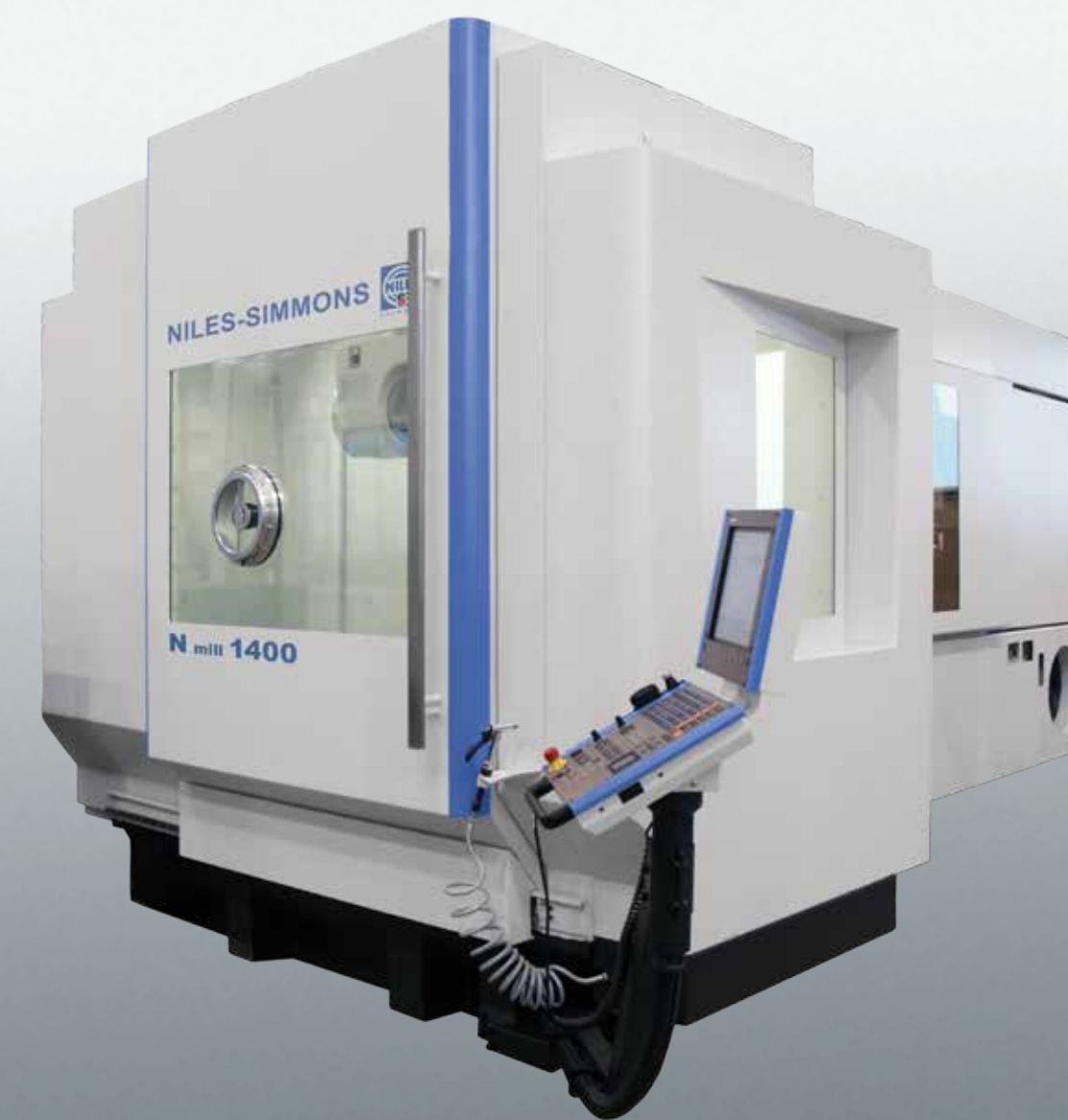


## 5-Axis Milling Center Nmill 1000/1400

Compact



NILES-SIMMONS Industrieanlagen GmbH  
Zwickauer Str. 355  
D - 09117 Chemnitz  
Germany

