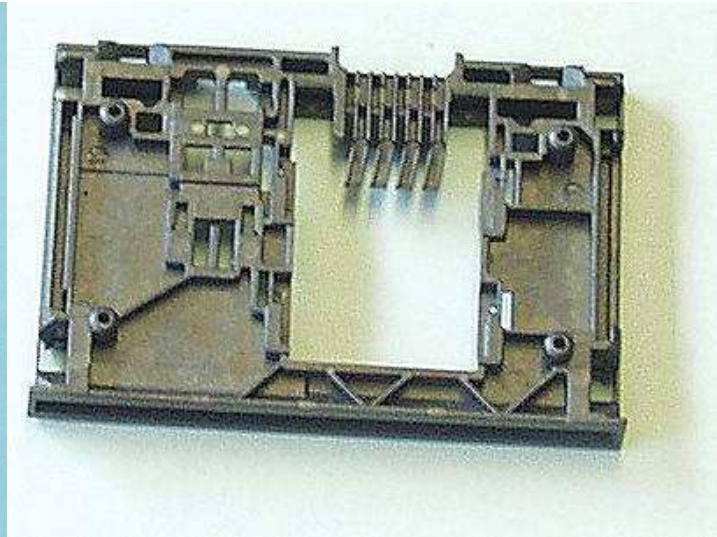
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# Connectors and electronic devices



# Micro injection moulding

