

...in good SHAPE!



fbb

FBB Formenbau Buchen GmbH · Friedrich-List-Straße 3 · D-74722 Buchen · +49 (0)6281-404-450 · www.fbb-formenbau.de

COMPANY PROFILE

Address

FBB Formenbau Buchen GmbH
 Friedrich-List-Str. 3
 74722 Buchen / Germany
 Telephone +49 (0) 62 81 / 4 04 - 4 50
 Telefax +49 (0) 62 81 / 4 04 - 4 54
 E-Mail WEhmann@okw.com
 Internet www.fbb-formenbau.de

Managing Director

Wolfgang Ehmann

Employees

25 employees
 in administration, engineering and production

Year of foundation

since 01.01.1999 independent company

Field of activity

Development, design and production of injection moulding, diecasting and silicon casting moulds as well as punching and compression moulding dies.
 Sampling and preproduction parts.
 Model construction and prototyping in cooperation with powerful partners.

Certificate

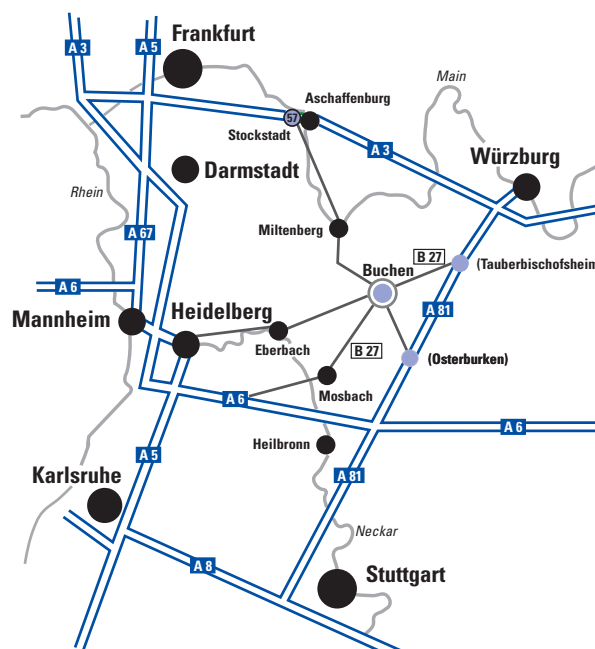
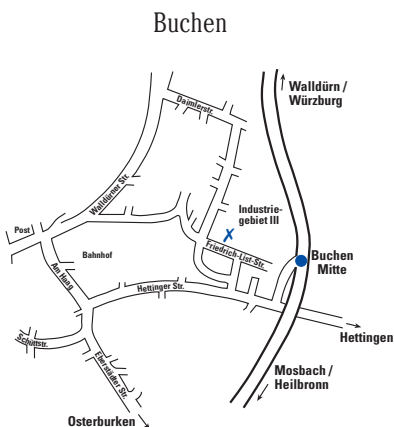


Certification in accordance with DIN EN ISO 9001:2000 by SGS.

Proprietor

Dipl.-Ing. Dieter Schneider
 Dipl.-Ing. Christoph Schneider

Location



LET US GET YOUR WISHES INTO SHAPE

Customer requirements

Initial sample test report



Consulting / development



Sampling
Injection moulding machines



CAD / CAM

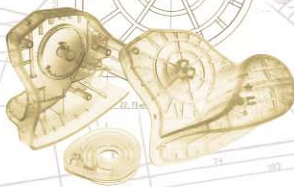


Production

- Wire cutting
- Eroding
- Grinding
- Assembling
- Milling

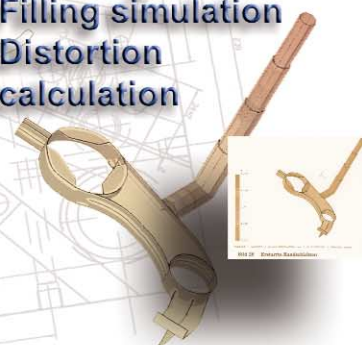


Prototype



Analyses

- Filling simulation
- Distortion calculation



FROM THE DRAFT TO
THE SERIES-TYPE TOOL
THAT IS READY
FOR PRODUCTION



FBB Formenbau Buchen can look back on decades of experience in mould construction and plastics technology. Precision work, quality consciousness, innovative spirit and absolute punctuality have made us the partner of leading companies.

