

# Company Presentation

# PRAGMA

GmbH Zittau



**TOOL  
AND MOLD-MAKING**



**COMMUNICATION  
TECHNOLOGY**

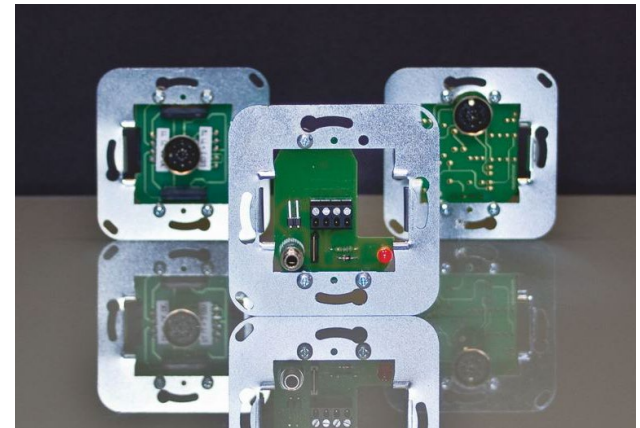


**PLASTICS  
TECHNOLOGY CENTER**

**With strong plans, we become weak.**

## About us

- Founding of **PRAGMA** GmbH in 1990
- **Business area:**
  - **Tool and Mold-Making**
  - **Communication Technology**
  - **Plastics Technology Center**
- employees: 21
- trainee: 1
- Modern and air-conditioned manufacturing with high-precision machine tools
- Certification according to DIN EN ISO 9001:2015



# Business area Tool and mould making

# Make what you want with us.

## Tool and mould making for prototype-, single- and large series production

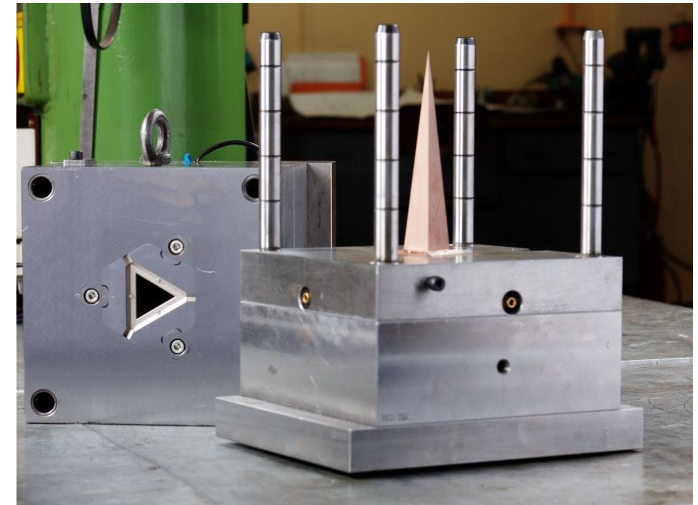
- **Plastic injection molds**  
(up to 800 x 700mm)
- **Rubber vulcanizing**  
(up to 700 x 650 mm)
- **Tool`s for progressive die stamping**  
(up to 800 x 700mm)
- **Devices and gauges for different applications**



# Make what you want with us.

## Services

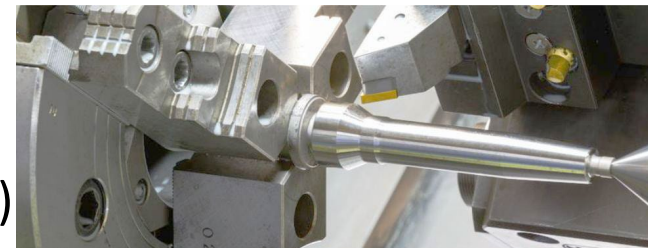
- **Single part-, small series- und assembly production:**
  - mill-, rotation- and eroded parts
  - materials: plastic, metal (steel)
- **Special solution:**
  - to customer specification we develop, design and manufacture special solutions
- **Technikum:**
  - tool sampling
  - prototype- und small series production
  - production of plastic parts using additive manufacturing processes



