

Crankshaft Turn-Broaching Machines TB-Series



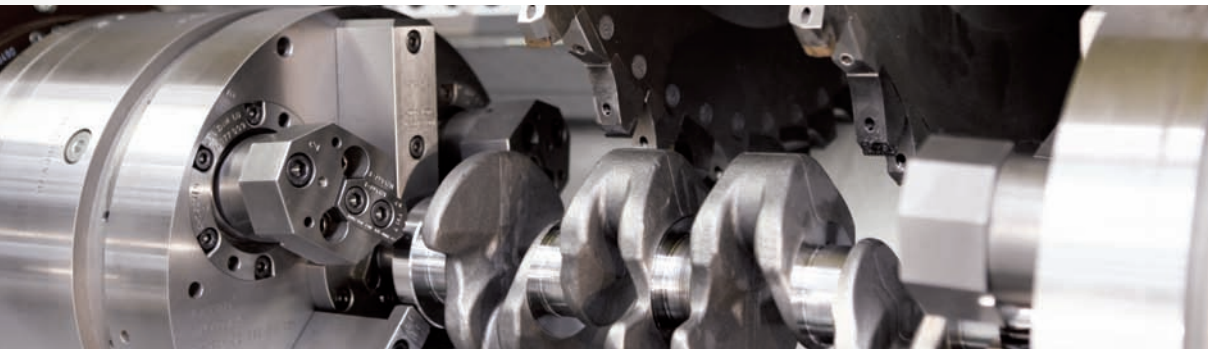
NILES-SIMMONS

N20 TB

WT2c

WT1

ELT



The **N20TB and N30TB Crankshaft Turn-Broaching Machines** have been conceived for turning and turn-broaching operations on truck and passenger vehicle crankshafts with lengths of up to 1,800 mm.

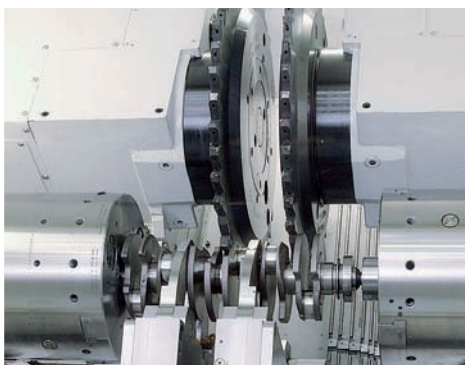
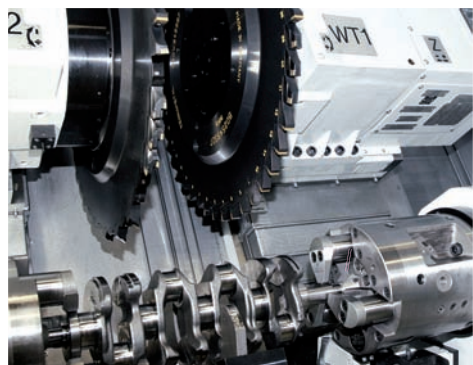
The two machine sizes are based on robust machine beds in composite construction. The machine construction design is identical and only differs in size and technical performance. Symmetrical work spindles are designed as motor-driven spindles and are synchronized electronically. For this process, the work spindles are equipped with optimized bearing supports. Standard spindle noses (A8 for N20 and A11 for N30) according to DIN 55026 are used.

Axial and cross slide are guided on antifriction guideways with damping surfaces.

Two compact turn-broaching units each with powerful synchronous drives allow quick indexing of disk-shaped tools. Rigid acceptance of tool disks with hydraulic clamping is the basis for efficient turning and turn-broaching of crankshaft bearings and other concentric features of crankshafts. The use of max. 2x48 tool cartridges to locate reversible cutting inserts ensure high flexibility and tool life which is enhanced by the use of sister tools.

Your benefits at a glance

- 2 identical motor spindle drives with high power and torque parameters
- Both sizes N20 and N30 with identical A11 tool locator for broaching disks with 700 mm diameter
- Quick positioning of cutting tools by highly dynamic rotational axes
- Simultaneous operation of both tool disks with independent feed rates
- Adapted clamping solutions with chucks to machine flange and journal in one setup
- Semi-automatic tool clamping, tool data is transferred automatically via ID-chip
- Optional internal tool probing
- Temperature compensation of broaching disks
- Customized tool and clamping fixture interfaces



TECHNICAL DATA

TB-Series		N20 TB	N30 TB
Working Area			
Nominal length	mm	1000	1500 2000 2500
Swing diameter	mm	650	780
Max. work piece length	mm	500	800 1300 1800
Workspindle (main/counter)			
Driving power 100% / S6-60% duty cycle	kW	2x30,4 / 34	2x64 / 78
Speed range	rpm	...3800	...3000
Broaching unit			
Configuration		li/re	li/re
Tool receptor DIN 55026	size	A11	A11
Tool diameter	mm	700	700
Tool cassettes	number	45 / 48	45 / 48