DOOSAN

Optimal Solutions for the Future

PUMA GT series



8, 10, 12 Inch Global Standard Turning Center

PUMA GT series
PUMA GT2100
PUMA GT2600
PUMA GT3100

ver. EN 160818 SU

Basic Information

Basic Structure
Cutting
Performance

Detailed Information

Options
Applications
Diagrams
Specifications

Customer Support Service



PUMA GT2600M

PUMA GT series

PUMA GT Series is an 8/10/12-inch grade turning center suggesting new global standards. The series is equipped with the most powerful spindle in its class and the tool post of the next-generation concept to guarantee powerful and precise cutting capability and exceptional productivity. The design of PUMA GT Series focuses on convenient operation and easy maintenance

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Detailed Information

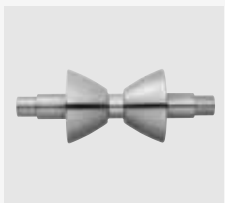
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PUMA GT3100M

Sample







Powerful/Precise Cutting Capability

PUMA GT Series realizes stable and powerful cutting capabilities by adopting the box guideway structure and the highest spindle power in its class.

Powerful/Precise Cutting Capability

Comparing to the previous models, faster repaid traverse and optimal control function ensure the highest productivity.

Improved Usability

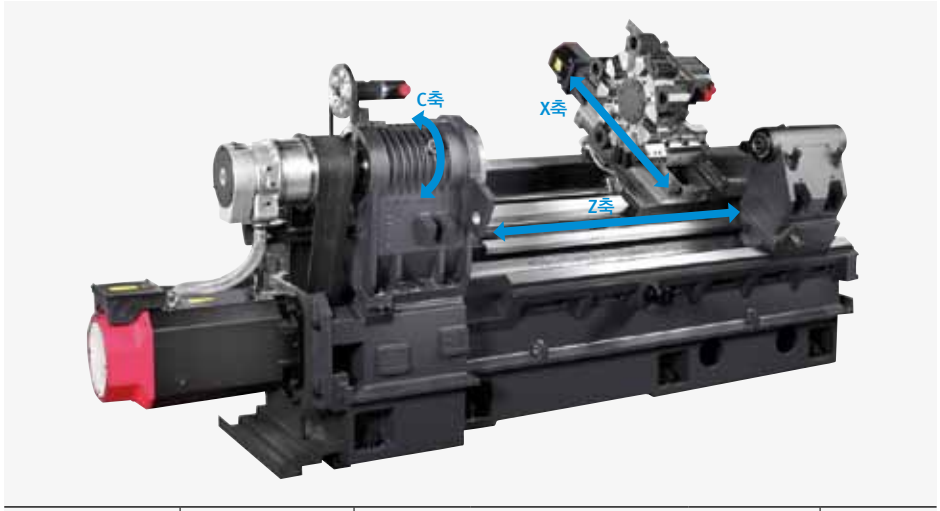
Usability of PUMA GT Series is maximized with user-friendly operation panel, and simple maintenance functions.

Basic Structure

Box guideways are applied to all axes to prevent vibration, secure dynamic rigidity, and ensure powerful and precise machining.

Diverse Line-up Fully Satisfying Demands of Customers

PUMA GT Series provides 14 line-ups, of which configuration varies depending on the standard chuck size, the length of machine, and operation of rotating tools.

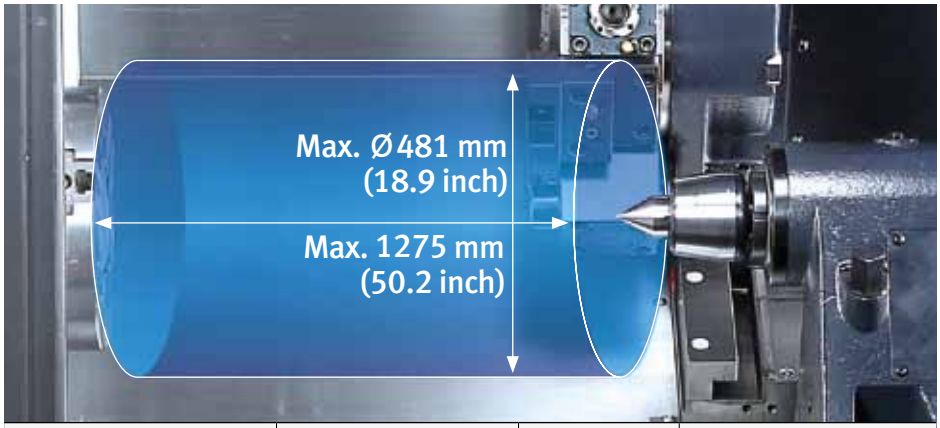


Model group	Standard chuck size (inch)	Length of bed (mm(inch))			Function
		/300	std.	L	
PUMA GT2100	8	300 (11.8)	550 (21.7)	-	2 axis/M
PUMA GT2100B	10	-	550 (21.7)	-	2 axis/M
PUMA GT2600	10	-	650 (25.6)	1050 (41.3)	2 axis/M
PUMA GT3100	12	-	750 (29.5)	1250 (47.4)	2 axis/M

