

G 100 | 300

G 100 | 480

G 100M | 480

Flat Tooling Turning Centers

G 100 | 300

G 100 | 480

G 100M | 480



G 100 | 300 / G 100 | 480 / G 100M | 480

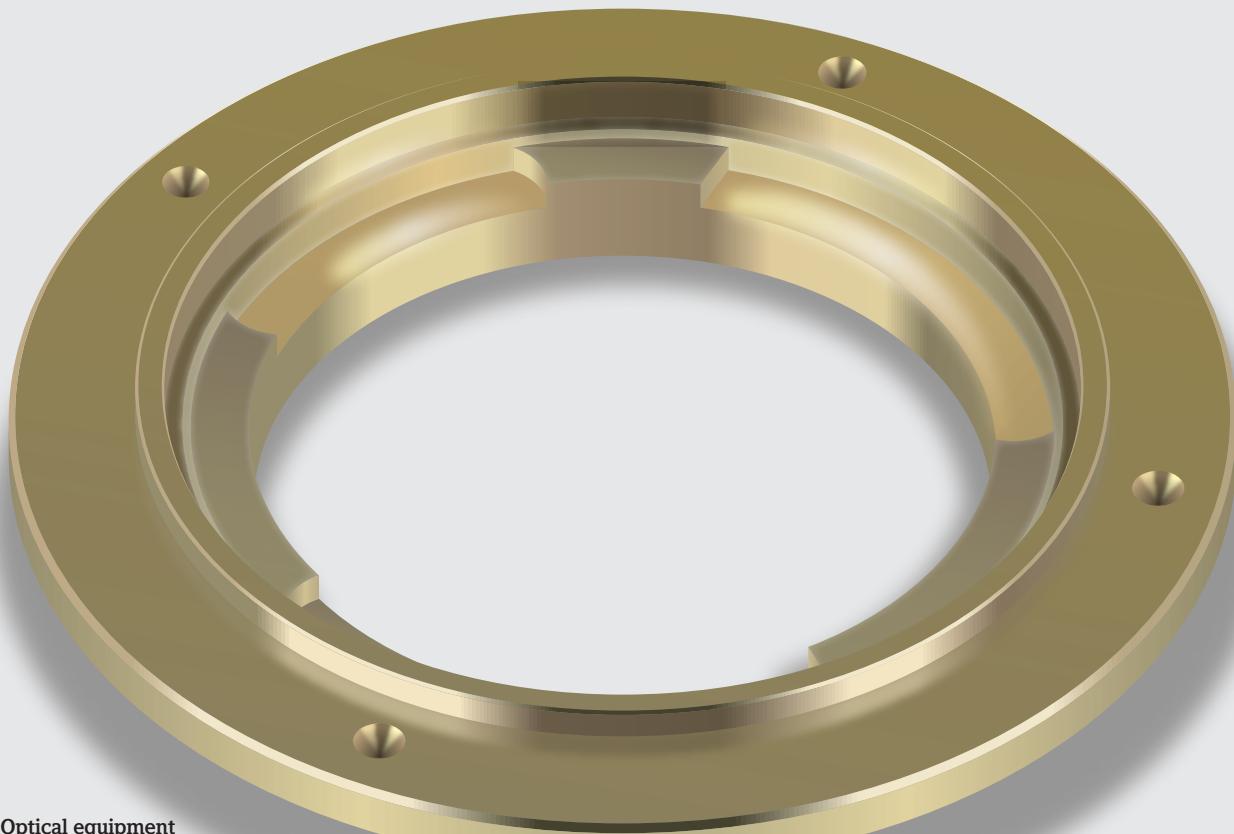
High-quality Workpieces Generated by Super-high-precision Machining

DMG MORI has been pursuing high-precision machining through continuous technical innovations over many years in order to meet customer demands.

As one of the achievements, we have completed the G 100 Series, which takes maximum advantage of the characteristics of the flat tooling.

Products with a beautiful sheen generated on the G 100 Series have come to life in diverse fields of industry including the automotive field, and have left a firm impression.

02



Optical equipment

- + Mount
- + Material <JIS> : C3601
- + Machining time: 31 sec.

Parallelism 0.02 mm (0.0008 in.) <actual result>

C3601: Brass

JIS: Japanese Industrial Standard



Automobiles

- + Bushing
- + Material <JIS> : FC250
- + Machining time: 56 sec.

Cylindricity 0.005 mm
(0.0002 in.) *<actual result>*

FC250: Cast iron
JIS: Japanese Industrial Standard



Automobiles

- + Rotor
- + Material: Sintered metal
- + Machining time: 74 sec.

Parallelism 0.02 mm
(0.0008 in.) *<actual result>*



Automobiles

- + Ball joint
- + Material <JIS> : SCM415
- + Machining time: 14 sec.

Sphericity 0.0036 mm
(0.00014 in.) *<actual result>*

JIS: Japanese Industrial Standard

Automobiles

- + Sleeve valve
- + Material <JIS> : ADC12
- + Machining time: 52 sec.

Circularity
0.005 mm (0.0002 in.) (I.D. portion)

Dimensional tolerance
0.005 mm (0.0002 in.) (I.D. portion) *<actual result>*

ADC12: Aluminum die-casting
JIS: Japanese Industrial Standard



Applications and Parts

Highlights

Machine and Technology

Others

Machine Specifications

G 100 | 300 / G 100 | 480 / G 100M | 480

Optical equipment

+ Translating cam



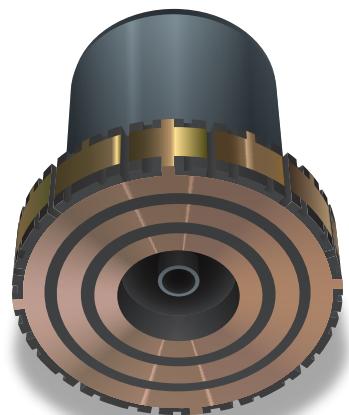
Automobiles

+ Rotor



Automobiles

+ Valve



Automobiles

+ Rotor



**Hydraulic &
Pneumatic equipment**

+ Piston shoe



Aerospace

+ Bolt



Automobiles

+ Cone



1



2



3



4



5



6



7



8



9



10



11



12

Automobiles

- 1 Bracket
- 2 Housing
- 3 Nut
- 4 Housing
- 5 Housing
- 6 Housing

Optical equipment

- 7 Ring
- 8 Pipe

Hydraulic &**Pneumatic equipment**

- 9 Block

Precision instruments

- 10 Ring assy TMP

Electrical &**Communication equipment**

- 11 Hub

Valves, Joints, Flanges

- 12 Collar

G 100 | 300 / G 100 | 480 / G 100M | 480

Your One and Only Partner with Super-high Precision

The G 100 Series, the definitive models featuring a flat tooling turning centers that are the pride of WASINO, has been reborn with the unified design of the DMG MORI Group. With a left / right symmetrical bed to maintain machining accuracy and the largest X-axis travel in the class at 480 mm (18.9 in.) <G 100 | 480 type>, these machines have been made even easier for customers to use with innovative ergonomically designed covers and the latest operation system, while inheriting the characteristics and high accuracy unique to flat tooling unchanged.

Please check for yourself the world-class high-precision machining performed by the G 100 Series in its new form.



