

Flexibility for variable workpiece type  
& production volume

# Gear shape machining center

Integrated process type gear machining equipment

## GM7134



- Multi-functional machine adding lathe & drilling to gear shaper
- Application for both mass production & multi-workpiece-type-small-lot production
- Downtime: **85%** reduced
- Initial cost: **45%** reduced
- Installation space: **57%** reduced

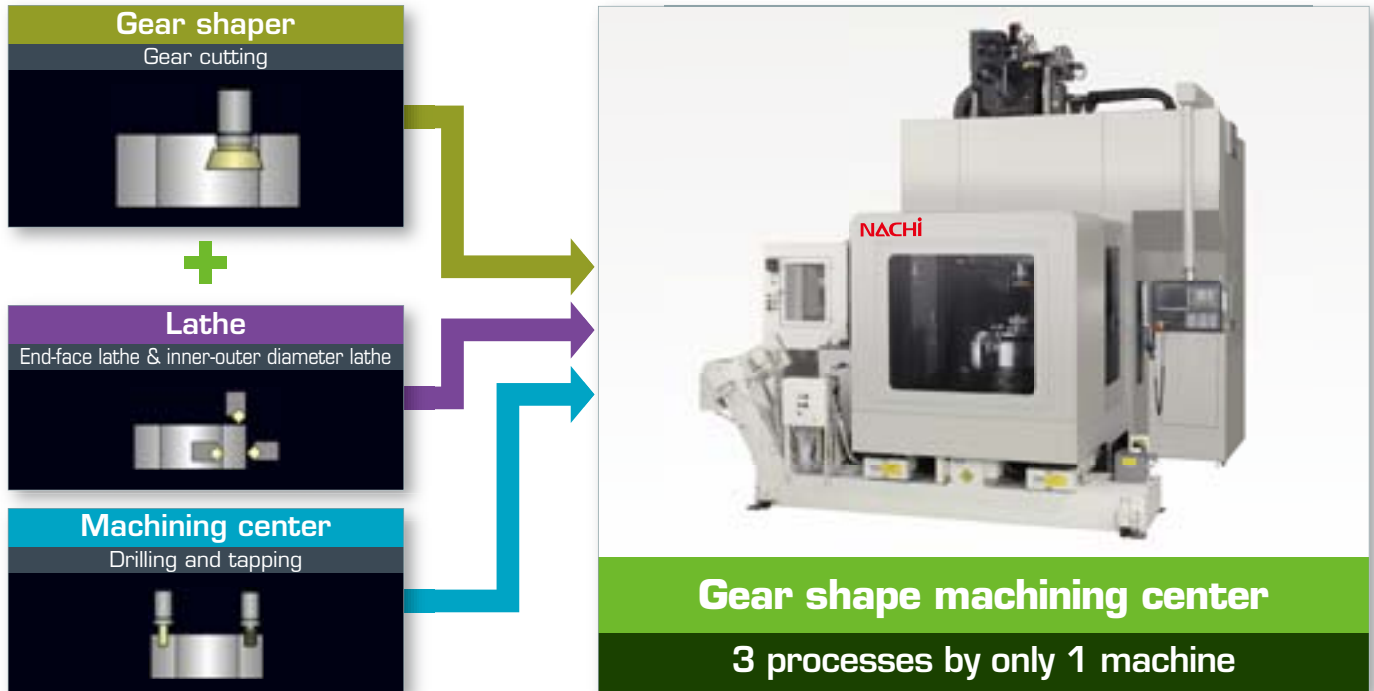
# Integrated process type gear machining equipment

