

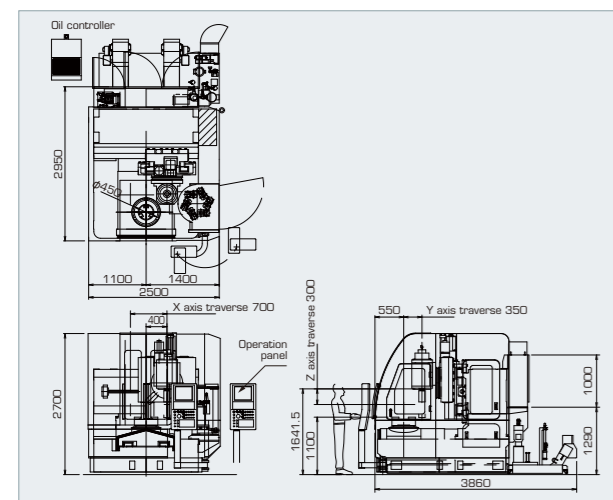
**Main specification**

Machining capacity	Max. workpiece diameter	mm	φ450
	Max. machining module	-	m4.5
	Max. machining teeth width	mm	120
	Max. workpiece height	mm	250
Cutter spindle	Gear cutting tool	-	Skiving cutter
	Spindle taper hole (tool shank type)	-	7/24 Taper No.50 (BBT50)
	Max. RPM of spindle	min-1	3000
Workpiece spindle	Motor (30 min/continuous)	kw	26/22
	Max. RPM of spindle	min-1	1400
	Motor (30 min/continuous)	kw	26/22
Each unit traverse	Left - Right traverse (X-axis)	mm	700
	Forward - Back traverse (Y-axis)	mm	350
	Up - Down traverse (Z-axis)	mm	300
	Tool swivel angle (B-axis)	deg	±25
	Number of tool storage	本	6
A.T.C.	Max. tool diameter	mm	φ150
	Max. tool length	mm	250
	Tool selection method	-	Tool storage position fixed / random
	Type	-	FANUC 31i-B
NC device	Display	-	FANUC PANEL-i
	Overall power used	kVA	88
Utilities	Machine height	mm	2700
	Required floor space (width x depth)	mm	2500x3860
Dimensions of machine	Net machine weight (main body)	kg	22000
	Workpiece chuck	External scale	22 piece ATC
Options	Hard machining package		
	Workpiece handling by robots		

**Providing cutting tools optimized for workpiece size and effective production**

Production volume	▲More	2-axis helical broaching machines <b>Hx-T50-23DHAL</b>		
	Fewer▼	Helical broaching machines <b>Hx-T25-17</b>		
Workpiece size	9,000 units/month	Skiving machining center for Gears <b>GMS450</b>		
		Gear Shaping Center <b>GM7134</b>		
Market		φ200	φ450	φ700
		Cars	Trucks	Industrial machinery (construction machinery)
		Reduction gears		

**Layout diagram**



**Skiving cutter**

Propose our skiving cutter and cutting conditions to match the various workpiece specifications and applications.



**Features of NACHI cutters**

- Analyzed cutting mechanism with the cutting tool design technology and gear cutting technology that we have developed. Improved precision of machining work and extended tool life.
- Established surface processing technology needed for skiving that produces better surfaces with optimized deposition process and design of coating components.
- Carbide skiving cutters are able to achieve hard skiving process after heat treatment.



Super accurate high performance skiving at peak of ideals

Skiving machining center for Gears

# GMS450

Integrated skiving gear shaping machine



**NACHI-FUJIKOSHI CORP.**

This machine is considered a strategic resource (or service) according to restrictions in the foreign exchange and trade laws. Based on these laws, export from Japan requires an export permit from the Japanese government.

<http://www.nachi.com>

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All information in this catalog is based on in-house measurements. This information is not guaranteed for all conditions. Improvements to ratings or outer appearance may result in unannounced changes.

