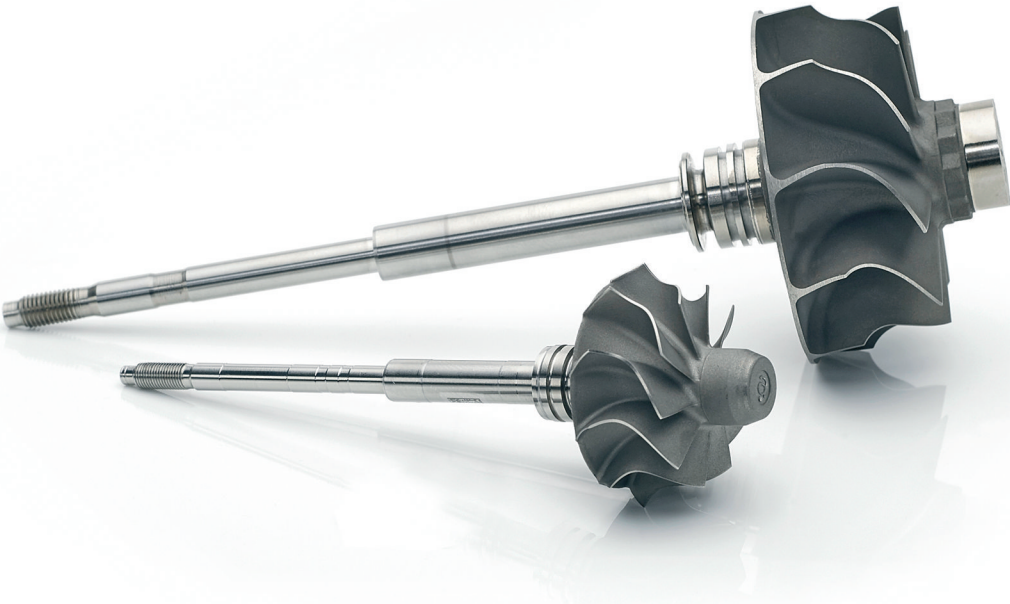


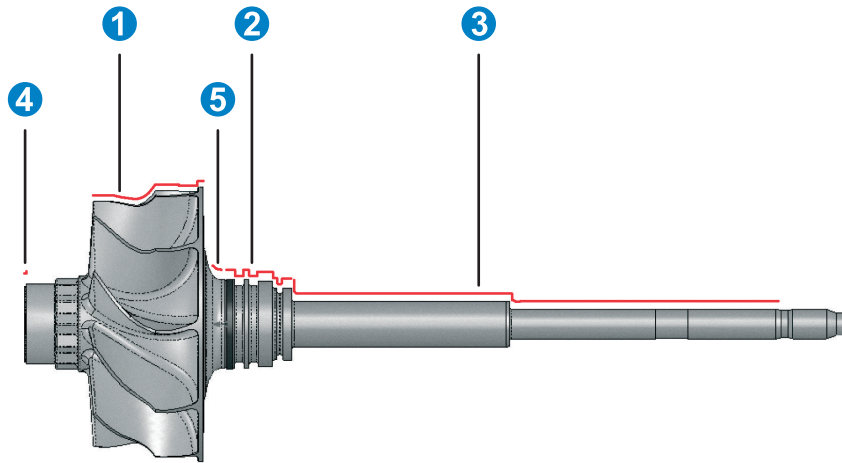
Turbo Charger Grinding

FLEX

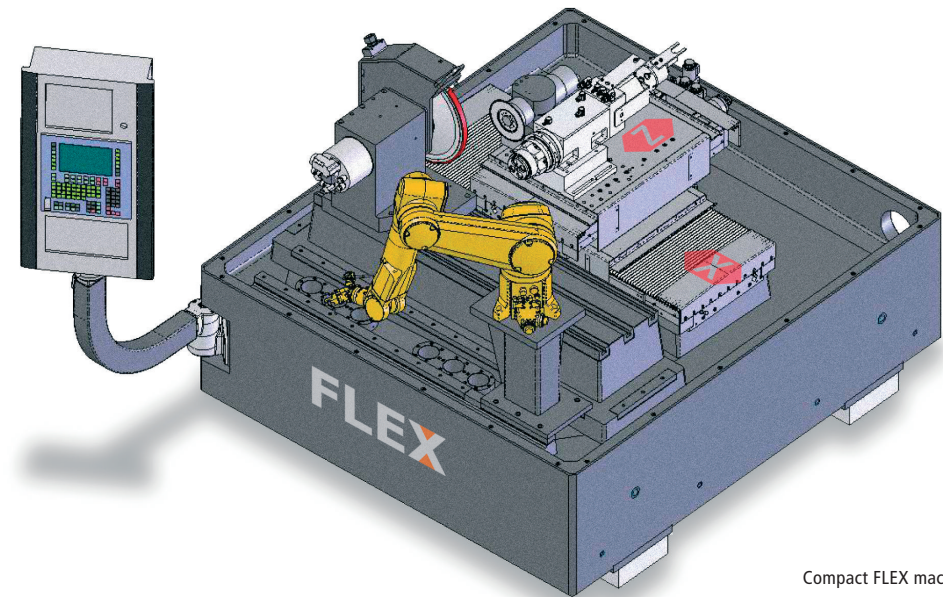


Turbo Charger Grinding

FLEX



Grinding operations: 1 – contour, 2 – grooves, 3 – shaft, 4 – chamfer, 5 – welding area



Compact FLEX machine layout

Specifications & Features

- Wear-free Axis – hydrostatic axis with linear motor technology
- Highest Precision – zero backlash
- Special Grinding Process on contour [1] for burr-free grinding; Option: integrated brushing station
- Special Grinding Process for surface stability and groove grinding
- Special designed Loading/Unloading Process to avoid scratches and damages on the shaft
- Grinding Wheel: CBN and/or conventional wheels can be used
- Grinding Speed: Up to 120 m/s
- Grinding Wheel- \varnothing : 350-600 mm
- Optimized Cycle Time using special designed and developed tool and process specifications
- **Technology Partner**
Grinding oil – ML Lubrication

Quality Characteristics

- ❶ **Grinding Contour (Wheel/Impeller)**

Runout contour to shaft	< 8	μm
Profile quality	< 0.04	mm
- ❷ **Grinding Grooves**

Runout groove shoulders	< 0.9	μm
Perpendicularity groove shoulders	< 0.35	μm
Max. diameter range	< 0.004	mm
Max. range groove width	< 0.003	mm
- ❸ **Grinding Shaft (Bearing Side)**

Runout \varnothing on bearing position	< 5	μm
Surface R_z bearing diameter	< 1.7	μm
Surface R_k bearing diameter	< 0.08	μm
Surface R_{pk} bearing diameter	< 0.5	μm
- ❹ ❺ **Grinding chamfer / welding area**