# Exact and accurate

## Tool-specific technologies

- **CNC-mill (5-axes-processing)**
  - DMU 80 P duoBlock (630 x 1.050 x 630mm)
  - HSC OPS EAGLE V9 (800 x 600 x 500 mm)
- **CNC-mill (3-axes-processing)**
  - DMU 80 P (800 x 700 x 500 mm)
  - DMC 105 V (1.000 x 800 x 560 mm)
  - HSC Rödgers RXP 500 (500 x 400 x 240 mm)
- **CNC-turning**
  - Kern DMT CD 480 (max. Ø250 x 820mm)



# Exact and accurate

## Tool-specific technologies

- ***CNC-sink eroding:***
  - Ingersoll Gantry 800 (550 x 850 x 450mm)
- ***CNC-wire eroding:***
  - AGIE Progress 3 (500 x 350 x 420 mm)
- ***(flat-)grinding:***
  - Jung JF 420 (400 x 180 x 150 mm)
  - ABA Starline 800 (800 x 400 x 400 mm)
- ***die spotting:***
  - Hesmert 40 KN (800 x 800 x 850 mm)

# Exact and accurate

## Tool-specific technologies

- *hardening*
- *welding:*
  - Gas-shielded arc welding
  - laser welding in cooperation with company LST Krause
- *gauging:*
  - Zeiss Spectrum 700 (1.000 x 700 x 500 mm)
- *laser marking:*
  - table marking system Baublys BL 200



# Exact and accurate

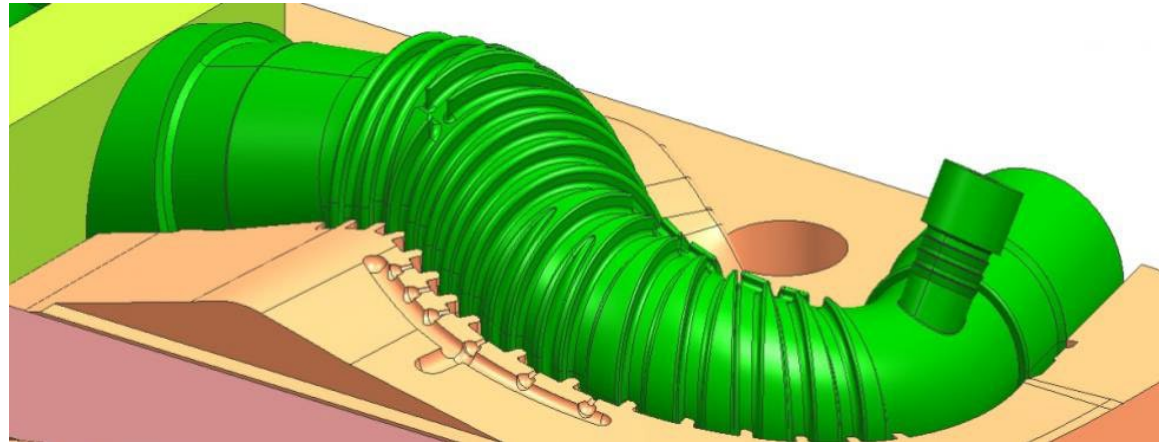
## Construction and engineering

### CAD:

- 4 workplaces
  - software: VISI-CAD

### CAM:

- 5 workplaces
  - mill: Work-NC
  - wire erode: VISI-PEPS
  - perpendicular erode : VISI-CAM