Model group	Travel (mm(inch))		Rapid traverse rate (m/min(ipm))	
	X-Axis	Z-Axis	X-Axis	Z-Axis
PUMA GT2100/300	230 (9.1)	330 (13.0)	24 (945)	30 (1181)
PUMA GT2100		580 (22.8)		
PUMA GT2100B				
PUMA GT2600	265 (10.4)	680 (26.8)		
PUMA GT2600L		1100 (43.3)		
PUMA GT3100	260 (10.2)	830 (32.7)		
PUMA GT3100L		1350 (53.1)		

Machining Area

PUMA GT Series forms the largest machining area in its class to yield the maximum productivity with the minimum costs.



Model group (unit : mm(inch))	Max. turning dia. (2axis/M)	Bar working dia.	Max. turning length (2axis/M)
PUMA GT2100/300	390 / 300 (15.4 / 11.8)	65 (2.6)	312 / 263 (12.3 / 10.4)
PUMA GT2100			562 / 513 (22.1 / 20.2)
PUMA GT2100B		81 (3.2)	550 / 501 (21.7 / 19.7)
PUMA GT2600	460 / 410 (18.1 / 16.1)		658 / 610 (25.9 / 24.0)
PUMA GT2600L			1078 / 1030 (42.4 / 40.6)
PUMA GT3100	481 / 376 (18.9 / 14.8)	102	755 / 725 (29.7 / 28.5)
PUMA GT3100L			1275 / 1245 (50.2 / 49.0)

Spindle

Design of lowinertia spindle saves acceleration /deceleration time while improving productivity, and realizes powerful cutting with the motor of highest power in its



Max. spindle speed

3500 r/min

Max. spindle power

22 kW

(30 Hp)
(30 min. rating)

Max. spindle torque

622 N·m

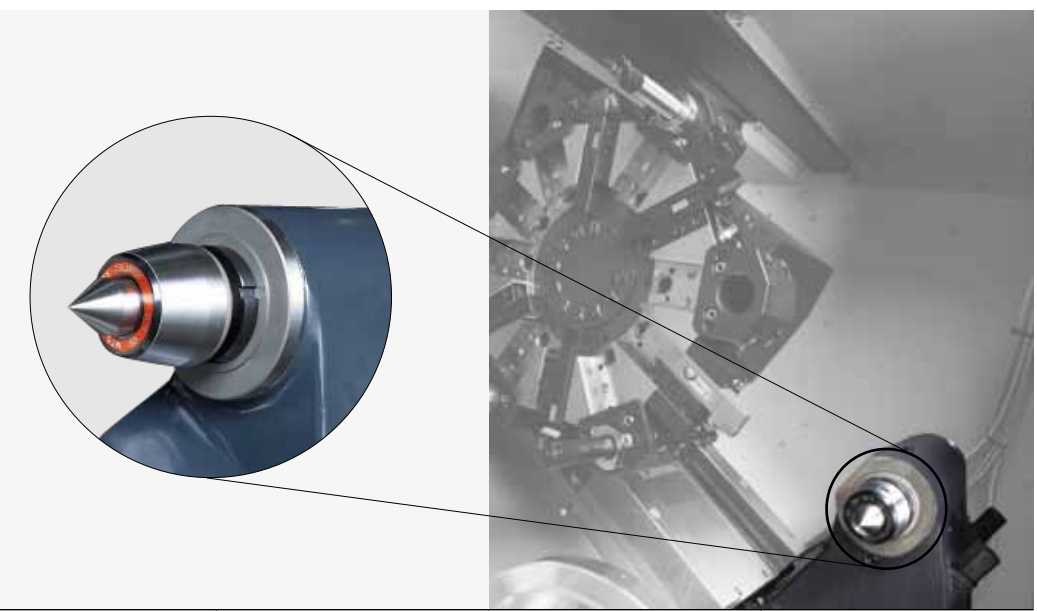
(459 lbf·ft)