Advisory Service

one contact, from the draft to the sample and acceptance
close cooperation, reliability
experienced specialists in mould construction and plastics technology
ideal solutions in technical as well as economical terms
to meet your individual requirements

Development and design

the very latest engineering systems reduce development times
detailed quality planning
know-how in process technology
fill studies and mechanical calculations
FMEA (initial sample test report)
performance specifications in accordance with customer standards
design of parts and assemblies
top accuracy begins with development
selection of materials to meet your requirements, with quality certification
import of your data

Prototypes and trial parts

close cooperation with powerful partners, e.g. in the stereolithography and experimental injection moulding sectors
use of the latest materials
optimisation of the existing geometry and functions
production of preproduction series tools made of steel/aluminium

Mould construction and sampling/acceptance ...

Mould construction

for injection moulding, diecasting, silicon casting, punching and compression moulding dies
 use of many different hot nozzle systems
 use of the latest materials and tested standard products
 production planning and control with the latest PPS system
 powerful machine tools for milling, cavity sinking and wire EDM, grinding...
 production in accordance with customer's performance specifications
 rational production sequences supported by 3R clamping system / PPS system
 steel hardening in our factory for small parts
 coating of tool cavities guarantees high part removal and tool service life
 surface finishing (polishing/graining) is carried out by experts
 documentation and archiving of the production electrodes

Sampling and acceptance

short routes through cooperation with powerful partners in the group of companies
 sampling on the very latest injection moulding and diecasting machines
 ideal match between machine and mould
 reproducible versions

LET US GET YOUR PARTS INTO SHAPE

Functionality

precision down to the last detail
 single and multiple-component parts
 optimum dimensioning and parts geometry
 dimensional accuracy
 functional industrial components and consumer durables
 designed to meet job specifications
 safe to meet high mechanical standards

Quality and design

high-quality surface finish enhances your product image (high polish / structured finish)
 free form surfaces
 constant performance standard
 consistent quality planning and control

OVERVIEW OF RANGE
OF PARTS FOR
INJECTION MOULDS

Visible Parts

Front grid for spoiler
 Door handles for car interiors
 Housings for car rear view mirrors, interior and exterior
 Loudspeaker covers in car interiors
 Interior covers for cars
 Soft-painted switch panels in car door trim panels
 Telephone
 PC front panel
 Modem
 Printer case
 Computer keyboards
 Cases for monitors
 High-pressure cleaners
 Slide projector

Transparent Parts

Sanitary handles and covers
 Fiber-optical light guide
 Plexiglass cover, imprinted
 Display windows

*Functional Parts
with High Mechanical
Requirements*

Inside door handle
 Seating plate for office furniture
 Cases and handles for electric power tools
 Motor cases
 Transport pallets (Tray's)

*Functional Parts
and Components
with Special Dimensional
Requirements*

Spring and guiding elements
 Fiber-optical light guide for wireless transmitting set
 Ventilation control for passenger cars
 Extension stem of valve for twin tires of trucks
 Inside door handle for cars
 Cup-holder
 Pull-tight handles (GID)
 Keyboard-top part for computer

APPLICATIONS

Automobil



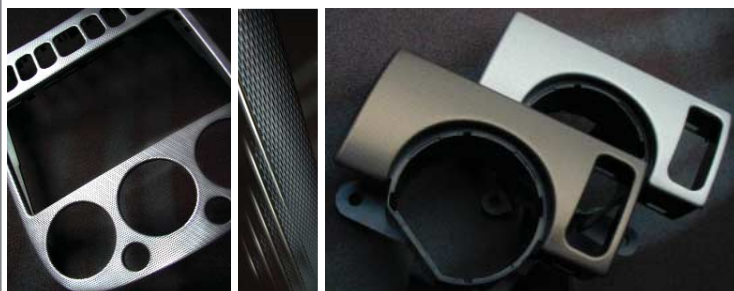
Front grid – Porsche Cayenne



Visible parts/individual parts for external mirror housings – Range Rover



Inside Door Handles – Audi TT / Audi A2 Audi A3 4 Doors / Audi A6



Plastic parts for surface refinement

APPLICATIONS

White Goods



Bosch; Neff

Bosch; Siemens

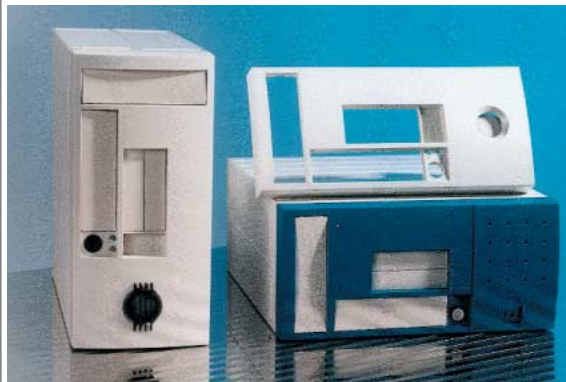
Communication technology



AEG Mobile Communication (AMC)