# Make what you want with us.

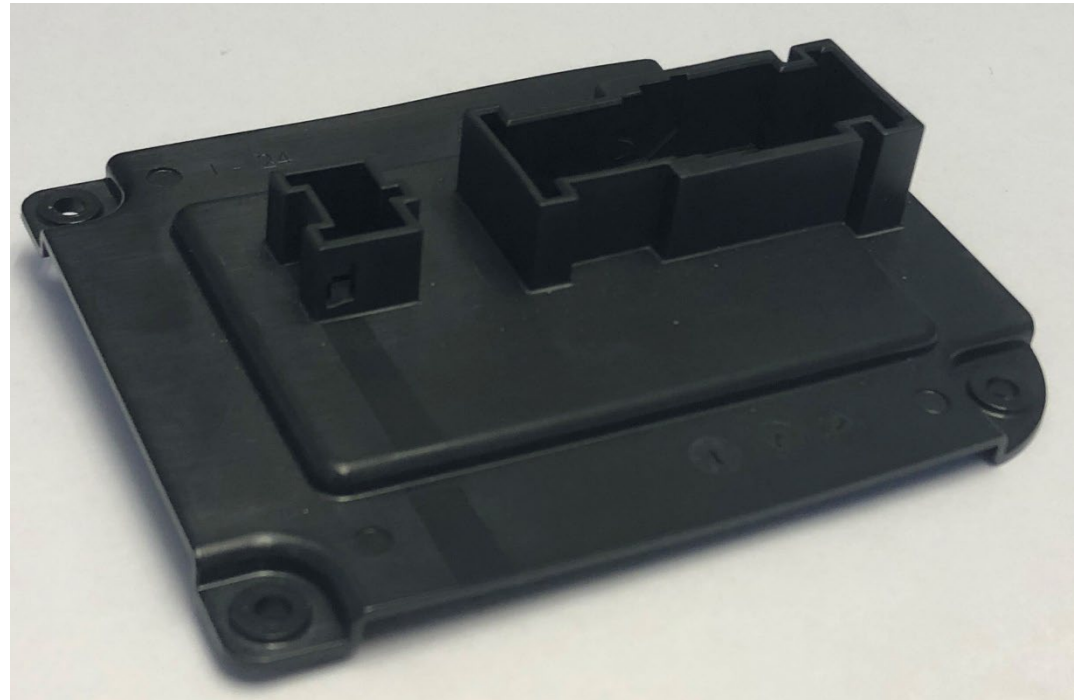
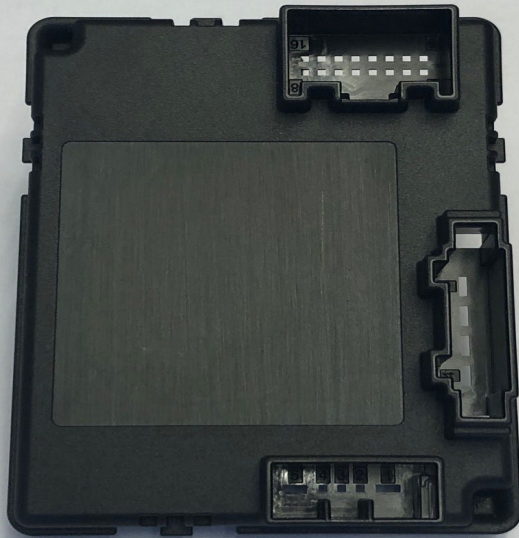
## Plastic injection molds

- multi-component injection molding (2K, 3K)
- functional injection moulding
- hybrid technology

# Pragmatic solutions for plastic.

automotive (selection)

housing and technical parts  
made of plastic



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**SIMPLE.  
BETTER.**

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# Pragmatic solutions for plastic.

automotive (selection)

housing and technical parts  
made of plastic



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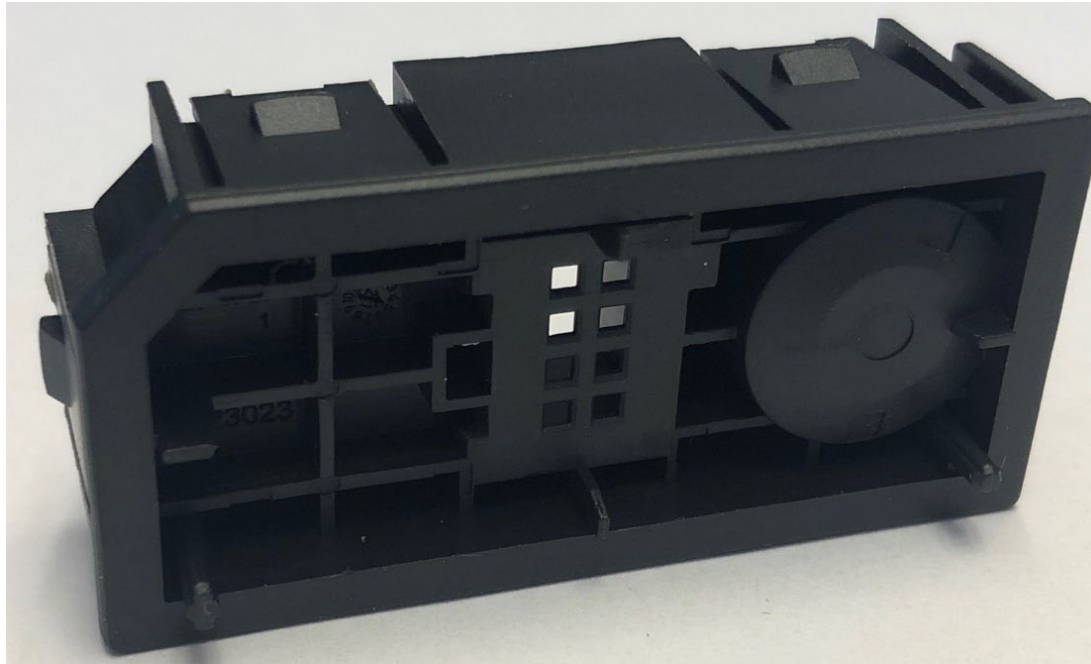
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# Pragmatic solutions for plastic.