Super-high precision

- + Maintaining stable dimensional accuracy even over long-term operation thanks to the rigid bed with low center of gravity
- + Thermal displacement (at cold start): ϕ 2.0 μm <G 100 | 300>
Circularity: 0.5 μm
- + Adoption of a pre-tension structure suppresses thermal displacement and realizes high positioning accuracy

High rigidity

- + Adoption of symmetrical structure with respect to the spindle center, unique to a flat tooling turning center
- + Cast iron construction with superior damping performance and high resistance to chatter
- + Induction-hardened horizontal slideways integrated on the bed suppress thermal displacement

Expandability

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

Power-saving

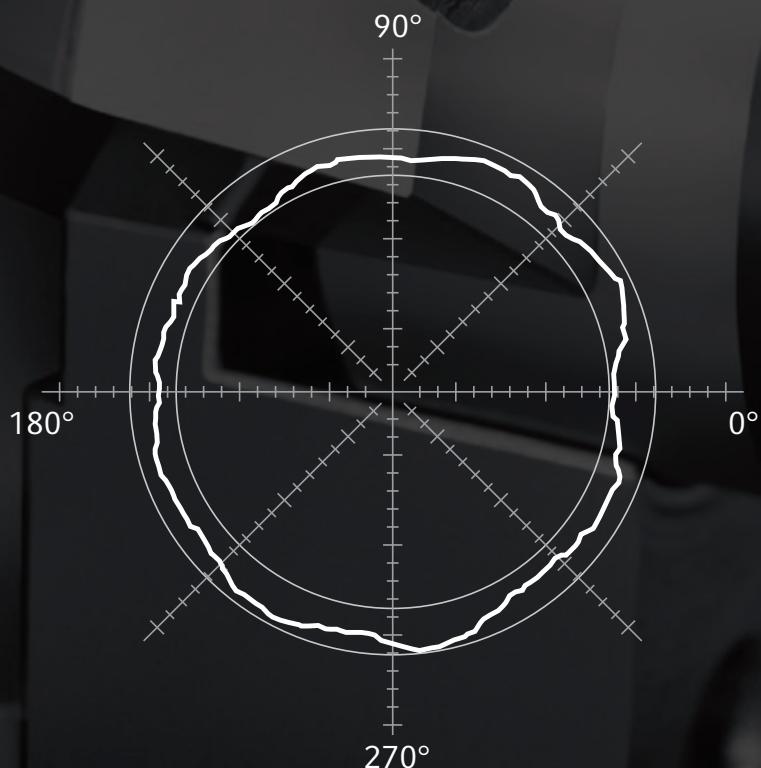
- + Environmental burden reduced by using energy-efficient components

G 100 | 300 / G 100 | 480 / G 100M | 480

High-precision Machining Evidenced by Data

The G 100 Series achieves a dimensional accuracy of $\varnothing 2.0 \mu\text{m}$ <G 100 | 300> even from a cold start (machining without warming up). It also satisfies customers' high accuracy requirements in turning by achieving a circularity of 0.5 μm , attesting to the high-accuracy design backed up by the sure technology of the WASINO brand.

Circularity 0.5 μm (actual result)



Material <JIS> : A5056* <outer diameter 50 mm (2.0 in.)>

Tool		Compx
Spindle speed	min^{-1}	6,000
Cutting feedrate	mm/rev (ipr)	0.05 (0.002)
Depth of cut	mm (in.)	0.02 (0.0008)

A5056: Aluminum

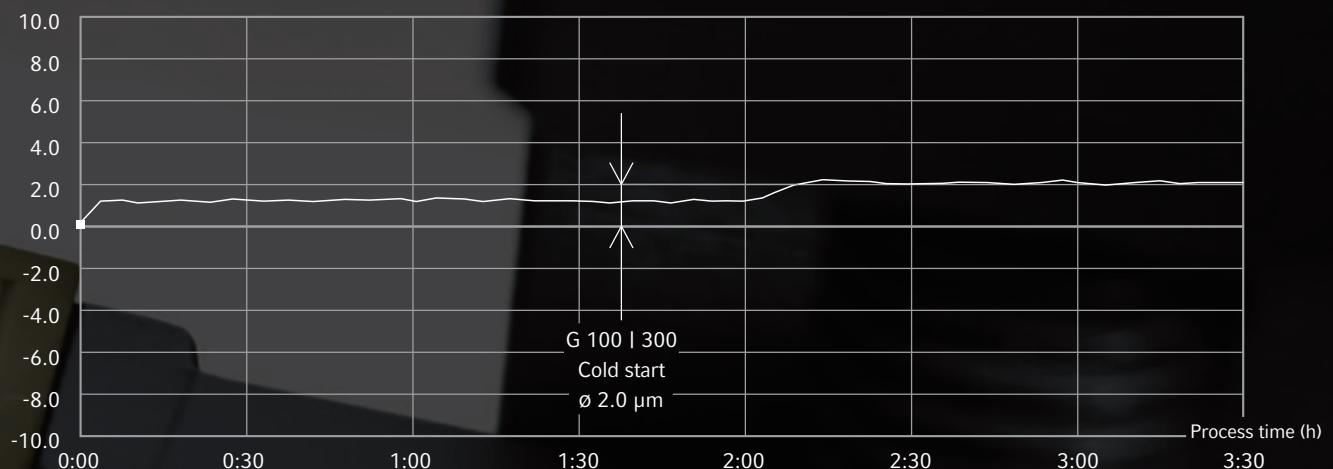
*5056 (ANSI), NB6 (BS), AlMg5 (DIN), 5A05 (GB)

• 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 2.0 μm (at cold start) <G 100 | 300>

Change in dimension of processed component [μm]



Material <JIS> : A5052*

Tool	mm (in.)	Diamond compax <nose radius 0.2 (0.008)>
Spindle speed	min^{-1}	6,000
Cutting feedrate	mm/rev (ipr)	0.05 (0.002)

A5052: Aluminum

* 5052 (ANSI), NS4 (BS), AlMg2.5 (DIN), 5A02 (GB)

• 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.

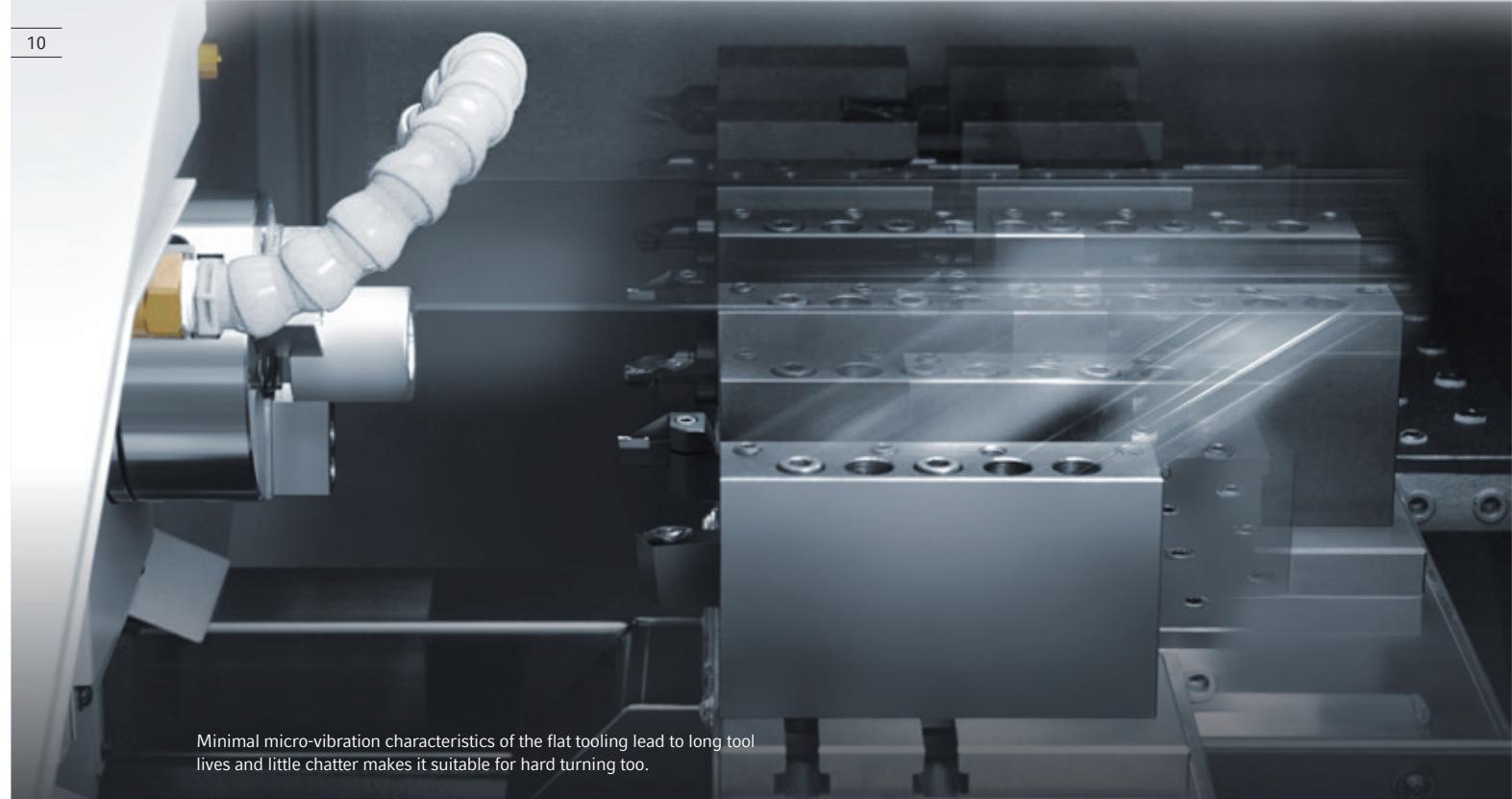
JIS: Japanese Industrial Standard

G 100 | 300 / G 100 | 480 / G 100M | 480

Flat Tooling Realizes High Added Value Machining

The G 100 Series has successfully reduced cycle times by achieving "zero indexing time," made possible by the use of a flat tooling. In addition to high-efficiency machining, it also meets a diverse range of customer requirements including finishing, hard turning, and high added value machining, with the high precision unique to a flat tooling.

- + Largest X-axis travel 480 mm (18.9 in.) same class machines <G 100 | 480 type>
- + Milling unit also mountable
- + Cycle time reduced by "zero indexing time"
- + Sub plate specification enabling use of existing holders



Minimal micro-vibration characteristics of the flat tooling lead to long tool lives and little chatter makes it suitable for hard turning too.



Material <JIS> : SUJ2 (High carbon chromium bearing steel)

Workpiece	Cone
Machining time	sec.
HRC	61–63

JIS: Japanese Industrial Standard

G 100 | 300 / G 100 | 480 / G 100M | 480

WASINO Original Flat Tooling Turning Center

The G 100 Series offers the milling specification that can mount the optional milling unit.

The G 100M | 480 allows flexible tooling, with the ability to mount milling tools simultaneously with the turning tools, thanks to the generous X-axis travel of 480 mm (18.9 in.). The series is capable of machining even complex-shaped workpieces with high efficiency, helping to improve productivity.

G 100 | 300 / G 100 | 480

5-inch chuck compatible

Flat tooling turning center with great emphasis on simplicity

G 100M | 480

5-inch chuck compatible

Milling with the 150 W milling unit (option)



G 100 | 300

G 100 | 480

G 100M | 480

Standard chuck size

5 inches

Bar work capacity

mm (in.)

ø 38.1 (ø 1.5)*

Travel <X- / Z-axis>

mm (in.)

480 / 285 (18.9 / 11.2)

Rapid traverse rate <X- / Z-axis>

m/min (ipm)

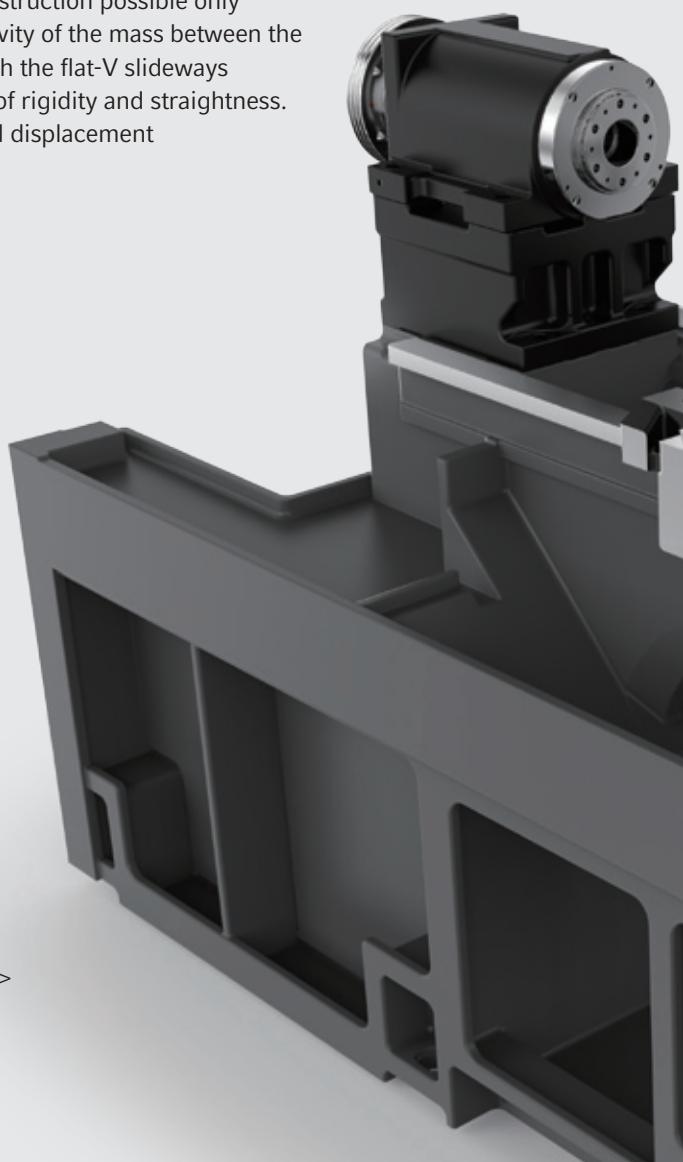
12 / 20 (472.4 / 787.4)

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

G 100 | 300 / G 100 | 480 / G 100M | 480

Low Center of Gravity Bed Supporting Super-high Precision

The Series features a left / right symmetrical construction, induction-hardened horizontal slideways integrated on the bed, and a low center of gravity construction possible only with flat tooling machines, where the height of the center of gravity of the mass between the floor and the feed system is set at a low position. The Z-axis with the flat-V slideways and the X-axis with the dovetail slideway guarantee high levels of rigidity and straightness. The reliable pre-tension structure effectively suppresses thermal displacement and maintains stable positioning accuracy over the long term.

