



HUFSCHMIED

ZERSpanUNGSSYSTEME

GERMAN INNOVATION – ONE CUT AHEAD.



WE

ARE
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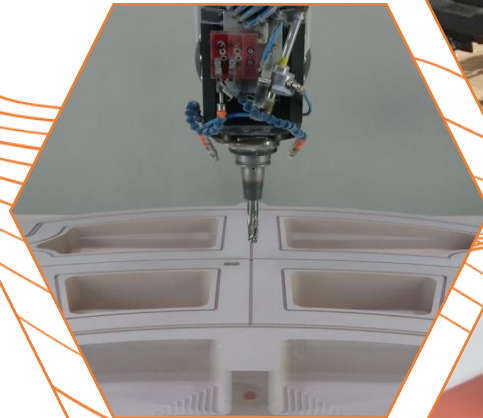
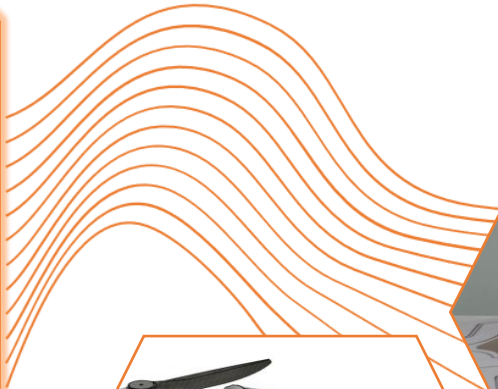


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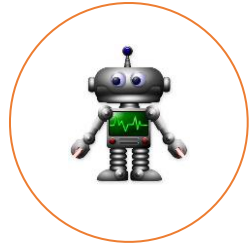
Manufacturer of a variety
of **cutting tools** unique in
Europe since 1991.

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ZERSpanungssysteme

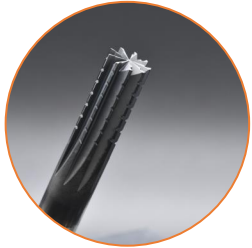
Europe's leading manufacturer for material-related precision tools