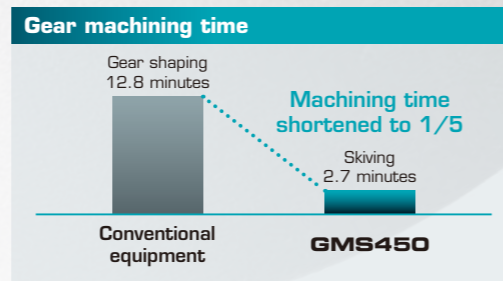
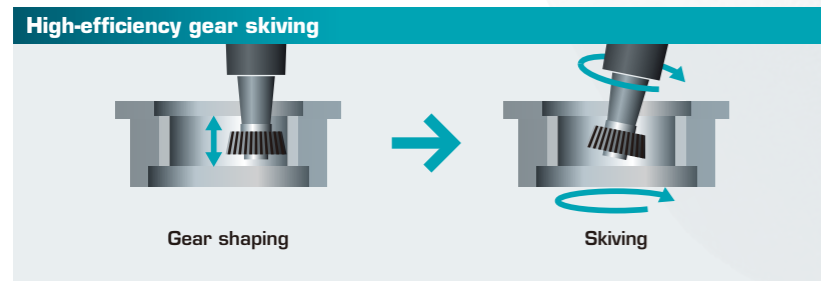
**CATALOG NO. M6202E**

2016.9.X.MD-SANWA

Super accurate high performance skiving at peak of ideals

# Skiving machining center for Gears GMS450

- High efficiency gear skiving reduces machining time to as much as 1/5 (compared to gear shaping)
- Proprietary technologies used to add lathe and drill to skiving machine for a multi-functional gear shaper
- Both mass production & multi-type-small-hot production
- Compact yet can be machining up to 450mm diameter part
- Hard-skiving achieves high-precision machining of hardened gears
- Interactive operation screen provides excellent man-machine interface



Machining conditions: Module, 2.5 Number of tooth: 87 Tooth width: 50 mm

## Three jobs consolidated in one machine

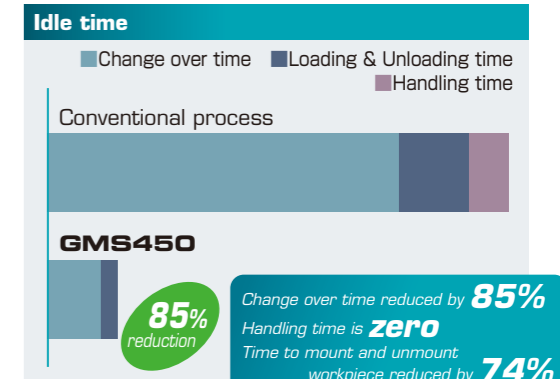
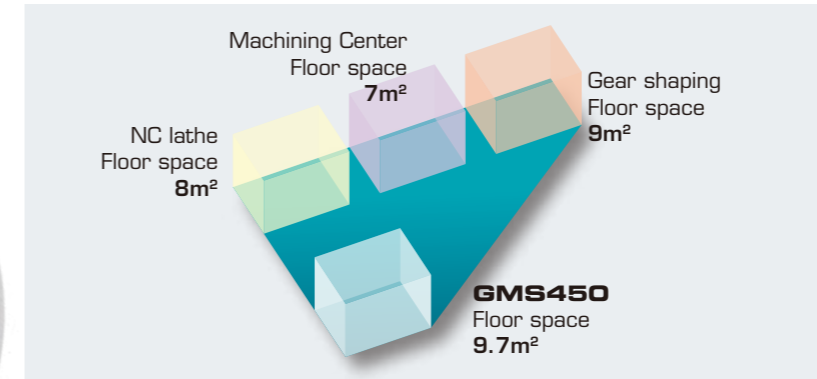
Skiving machining center for Gears GMS450 achieves a high-efficiency gear skiving machine. Plus, it also has lathe and drill functions that integrate jobs in this skiving gear shaping machine.

