

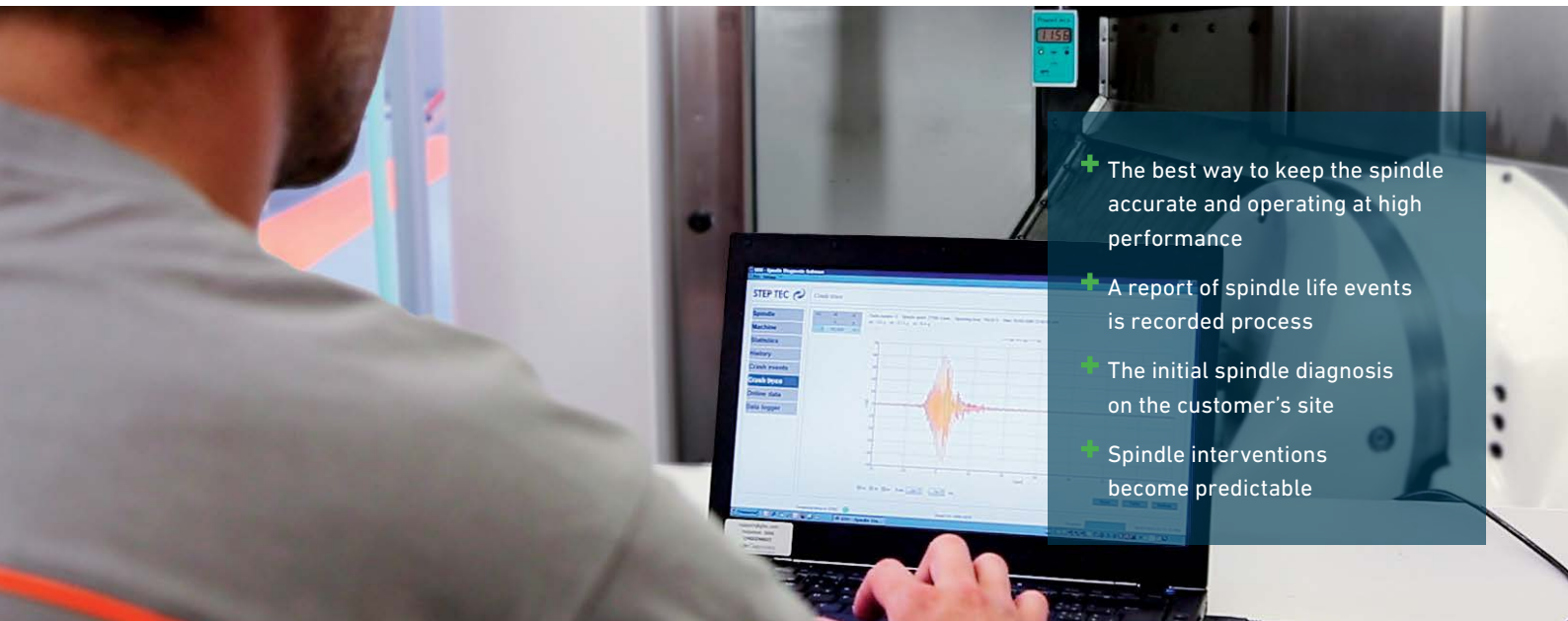
Preventive services – To maximize
this critical part's uptime

Onsite
spindle service



Onsite spindle service

The Step-Tec spindle, featuring extreme performance, is the heart of your Milling machine. To keep it accurate and guarantee its high performance, we strongly recommend regular spindle services through a set of dedicated and precise mechanical operations conducted by our expert service engineers using specific tooling.



- + The best way to keep the spindle accurate and operating at high performance
- + A report of spindle life events is recorded process
- + The initial spindle diagnosis on the customer's site
- + Spindle interventions become predictable

Spindle behavior is linked to events like collisions or excessive vibrations. High-tech equipment allows detection of these events. The vibration monitoring system (V3D) with a 3D sensor controls vibrations for all three axes (X, Y and Z) in real time. If your spindle is equipped with the Spindle Diagnostic Module (SDM 20), operating parameters like motor and bearing temperatures and crash events throughout the entire life cycle are monitored and recorded.

In both cases, data is visualized through the new developed SDS software and reported in graph or table format for diagnostic purposes. Our service engineer analyzes this report to identify the causes of machining failures or unsatisfactory surface finishing results, and an application engineer can recommend measures to optimize your process and extend tool and spindle life.

The spindle service includes:

Precise mechanical and general upkeep operations like:

- Checking the run out spindle (taper and with control arbor)
- Checking the tool holder and run out
- Measuring the clamping force
- Checking the oil level, oil type and pressure for oil air lubrication
- Measuring vacuum and checking the filter for the oil return system
- Checking the conditions for spindle motor cooling fluid

Monitoring and recording of following parameters (*):

- Vibrations in three axis directions
- Number of collisions, operating hours and tool changes
- Status of the clamping system
- Temperatures (e.g., bearings, motor winding)

(*) depending on equipment