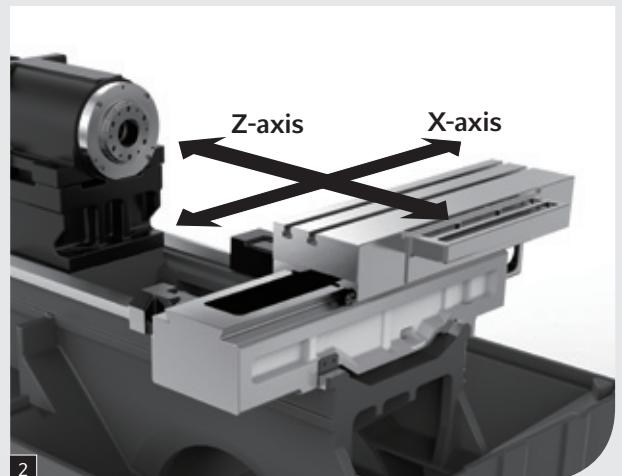
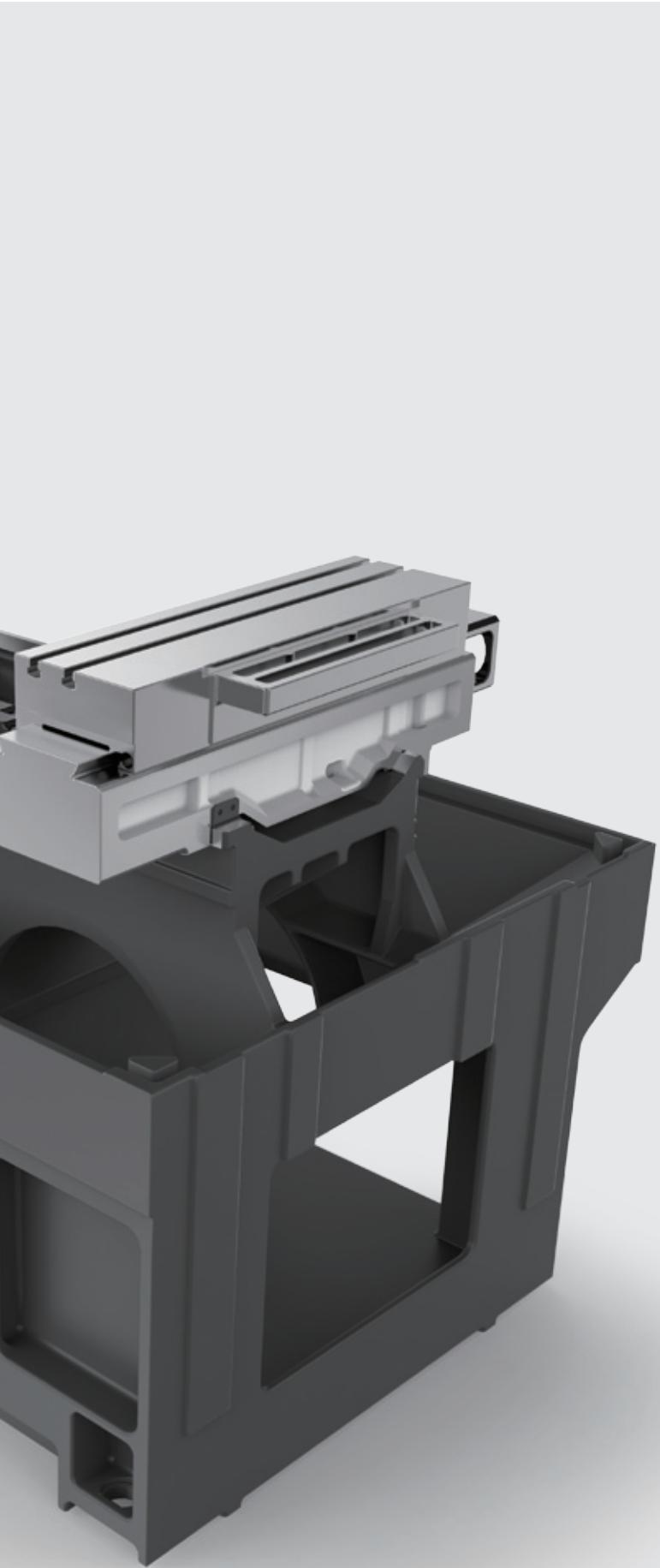


1 High-rigidity bed

- + Induction-hardened horizontal slideways integrated on the bed
- + Z-axis with flat-V slideways and X-axis with dovetail slideway guarantee high levels of rigidity and straightness
- + Minimized distance between the axis travel reference guide and spindle restricts effects of generated heat
- + Rapid traverse rate: X-axis 12 m/min (472.4 ipm)
Z-axis 20 m/min (787.4 ipm)

2 Travel

- + Longest X-axis stroke in its class: 480 mm (18.9 in.) <G 100 | 480 type>
- + Flexible tooling possible



Applications and Parts

Highlights

Machine and Technology

› Spindle

Others

Machine Specifications

G 100 | 300 / G 100 | 480 / G 100M | 480

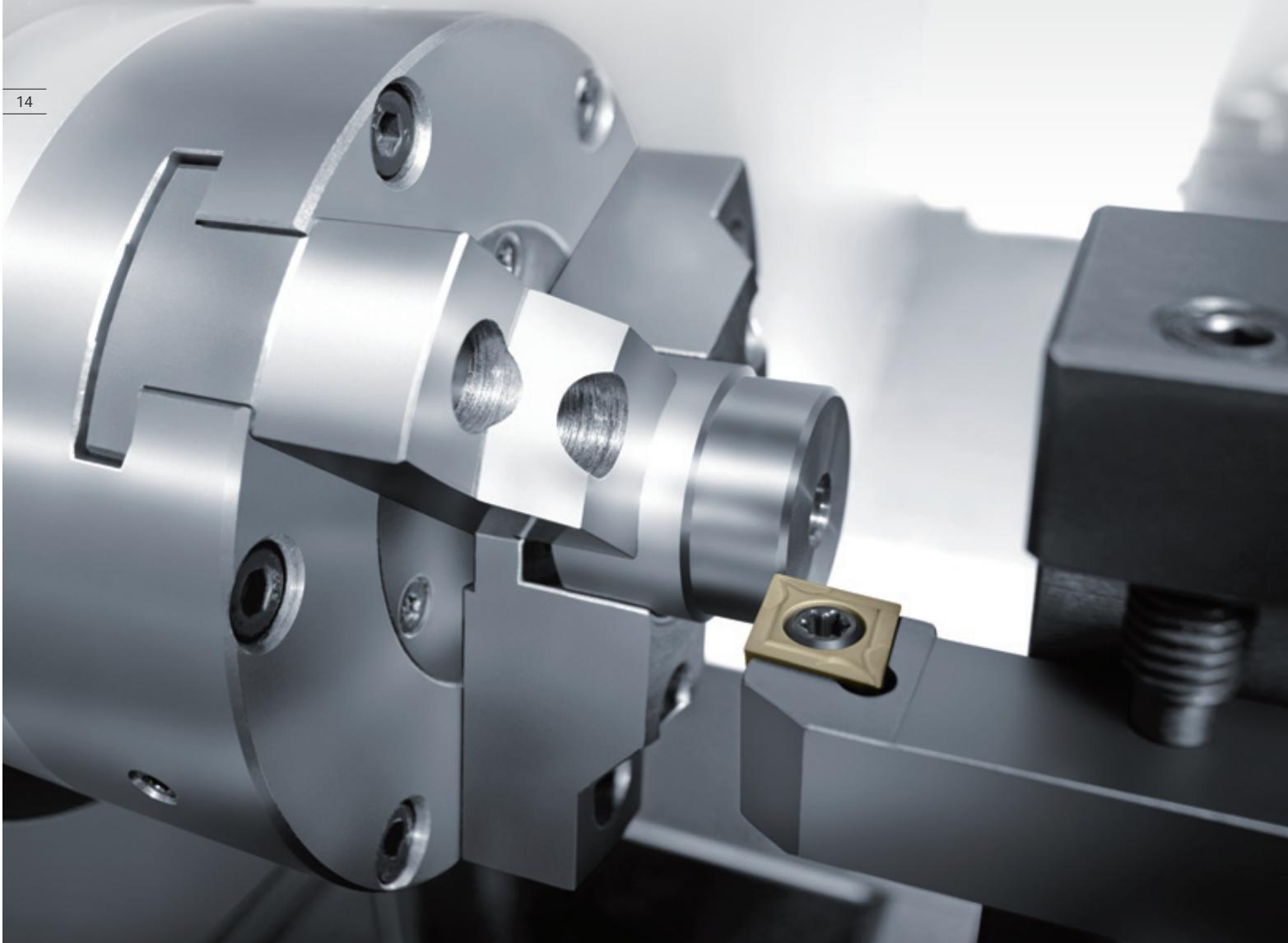
High-performance Spindle with Excellent Reliability

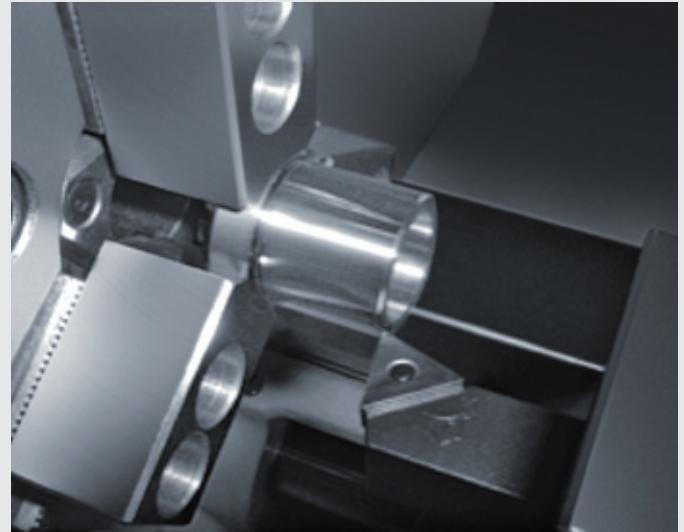
The machines are equipped with a highly reliable spindle that takes thermal displacement into account and accommodate 6-inch chucks in addition to standard 5-inch chucks.

The spindle realizes stable machining of a wide range of materials with rotary performance that is exceptionally well-matched to the flat tooling and high torque.

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





+ Max. spindle speed: 6,000 min⁻¹ (G 100 | 300 / G 100 | 480 / G 100M | 480)
8,000 min⁻¹ (G 100 | 300 High precision)

+ Applicable chuck size: 5 inches [6 inches]

+ Built-in construction adopted

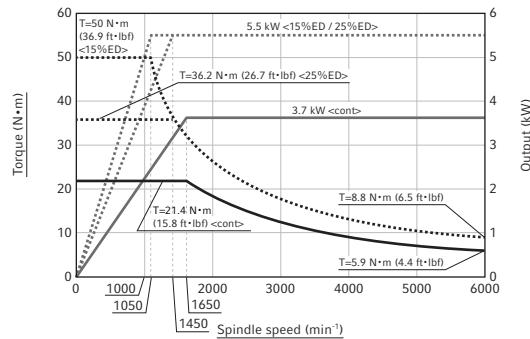
[] Option

Spindle speed torque / output diagrams

G 100 | 300 / G 100 | 480 / G 100M | 480

Standard

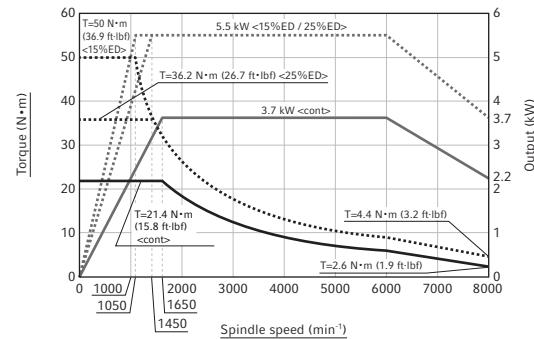
6,000 min⁻¹ // 5.5 / 5.5 / 3.7 kW (7.5 / 7.5 / 5 HP) <15%ED / 25%ED / cont> // 50 N·m (36.9 ft-lbf) <15%ED>



G 100 | 300 High precision

Standard

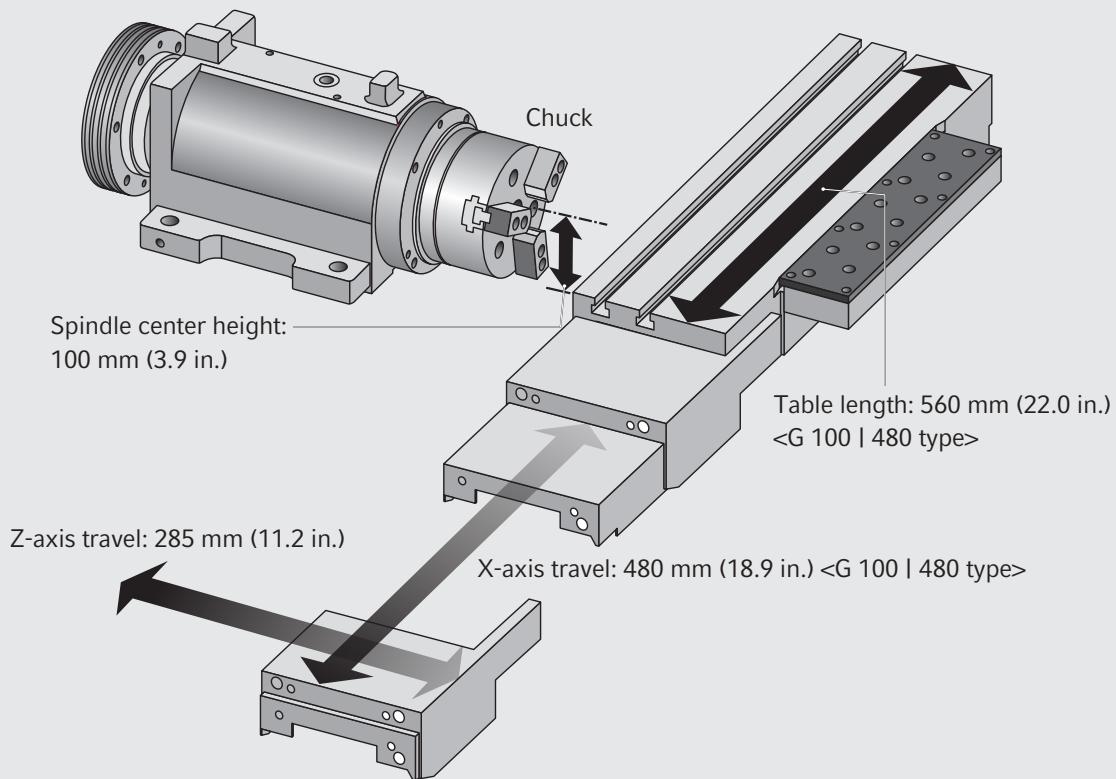
8,000 min⁻¹ // 5.5 / 5.5 / 3.7 kW (7.5 / 5.5 / 5 HP) <15%ED / 25%ED / cont> // 50 N·m (36.9 ft-lbf) <15%ED>



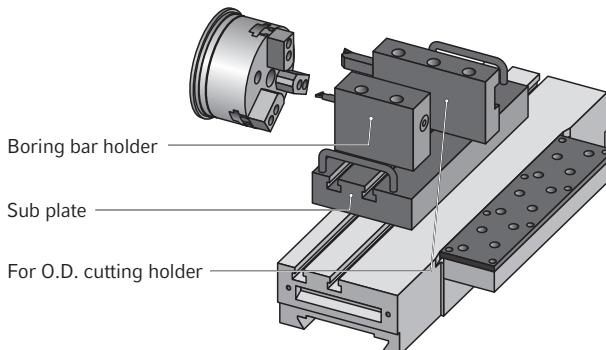
G 100 | 300 / G 100 | 480 / G 100M | 480

Tooling Options with High Expandability

The G 100 Series, with the largest X-axis travel in its class and varieties of machining applications, offers highly-expandable tooling options that enables various machining.



Quick tooling with the sub plate

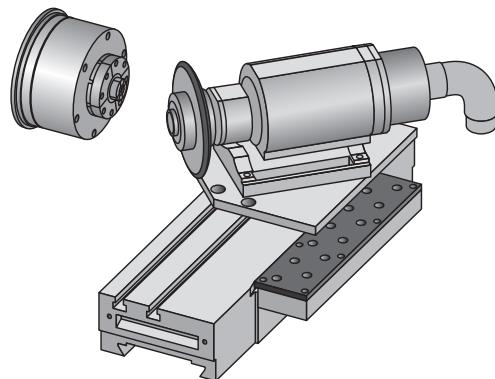


- + Drastically reduced setup times by easy tool exchange by workpiece
- + Customers' current holders can be used



Mount
Material <JIS>: C3601
Industry: Optical equipment
C3601: Brass
JIS: Japanese Industrial Standard

Integration of different types of processes achieved with the grinding spindle*



- + Reduction in lead times by integrated process of turning and grinding
- + Stable, ultra-high-precision machining ensured in one chucking

Spindle speed with grindstone

(grindstone material: CBN)

For face cutting / for O.D. cutting:

—4,000 min⁻¹

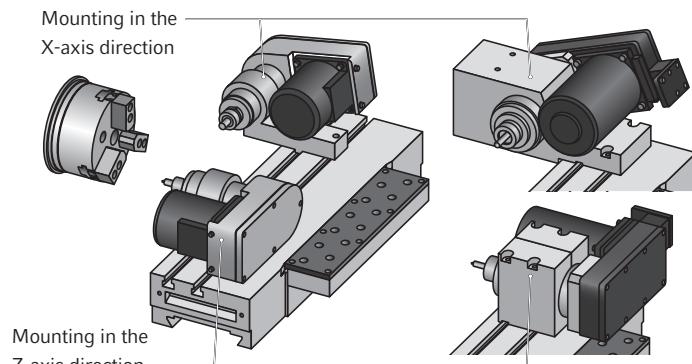


Rotor

Material: Sintered metal

Industry: Automobiles

Milling by the inverter unit*



- + Cs-axis control (G 100M | 480) <option>
- + Spindle orientation (with a brake) <option>



