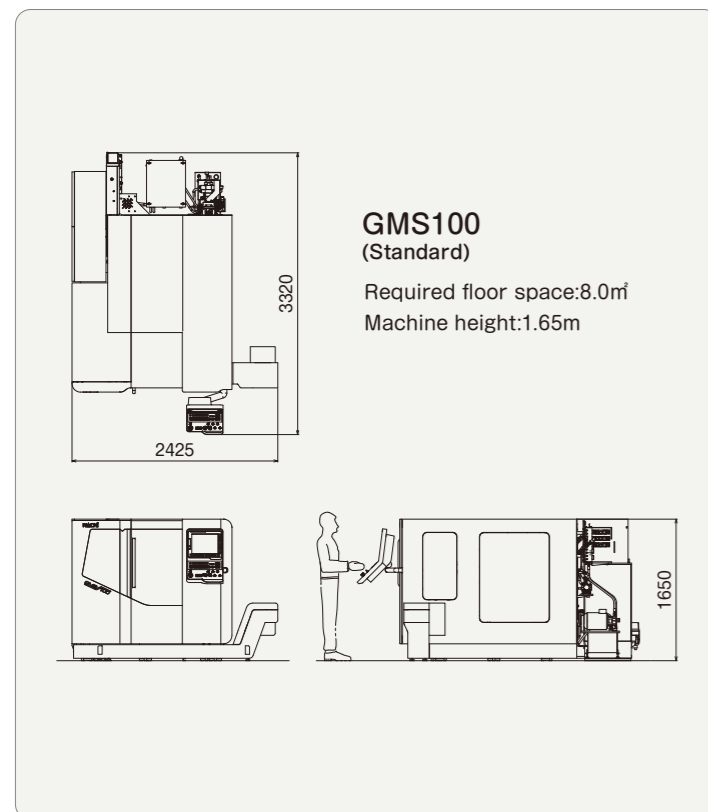


Main specifications

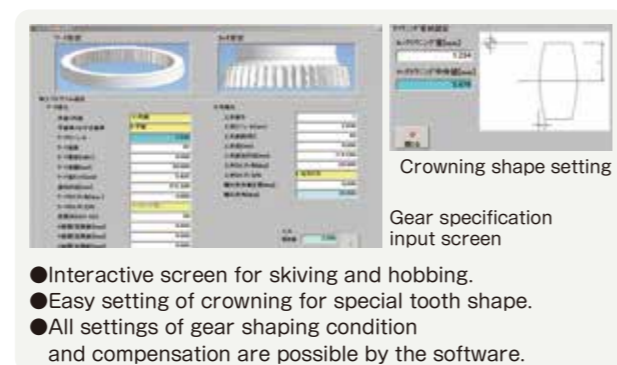
Machining capacity	Workpiece diameter	φ3~100mm (Internal skiving φ40~100)
	Max. workpiece length	30~300mm (End-face machining: up to 60mm)
Cutter spindle	Spindle taper hole	Capto C6
	Max. RPM of spindle	12,000rpm
Workpiece spindle	Max. RPM of spindle	8,000rpm

Each unit traverse (5 axes)	Z-Y-Z(back-forth/up-down/left-right)	X200mm/Y320mm/Z350mm
	Tool swivel angle	-5~95deg
ATC(option)	Number of ATC tool storage	None/6/22
NC device	type	FANUC 31i-B
Machine size (Standard)	Main Body(width x length)	2,425 x 3,320mm
	Machine weight	about 6,500kg

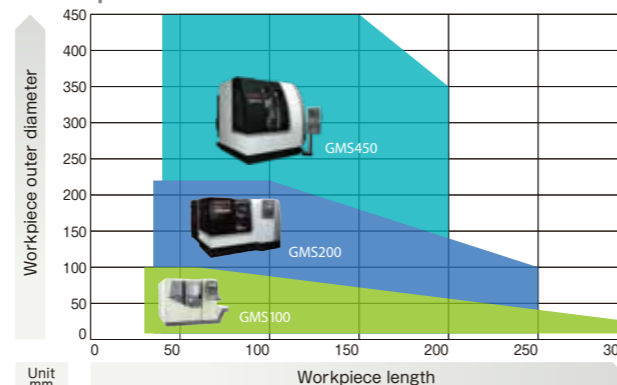
Machine Layout



Simple gear shaping setting by interactive operation screen



Workpiece size of GMS series



Skiving machining center for gears **GMS100**



NACHI's total solution



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 Japanese government.

