Project „Flexible Assembly Processes for the Car of the Third Millennium (MyCar)“

Methodology Description (High Level)

Intelligent algorithm for rapid setup of new welding parameters

Rapid Setup System

Combined hardware + software system for rapidly finding of welding parameters for new materials and material combinations.

Rapid Setup System benefits

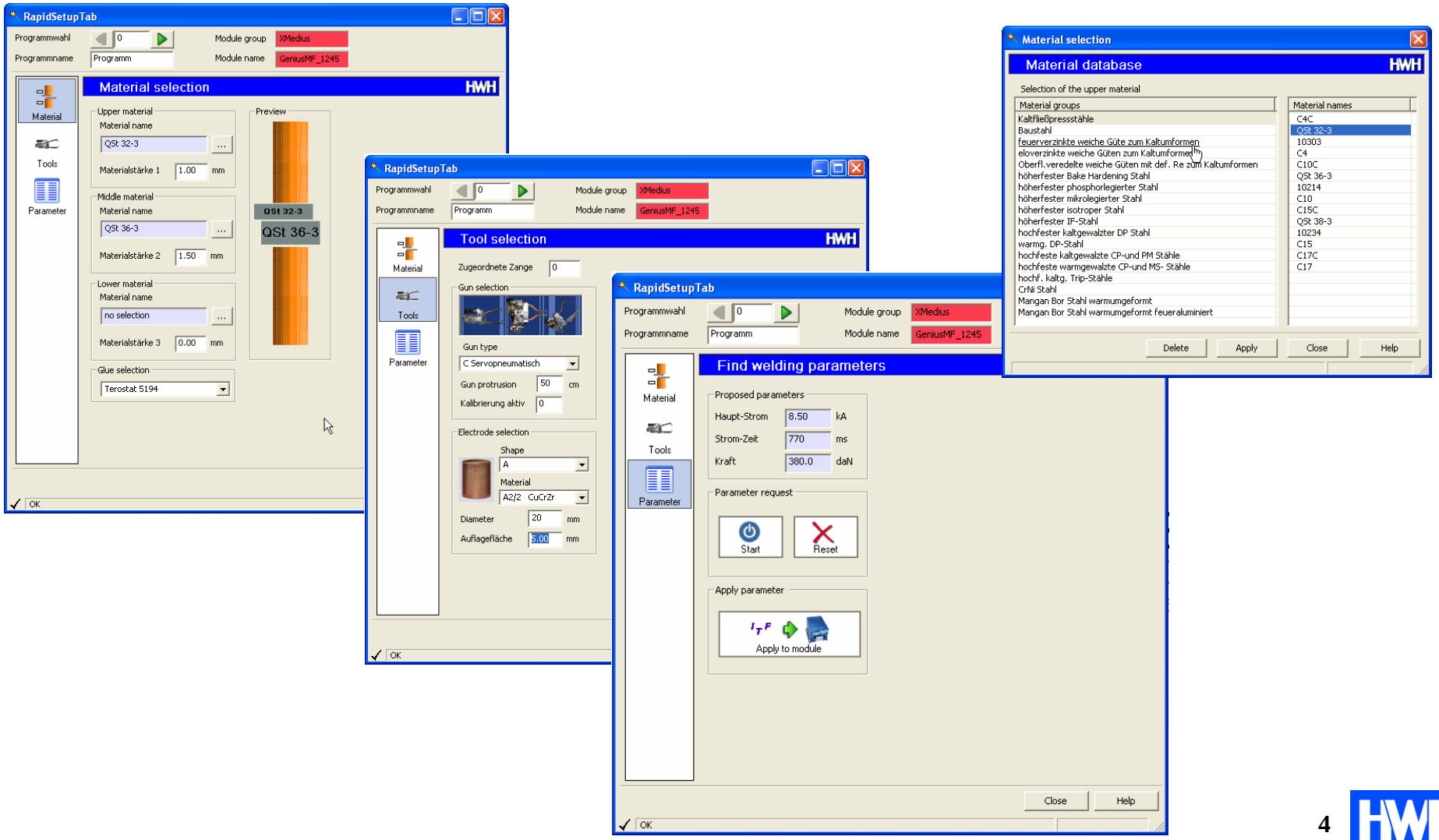
- Cost savings due to drastic reduction of efforts in parameter finding
- Better time to market ratio for new production
- Optimal welding quality due to material and machine tailored welding setup
- Potential reduction of energy costs and production cycle time due to optimized welding parameters
- Reduction of tests, and hence material (test sheets) and energy savings (less consumption), promote positive impact to the environment.