Specification	Max. workpiece diameter	Max. RPM	Motor (30 min/continuous)
<b>Skiving specification</b>	<ul style="list-style-type: none"> <li>■ Max. workpiece diameter: <math>\phi 450\text{mm}</math></li> <li>■ Module: m4.5</li> <li>■ Max. machining teeth width: 120mm</li> </ul>		
<b>Lathe specification</b>	<ul style="list-style-type: none"> <li>■ Max. machining diameter: <math>\phi 450\text{mm}</math></li> <li>■ Max. RPM: 1400rpm</li> <li>■ Torque (max./rated): 512/305Nm</li> <li>■ Motor (30 min/continuous): 26/22kW</li> </ul>		
<b>Drilling specification</b>	<ul style="list-style-type: none"> <li>■ Max. RPM: 3000rpm</li> <li>■ Motor (30 min/continuous): 26/22kW</li> </ul>		



## To achieve smart production lines by reducing floor space

Skiving machining center for Gears requires little space to improve gear production lines to be smart production lines that can handle a variety of production formats from multi-type small-hot production to high-volume production.



## Proprietary technologies produce new design skiving machine

Upright machining center built with gantry-type column Skiving machine with table that rotates on B-axis

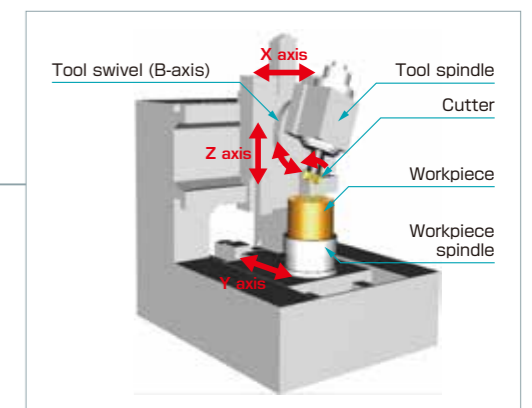
### New spindle designed for skiving

Super-rigid spindle equipped with large diameter bearing and high-torque direct drive motor

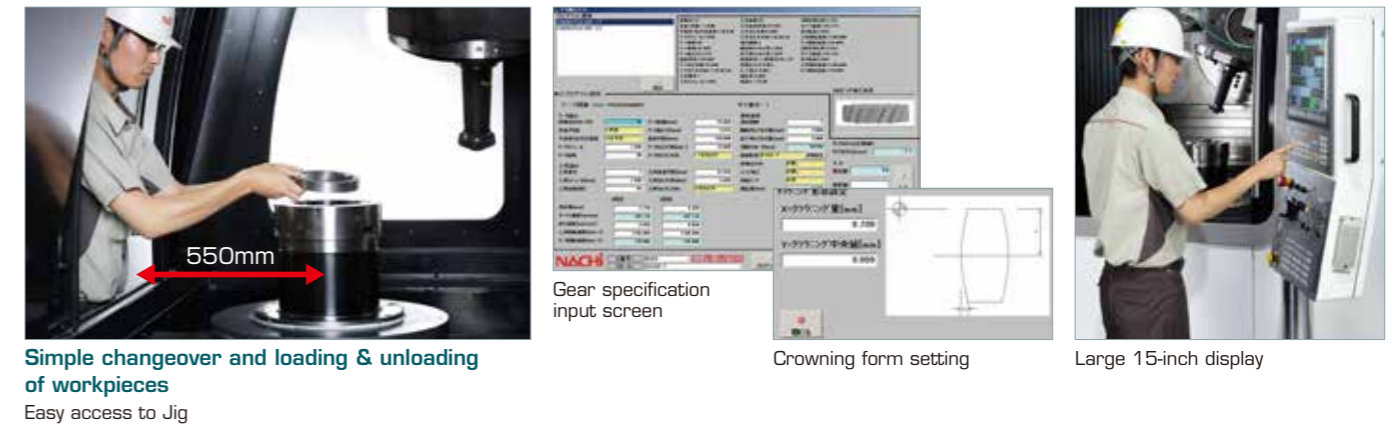
### All axes have V-rail slides

V-rail slides with superior rigidity and damping used on all sliding surfaces, including the tool spindle.

### X axis and B axis equipped with table clamp mechanism



## Superior workability and operability



Simple changeover and loading & unloading of workpieces  
Easy access to Jig

Crowning form setting

Large 15-inch display

## Machining application