automotive (selection)



housing and technical parts  
made of plastic



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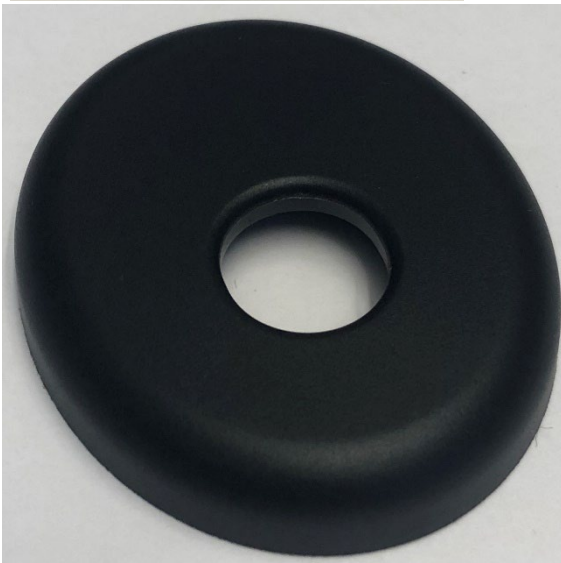
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# Pragmatic solutions for plastic.

automotive (selection)



housing and technical parts  
made of plastic



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# Pragmatic solutions for plastic.

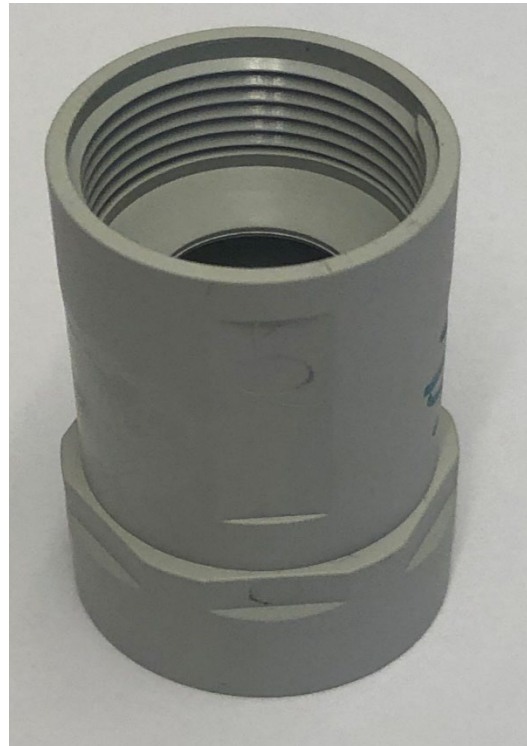
electrical engineering (selection)