## Gear shape machining center

**GM7134**

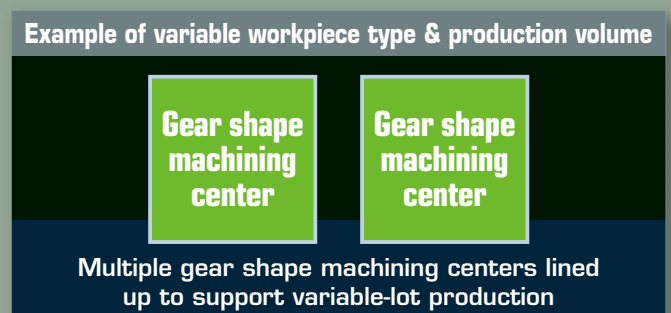
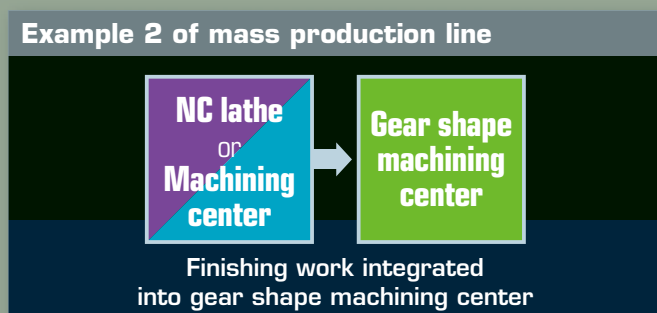
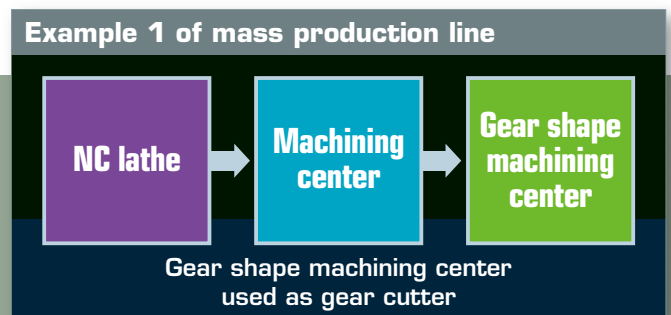
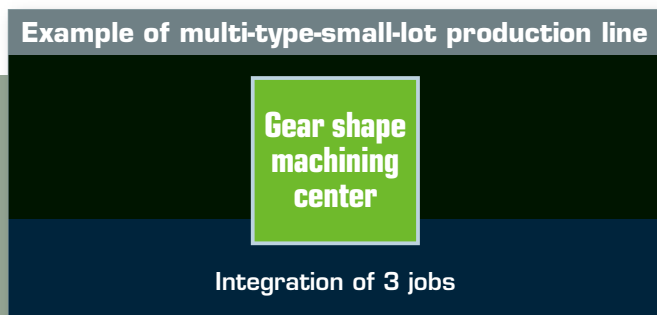
**Gear shape machining center is a multi-function machine based on a gear shaper.**

It is able to greatly reduce the downtime and stabilize the machining accuracy by one-chuck-machining gears for construction equipment and reduction gears.



**Speedy application for variable workpiece type & production capacity.**

The machine can quickly apply to variations of production value & type by being used as a single gear shaper for mass production as well as multi-type-small-lot production.



## Dramatic reduction of downtime

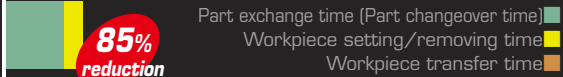
One-chuck machining leads to great reduction of downtime.

### Reduction of downtime

#### Conventional process

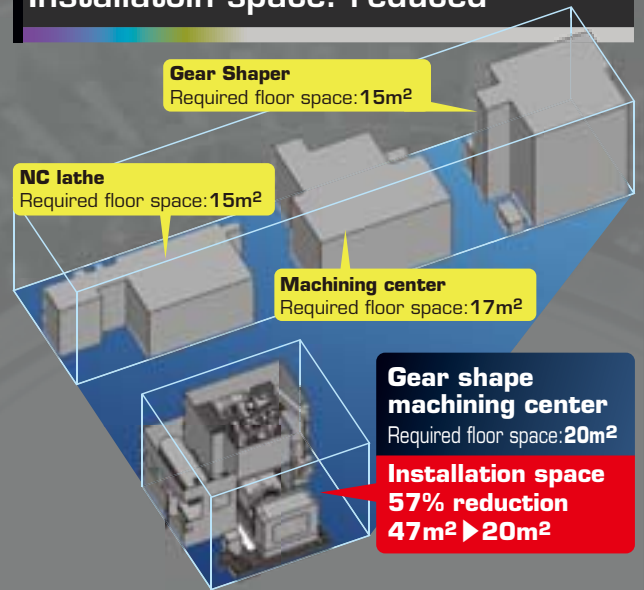


#### Gear shape machining center



Part exchange time: **85% reduced**  
 Workpiece transfer time: **ZERO**  
 Workpiece setting & removing time: **74% reduced**

## Installation space: reduced



## Reducing initial cost & running cost

Adding functions of lathe & machining center at cost of gear shaper.

