

Parabolic Taper Rolling Machine PW-1800-E

Developed for the OEM market with highest productivity and accuracy.

General (model N and E)

- ◆ Optimized machine design for high dynamics and durability.
- ◆ Driven working rolls for width spread influence
- ◆ Working rolls in cassette design for quick changing
- ◆ Inner cooling of working rolls and clamping device
- ◆ Wear resistant machine guidings
- ◆ Comfortable vertical adjustment of carriage for adapting to different roller diameter
- ◆ Roller symmetry adjustment for influence to profile layer
- ◆ Automatic optimisation of carriage stroke
- ◆ Optimisation function for "thicked end"
- ◆ Automatic greasing unit for working rollers
- ◆ Control Siemens S7 with especially developed control algorithms for optimal rolling results
- ◆ Data input system for Windows with process visualisation (RGC-Net)
- ◆ Prepared for the interface of a profile thickness measuring device (ADM) for an optimal quality assurance with integration of the parabolic tapering control
- ◆ Remote maintenance
- ◆ Automatic valve zero point correction
- ◆ Sideroller (option)
- ◆ Carriage with automatic height adjustment during the rolling process

The E-model has basically the following differences to the N-model (standard):



- ◆ Higher Dynamics
- ◆ Higher material throughput
- ◆ Constant process parameters
- ◆ Uncoupled electromotoric roller drives
- ◆ Exact controlled carriage
- ◆ Coupling of actuators via special control algorithms
- ◆ Additional process parameters for an open rolling process engineering
- ◆ Controlled sideroller (option)
- ◆ Autom. controlled carriage height adjustment for heavy springs



Taper rolling machine (model „E“) with optional sideroller and material charging device

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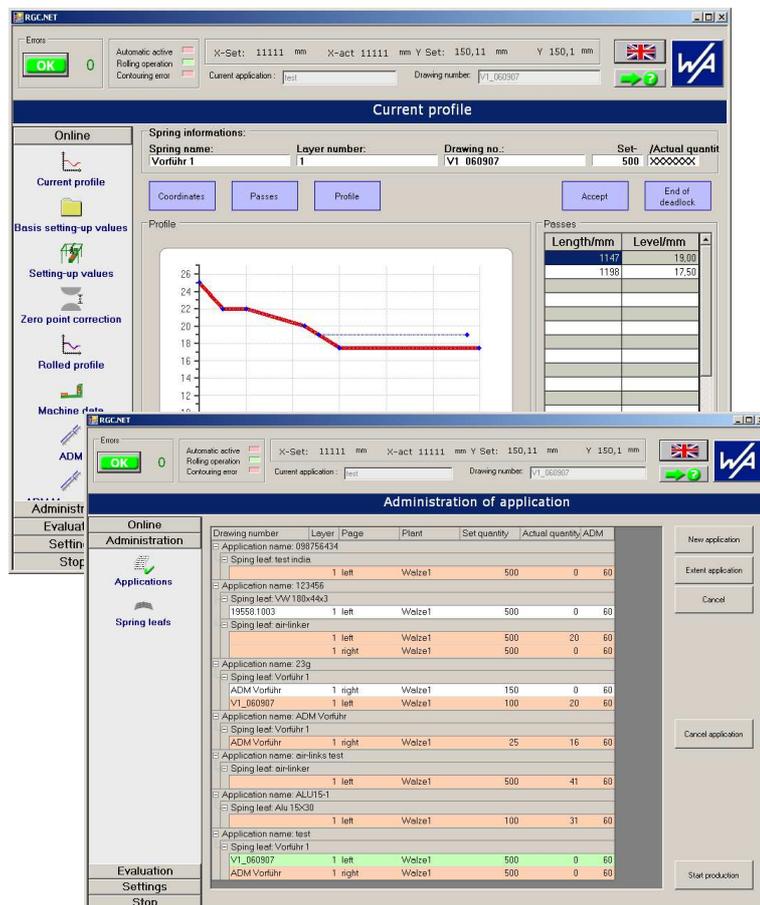
RGC-NET - Data input system with process visualisation

- ◆ Operating system Windows
- ◆ network capable / remote control (for work preparation/evaluation)
- ◆ User surface with language switch over
- ◆ Wizard for easy order generation
- ◆ Automatic proposal calculation for taper rolling parameter
- ◆ Integrated order system
- ◆ Central database for multiple machines
- ◆ Real curve display
- ◆ Hot - Cold value calculation (switchable)
- ◆ Fault value logging
- ◆ Spring Plate Dataset with nominal values for external machineries
- ◆ Order evaluation (all parameter changes and faults)
- ◆ Integrated evaluation system for a profile thickness measuring device "ADM" (optional interfacing). Quality assurance with statistical evaluation.
- ◆ import / export function for spring plate data sets
- ◆ Interface to Siemens S7 PLC



Technical data (E-model)

Plate width	50-160 mm
Plate thickness	6-80 mm
Carriage stroke	1800 mm
rolling speed	0,7 m/s
Return stroke	1,00 m/s
Pull force	200 kN
Rolling Force	760 kN
Clamping force	375 kN
Roller diameter	max.180 mm
	min.130 mm
Roller width	200 mm
Drive capacity approx.	200 kW
Cooling water supply approx.	5 m³/h
Pressurised air	6 bar
weight approx.	11.000 kg



Execution (main components)

- Hydraulic valves Rexroth / Bosch
- Moog (model E)
- Hydraulic pumps Parker
- Accumulator Hydac
- Pneumatic Festo
- PLC Siemens S7

Options

- ◆ Special designed solutions
- ◆ Unloading devices in roboter execution or as special handling systems
- ◆ Profile thickness measuring device (ADM)
- ◆ Design for double plate rolling
- ◆ Automatic charging devices
- ◆ Water descaling units
- ◆ Straightening machines
- ◆ End finishing machines
- ◆ Magnetic loaders
- ◆ Safety fences



ADM-System