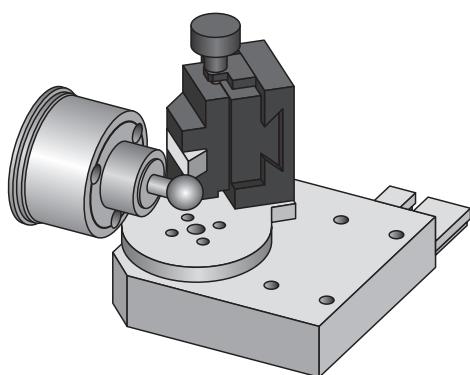
Valve

Material: SUS

Industry: Automobiles

SUS: Stainless steel

Copy machining by the spherical machining unit*



- + Stable sphericity
- + Combination of loaders enabling automation



Ball

Material <JIS>: CAC406C (BC6C)

Industry: Valves, Joints, Flanges

CAC406C (BC6C): Gun metal

JIS: Japanese Industrial Standard

G 100 | 300 / G 100 | 480 / G 100M | 480

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.

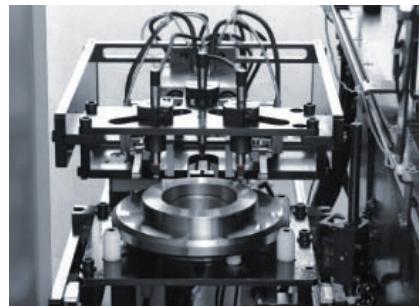
• Please select a chip conveyor to suit the shape of your chips.

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>

External workpiece measuring system



- + Automatically measures the product dimensions (O.D., I.D., height) after machining
- + Multi-point measurement also possible
- 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

Semi-dry unit



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

External washing unit



- + Washes away chips and coolant adhering to a machined workpiece that is transferred to the unit by the loader
- + The cleaned workpiece is carried into the stocker by the loader

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



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

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

• The colors and configuration shown in the photographs may differ from those of the actual product.

G 100 | 300 / G 100 | 480 / G 100M | 480

Cutting-edge Design — Pursuit of Usability

The G 100 Series 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 Touch screen operation panel

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

2 Improved visibility

Providing a large window at the front makes it easier to check work during automatic operation, for example.

3 Centralized layout of devices

Hydraulic and pneumatic units, and the lubricating oil supply ports are placed at the front for easy maintenance.

4 Accessibility

The palletizer is accessible either from the front or side, facilitating setup changes.



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](#)

› [Automation Solutions](#)

[Machine Specifications](#)

› [General View](#)

G 100 | 300 / G 100 | 480 / G 100M | 480

Loader / Stocker Systems for a Wide Range of Production Needs

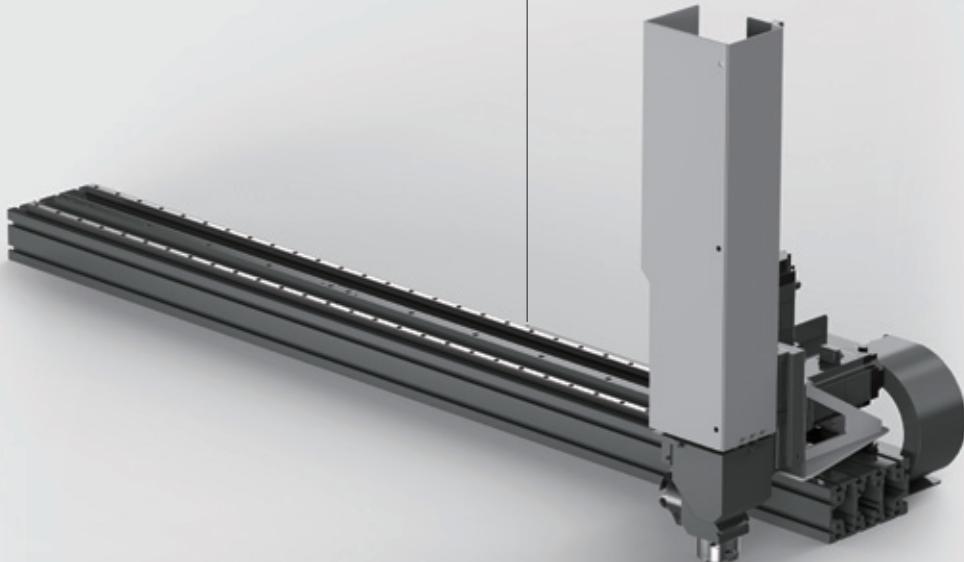
The compact G 100 Series machines are capable of automated machining from material supply to unloading of completed products on a single unit. Based on DMG MORI WASINO's time-proven application engineering, we offer customers solutions best suited to their manufacturing environment, including gantry loader systems for high-speed mass production.

Loader <option>

Automates workpiece transfer in a compact package.

This high-speed mass production system shortens idle time.

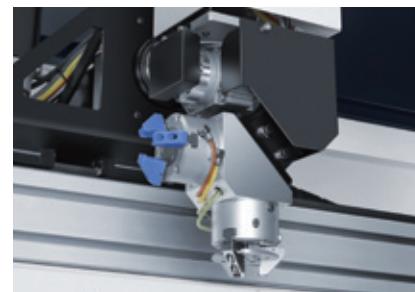
22



<Option>

3-jaw orthogonal loader hand

Maximum transferring capacity of 1 kg (2.2 lb.) <× 2>, supporting a maximum workpiece diameter of 100 mm (3.9 in.).



- Please consult us for workpiece diameters under Ø 10 mm (Ø 0.4 in.).
- Some workpiece shapes may not be handled with the standard hand.
- Depending on the workpiece shape, chuck and tooling, the hand may not be able to turn inside the machine.
- For details, please consult with our sales representative.

1-axis palletizer

Supplies material, and unloads products, on pallets. There are two pallets, which are suited to small workpieces.



10-station rotary workstocker



Loader type	SR-1	
Max. travel speed	X-axis <hand up / down>	m/min (fpm)
	Z-axis <loader unit left / right>	m/min (fpm)

• The maximum travel speed may be limited depending on the weight being transferred.

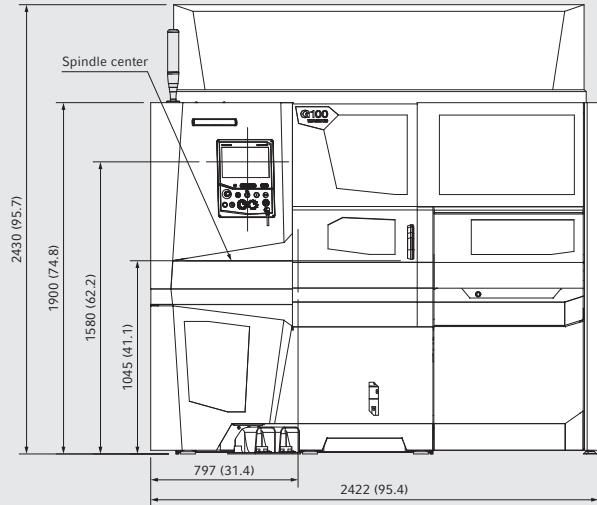
• The colors and configuration shown in the photographs may differ from those of the actual product.