FMN

Date Systems Technology, Keyboard Cases



Hermann Stahl GmbH; VOBIS Microcomputer

Hermann Stahl GmbH; Siemens-Nixdorf



Cherry Microschalter; Compaq

APPLICATIONS

Standard Cases

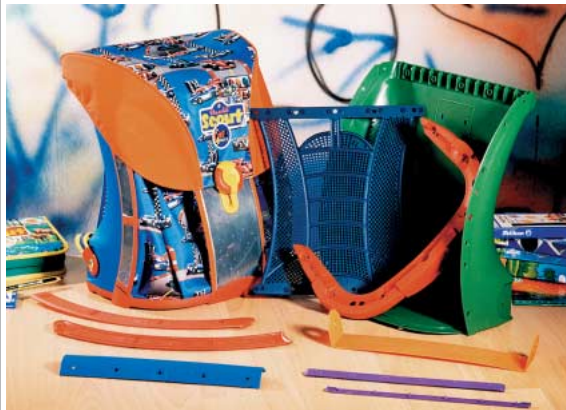


OKW Gehäusesysteme



OKW Gehäusesysteme

Consumer Goods



Scout



Kärcher



Kärcher



Kärcher

TECHNICAL DETAILS

*Equipment
Engineering and
Development*

3D-CAD	<p>VISI-CAD and AutoCad</p> <ul style="list-style-type: none"> - 3D-surface modelling - 2D-drawings
3D-CAM	<p>VISI-CAM</p> <ul style="list-style-type: none"> - programming for 2- and 3-axis milling machines - digital copy milling <p>Camtec-Peps</p> <ul style="list-style-type: none"> - wire cutting
Interfaces	<p>CATIA DWG DXF IGES PARASOLID STEP STL VDAFS</p>
Data Medium	<p>150 MB-Cartridge (1/4") 4 GB-Cartridge (4 mm) 3 1/2"-Disc CD-Rom</p>
Data Transfer	<p>e-Mail Transferfiles (Eurofile, ID-Trans, Odette, Engdat)</p>

*Prototypes/
Trial parts*

Experimental injection moulds

- Aluminium tool
- Laser sinter inserts

Prototypes

- Injection parts
- PU parts
- Milled parts
- Stereolithographic parts

*Tool Manufacture/
Construction of Jigs
and Fixtures*

max. tool weights approx. 3-4 tonnes

CNC milling
HSC milling
Copy-milling
CNC cavity sinking EDM
CNC wire EDM
Flat, circular and jig milling