plugs / inserts overmoulded with plastic



# Pragmatic solutions for plastic.

## electrical engineering (selection)



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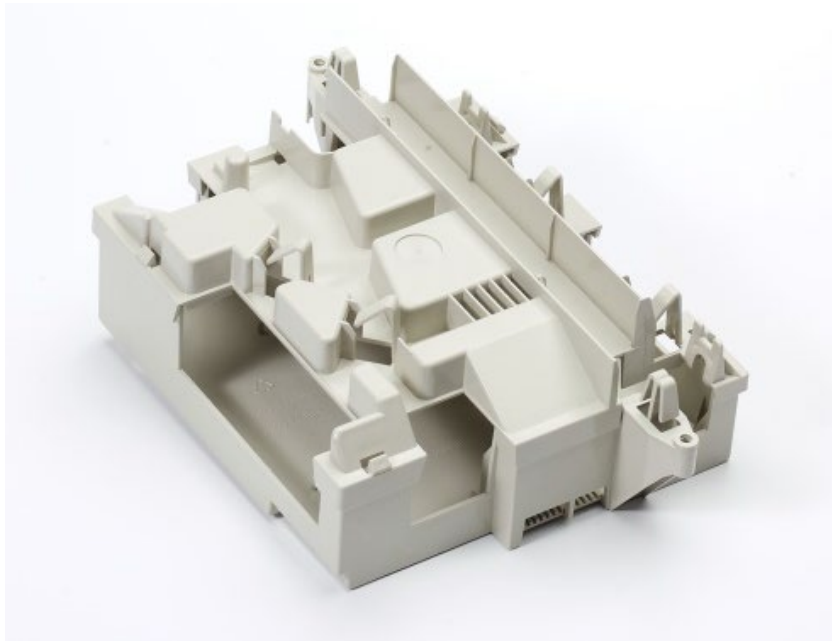
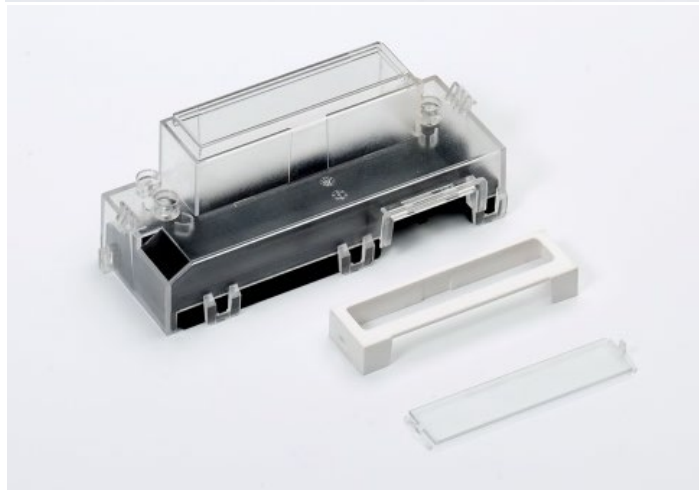


# Pragmatic solutions for plastic.

electrical engineering (selection)



housing and technical parts  
made of plastic



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# Pragmatic solutions for plastic.

electrical engineering (selection)

housing and technical parts  
made of plastic



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# Pragmatic solutions for plastic.