Phone: +49 371 - 80 20  
Fax: +49 371 - 85 25 78  
Email: info.nsi@nshgroup.com  
Website: www.niles-simmons.de



# Compact



Nmill 1400



100% made in Germany – developed and produced in Chemnitz

- Large working space with excellent ergonomics and low space requirement
- Heavy cast-iron base and supports with a high-precision guidance system and thermostable structure
- NC rotary table with dynamic direct drive with hydraulic clamping at desired angle, rotary transmission for additional functions, optional speed range up to 500 rpm with automatic alignment function
- Complete machining from roughing to finishing is augmented by milling/turning function
- Reliable high-precision spindles with oil-air lubricant with HSK63/HSK100 interface, swivelling A-Axis can be hydraulically clamped at desired angle

- The Nmill design has been proven 100 times
- Model for turning that has an optional hydraulic clamping function for the spindle
- Uses the latest generation of control technology from HEIDENHAIN and SIEMENS
- New comfortable operating design with 19" TFT monitors with NILES-HMI

#### Technical Features / Options:

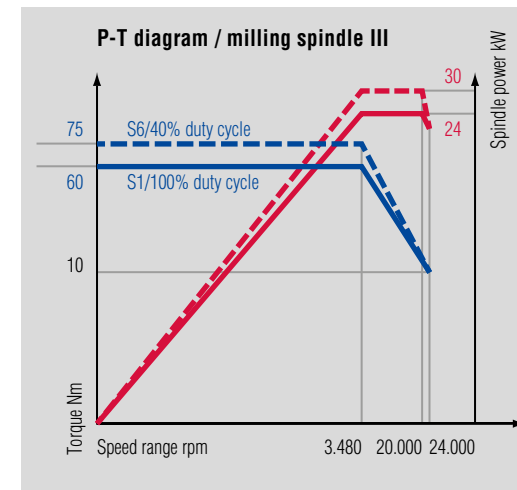
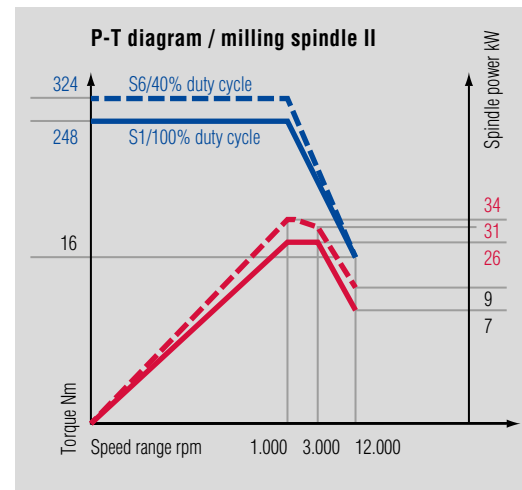
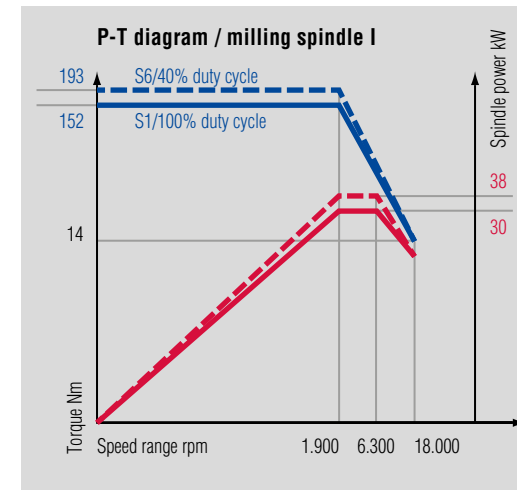
The technical features and optional packages of the Nmill 1000 and Nmill1400 are tailored to meet various machining and operating conditions. The new milling/turning function opens up the area of application and enables complete machining tasks to be executed in a flexible way.

