GENERATING GRINDING

with small tools

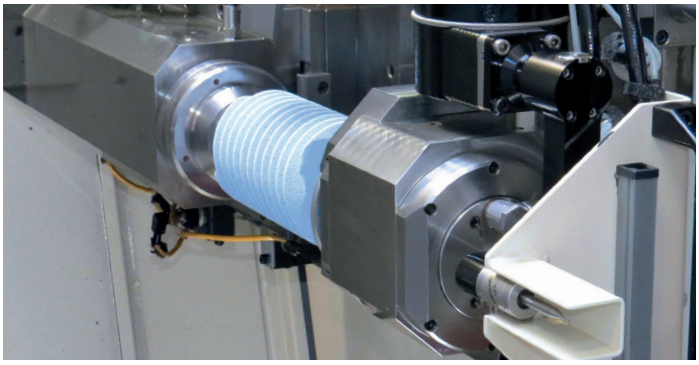
KAPP NILES

Up to now the hard finishing of gears with interfering geometry was primarily realised by discontinuous profile grinding or gear honing. Compared to continuous generating grinding of components free from interfering contours, both processes have distinct disadvantages in terms of productivity and cost-effectiveness.

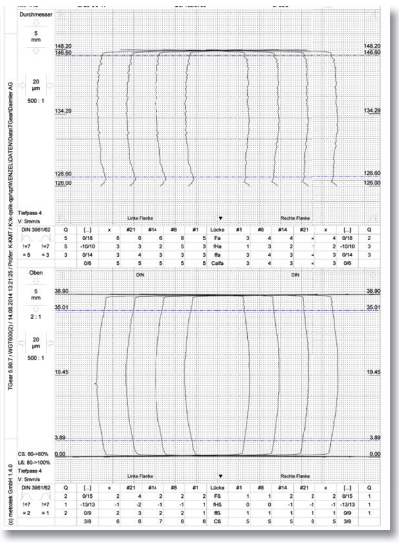
Until now, no gear grinding machine was able to process gears with interfering contours using the continuous generating grinding method due to the high dynamic demands placed on tool and workpiece drives.

A new development from KAPP NILES is now closing that gap and offers great streamlining opportunities by using continuous generating grinding for optimising the hard finishing process of complex gears.

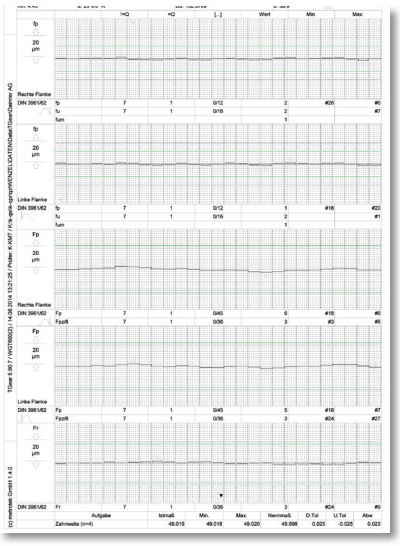
By using a high-speed grinding spindle on the **KX 160 / 260 TWIN** machines, gears which require a tool diameter of 55 mm can now be processed with generating grinding. In connection with the maximum tool width of 160 mm, it is possible to achieve the quality standards, processing times and costs common to serial production that were previously considered impossible for gears with interfering contours.



profile and flank-line measurement



pitch and runout measurement



max. tip diameter [mm]	module range [mm]	tool diameter range [mm] generating grinding	tool diameter range [mm] profile grinding	max. tool speed [min^{-1}]	max. workpiece speed [min^{-1}]
170 / 260	0.5 - 4.5	55 - 200	30 - 200	23,000	5,000

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