

A 150Y | 18
A 150SY | 15D

Multiprocessing Turning Center

A 150Y | 18
A 150SY | 15D



A 150Y | 18 / A 150SY | 15D

Ultra-high-precision Machining

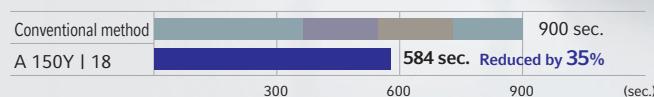
Achieving ultra-high-precision machining with a low thermal displacement construction, the A 150Y | 18 and A 150SY | 15D meet the expectations of customers with its precision quality even in fields like optical equipment and medical part machining, where extremely high precision is required. In addition, its turning and milling functions enable multi-axis machining that achieves highly efficient machining of workpieces of various shapes from round to irregular.

02



Optical equipment

- + Lens-barrel
- + Material <JIS>: A5056*
- < \varnothing 55 × T5 mm (\varnothing 2.2 × T0.20 in.)>
- + Machining time: 584 sec.
- + Number of tools: 14 tools



Lathes
Machining center
Deburring

A5056: Aluminum

* 5056 (ANSI), NB6 (BS), AlMg5 (DIN), 5A05 (GB)
JIS: Japanese Industrial Standard



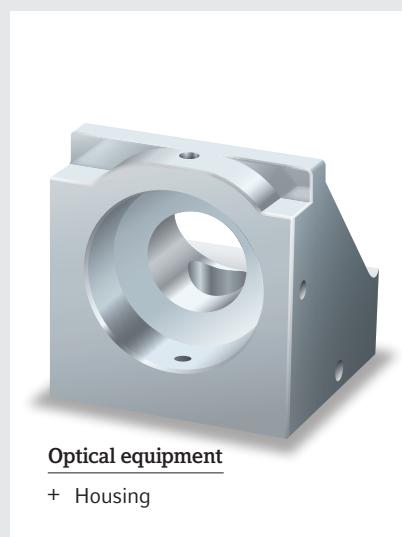
Automobiles

+ Piston



Tools

+ Cutter



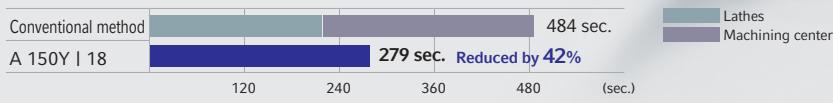
Optical equipment

+ Housing



Precision instruments

- + Chuck
 - + Material <JIS>: SUS304
 $\varnothing 24 \times 35 \text{ mm } (\varnothing 0.9 \times 1.4 \text{ in.})$
 - + Machining time: 279 sec.
 - + Number of tools: 9 tools



SUS304: Stainless steel
JIS: Japanese Industrial Standard

Applications and Parts

Highlights

Machine and Technology

Others

Machine Specifications

A 150Y | 18 / A 150SY | 15D

04



Precision instruments

+ Flange



Automobiles

+ Case



Precision instruments

+ Ring



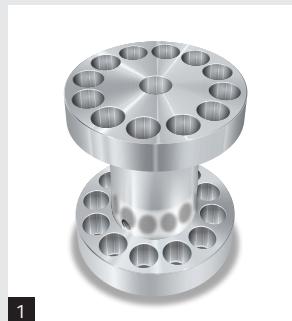
Tools

+ Hole saw



Electrical & Communication equipment

+ Code pipe



1



2



3



4



5



6



7



8



9



10



11



12

Precision instruments

- 1** Drum
- 2** Ring
- 3** Cap

Optical equipment

- 4** Sleeve

Automobiles

- 5** Base
- 6** Block
- 7** Plate
- 8** Cap

Tools

- 9** Hole saw

Industrial machinery

- 10** Robot component

Valves, Joints, Flanges

- 11** Faucet valve

Aerospace

- 12** Nut

A 150Y | 18 / A 150SY | 15D

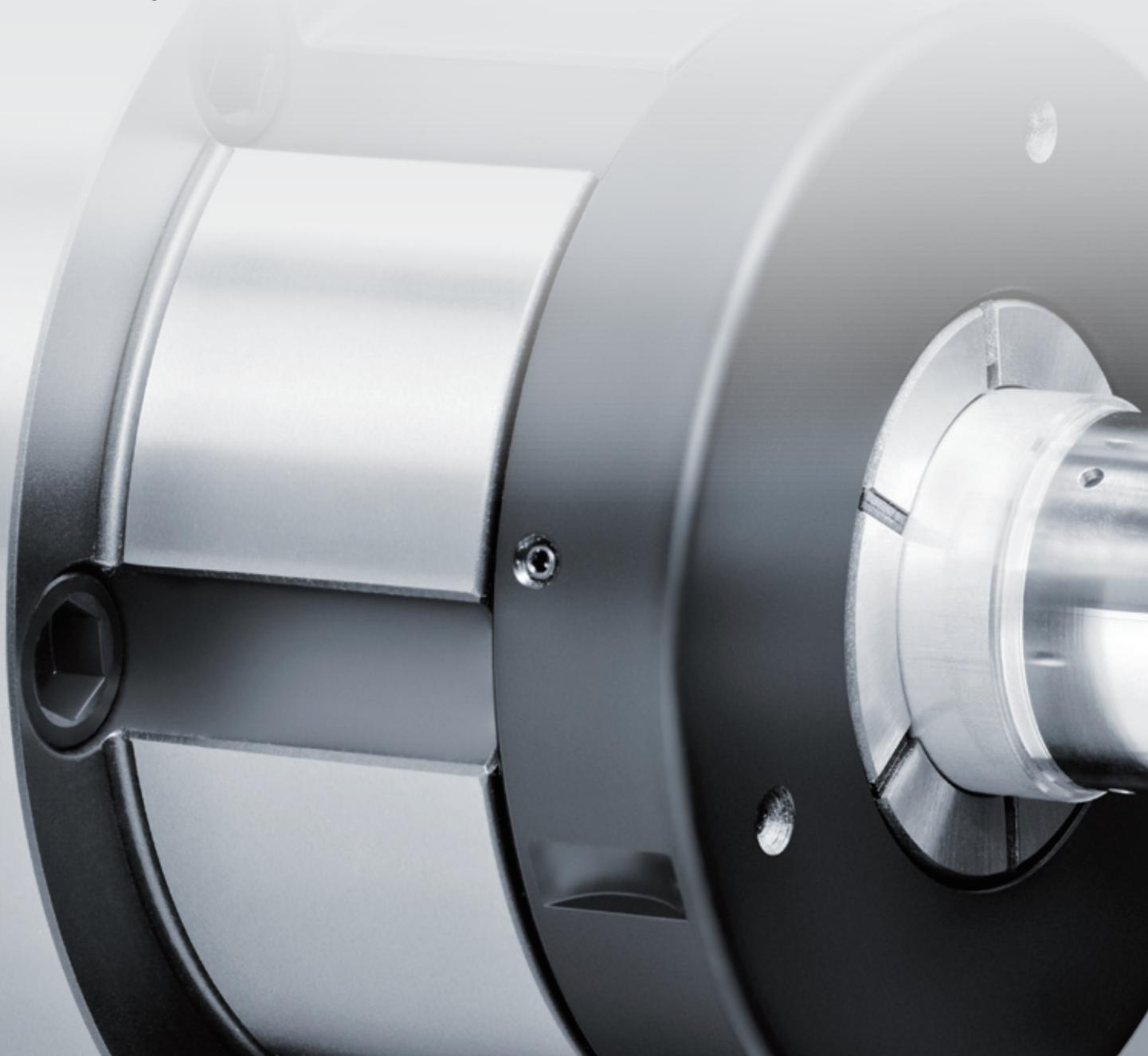
High-precision Turning Center Featuring a Y-axis

The A 150Y | 18 / A 150SY | 15D is a high-precision compact multi-axis turning center that, despite having a space-saving design with the smallest footprint in the class, achieves process integration through turning and milling.

Designed for high-precision machining throughout, including the adoption of stainless steel covers, the A 150Y | 18 achieves a dimensional accuracy of $\varnothing 4.0 \mu\text{m}$ even from a cold start.

It also satisfies customers' high accuracy requirements in turning by achieving a circularity of $0.8 \mu\text{m}$.

It shows excellent performance in the machining of complex shapes, and high-added-value machining, with an 18-station turret – the largest in the class – featured as standard, and the largest Y-axis travel in the class at 100 mm (3.9 in.).



Process integration

- + Largest number of tools in the class: 18 tools
- + Integrated machining in the smallest floor space
- + Proven experience in diverse machining, from round to irregular workpieces

Super-high precision

- + Thermal displacement (at cold start): $\varnothing 4.0 \mu\text{m}$
Circularity: $0.8 \mu\text{m}$
- + Adoption of a pre-tension structure suppresses thermal displacement and realizes high positioning accuracy
- + Stable machining accuracy thanks to stainless steel covers

High rigidity

- + The horizontal, single-piece, scraped cast iron slideways with superior damping performance and a high resistance to chatter facilitate stable machining
- + Minimized distance between the axis travel reference guide and spindle restricts effects of generated heat

Expandability

- + Versatile system variations to accommodate diverse production needs
- + A wealth of highly practical applications and peripheral devices available

Power-saving

- + Environmental burden reduced by using energy-efficient components

Applications and Parts

Highlights

- Machine Highlights

Machine and Technology

Others

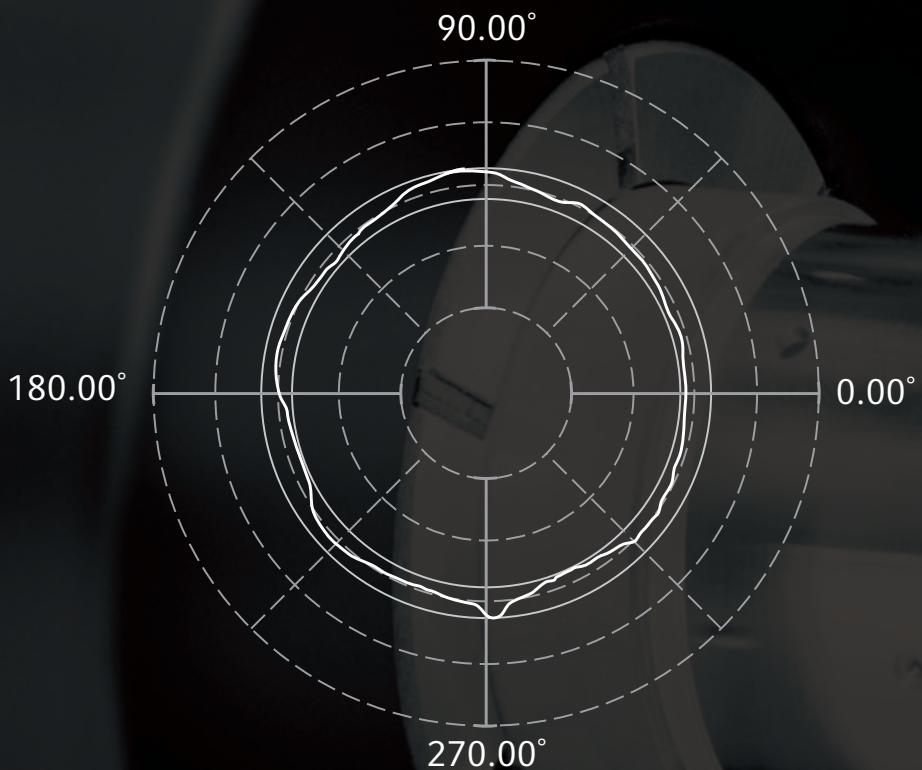
Machine Specifications

A 150Y | 18 / A 150SY | 15D

High-precision Machining Evidenced by Data

The A 150Y | 18 / A 150SY | 15D achieves a dimensional accuracy of ϕ 4.0 μm even from a cold start (machining without warming up). It also satisfies customers' high accuracy requirements in turning by achieving a circularity of 0.8 μm , attesting to the high-accuracy design backed up by the sure technology of the WASINO brand.

Circularity 0.8 μm



Material <JIS> : A2011

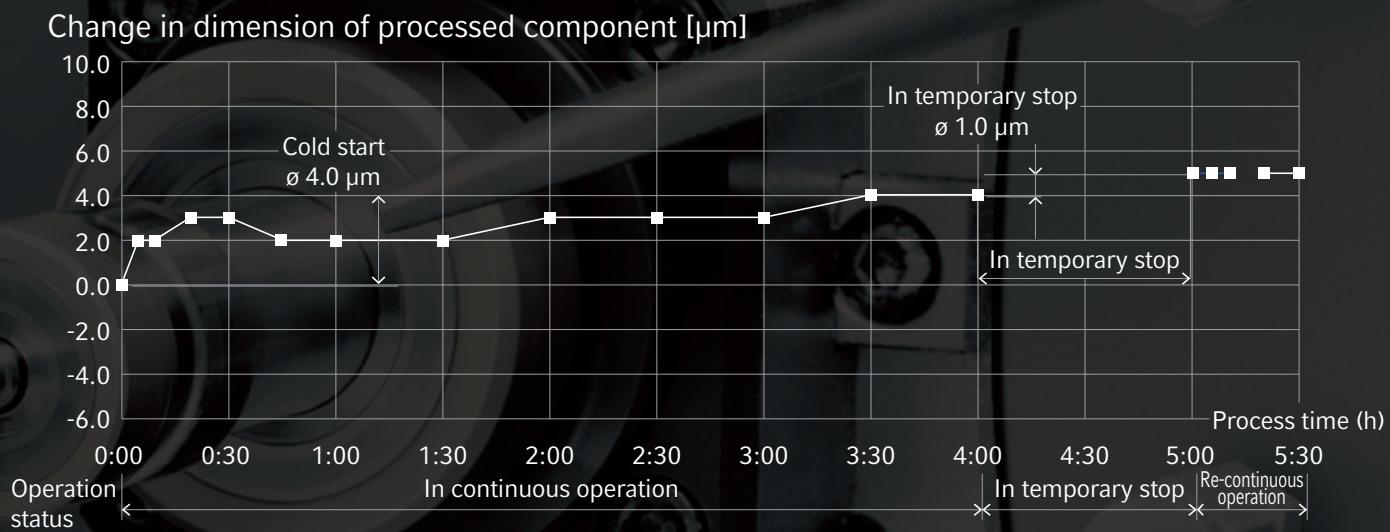
Tool		Compax (0.4R)
Spindle speed	min ⁻¹	3,000
Cutting feedrate	mm/rev (ipr)	0.1 (0.004)
Depth of cut <diameter>	mm (in.)	0.2 (0.008)

A2011: Aluminum

- The cutting test results indicated in this catalog are provided as examples. The results indicated in this catalog may not be obtained due to differences in cutting conditions and environmental conditions during measurement.

JIS: Japanese Industrial Standard

Thermal displacement accuracy $\varnothing 4.0 \mu\text{m}$ (cold start) / $\varnothing 1.0 \mu\text{m}$ (in temporary stop)



Material <JIS> : A2011

Tool	Compax (0.4R)
Spindle speed	min^{-1}
Cutting feedrate	mm/rev (ipr)
Depth of cut <diameter>	mm (in.)

A2011: Aluminum

- The cutting test results indicated in this catalog are provided as examples. The results indicated in this catalog may not be obtained due to differences in cutting conditions and environmental conditions during measurement.

JIS: Japanese Industrial Standard

A 150Y | 18 / A 150SY | 15D

Selection According to Production Environment

In addition to stable high-precision machining, the A 150Y | 18 / A 150SY | 15D offers excellent process integration capability, and is therefore particularly advantageous for customers manufacturing optical components or automotive parts which in general need to be machined in several separate processes and on different types of machines such as a machining center, lathe, and deburring machine to improve productivity.

The A 150SY | 15D is equipped with a sub spindle, and Turret 2 with a tool mounting capacity of 8 and a maximum rotary tool spindle speed of 15,000 min⁻¹, allowing customers to select the optimum specifications for their needs.



	A 150Y 18	A 150SY 15D
Bar work capacity	mm (in.)	ø 67 (ø 2.6)*
Number of tool stations	18	15
Travel <X- / Z-axis>	mm (in.)	180 / 350 (7.1 / 13.8)
Travel <Y-axis>	mm (in.)	100 <±50> (3.9 <±2.0>)

* Depending on the chuck / cylinder used and its restrictions, it may not be possible to reach full bar work capacity.

A 150Y | 18

This is a multi-axis turning center featuring an orthogonal Y-axis as standard with an 18-station turret, the largest in the class. It also supports automation by offering solutions including the bar feeder specification.

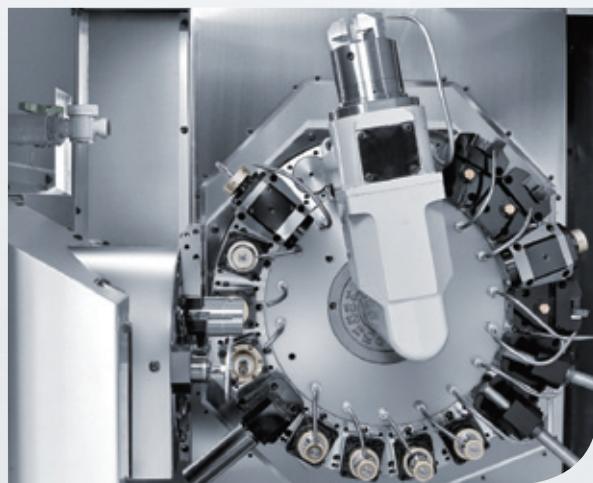
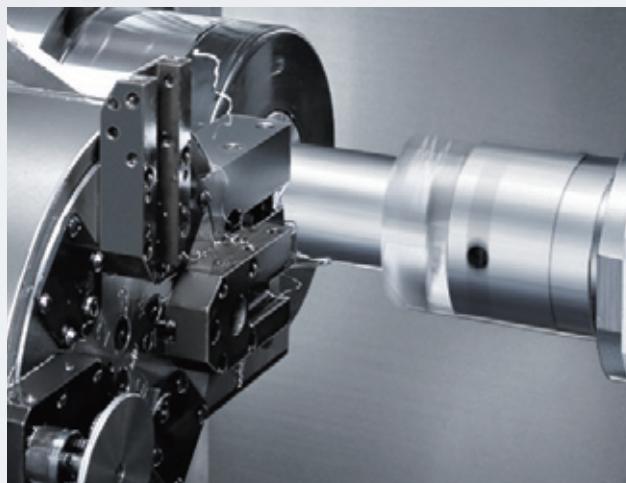
- + Milling tools can be mounted on any turret station
- + Y-axis travel 100 mm (3.9 in.)
- + Max. rotary tool spindle speed 10,000 min⁻¹
- + Max. workpiece size Ø 250 × 245 mm (Ø 9.8 × 9.6 in.)

A 150SY | 15D

The A 150SY | 15D that features the sub spindle on Turret and Turret 2 as standard is also included in the lineup. In addition to advanced multi-axis machining using the Y-axis, continuous first and second process machining is also possible, extending the process integration capabilities.

- + Turret 2 + sub spindle featured
- + Y-axis travel 100 mm (3.9 in.)
- + (Turret 2) Max. rotary tool spindle speed 15,000 min⁻¹
- + (Turret 2) Number of tool stations 8 tools

Turret 2 + Sub spindle



Machining with Turret 2 and sub spindle on the A 150SY | 15D

A 150Y | 18 / A 150SY | 15D

Exceptionally Stable Horizontal Bed

A simple, high-rigidity horizontal bed with X-, Z- and Y-axis all arranged orthogonally on a low-center-of-gravity construction, where the height of the center of gravity of the mass between the floor and the feed system is set at a low position, has been adopted, thereby achieving excellent responsiveness.

On the A 150Y | 18 and A 150SY | 15D, a stainless steel cover with a low thermal conductivity encloses the chute, eliminating the effects of heat from coolant and chips on the bed, and also improving chip processing performance. A design that maximizes the suppression of thermal displacement maintains stable machining accuracy over the long term.

1 High-rigidity bed

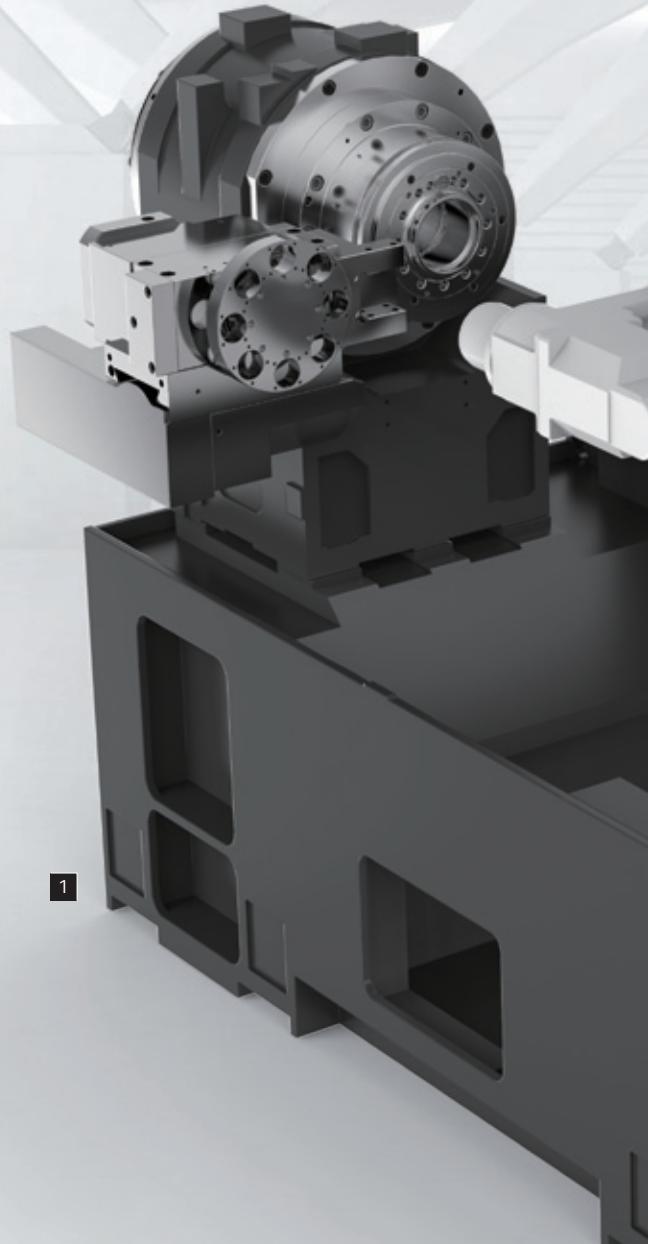
- + Exceptionally stable machining with orthogonally arranged X-, Z- and Y-axis
- + High-speed feed achieved by adopting slideways for the X- and Z-axis and linear motion guides for the Y-axis
Rapid traverse rate: X-axis 18 m/min (708.7 ipm)
Z-axis 24 m/min (944.9 ipm)
Y-axis 12 m/min (472.4 ipm)

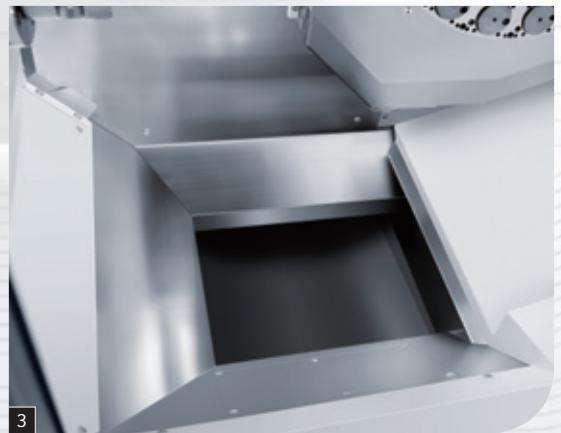
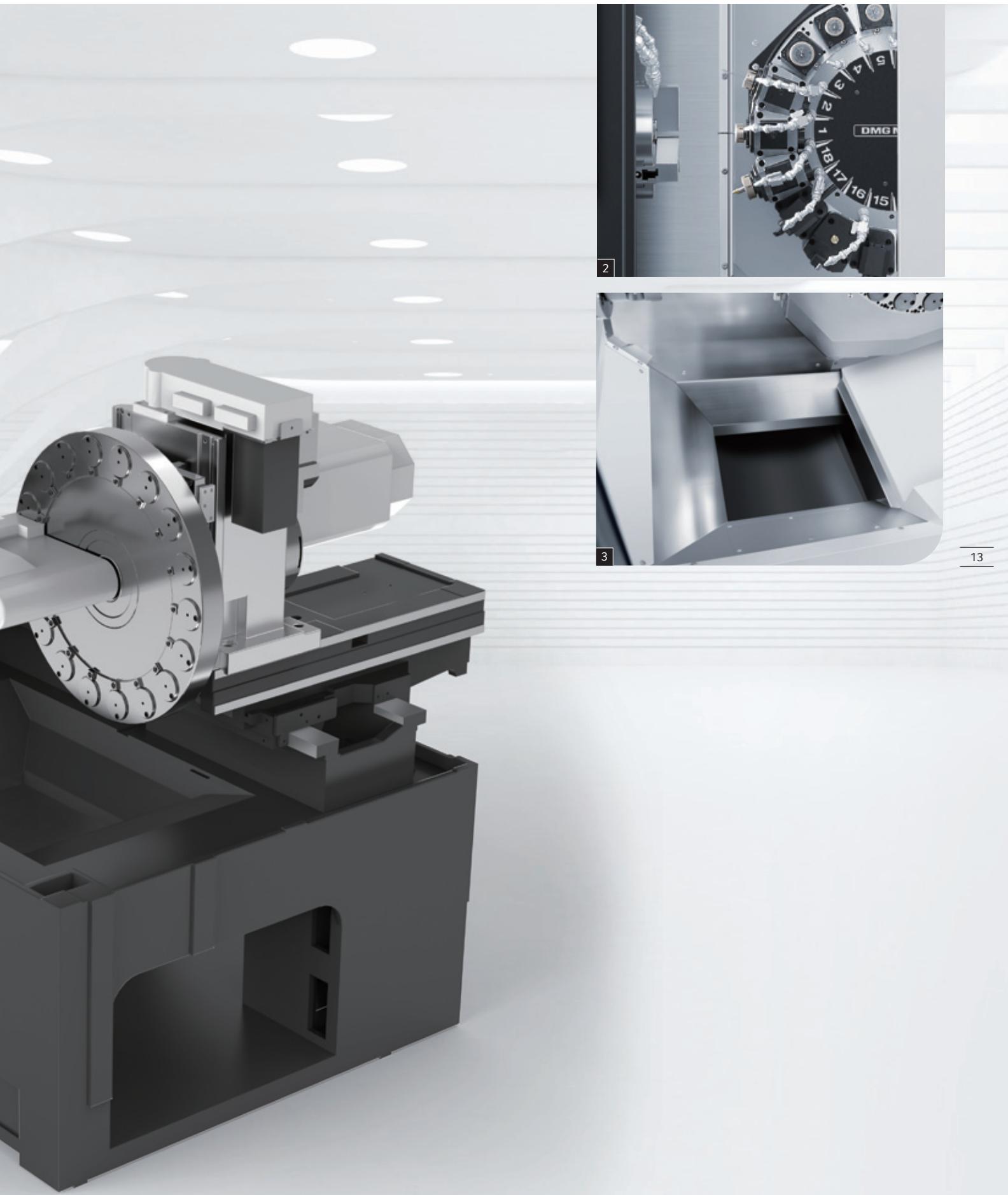
2 Spacious work area

- + Travel: X-axis 180 mm (7.1 in.)
Z-axis 350 mm (13.8 in.)
Y-axis 100 mm (3.9 in.)

3 High precision

- + Stainless steel cover with low thermal conductivity protects the chute, minimizing temperature changes caused by chips and coolant
- + Highly efficient chip flow minimizes thermal displacement influences





Applications and Parts

Highlights

Machine and Technology

› Spindle

Others

Machine Specifications

A 150Y | 18 / A 150SY | 15D

High-performance Spindle with Excellent Reliability

A highly reliable spindle designed with consideration to thermal displacement is featured, and 8-inch chucks are also supported as an option in addition to 6-inch chucks.

The original spindle construction, which concentrates the technology built up by the WASINO brand and incorporates all the knowhow painstakingly acquired over many years, achieves a circularity of 0.8 µm.

Sophisticated spindle labyrinth structure

- + The labyrinth structure has been enhanced, taking into account frequent use of high-pressure coolant
- + Prevent coolant entry and improve spindle durability





Highly rigid spindle

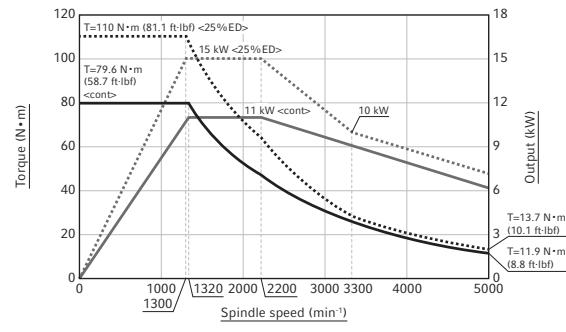
- + Max. spindle speed: $5,000 \text{ min}^{-1}$
- + Applicable chuck size: 6 inches, 8 inches

15

Spindle speed torque / output diagram

Standard

$5,000 \text{ min}^{-1} // 15 / 11 \text{ kW} (20 / 15 \text{ HP}) <25\% \text{ED} / \text{cont}$
 $// 110 \text{ N}\cdot\text{m} (81.1 \text{ ft}\cdot\text{lbf}) <25\% \text{ED}>$



A 150Y | 18 / A 150SY | 15D

Turret with Orthogonal Y-axis Function Featured as Standard

Although the A 150Y | 18 and A 150SY | 15D have a compact body, it boasts the largest Y-axis travel in the class of 100 mm (3.9 in.) by using orthogonal axes.

Because the Y-axis control enables high geometric accuracy, unaffected by a change in cutting conditions associated with a reversal in the X-axis travel direction in grooving and contouring, workpieces with complex shapes can be machined with high accuracy.

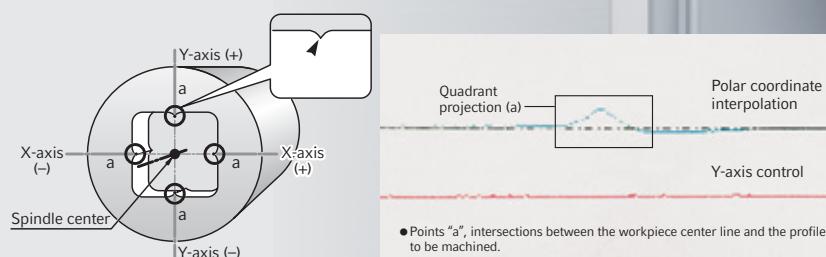
In addition, a mechanism that directly transfers the rotation of its motor to rotary tool holders allows the high-speed rotary tool spindle to perform highly efficient machining.

Multi-processing of turning and milling

- + Milling tools can be mounted on any turret station <capable of drilling holes as small as 1 mm (0.04 in.) and tapping up to M16 threads>
- + 100 mm (3.9 in.) long stroke in the Y-axis
- + Largest number of tools in the class: 18 tools (A 150Y | 18)

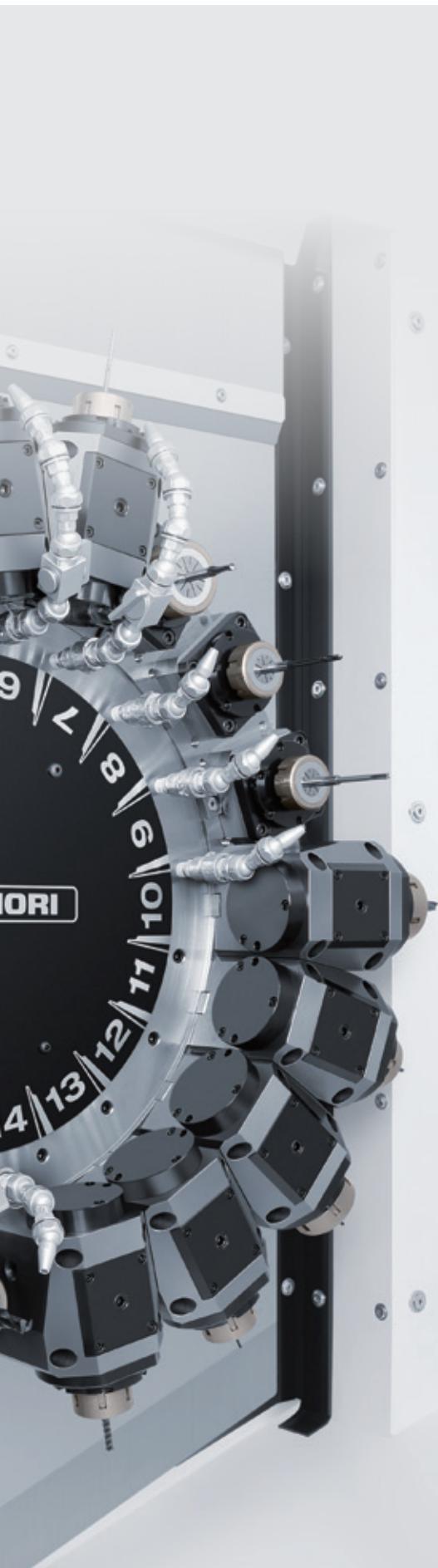
Comparison between polar coordinate interpolation and Y-axis control (contouring)

With polar coordinate interpolation, the X-axis movement reverses at the intersections (a) between the workpiece center line and the profile, which changes cutting conditions and affects form accuracy.



- + Y-axis control: High form accuracy is achieved as machining surfaces are not affected by cutting condition changes





Wide variety of options



O.D. cutting rotary tool holder

For machining with tools parallel to the X-axis.



Angle milling unit

Enables processing of diagonal hole in X or Z direction. A simplified unit is also available.



Face cutting rotary tool holder

For machining with tools parallel to the Z-axis.



Inner cam unit

Enables cam style grooving on inside diameters.



Milling unit for auxiliary turret

Allows for milling on rear side of workpiece.



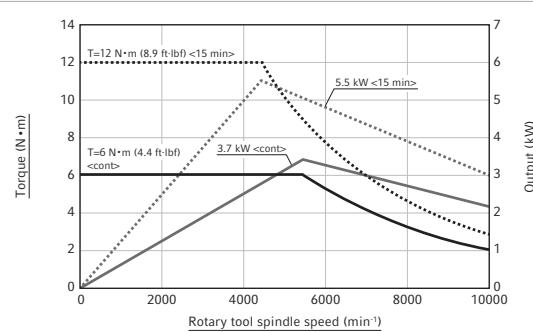
ID deburring unit

Allows for removal of burrs on inside diameters.

Rotary tool spindle speed torque / output diagram

Standard

10,000 min⁻¹ // 5.5 / 3.7 kW (7.5 / 5 HP) <15 min / cont>
// 12 N·m (8.9 ft-lbf) <15 min>



A 150Y | 18 / A 150SY | 15D

Proven Quality and Reassured Service

We offer high-performance peripheral equipment which can lead to drastically improved setups and a higher operation rate. As the DMG MORI peripheral equipment excels in maintainability as well as quality, customers can use them for a long term with peace of mind, and choose the best equipment according to their workpieces and needs.

18

Chip conveyor <option>

○: Suitable △: Consideration required —: Not suitable

Workpiece material and chip size	Steel		Cast iron	Aluminum / non-ferrous metal			
	Long	Short	Powdery	Short	Long	Short	Powdery
Hinge type	○	○	△	—	○	△	—
Scraper type	—	○	○	○	—	—	—
Spiral type	—	○	—	○	—	○	—

• [chip size guidelines] Short: chips 50 mm (2.0 in.) or less in length, bundles of chips Ø 40 mm (Ø 1.6 in.) or less

Long: bigger than the above

• The options table shows the general options when using coolant. Changes may be necessary if you are not using coolant, or depending on the amount of coolant, compatibility with machines, or the specifications required.

• Please select a chip conveyor to suit the shape of your chips.

When using special or difficult-to-cut material (chip hardness HRC45 or higher), please consult with our sales representative.

• Chip conveyors are available in various types for handling chips of different shape and material. For details, please consult with our sales representative.

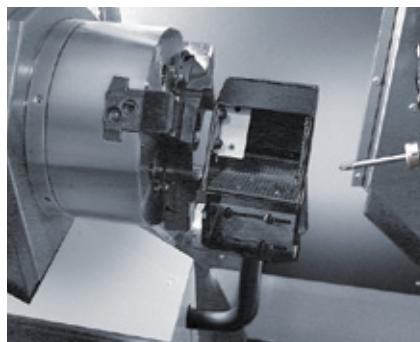
Peripheral Equipment for Maintaining Ideal Machining Quality <option>

Bar feeder



- + Automatically supplies material through the rear of the spindle, allowing continuous machining of bar material

Workpiece unloader (built-in type)



- + Receiving the products after machining and expelling them outside the machine
Applicable workpiece diameter: 67 mm (2.6 in.)
Applicable workpiece length: 80 mm (3.1 in.)*

* Some workpiece shapes may not be handled with the standard specification. For details, please consult with our sales representative.

Workpiece holding detection



- + Checks the proper chucking of a workpiece by means of the air sensor to ensure greater machining accuracy
- + Effective for difficult-to-hold workpieces such as irregularly shaped parts as well as workpieces requiring extremely high accuracy

Manual type in-machine tool presetter (removable type)



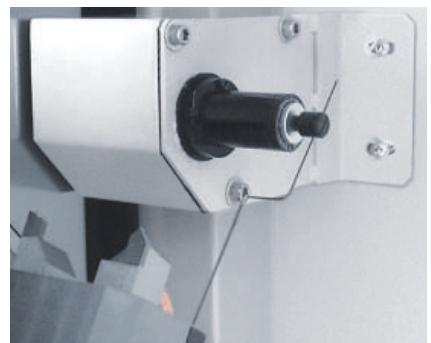
- + Highly efficient coordinate system setting by bringing the tool nose into contact with the touch-type sensor probe

High-pressure coolant system
<0.8 MPa (116.0 psi)>



- + Delivers high pressure coolant for efficient forced expulsion of chips and tool-nose cooling

Tool breakage detection system



- + Quickly detects tool breakage, preventing the occurrence of defective products

Semi-dry unit



- + Cuts down on coolant, reducing the load on the environment

Subtank with coolant chiller



- + Maintains the temperature of the coolant at a constant level, limiting dimensional changes during temporary stops, at tool changes for example

Applications and Parts

Highlights

Machine and Technology

- › Improved Workability, Maintenance

Others

- › COMPACTline

Machine Specifications

A 150Y | 18 / A 150SY | 15D

Cutting-edge Design — Pursuit of Usability

The A 150Y | 18 / A 150SY | 15D is designed in every aspect not just for accuracy and machining performance, but for convenient and long-lasting use, including assuring good visibility for smooth work, and ease of maintenance. This ensures the machine is always in the best condition, thereby bringing greater productivity to the customer.



1 Accessibility

Setup changes are facilitated by the front-facing turret.



2 Touch screen operation panel

Operating convenience has been improved with a touch screen operation panel.

The center of the operation panel's screen is 1,550 mm (61.0 in.) above the floor, offering excellent visibility and a high level of operating convenience.

3 Lubricating oil (for sliding surfaces) tank

The supply hole for the lubricant tank for the box way is located in the front of the machine for easy refilling.

4 Arrangement of hydraulic units

All the hydraulic units are placed at the front for easy maintenance.

COMPACTline Suitable for Mass Production Machining

The COMPACTline, a simple and compact operation system, is equipped with various helpful functions, allowing the operators to customize display contents according to machining situations.

- + Improved setups by displaying necessary machine information according to operation
- + Enhanced workability by displaying machine information and machine operation buttons on one touch panel
- + Compact design for space-saving



Applications and Parts

Highlights

Machine and Technology

Others

Machine Specifications

- General View
- Tooling System
- Axis Travel Diagrams

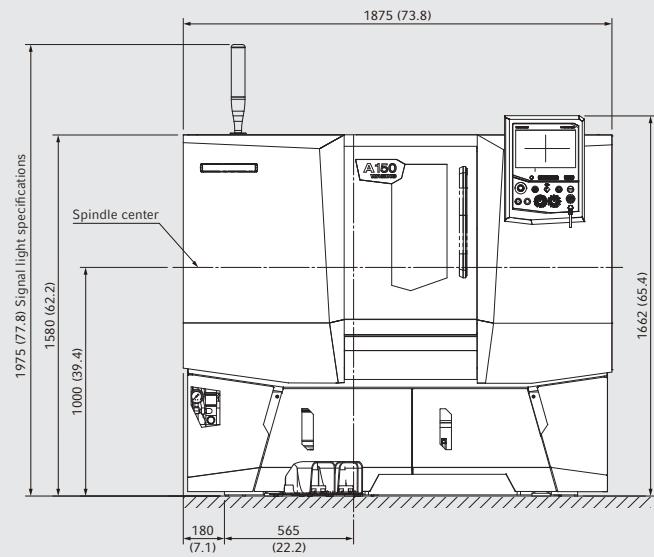
A 150Y | 18 / A 150SY | 15D

General View

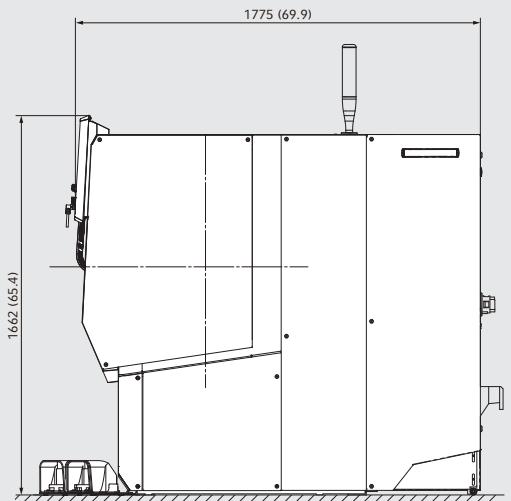
mm (in.)

A 150Y | 18 (standalone)