We Are Process Developers



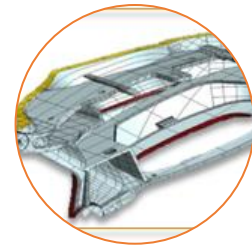
Pilot series & Prototype



Process-optimized cutting tools



Clamping solutions



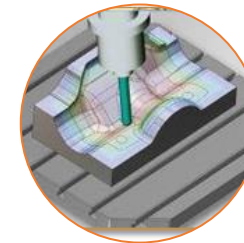
Process start with your design or model

Serial production support

Process optimization



CAM - Up to 5 axis



Machine specific attuned process optimization



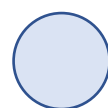
Start



HQ & Production Germany
Overseas Office Mexico



Hufschmied Sales
Representatives



Distribution Partner

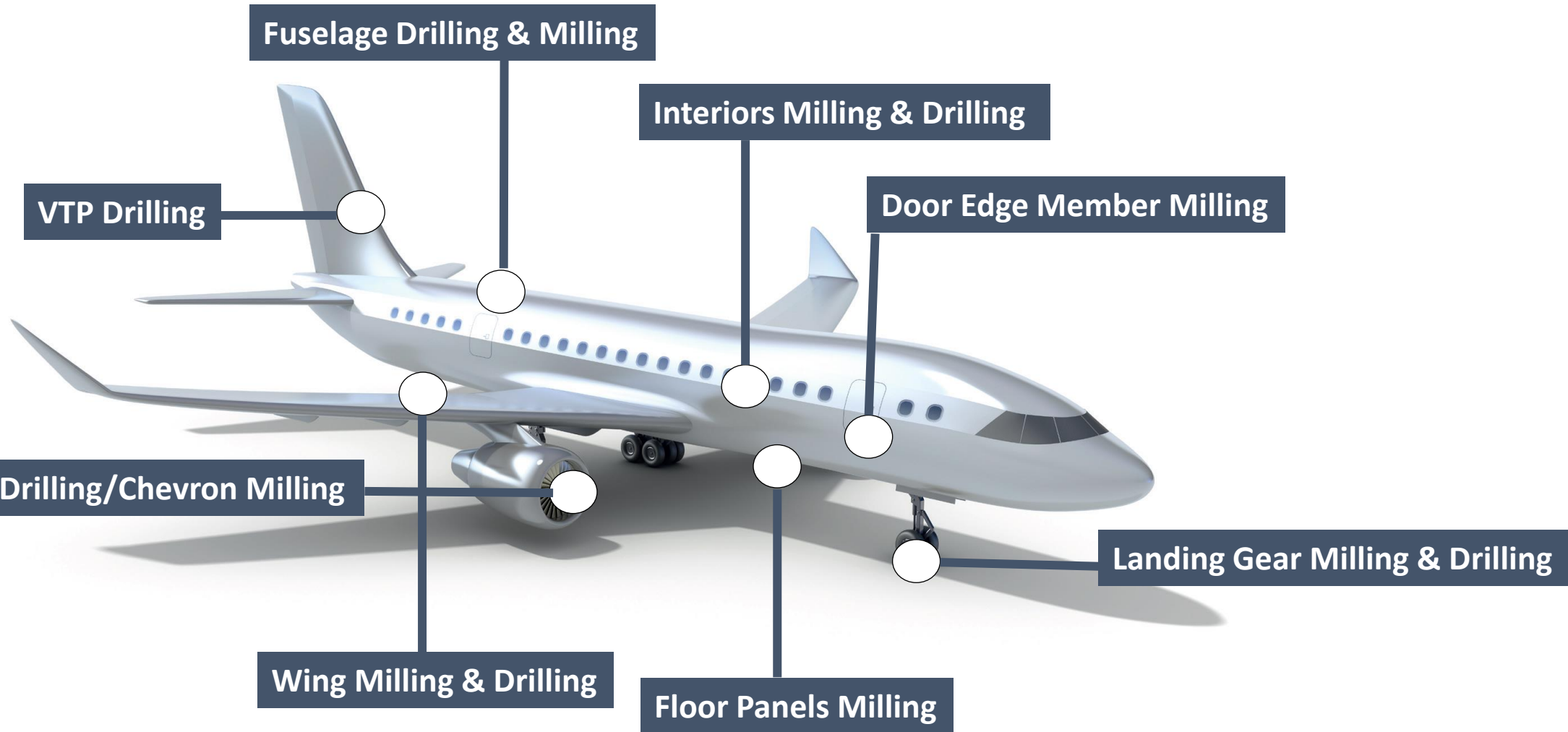


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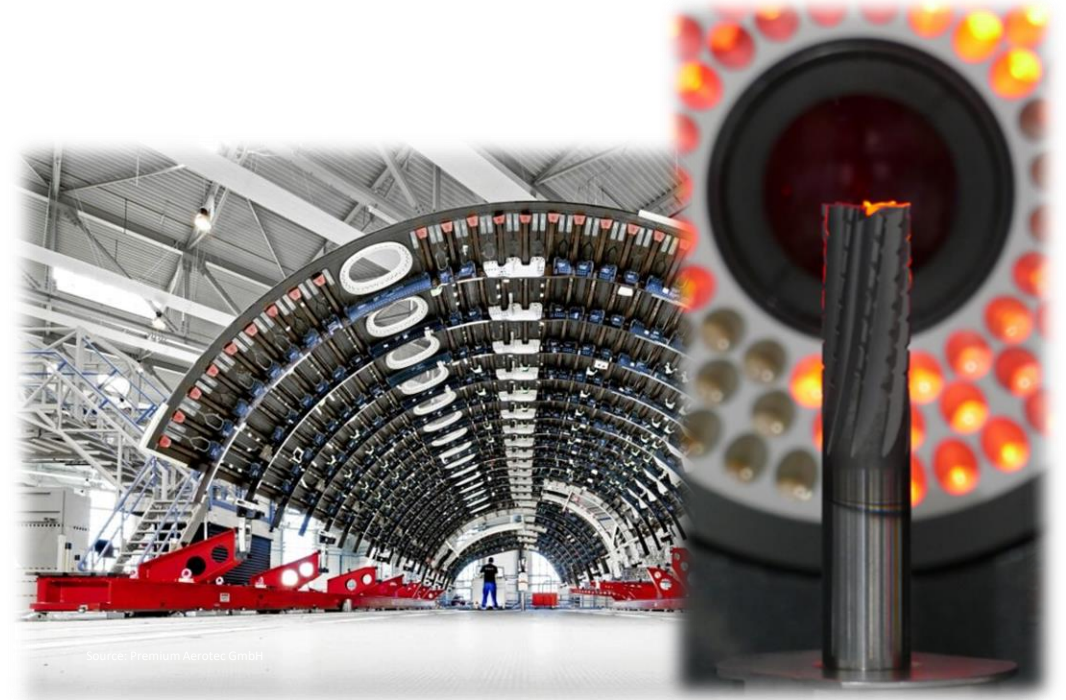
Mobility

Aerospace Project Examples



Rear Fuselage Section (A350 Project)

- ▶ **Low process forces, low vibrations**
 - ▶ High process reliability with no quality rejects -> Low rework -> labor costs savings!
 - ▶ Cost savings due to the usage of standard clamping equipment
- ▶ **Roughing and finishing in one cut with high feed rates**
 - ▶ More parts per CNC machine - Bigger manufacturing capacity
 - ▶ Lifetime about 20% longer than the competitor's tool - Lifetime: complete Part -> 75meters!
 - ▶ Lower machine-hours per part -> cost savings!