#### Basic Configuration

- Closed machine housing
- Panes made of composite safety glass
- 2 integrated screw conveyors
- Direct absolute measuring systems
- Integrated safety/functional safety
- 3-point support without foundation
- External coolant/air cooling
- Spray gun
- Front /side chip conveyor
- Mobile handwheel with spiral cable

#### Options

- Triple pallet changer
- Internal coolant supply, unregulated
- 40 bars of pressure | flow rate 25 l/min
- Internal coolant supply, regulated
- 80 bars of pressure | flow rate 18 l/min
- Rotoclear on front/side
- Minimum lubrication
- Coolant Mist extraction
- Tool probing by using lasers
- Table top load cell
- Sensor for measuring workpiece
- Air through the spindle
- Cooling using cooling lubricant
- Higher precision
- Import of CAD data
- Etched table surface
- Thermal and vibration sensors
- Remote diagnosis
- Automatic compensation function
- Tailored solutions



Machine Type		Nmill 1000	Nmill 1400	Nmill 1400T
<b>Axes</b>				
Longitudinal	X mm	1000	1400	1400
Cross	Y mm	1150	1150	1150
Vertical	Z mm	895	895	895
Swivel Axis, Spindle	A degrees	+16/-120	+16/-120	+16/-120
Number of simultaneous axis	n	5	5	5
<b>Work table</b>				
Table size, Dia	mm	1000	1100	1000
Max. Table load	kg	1100	1600	1400
Table slots, distance / width	mm	100/18-H12	100/18-H12	radial/4x18H7; 4x18H12
Max. speed range	rpm	40	40	500
<b>Working Spindle</b>				
Working Spindle HSK A63, 15.000 rpm	kW	38	38	-
Spindle torque 40 % duty cycle	Nm	193	193	-
Working Spindle HSK T63, 18.000 rpm	kW	38	38	38
Spindle torque 40 % duty cycle	Nm	193	193	193
Working Spindle HSK A63, 24.000 rpm	kW	30	30	-
Spindle torque 40 % duty cycle	Nm	75	75	-
Working Spindle HSK A100, 10.000 rpm	kW	-	34	-
Spindle torque 40 % duty cycle	Nm	-	325	-
Working Spindle HSK T100, 12.000 rpm	kW	-	-	34
Spindle torque 40 % duty cycle	Nm	-	-	325
<b>Feed drives</b>				
Max. feed rate	rpm	15	15	15
Rapid Traverse	rpm	30	30	30
Feed force	N	11000	11000	11000
<b>Automation</b>				
Pallet magazine	Pockets	-	3	-
Pallet size	Ø mm	-	1000/840	-
Tool magazine HSK 63	Pockets	30, 46, 92	30, 46, 92	30, 46, 92
Tool magazine HSK 100	Pockets	30/170	30/170	30/170
Max. tool diameter / length	mm	160/400	160/400	160/400
Max. tool weight	kg	12	12	12
Chip-to-chip time	s	11	11	11
<b>Accuracy data</b>				
Positioning deviation M ISO 230-2 (97) XYZ	mm	0,004	0,004	0,004
<b>Control unit</b>				
HEIDENHAIN		TNC 640	TNC 640	TNC 640
SIEMENS		840 DsL	840 DsL	840 DsL
<b>Machine housing</b>				
Closed machine housing		yes	yes	yes
Opening width Machine/WPC	mm	1450	1450/1000	1450
Chip removal				
Chip conveyor / Discharge	front / lh	yes	yes	yes
Integrated screw conveyor		2	2	2
<b>Coolant</b>				
Dry machining, external air cooling	Nozzles	3	3	3
Wet machining, external coolant supply	Nozzles	3	3	3
Pressure	bar	6	6	6
Flow rate	l/min	25	25	25
<b>Weight</b>				
Machine weight, app.	kg	12000	12600..17100	12600