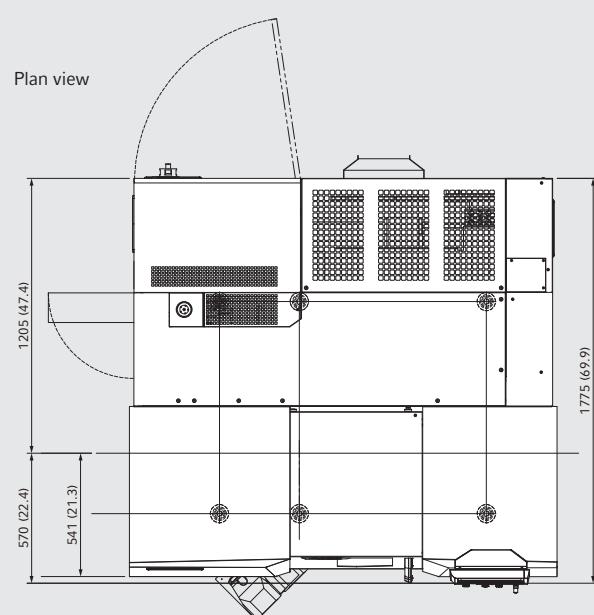
Front view



Side view

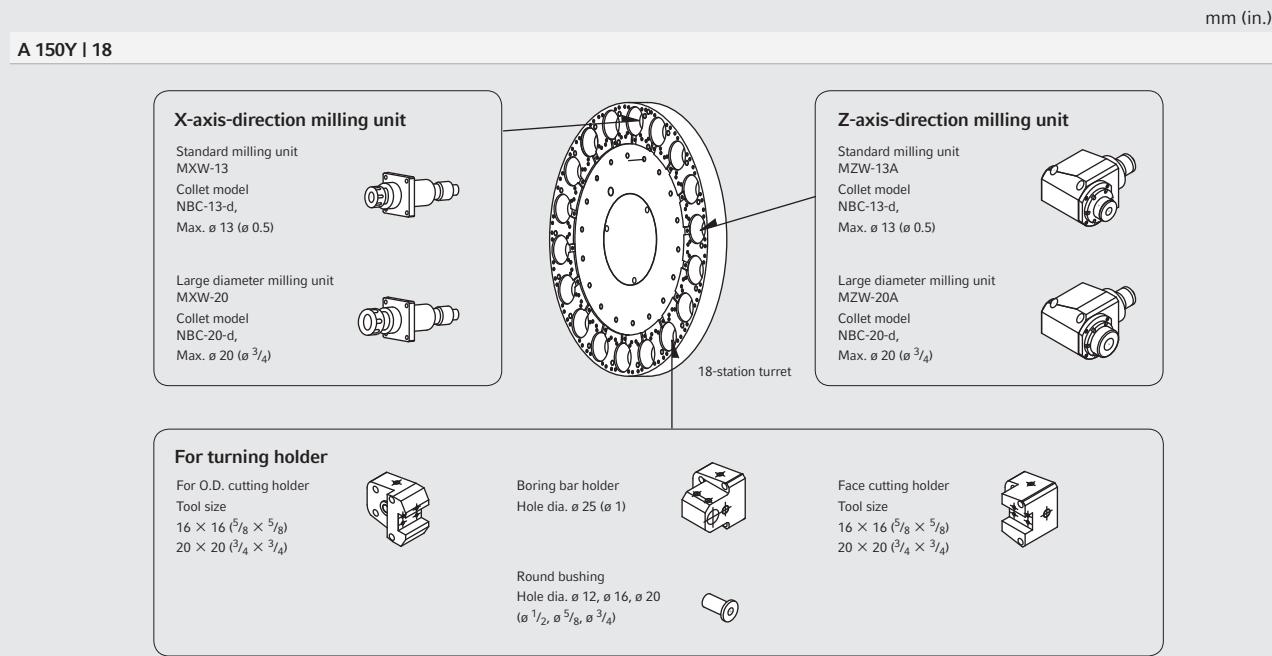


Plan view

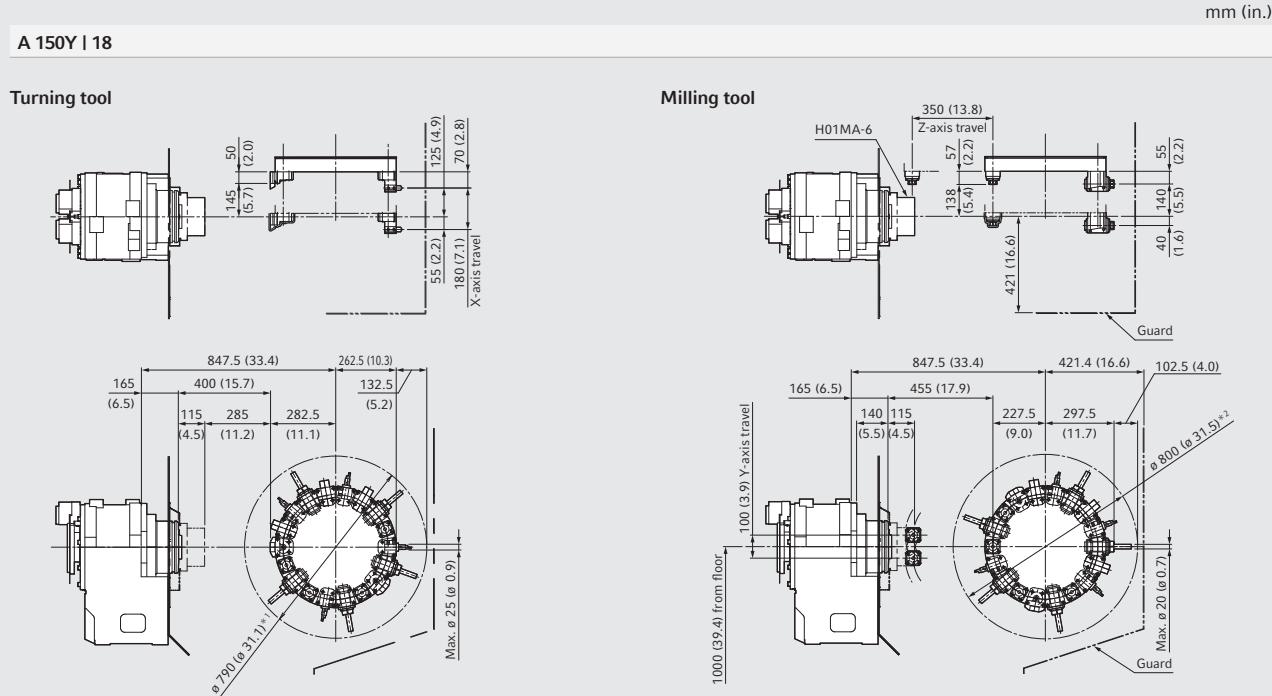


A 150Y | 18 / A 150SY | 15D

Tooling System



Axis Travel Diagrams



Applications and Parts

Highlights

Machine and Technology

Others

Machine Specifications

› Numerical Control Unit Specifications

A 150Y | 18 / A 150SY | 15D

Numerical Control Unit Specifications 0i-TF

●: Standard
○: Option

0i-TF

Controlled axes

Controlled axes

4 axes

Simultaneously controlled axes

4 axes

Least input increment

0.001 mm (0.0001 in.)

●

Least input increment C^{*1}

0.1 µm

○

Inch / metric conversion^{*2}

○

Stored pitch error compensation

●

Stored stroke check 1

●

Stored stroke check 2, 3

●

Position switch

●

Operation

Single block

●

Manual pulse handle feed

●

Dwell

●

Block delete

●

Dual check safety

●

Interpolation functions

Polar coordinate interpolation

●

Cylindrical interpolation

●

Helical interpolation

●

Reference position return

●

2nd reference position return

●

Threading, synchronous cutting

●

Multiple start thread cutting

●

Variable lead threading

●

Continuous thread cutting

●

Polygon turning

●

Feed functions

Rapid traverse override

●

Feed per minute

●

Feed per revolution

●

Feedrate override^{*3}

0—150%

●

Jog feedrate override

●

Constant surface speed control

●

Program input

Coordinate system setting

G50

●

Automatic coordinate system setting

●

Decimal point programming / Electrical calculator type decimal point programming

●

Diameter programming (X-axis)

●

Plane selection

G17, G18, G19

●

Programmable data input

●

Programmable parameter input

●

Sub-program call

●

Custom macro

●

Additional custom macro common variables

#100—#199, #500—#999

●

Workpiece coordinate system

G52—G59

●

●: Standard
○: Option

Oi-TF

		25
Program input		
Chamfer, corner R	●	
Hole machining canned cycle	●	
Single repetitive cycle	●	
Multiple repetitive cycle	●	
Multiple repetitive cycle II	●	
Absolute (incremental) programming	●	
AI contour control	○	
Drawing dimension direct input	●	
Miscellaneous function / Spindle speed function		
Spindle orientation	●	
Spindle orientation (external setting)*4	○	
Spindle speed function (S function)	5-digit S code	●
Miscellaneous function (M function)	3-digit M code	●
Spindle synchronized control*5		●
Synchronous tapping (only for rotary tool spindle)		●
Tool function / Tool offset function		
Tool function (T function)	2-digit T code	●
Number of tool offsets	128 sets	●
Tool position offset		●
Y-axis offset		●
Mechanical error compensation		
Backlash compensation	●	
Editing		
Part program storage length	512 kB	●
Number of registerable programs	400 programs	●
Background editing		●
Part program edit		●
Expanded program editing		●
Tool offset		
Abnormal load detection	●	
Tool geometry offset / Tool wear offset	●	
Cutter radius offset, tool nose radius compensation	●	
Setting and display		
Clock function	●	
Alarm history display	●	
Running time / Parts count display	●	
Help function	●	
Self-diagnosis	●	
Language	●	
Data input / output		
Program number search	●	
Sequence number search	●	

*1 The parameter needs to be changed when the standard setting unit of 1 µm requires changing to 0.1 µm.

*2 For display in inches, the parameter needs to be changed.

*3 May be limited according to a feed rate.

*4 The parameter needs to be separately set.

*5 A 150SYI 15D only.

● The information in this catalog is valid as of July 2018.