- ▶ **Production cost reduction for the operation: ~45%!**

Automotive Parts & Hufschmied Solutions

Hufschmied is involved in automotive projects with OEM and Tier 1/2 for several components and materials:

- ▶ Chassis Parts
- ▶ Airbag
- ▶ Rims
- ▶ Leaf Spring
- ▶ Roof Shell
- ▶ Window Beltline
- ▶ Battery Tray
- ▶ Interiors
- ▶ Front & Rear Skirt
- ▶ Rods
- ▶ And more





Development of new
production processes in a
**customer realistic
environment**

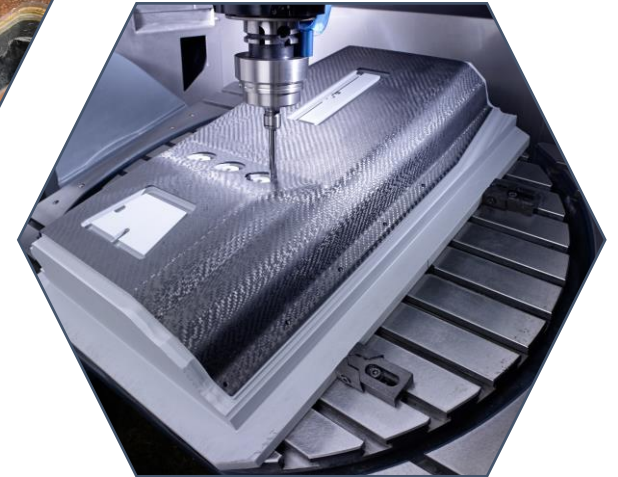
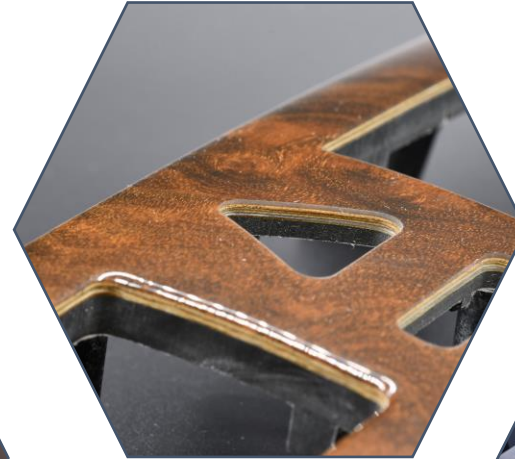


Source: BMW

Interiors: Wood, Aluminum, CFRP, PU, PMMA/Foil

Examples:

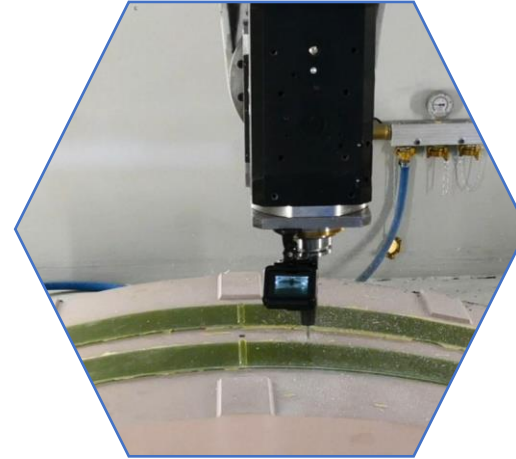
- ▶ Dashboard /Instrument Panelling
- ▶ Center Console
- ▶ Trim Parts
- ▶ Head-Up Displays
- ▶ Airbags



Exteriors: Aluminum, CFRP, GFRP, SMC, Steel

Examples:

- ▶ **Window Beltline (Roof/Window Strand)**
- ▶ **Front & Rear Skirt**
- ▶ **Leaf Spring**
- ▶ **Monocoque Structure**
- ▶ **Roof Shell**
- ▶ **Trunk**



E-Mobility: EV's/Battery Systems

- ▶ Increased production in EV and respective components such as:
- ▶ Battery Cover/Enclosure, Underbody Protection, Scroll Compressors, and more
- ▶ Hufschmied tools in production for CFRP, SMC, Aluminium (Milling, Drilling, Friction Stir Welding)



CFRP Battery Cover











Alu Battery Housing

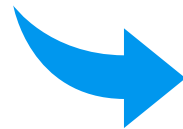


Alu Battery Enclosure

Resource efficiency in production



-  Higher service life of production equipment
-  Reduction of energy consumption
-  Reduced time effort enables faster production
-  Decoupling of production staff from machine running time
-  Avoidance of faulty production (avoidance of rejected part production)
-  Shorter production chains in operation
-  Detection of the CO2-Footprint in production
-  Shared use of data and characteristic values along the process chains, even across company boundaries



**DIGITIZATION AS PART OF
THE „GREEN DEAL“**

In-Line Quality Control



INTELLIGENT SENSOR SYSTEM

For process and inline quality control

AUTOMATED DATA AQUISION

Of structure-borne sound via integration with machine data





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Member of:

