

A wide-angle photograph of a modern, multi-story industrial building with a white facade and large windows. A paved road with white markings runs alongside the building, leading towards a parking area with several cars. The scene is brightly lit, suggesting a sunny day.

Komatsu NTC Ltd.

Company Profile

Nov.5, 2012

Company Name: Komatsu NTC Ltd.

Headquarter: 100 Fukuno, Nanto City, Toyama 939-1595, Japan

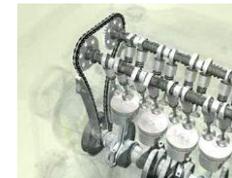
Representative: Katsushi Momoi,
Representative Director and President

Founded: July, 1945

Capitalized: 6,014.55 million yen

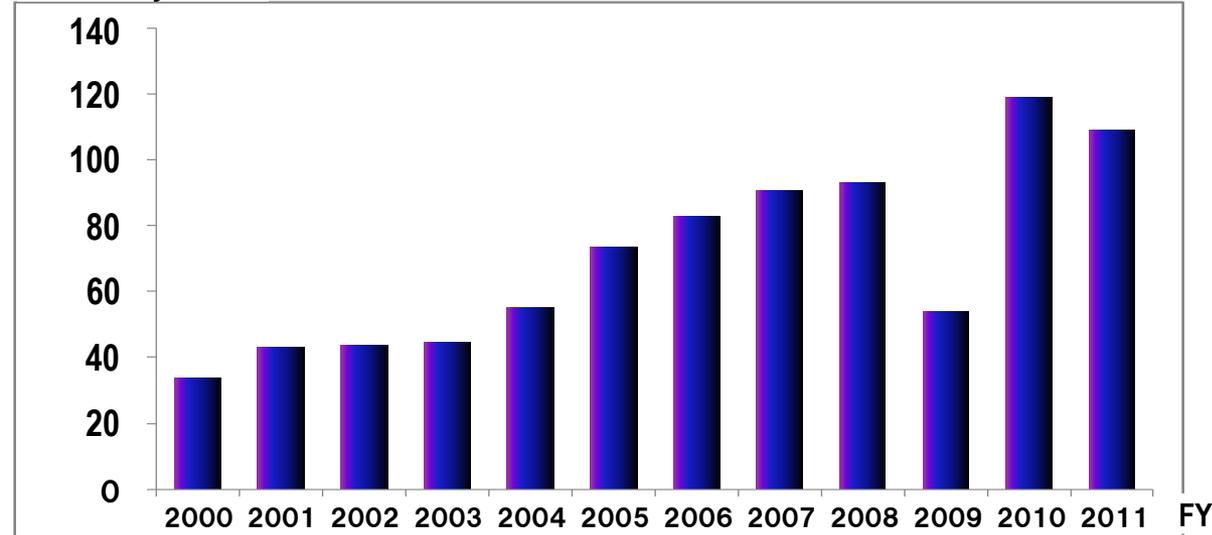
Main line of business

Design, manufacture, and sale of transfer machines, application-specific machines, grinding machines, machining centers, crankshaft millers, laser cutting machines, and semiconductor manufacturing equipment, etc.



Sales

Billions of yen



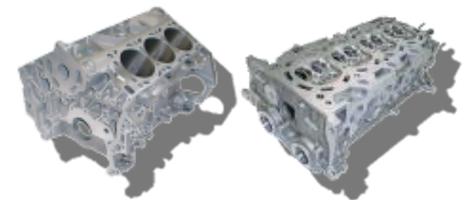


Wire saws for semiconductor and solar cell manufacturing



Global supplier

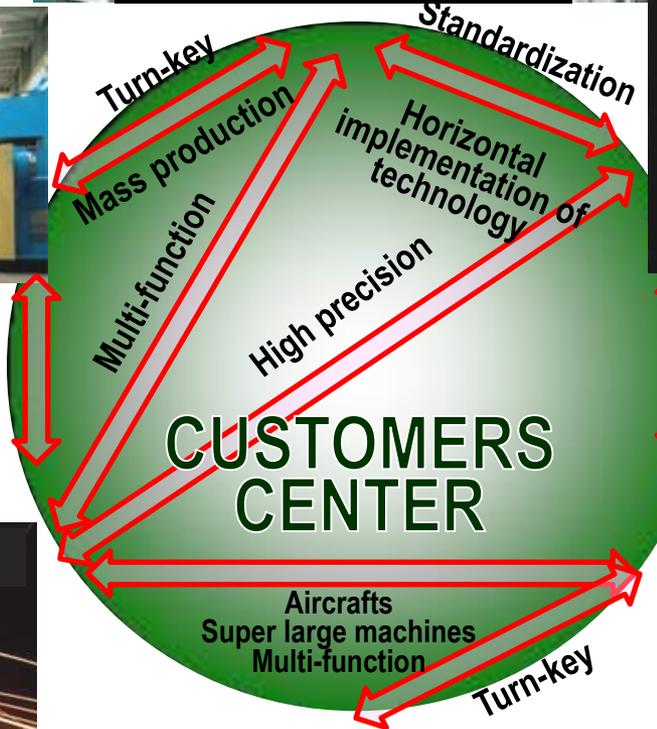
Transfer machines, Application-specific machines



Machining centers



Taking on the challenge nanotopology



Launching new lineups



PV market
*PV PhotoVoltaics)



Turn-key Horizontal implementation of technology

Laser cutting machines



Heading for one of the Top Threes in the world



Commitment to High Quality



TECHNOLOGY & RELIABILITY

Crankshaft millers

Grinders



China: Yida Nippei Machine Tool Corporation [YNC]



America: NTC AMERICA Corporation [NAC]



Germany: NIPPEI TOYAMA EUROPE GmbH



China: Nippei Toyama SHANGHAI TRADING Co., Ltd. (Beijing Office)



Frankfurt

China: NTC (Changzhou) Semiconductor Equipment Co., Ltd.



Delhi
Pune
Bangalore
Chennai



India: NIPPEI TOYAMA INDIA PRIVATE LIMITED

Japan: Komatsu NTC

Detroit
Kentucky

China: Nippei Toyama SHANGHAI TRADING Co., Ltd.

China: Nippei Toyama SHANGHAI TRADING Co., Ltd. (Guangzhou Office)



Thailand: NIPPEI TOYAMA (THAILAND) Co., Ltd.

- Sales and service
- Service
- Production

By thoroughly reassessing the conventional structure, we have reduced over 60% of power consumption, space and CO2 emissions.

Light weight & Space saving

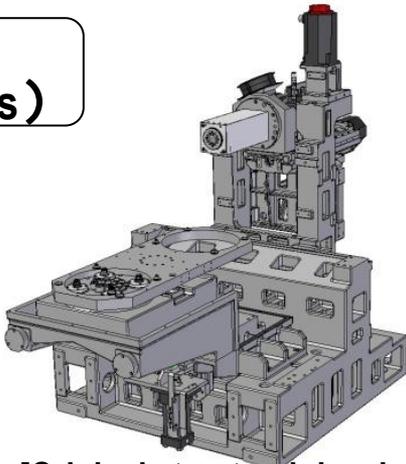
Machine space: -60%
 Weight: -60% (vs. conventional machines)

- Downsized by restructuring the fundamental configuration
- Downsized peripheral devices

Energy saving

- Power consumption (coefficient: NTC's conventional machine =100)

Conventional machine	Drive	Air	Coolant
	20	29	51
Z30H-APC	Drive	Air	Coolant
	4	12	15
	Reduction rate: 80%	Reduction rate: 60%	Reduction rate: 70%



[Original structural drawing]



[Z30H-APC with automatic pallet changer]

- Built-in automatic changer, which features little loss time to change work pieces, achieves improved productivity.

Features: High-power as well as energy and space savings

Space-saving compact machine

Space saving

Comp. to conventional models

Floor space: -66%

Volume: -75%

Applications to small parts

- automotive powertrain parts
- two wheeled vehicle parts
- electrical machine parts
- medical equipment parts

Energy saving

Extensive elimination of wasteful use of energy
(Comp. to conventional models: -57%)

- No hydraulic pressure
- Air consumption: -50%
- Coolant consumption: -50%

Improved productivity

High-precision, high-efficiency and wide-area grinding

- Structure that shuts out heat affect
 - >> high-precision grinding
- Top class high-power grinding spindle motor
 - >> high-efficiency grinding
- Dual center drive grinding
 - >> highly efficient, wide area grinding
- automatic long stroke center-to-center distance
 - >> wide-area automatic grinding

Excellent preventive maintenance

Safety, Reliability and Productivity

- Low machine height (improved safety)
 - >> Visible working environment
- Prevention of coolant being scattered over the maintenance area
 - >> Tough machine (enhanced reliability)
- Visible maintenance area (enhanced maintainability)
 - >> Visual check of the removable cover
- Centralized system (enhanced productivity)
 - >> Reduced maintenance area

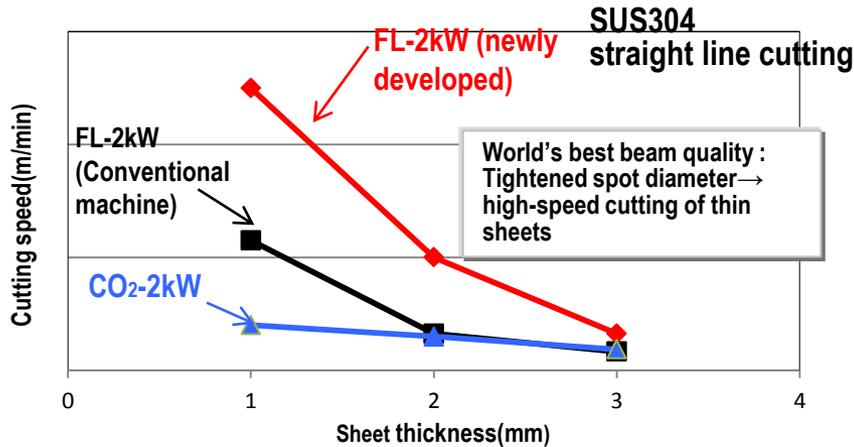


Features

1. Proprietary laser to cut thin sheets at high speed

Achieves the world's fastest laser cutting by using high-quality beam (comp. with the same output power).

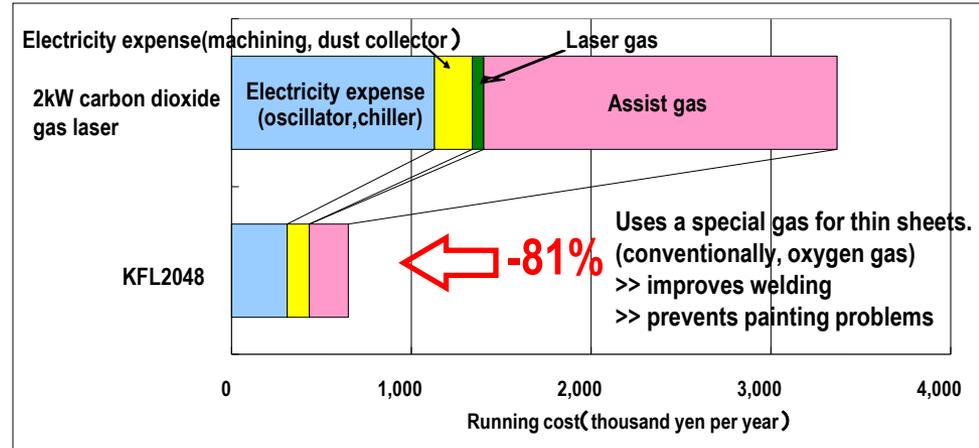
1mm stainless sheet: 6 times faster (vs. CO2 laser machine)



2. Eco-assist gas technology

Condenses nitrogen gas in the air and uses it as a high-pressure assist gas.

Assist gas: A gas sprayed to the processing area. (commonly, oxygen or nitrogen)



3. Highly flexible productivity

Handles small-lot parts thanks to the Gull-wing door.

4. Enhanced safety

Attained Class One laser safety as the machine is completely covered. Class One: The safest class of four levels

5. Production support

Controls power consumption and assist gas by utilizing New KOMTRAX

KOMTRAX: Komatsu machine tracking system





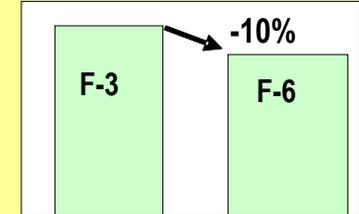
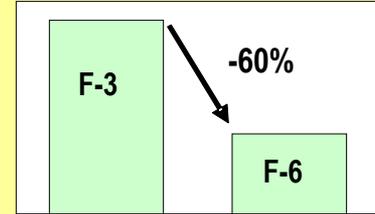
Exhibition model

[Energy saving] vs. conventional models

Air consumption

Adopted chuck shutter stops air blowing.

Power consumption



[Space saving]

Fabricates larger crankshafts in the same space needed for conventional models.

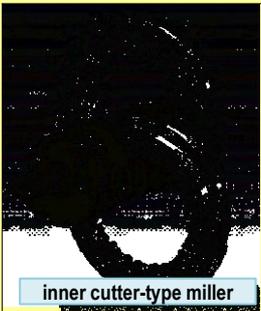
(Length: 550→600, yet capable of fabricating 6liter V8 crankshafts by using the standard model)

[Reduced noise]

-1.5dB (A)eq

[Easy maintenance]

Hydraulic and pneumatic valves on the exterior side
-> Able to operate from outside the cover



inner cutter-type miller

A machine to fabricate engine crankshafts

1. Inner cutter with chips
2. Crankshaft kept in fixed position
3. Cutter rotates around the crankshaft.



Reduced tool cost because of the long tool-life (chip)

The most economic crankshaft miller in the world

Adopted by all automobile manufacturers in Japan and Korea.
(Market share: 100%)

Due also to machining quality (shoulder roughness)

Expanding business worldwide.

Expand sales to automakers In Germany



Exhibition panel

Small crankshaft miller (only for 1.3liter class and under)

GPM150	Width	1/2
(vs. GPM170)	Area	1/3
	Volume	1/4