



**HOMBURGER**  
**MASCHINENBAU**



# We build solutions.

**MRO-Tooling**  
for the aerospace industry



# Company

## Tooling with foresight

For decades, the name Homburger has stood for quality, technical expertise and solutions tailored to the individual requirements of our customers. In the aerospace sector, we develop and manufacture tooling for maintenance, repair and overhaul (MRO) of aircraft engines and systems.

Our customers trust our quality, including industry leaders such as:

## What sets us apart:

- ✓ Manufacturing 100% compliant with US drawings
- ✓ CE documentation, COC certificates of conformity and load testing included
- ✓ High level of vertical integration and flexibility
- ✓ In-house development, prototyping and series
- ✓ Network partners for EXC3 welding



# Capabilities Overview



## Our expertise in aerospace MRO

### MRO tooling & special solutions:

- ✓ Tooling for engine maintenance
- ✓ Tooling for PWA (pushers, pullers, transport trolleys, lifting equipment)
- ✓ Equipment for landing gear and air conditioning system assembly
- ✓ Air-bearing rotary tables and straightening tables for rear cases
- ✓ Measuring machines and special test equipment
- ✓ Drawing-based manufacturing to international standards

### System development & engineering:

- ✓ Concepts and prototypes
- ✓ Custom tooling development
- ✓ Integration into existing MRO processes

**Since 2015, we have manufactured more than 3,500 PWA tools.**

# Reference

## PWA Transport trolleys for engine maintenance



### Initial situation:

Engine maintenance requires safe and efficient solutions for transporting and handling heavy modules. Standard trolleys were not optimized for the weight and geometry of the components, resulting in unnecessary effort and risk.

### Our solution:

Homburger developed customized transport trolleys specifically designed for engine maintenance requirements. They enable simple, safe and ergonomic movement of modules during assembly and disassembly and can be flexibly integrated into existing workshop processes.

### Highlights:

- ✔ Simplified handling of large and heavy assemblies
- ✔ Safe and ergonomic workflows
- ✔ Reduced damage and downtime
- ✔ More efficient processes in the MRO workshop

# Reference

In-house development

Drilling machine for weights  
– PW1100



## Initial situation:

During MRO processing of the PW1100G, weights and rivets on the front hub must be drilled out precisely. The previous manual process was time-consuming, ergonomically unfavorable and prone to positioning errors. Reproducible fixation and guided machining were not sufficiently ensured, slowing down the process and impacting quality requirements.

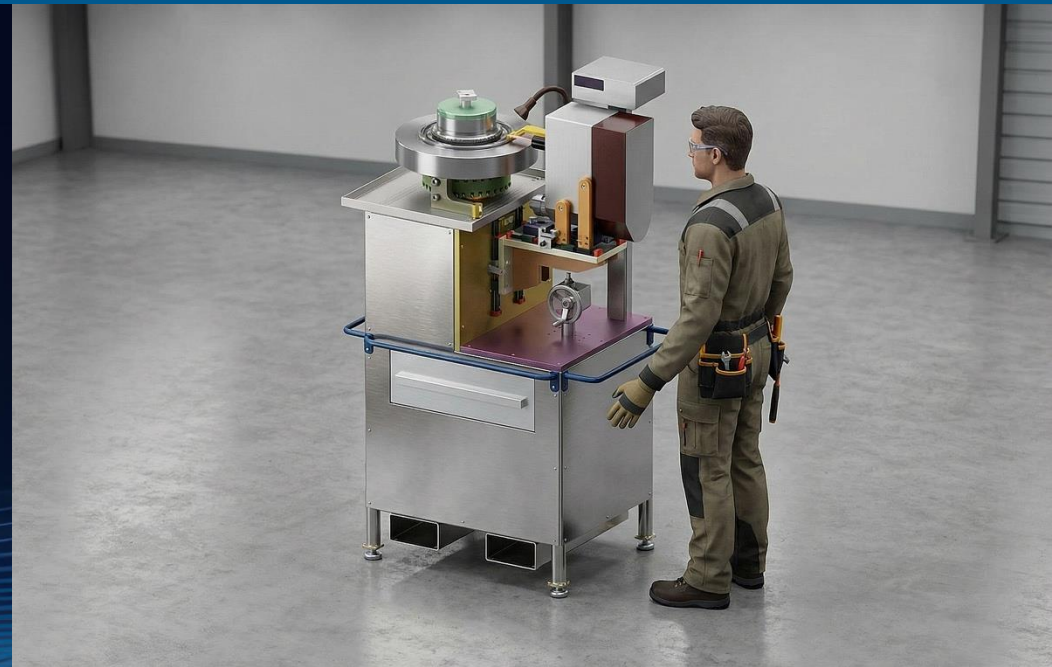
## Our solution:

Homburger developed a compact, robust and highly repeatable drilling fixture that centrally locates the PW1100G component and indexes it with precise positioning for the repair process.

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In-house development

Drilling machine for weights  
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## Key elements of the solution:

- ✓ Central component clamping for a safe and reproducible setup
- ✓ Precision conical locking for angular position and X-axis with clearly defined drilling positions
- ✓ Guided drilling via integrated bushing for tool stability and component protection
- ✓ Ergonomic workstation with stable rack, tool drawer, guide slide and task lighting
- ✓ Clearly structured process flow from loading and clamping to drilling and indexing

## Customer benefits::

- ✓ High process reliability through precise fixation and defined drilling positions
- ✓ Consistently high machining quality due to excellent repeatability
- ✓ Reduced errors and scrap
- ✓ Ergonomically optimized workstation to reduce operator strain
- ✓ Higher efficiency in the MRO line through reduced setup times and simple operation
- ✓ Robust, low-maintenance design for seamless integration into existing processes

# Contact

**Your specialist for tooling & aerospace engineering**

**Do you have questions about our services or would you like to discuss a specific project with us?**

We look forward to hearing from you.

**Your contacts:**

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