Energy consumption: reduced CO2 emission: 12ton/ear

Work in processes: ZERO

### Initial cost: reduced

■ Shaper ■ Machining center ■ Lathe

#### Conventional equipment



#### Gear shape machining center



### Power consumption

■ Lathe ■ Machining center ■ Shaper

#### Conventional equipment



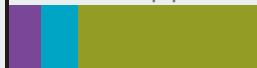
#### Gear shape machining center



### Coolant

■ Lathe ■ Machining center ■ Shaper

#### Conventional equipment



#### Gear shape machining center



### Lubrication oil

■ Lathe ■ Machining center ■ Shaper

#### Conventional equipment



#### Gear shape machining center



## Specifications

Max. lathe outer diameter	φ 700mm	Max. major diameter (inner/outer teeth)	φ 700mm	Max. machining teeth width	200mm
Max. drill/tap	φ 30/M20	Max. module	m8		

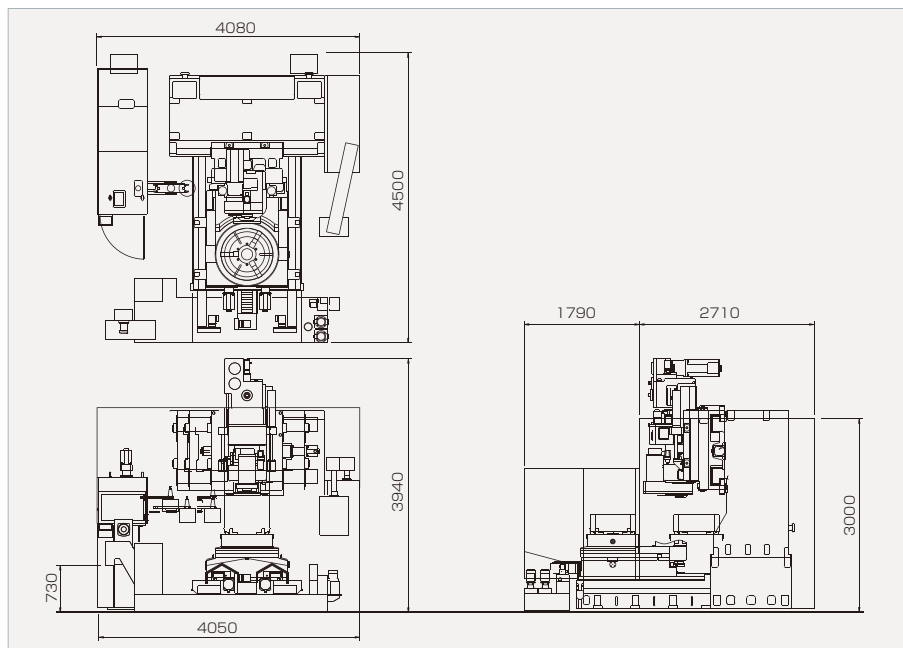
## Machining target (example)



## Specifications

Machining capacity	Max. workpiece diameter	Inner teeth	φ700
		Outer teeth	φ700
	Max. machining module		m8
	Max. machining teeth width		200mm
	Max. cutter stroke width		230mm
	Max. spindle stroke		30~300str/min
Table	Gear cutting tool		Pinion cutter
	Diameter		φ800
	Max. torque (30min. rating)		2,352Nm
	Lathe	RPM	300
		Motor	26/22kw
	Index	RPM	8
Motor		2.7	
Distance from floor to top surface of table			1,200mm
Spindle	Spindle taper hole		BT50
	Tolerance torque (30min. rating)		200
	Lathe	RPM	3,000rpm
		Motor	15/11kw
	Index	RPM	40
		Motor	2.7
Unit	Horizontal stroke (X-axis)		880
	Vertical stroke (Z-axis)		350
	Table stroke (Y-axis)		1,300mm
	Feed speed (common in X/Y/Z)		15
A.T.C.	Number of tool storage		30
	Tool selection method		Tool storage position fixed/ random
Utilities	Total electric consumption		94.2kVA
Required space	Machine height		3,940mm
	Required floor space (width x depth)		4,080mm x 4,560mm
Weight	Net machine weight (main body)		30,000kg

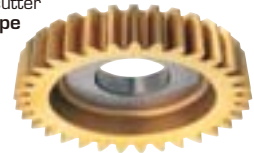
## Layout



## Pinion cutter

NACHI has a lineup of pinion cutters to meet your application. Please contact us for more information.

Pinion cutter  
Disk type



Pinion cutter  
Bell type



Pinion cutter  
Shank type



# NACHI

[www.nachi-fujikoshi.co.jp](http://www.nachi-fujikoshi.co.jp)

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