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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. **M6204E**
2022.02.X-EDIT-MIZUNO



Skiving machining center for gears

GMS100

Integrated process machine for small parts of electronics, EV, reduction gear, air craft, and medical instrument.


Features of GMS100

- Gear machining processes (skiving, hobbing, lathe, drilling) are integrated into one machine.
- Optimal capability for small workpiece. (outer diameter: up to $\phi 100\text{mm}$, full length: up to 300mm)
- Enhanced lathe function with optimal axis composition, special cutting tool, and program.
- Installation floor space comparison: 54%-reduced with machining line of lathe, drilling and gear cutting.
- High accurate machining for free curved surface is possible with high rigidity and by multi-axis synchronizing control.

Machining capacity


Lathe capacity
Work spindle

Standard machining diameter $\phi 100\text{mm}$
Max. speed 8,000rpm



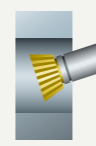
Drilling capacity
Cutter spindle

Max. speed 12,000rpm

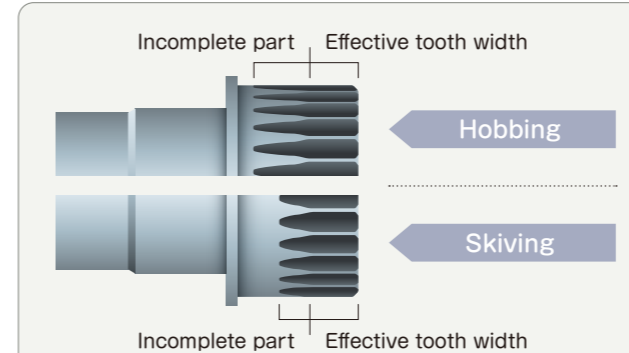


Gear shaping capacity

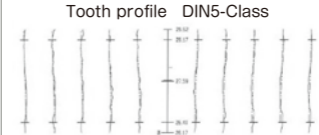
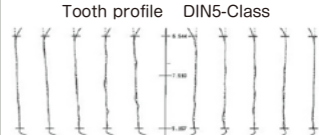
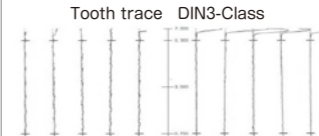
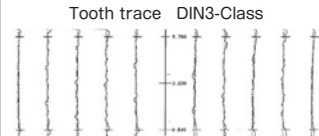


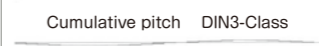

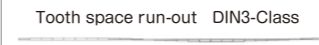
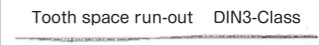
Standard workpiece outer diameter $\phi 100\text{mm}$
Standard cutting tooth width 60mm



