



<b>Type</b>	Vertical hardening machine
<b>Number of hardening stations</b>	1 or 2 stations Alternative: indexing table module
<b>Positioning of inductors</b>	NC drive
<b>Feed speed</b>	Up to 600 mm/s
<b>Adjustment of tailstock</b>	Manual
<b>Rotary drive of component</b>	Optional: NC drive
<b>Rotation speed</b>	0-250 rpm
<b>Standard MF output</b>	50-350 kW
<b>Control system</b>	Siemens Sinumerik One Siemens S7-15xx PLC
<b>NC servo technology</b>	Siemens Sinamics S120/CU320 Siemens Sinamics S210
<b>HMI</b>	Siemens IPC427E/OP15-Black Siemens IPC477E
<b>Manual controller</b>	Siemens MPP483/MCP483/KP8
<b>Process monitoring</b>	Inverter central supply unit with monitoring in PLC or EME2020
<b>Monitoring of quenching medium</b>	Volume control with pump drive Flow monitoring with PLC or EME2020
<b>Safety technology</b>	Pilz safety relay or Siemens – Safety Integrated ET200SP/Profisafe
<b>Spray protection enclosure</b>	Encapsulated
<b>Steam extraction</b>	Integrated, centralised or decentralised, optionally with air filter
<b>Condensate recovery</b>	Integrated
<b>Dimensions (L × W × H) (incl. auxiliary unit)</b>	3,750 × 5,500 × 2,600 mm
<b>Total height</b>	2,600 mm

### Options

- › Tempering via residual heat (depending on component)
- › Process monitoring and data capture (EME)
- › Connection to automatic part handling systems
- › Water-to-water or water-to-air chiller
- › Inductor recognition
- › Inductor database
- › Interfaces for data transfer
- › Inductor retracting device as NC axis
- › Detection system (e.g. for DMC)
- › Monitoring of quenching water quantity via EME
- › Maintenance reminder in machine control system
- › Monitoring of hardening result (lab equipment)

### Component handling

<b>Loading</b>	From front
<b>Unloading</b>	From front
<b>Loading height</b>	950 mm
<b>Loading/unloading</b>	Manual/robot
<b>Workpiece fixing</b>	Pneumatic

### Applications

<b>Max. length</b>	550 mm
<b>Max. hardening diameter</b>	300 mm
<b>Max. workpiece diameter</b>	400 mm
<b>Max. weight</b>	30 kg or by request
<b>Machining position</b>	Vertical
<b>Clamping technique</b>	Three-jaw chuck/tailstock centre/ between centres
<b>Hardening process</b>	Scan hardening/single shot