A 150Y | 18 / A 150SY | 15D

Standard & Optional Features

●: Standard features ○: Option
—: Not applicable

		A 150Y 18	A 150SY 15D
Spindle	5,000 min ⁻¹ : 15 / 11 kW (20 / 15 HP) <25%ED / cont>	●	●
Chuck			
Hollow chuck	6-inch 8-inch	○ ○	○ ○
Collet chuck		○	○
Precision air chuck	4-inch	○	○
Pneumatic equipment		○	○
Turret			
18-station turret head		●	—
15-station turret head		—	●
8-station turret head <turret 2>		—	●
Rotary tool spindle	10,000 min ⁻¹ : 5.5 / 3.7 kW (7.5 / 5 HP) <15 min / cont>	●	●
Rotary tool spindle <turret 2>	15,000 min ⁻¹ : 0.51 / 0.35 kW (0.68 / 0.47 HP) <15 min / cont>	—	●
Coolant			
Coolant tank	140 L (37.0 gal.)	○	○
Through-spindle high pressure coolant		○	○
Coolant for tool tip		○	○
High pressure coolant for tool tip		○	○
Coolant float switch		○	○
Chuck top coolant		●	●
Coolant for tool tip / through-spindle coolant (switching specifications)	Coolant switching by solenoid valve	○	○
High-pressure coolant system	400W, 0.8 MPa (116 psi)	○	○
Through-spindle coolant / air (switching specifications)	Switching by check valve	○	○
Mist collector interface	Duct only <Ø 100 mm (Ø 3.9 in.)>	○	○
Oil skimmer		○	○
Chip disposal			
Chip conveyor	Rear discharge, hinge type Rear discharge, spiral type	○ ○	○ ○
Chip conveyor interface		○	○
Air blow	Tool tip Chuck	○ ○	○ ○
Through-spindle air blow		○	○
Chip bucket		○	○
Measurement			
Manual type in-machine tool presetter	Removable type	○	—
Automation			
Workpiece unloader (built-in type)		○	○
Workpiece conveyor		○	○
Automatic door		○	○
Bar feeder	Interface	○	○

●: Standard features ○: Option
—: Not applicable

	A 150Y 18	A 150SY 15D
Door interlock system	●	●
Manual pulse generator (separate type)	●	●
Built-in worklight switch	●	●
Total counter	○	○
Multiple counter	○	○
Low air pressure detecting switch	●	●
Lubrication oil detection	○	○
Low hydraulic pressure detecting switch	○	○
Raised machine height	100 mm (3.9 in.)	○
Special color	○	○
Leveling plates	1 set	●
Earth leakage breaker	○	○
Signal lamp	4 colors (LED type: red, yellow, green, blue)	○
External M-code	5	○
Alarm buzzer	○	○
Alarm message function	●	●
Cycle time detection	○	○
Automatic sleep function	ECO circuit	○
Auto power off	○	○

- The information in this catalog is valid as of July 2018.
- Specifications, accessories, safety device and function are available upon request.
- Some options are not available in particular regions. For details, please consult our sales representative.

 Flammable coolant such as oil-based coolant has a high risk of ignition, and will cause fire or machine breakage if ignited.
If you have to use a flammable coolant for any reason, please be sure to consult our sales representative.

A 150Y | 18 / A 150SY | 15D

Machine Specifications

	A 150Y 18	A 150SY 15D
Capacity		
Standard turning diameter	mm (in.)	ø 50 (ø 1.9)
Max. turning diameter	mm (in.)	ø 240 (ø 9.4)
Max. turning length	mm (in.)	245 (9.6)
Bar work capacity	mm (in.)	ø 67 (ø 2.6)*
Travel		
Travel <X- / Y- / Z-axis>	mm (in.)	180 / 100 / 350 (7.1 / 3.9 / 13.8)
Spindle		
Max. spindle speed	min ⁻¹	5,000
Type of spindle nose		JIS A ₂ -6
Through-spindle hole diameter	mm (in.)	ø 76 (ø 3.0)
Least input increment <C-axis>		0.001°
Turret		
Number of tool stations		18 15
Shank height for square tool	mm (in.)	16 × 16 (5/8 × 5/8), 20 × 20 (3/4 × 3/4)
Shank diameter for boring bar	mm (in.)	ø 25 (ø 1)
Max. rotary tool spindle speed	min ⁻¹	10,000
Type of spindle nose <rotary tool spindle>	mm (in.)	Choose from ø 13 (ø 0.5) or ø 20 (ø 0.8), choose from NBC or AR
Turret 2 <Turret type>		
Number of tool stations		— 8
Shank height for square tool	mm (in.)	— 10 × 10 (3/8 × 3/8)
Shank diameter for boring bar	mm (in.)	— ø 16 (ø 5/8)
Max. rotary tool spindle speed	min ⁻¹	— 15,000
Type of spindle nose <rotary tool spindle>	mm (in.)	— ø 6 (ø 0.24)
Feedrate		
Rapid traverse rate <X- / Y- / Z-axis>	mm/min (ipm)	18,000 / 12,000 / 24,000 (708.7 / 472.4 / 944.9)
Rapid traverse rate <C-axis>	min ⁻¹	33.3
Motor		
Spindle drive motor <25%ED / cont>	kW (HP)	15 / 11 (20 / 15)
Rotary tool spindle drive motor (Turret) <15 min / cont>	kW (HP)	5.5 / 3.7 (7.5 / 5)
Rotary tool spindle drive motor (Turret 2) <30 min / cont>	kW (HP)	— 0.51 / 0.35 (0.68 / 0.47)
Power sources <standard>		
Electrical power supply	kVA	25.4 25.9
Voltage, frequency		AC200 / 220 V ±10%, 3-phase 50 / 60 Hz ±1 Hz
Machine size		
Machine height <from floor>	mm (in.)	1,662 (65.4)
Floor space <width × depth>	mm (in.)	1,875 × 1,775 (73.8 × 69.9)
Mass of machine	kg (lb.)	2,350 (5,170) 2,400 (5,280)

JIS: Japanese Industrial Standard

* Depending on the chuck / cylinder used and its restrictions, it may not be possible to reach full bar work capacity.

• Max. spindle speed: depending on restrictions imposed by the workpiece clamping device, fixture and tool used, it may not be possible to rotate at the maximum spindle speed.

• Power sources, machine size: the actual values may differ from those specified in the catalogue, depending on the optional features and peripheral equipment.

• The information in this catalog is valid as of July 2018.

<Precautions for Machine Relocation>

EXPORTATION:

All contracts are subject to export permit by the Government of Japan.

Customer shall comply with the laws and regulations of the exporting country governing the exportation or re-exportation of the Equipment, including but not limited to the Export Administration Regulations.

The Equipment is subject to export restrictions imposed by Japan and other exporting countries and the Customer will not export or permit the export of the Equipment anywhere outside the exporting country without proper government authorization.

To prevent the illegal diversion of the Equipment to individuals or nations that threaten international security, it may include a "Relocation Machine Security Function" that automatically disables the Equipment if it is moved following installation.

If the Equipment is so-disabled, it can only be re-enabled by contacting DMG MORI or its distributor representative. DMG MORI and its distributor representative may refuse to re-enable the Equipment if it determines that doing so would be an unauthorized export of technology or otherwise violates applicable export restrictions.

DMG MORI and its distributor representative shall have no obligation to re-enable such Equipment.

DMG MORI and its distributor representative shall have no liability (including for lost profits or business interruption or under the limited service warranty included herein) as a result of the Equipment being disabled.

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+ If you have any questions regarding the content, please consult our sales representative.

+ The information in this catalog is valid as of July 2018. Designs and specifications are subject to changes without notice.

+ The machines shown in the catalog may differ from the actual machines. The location and the size of the nameplates may also differ from the actual machines, or the nameplates may not be attached to some machines.

+ DMG MORI is not responsible for differences between the information in the catalog and the actual machine.

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