Rapid Setup System advantages

- Easy finding of optimal welding parameters with minimum setup requirements and minimum configuration effort
- Integrated database for welding parameters; basic parameters
- Only two to three steps are required for machine-tailored parameter sets
- No additional hardware (e.g. measurement system) is required
- Fully integrated into Harms & Wende Genius welding timer and XPegasus programming environment

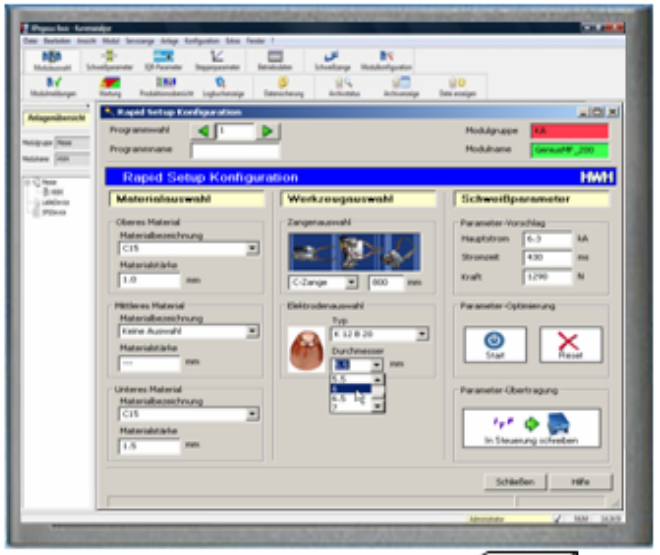
Rapid Setup User Interface

(examples)

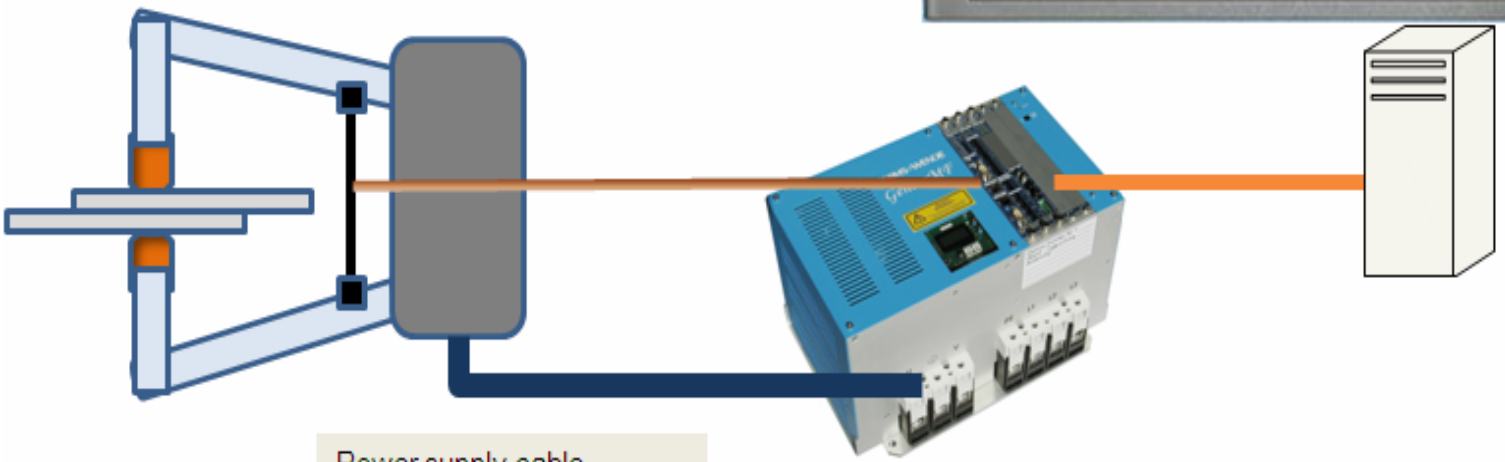


Rapid Setup integration

Harms & Wende XPegasus programming software



Welding gun with cable for voltage measurement



Power supply cable

Harms & Wende Genius welding timer