EQUIPMENT

<i>Type of machine</i>	<i>Manufacturer</i>	<i>Type</i>	<i>Control gear</i>	<i>Clamping surface (mm)</i>	<i>Travel distance (mm)</i>	<i>Special equipment</i>	
CAD	CATIA	CATIA				Data transfer via the following interfaces CATIA, DWG, DXF, IGES, PARASOLID, STEP, STL, VDAFS	
	Vero	VISI-CAD					
CAM	Vero	VISI-CAM					
	Camtec	Peps					
Autocad	Version 14						
CNC-controlled processing centres	Deckel	FP6-100T	Dialog 11	1,200 x 600	1,000 x 600 x 550		
	Deckel	DMC-100V	Heidenheim TNC 426 PB	1,250 x 800	1,000 x 800 x 500		15,000 rpm
	Deckel	DMC-100V	Heidenheim iTNC 530	1,250 x 800	1,000 x 800 x 500	18,000 rpm	
HSC milling machines	Röders	RFM-760		860 x 550	760 x 550 x 400	High-frequency spindle up to 42,000 rpm	
Milling machines	Deckel	FP2	Digital display	500 x 300	400 x 200 x 400		
	Deckel	FP3 L	Digital display	900 x 400	800 x 300 x 400		
	Deckel	FP4 M	Digital display	500 x 400	500 x 400 x 400		
CNC-controlled precision cavity sinking EDM	Maho Hansen	500 E	Erocom II	780 x 500	500 x 300 x 375		
	Ingersoll	Gantry 500	EXPERT	730 x 630	500 x 300 x 400		
	Ingersoll	Gantry 800	EXPERT	760 x 1,000	550 x 850 x 450		
CNC-controlled wire EDM	Charmilles	Robofil 330 F	Fanuc 16 WB	750 x 550	400 x 300 x 400		
NC-controlled flat and profile grinding machine	Jung	JF 520 E-1		500 x 200	500 x 175	Sinus swivel magnet	
	Elb	Optimal 15550 SPS-NK		1,420 x 550	1,500 x 550 x 400		
Universal circular grinding machine	MSO	FM 750		500 x 150			
Universal jig milling machine	F. Deckel	LKS		500 x 250	400 x 250 x 300	Grinding spindle 15,000 – 30,000 U/min 30,000 – 60,000 U/min	
Universal lathe	Weisser	Junior		1,000 x 220			
	Boley & Leinen	LZMD		500 x 120			
Engraving and reforming milling machine	Deckel	GK 21	350 x 200	300 x 300 x 400			
Spotting press	Reis	TUS 80		1,100 x 750	600	Rotating upper table	
Measuring machine	Mitutoyo	B231		1,100 x 820	800 x 600 x 500		
Injection moulding machine	Krauss Maffei	KM 420 C		796 x 1.100		3 core pullings, gasfilled internal pressure moulding, dual cascade control	

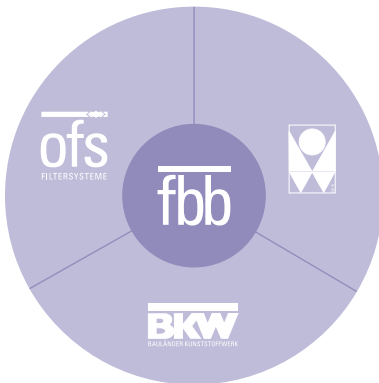
(Stand 03.2004)

THE OKW-GROUP

Strategy

In addition to the parent company OKW Dr. Herbert Schneider GmbH & Co. KG, there are powerful independently operating companies which are geared specifically to customer structure and core competence. Smaller units with flat organisational structures and short lines of decision can thus be ideally adapted to meet market requirements.

Manufacturer / production of technical parts



Synergies for Development – Design – Moulds/Tools – Manufacture

Performance	Contact
<ul style="list-style-type: none"> ■ Development, Design and Manufacture of <ul style="list-style-type: none"> – Injection Moulds, Diecasting, Silicon Moulds, – Tools for Punching and pressing ■ Model Making, Sampling and Preproduction Parts 	<p>FBB Formenbau Buchen GmbH Friedrich-List-Str. 3 D-74722 Buchen Tel. +49 (0) 62 81 4 04-4 50 Fax +49 (0) 62 81 4 04-4 54 www.fbb-formenbau.de</p>
<ul style="list-style-type: none"> ■ Product Development & Manufacture Technical Products in Plastic Material (up to 650 to) ■ Componentry ■ Surface Refinement ■ Plastic Material Remnants 	<p>Odenwälder Kunststoffwerk Dr. Herbert Schneider GmbH & Co. KG Friedrich-List-Str. 1 D-74722 Buchen Tel. +49 (0) 62 81 4 04-01 Fax +49 (0) 62 81 4 04-3 70 www.okw-buchen.de</p>
<ul style="list-style-type: none"> ■ Manufacture Technical Products in Plastic Material (up to 250 to) ■ Componentry ■ Specialist for small quantities 	<p>Bauländer Kunststoffwerk GmbH Obere Talstr. 7 D-74706 Osterburken-Schlierstadt Tel. +49 (0) 62 92 9 51 44 Fax +49 (0) 62 92 9 51 46 www.b-k-w.de</p>
<ul style="list-style-type: none"> ■ Development, Manufacture and Sale of Filter Nozzles 	<p>ofs Odenwälder Filtersysteme GmbH Friedrich-List-Str. 1 D-74722 Buchen Tel. +49 (0) 62 81 4 04-3 92 Fax +49 (0) 62 81 4 04-3 91</p>

Development and Sales of standard plastic housings and tuning knobs
 Hard- & software, Support
 Service for Human Resources

Performance of all companies see Webpages www.okw-group.com