G 100 | 300 / G 100 | 480 / G 100M | 480

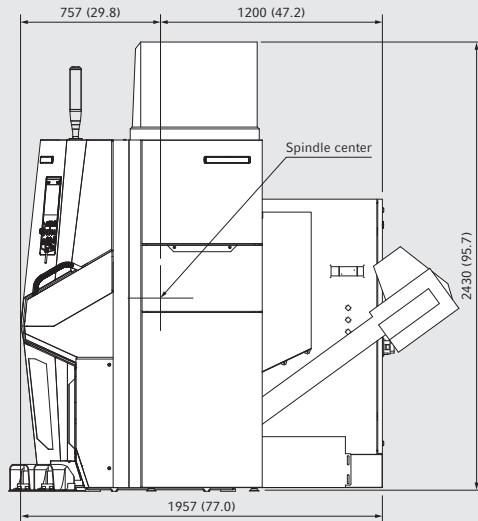
General View

G 100 | 300 / G 100 | 480 / G 100M | 480 <loader + 1-axis palletizer specification>

Front view

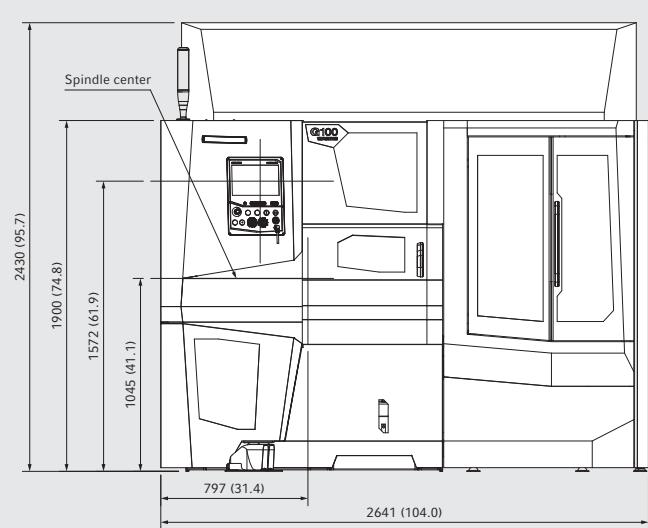


Side view

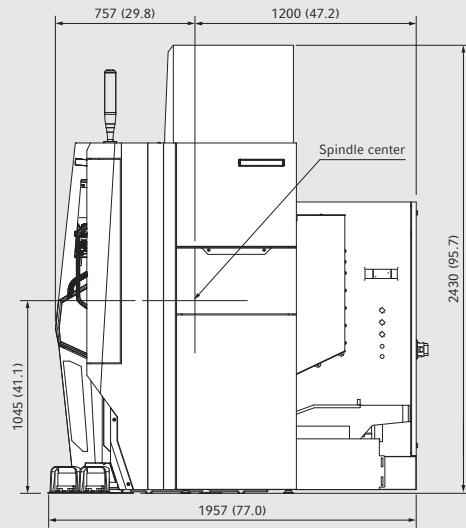


G 100 | 300 / G 100 | 480 / G 100M | 480 <loader + 10-station rotary workstocker specification>

Front view



Side view



Applications and Parts

Highlights

Machine and Technology

Others

Machine Specifications

› Tooling System

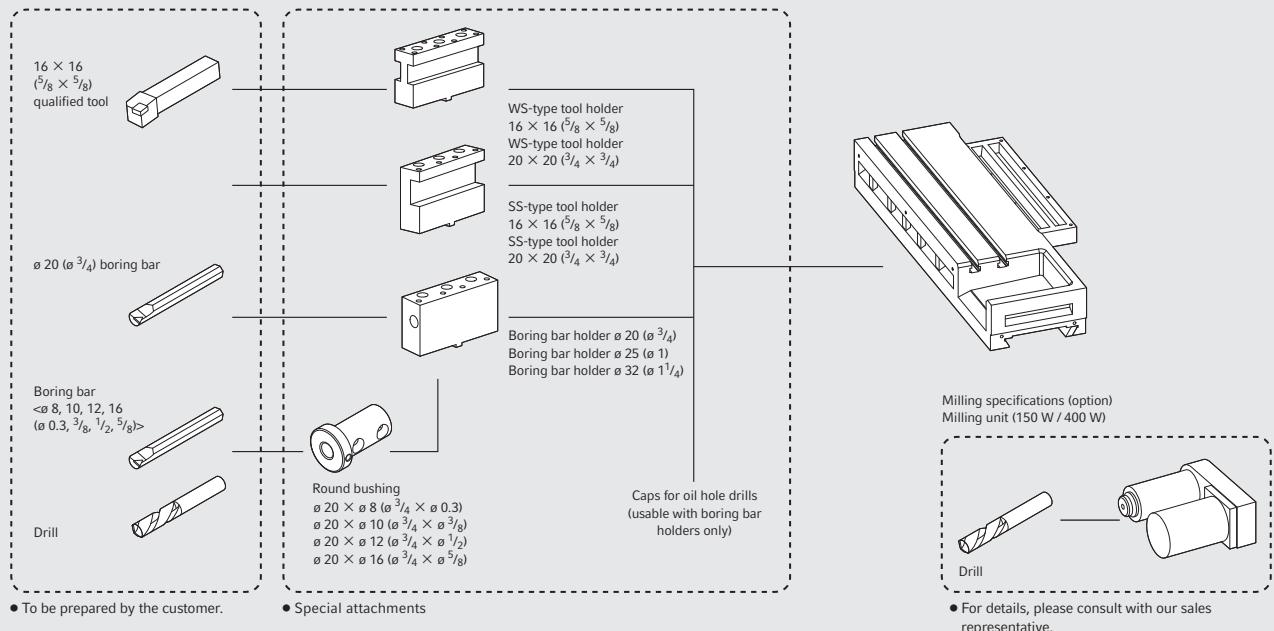
› Axis Travel Diagrams

G 100 | 300 / G 100 | 480 / G 100M | 480

Tooling System

mm (in.)

G 100 | 300 / G 100 | 480 / G 100M | 480



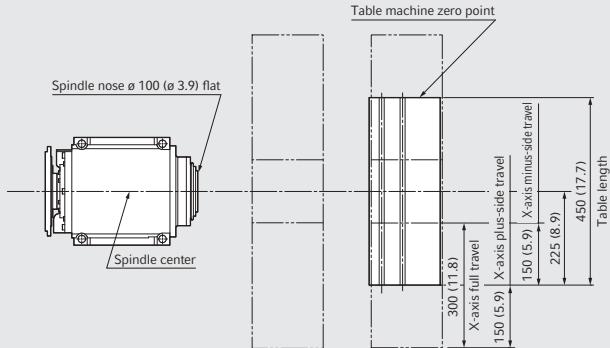
G 100 | 300 / G 100 | 480 / G 100M | 480

Axis Travel Diagrams

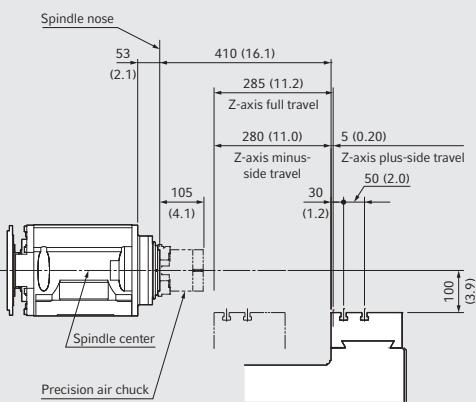
mm (in.)

G 100 | 300

Plan view



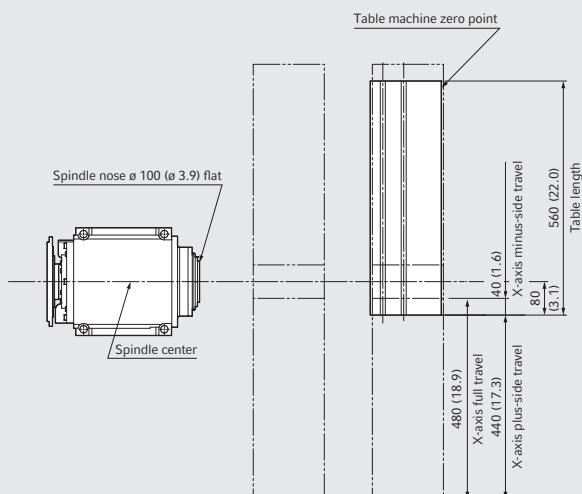
Front view



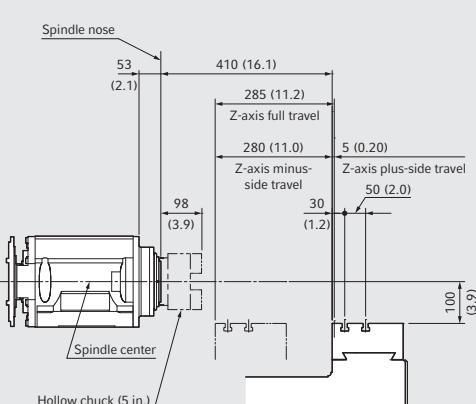
25

G 100 | 480

Plan view



Front view



mm (in.)