## electrical engineering (selection)



housing and technical parts  
made of plastic



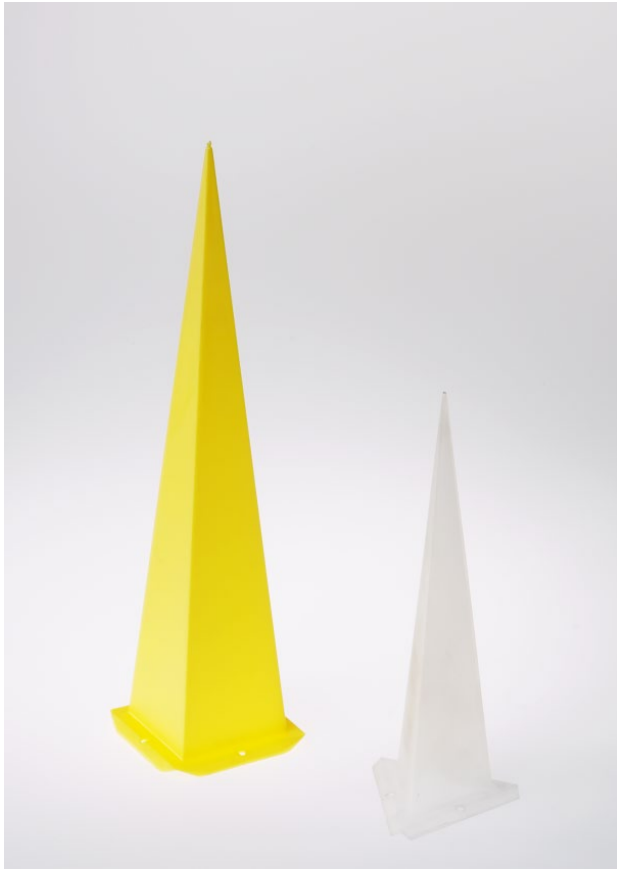
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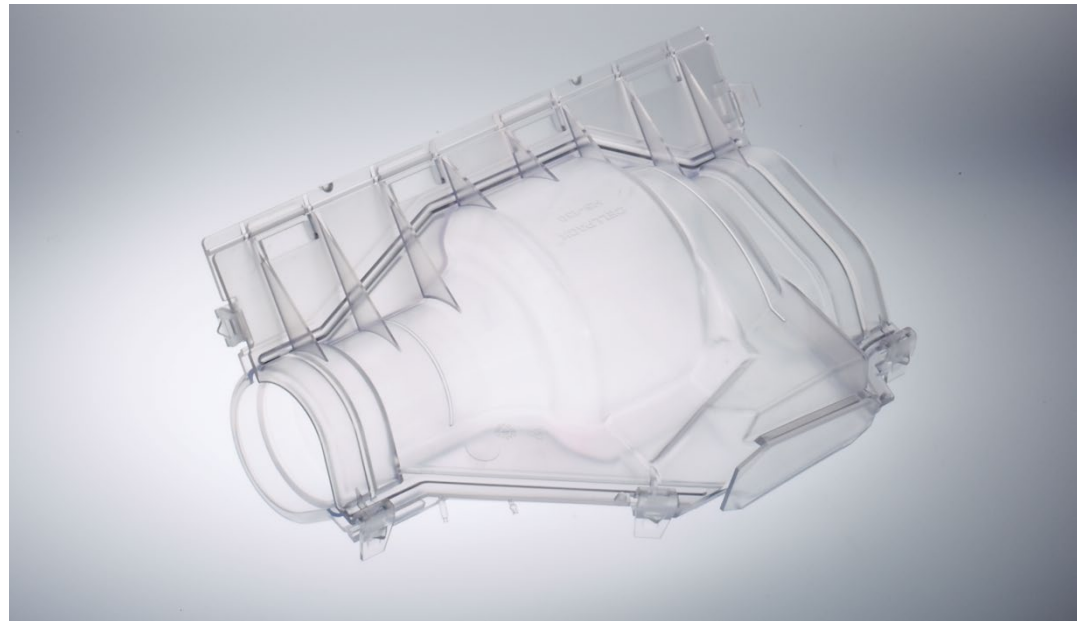
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# Pragmatic solutions for plastic.

## industrial applications (selection)



housing and technical parts  
made of plastic



**Make what you want with us.**

## rubber vulcanizing molds

- CM-forms
- TM-forms
- IM-forms



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# Pragmatic solutions for rubber.

automotive (selection)



molded hoses air  
ducts bellows  
(e.g. for applications  
in trucks/buses)



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# Pragmatic solutions for rubber.

automotive (selection)



form media hoses and  
double-walled temperature  
control hose systems made  
of rubber



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**VDWF**

*Die Westkaugmacher*

# Pragmatic solutions for rubber.

automotive (selection)



rubber and  
rubber/metal  
damping elements



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# Make what you want with us.

## devices and gauges

- automated measuring and testing device for anti-corrosion films
- stamping and assembly device for the pre-assembly of conductor tracks in preparation for overmoulding with plastic

**Make what you want with us.**

**P** Wir arbeiten **professionell.**

**R** Wir denken **raffiniert.**

**A** Wir sind **aufgeschlossen.**

**G** Wir sind **gewissenhaft.**

**M** Wir arbeiten **mustergültig.**

**A** Wir lieben **ausgezeichnete Qualität.**

**Communication is the beginning  
successful projects.**

**PRAGMA**  
GmbH Zittau

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**Thank you for your attention.**



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