Comparison between skiving and hobbing

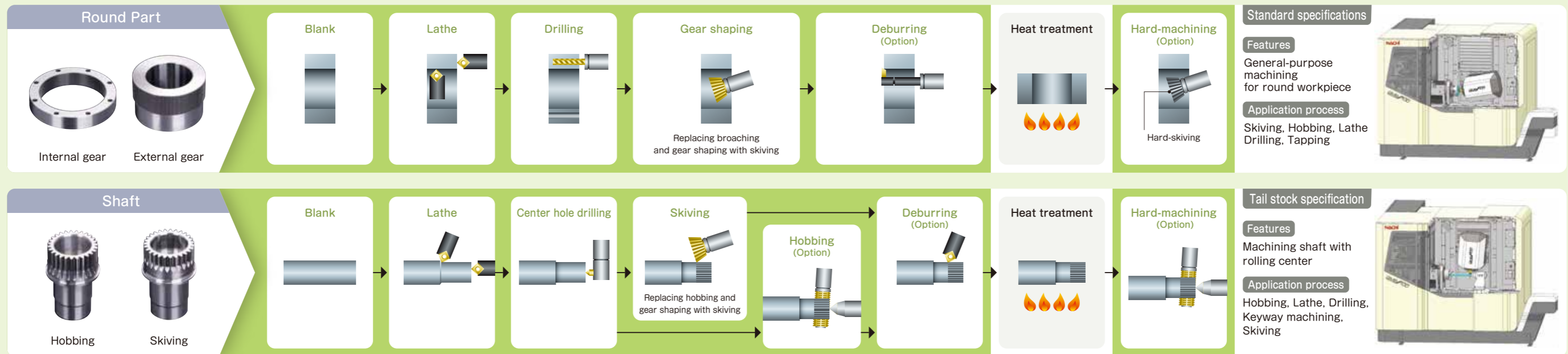


Hobbing makes some large incomplete parts of gear, but skiving can reduce the parts compared to the hobbing. Skiving can make workpiece compact and light-weighted.

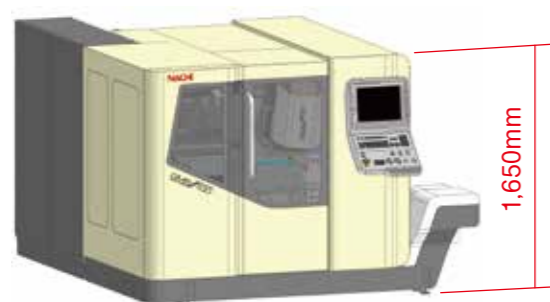
External gear skiving m1.0 Z27	Internal gear skiving M0.5 Z90
<p>Tooth profile DIN5-Class</p> 	<p>Tooth profile DIN5-Class</p> 
<p>Tooth trace DIN3-Class</p> 	<p>Tooth trace DIN3-Class</p> 
<p>Single pitch DIN0-Class</p> 	<p>Single pitch DIN0-Class</p> 
<p>Cumulative pitch DIN3-Class</p> 	<p>Cumulative pitch DIN3-Class</p> 
<p>Tooth space run-out DIN3-Class</p> 	<p>Tooth space run-out DIN3-Class</p> 

Gear Accuracy by Skiving: DIN5-Class

Suggestion of integrated processes

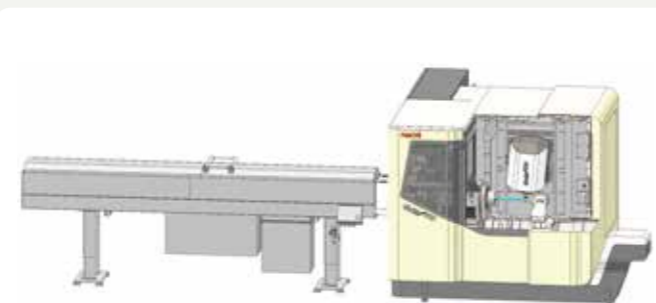


Reduced machine height and compact machine



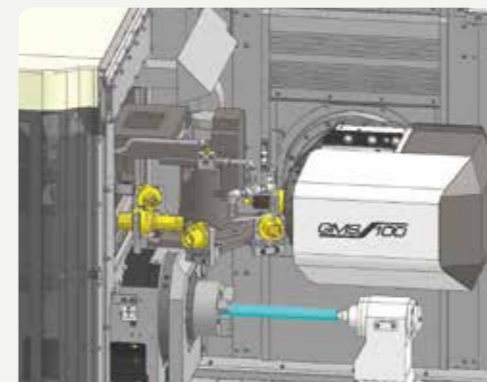
- Workpiece setting/removal length: 450mm
- Workpiece setting height: 900mm

Bar feeder specifications



Multi-machining, cutting + gear-shaping, is possible with auto workpiece feeding (less than $\phi 24$).

ATC specifications(6 tools)



ATC with 22 tools is applicable.

Machining example

 <p>Full length:105mm module:m0.3 Workpiece diameter:$\phi 29.4\text{mm}$</p>	 <p>Full length:66mm Workpiece diameter:$\phi 13\text{mm}$</p>
 <p>Full length:120mm module:m0.5 Workpiece diameter:$\phi 10\text{mm}$</p>	 <p>Diameter:$\phi 100\text{mm}$ Material:Aluminum alloy</p>