G 100 | 300 / G 100 | 480 / G 100M | 480

Numerical Control Unit Specifications 0i-TF

●: Standard ○: Option
—: Not applicable

		0i-TF
Machine	Loader spec.	
Controlled axes		
Controlled axes		
Simultaneously controlled 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		
Reference position return	●	●
2nd reference position return	●	●
Continuous thread cutting	●	—
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)	●	—
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	●
Chamfer, corner R	●	—
Single repetitive cycle	●	—
Multiple repetitive cycle	●	—

●: Standard ○: Option
—: Not applicable

Oi-TF		
Machine	Loader spec.	
Program input		
Multiple repetitive cycle II	●	—
Absolute (incremental) programming	●	●
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	●
Synchronous tapping ^{*5}	○	—
Tool function / Tool offset function		
Tool function (T function)	2-digit T code	●
Number of tool offsets	128 sets	●
Tool position 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 The parameter needs to be separately set depending on the cutting condition.

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

G 100 | 300 / G 100 | 480 / G 100M | 480

Standard & Optional Features

●: Standard
○: Option
—: Not applicable

	G 100 300	G 100 300 High precision	G 100 480	G 100M 480
Spindle				
6,000 min ⁻¹ : 5.5 / 5.5 / 3.7 kW (7.5 / 7.5 / 5 HP) <15%ED / 25%ED / cont>	●	—	●	●
8,000 min ⁻¹ : 5.5 / 5.5 / 3.7 kW (7.5 / 7.5 / 5 HP) <15%ED / 25%ED / cont>	—	●	—	—
Chuck				
Hollow chuck	○	○	○	○
6-inch	○	○	○	○
Collet chuck	○	○	○	○
Precision air chuck	○	○	○	○
Turret				
Rotary tool spindle	10,000 min ⁻¹ : 0.15 kW (0.2 HP)	—	—	○
Coolant				
Coolant tank	147 L (38.8 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	400 W, 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 (straight 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)		○	○	○
Automatic door		○	○	○
Bar feeder	Interface	○	○	○

● : Standard
○ : Option
— : Not applicable

	G 100 300	G 100 300 High precision	G 100 480	G 100M 480
Loader				
Gantry-type loader	SR-1	○	○	○
Spare parts for loader		○	○	○
SR-1 orthogonal robot hand		○	○	○
Loader hand finger soft jaws		○	○	○
Loader hand jaws forming fixture for SR-1 hand		○	○	○
Robot hand roading check		○	○	○
1-axis palletizer	PZB-4	○	○	○
2-axis palletizer	WP-1A, PO	○	○	○
10-station rotary workstocker	WRS-1	○	○	○
Other				
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.)	○	○	○
Ceiling shutter open & close switch		●	●	●
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 March 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.

G 100 | 300 / G 100 | 480 / G 100M | 480

Machine Specifications

	G 100 300	G 100 300 High precision
Capacity		
Max. turning diameter	mm (in.)	ø 285 (ø 11.2)
Standard turning diameter	mm (in.)	ø 60 (ø 2.3)
Bar work capacity	mm (in.)	ø 38.1 (ø 1.5)*
Spindle center height	mm (in.)	1,045 (41.1)
Travel		
X-axis travel	mm (in.)	300 (11.8)
Z-axis travel	mm (in.)	285 (11.2)
Spindle		
Max. spindle speed	min ⁻¹	6,000 <built-in>
Type of spindle nose	mm (in.)	ø 100 (ø 3.9) flat
Through-spindle hole diameter	mm (in.)	ø 45 (ø 1.8)
Spindle bearing inner diameter	mm (in.)	ø 75 (ø 3.0)
Turret		
Turret type		Flat tooling
Shank height for square tool	mm (in.)	16 [20]
Shank diameter for boring bar	mm (in.)	ø 20 (ø 3/4) [ø 25 (ø 1)] [ø 32 (ø 1 1/4)]
Feedrate		
Rapid traverse rate <X- / Z-axis>	mm/min (ipm)	12,000 (472.4) / 20,000 (787.4)
Motor		
Spindle drive motor <15%ED / 25%ED / cont>	kW (HP)	5.5 / 5.5 / 3.7 (7.5 / 7.5 / 5)
Power sources <loader spec>		
Electrical power supply	kVA	12.4
Voltage, frequency		AC200 / 220 V ±10%, 3-phase 50 / 60 Hz ±1 Hz
Machine size		
Machine height <from floor>	mm (in.)	[2,430 (95.7) <loader spec>]
Floor space <width × depth>	mm (in.)	[2,422 × 1,957 (95.4 × 77.0) <loader + 1-axis palletizer specification>, 2,641 × 1,957 (104.0 × 77.0) <loader + 10-station rotary workstocker specification>]
Mass of machine	kg (lb.)	1,650 (3,630) [2,165 (4,763) <loader spec>]
Noise data		
A-weighted, time-average radiated sound pressure level	dB	64—77 (Measurement uncertainty is 4 dB)

[] Option

* 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.

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

	G 100 480	G 100M 480
Capacity		
Max. turning diameter	mm (in.)	ø 285 (ø 11.2)
Standard turning diameter	mm (in.)	ø 60 (ø 2.3)
Bar work capacity	mm (in.)	ø 38.1 (ø 1.5)*
Spindle center height	mm (in.)	1,045 (41.1)
Travel		
X-axis travel	mm (in.)	480 (18.9)
Z-axis travel	mm (in.)	285 (11.2)
Spindle		
Max. spindle speed	min ⁻¹	6,000 <built-in>
Type of spindle nose	mm (in.)	ø 100 (ø 3.9) flat
Through-spindle hole diameter	mm (in.)	ø 45 (ø 1.8)
Spindle bearing inner diameter	mm (in.)	ø 75 (ø 3.0)
Turret		
Turret type		Flat tooling
Shank height for square tool	mm (in.)	16 [20]
Shank diameter for boring bar	mm (in.)	ø 20 (ø 3/4) [ø 25 (ø 1)] [ø 32 (ø 1 1/4)]
Tool shank diameter for rotary tool	mm (in.)	— [ø 10 (ø 0.4)]
Max. rotary tool spindle speed	min ⁻¹	— [10,000]
Feedrate		
Rapid traverse rate <X- / Z-axis>	mm/min (ipm)	12,000 (472.4) / 20,000 (787.4)
Motor		
Spindle drive motor <15%ED / 25%ED / cont>	kW (HP)	5.5 / 5.5 / 3.7 (7.5 / 7.5 / 5)
Rotary tool spindle drive motor <turret>	kW (HP)	— [0.15 (0.2)]
Power sources <loader spec>		
Electrical power supply	kVA	12.4
Voltage, frequency		AC200 / 220 V ±10%, 3-phase 50 / 60 Hz ±1 Hz
Machine size		
Machine height <from floor>	mm (in.)	[2,430 (95.7) <loader spec>]
Floor space <width × depth>	mm (in.)	[2,422 × 1,957 (95.4 × 77.0) <loader + 1-axis palletizer specification>, 2,641 × 1,957 (104.0 × 77.0) <loader + 10-station rotary workstocker specification>]
Mass of machine	kg (lb.)	1,750 (3,850) [2,265 (4,983) <loader spec>]
Noise data		
A-weighted, time-average radiated sound pressure level	dB	64—77 (Measurement uncertainty is 4 dB)

[] Option

* 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.

• Noise data: the measurement was performed at the front of the G 100 | 480 with a maximum spindle speed of 6,000 min⁻¹. For details, please consult our sales representative.

• The information in this catalog is valid as of March 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 March 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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