* PUMA GT2600 specification

Model group	**Spindle speed** (r/min)	**Power** (kW(hp))	**Toruqe** (N·m(lbf ft))	**Condition**
PUMA GT2100	4500	18.5 / 15 (24.8 / 20.1)	313 (230)	15 min / cont.
PUMA GT2100B	3500	18.5 / 15 (24.8 / 20.1)	401.2 (296.1)	15 min / cont.
PUMA GT2600	3500	22 / 18.5 (29.5 / 24.8)	622 (459.0)	30 min / cont.
PUMA GT3100	2800	35 / 26 / 22 (46.9 / 34.9 / 29.5)	1613 (1190.4)	S3 25% / 30 min / cont.
PUMA GT3100M	2800	22 / 18.5 (29.5 / 24.8)	1123 (828.8)	30 min / cont.

Tailstock

High-rigidity tailstock is mounted to stably support thin and long workpiece.



Model group (mm(inch))	**Tailstock travel**	**Quill dia**	**Quill travel**
PUMA GT2100/B	580 (22.8)	80 (3.1)	80 (3.1)
PUMA GT2600	680 (26.8)	100 (3.9)	100 (3.9)
PUMA GT2600L	1100 (43.3)	100 (3.9)	100 (3.9)
PUMA GT3100	830 (32.7)	100 (3.9)	100 (3.9)
PUMA GT3100L	1350 (53.1)	100 (3.9)	100 (3.9)

* Tailstock is not compatible with PUMA GT100/300 model

Turret

Rotation of the turret is controlled by the servo motor for prompt and correct selection of tools.

Servo indexing turret

The servo motor controls rotation of the turret for the purpose of guaranteeing rapid rotation and correct position. The milling turret including rotary tools features a BMT type of design for higher rigidity. In addition, the minimization of thermal error due to oil and air lubrication of the rotary tools delivers the best milling, drilling and tapping performance in its class.

2 axis turret

PUMA GT2100
- Number of tool stations : 12 st

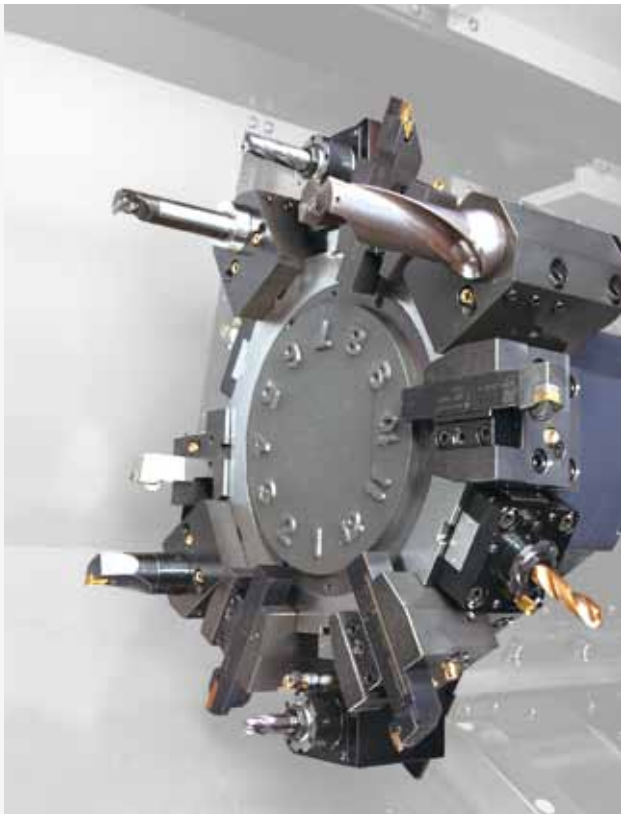
PUMA GT2100B
PUMA GT2600
PUMA GT3100
- Number of tool stations : 10 st / 12 st option



BMT milling turret

PUMA GT2100M
PUMA GT2600M
- BMT 55P
- Number of tool stations : 12 st
- Rotary tool motor power : 5.5kW (7.4Hp)

PUMA GT3100M / LM
- BMT65P
- Number of tool stations : 12 st / 24 st option
- Rotary tool motor power : 7.5kW (10Hp)



Cutting Performance

Multi-functionality including end milling, face milling, drilling, tapping, etc. offers better machining performance while minimizing work setting.



OD turning

	unit	PUMA GT2100	PUMA GT2600	PUMA GT3100
Chip removal rate	cm^3/min ($inch^3$/min)	551 (33.6)	693 (42.3)	1155 (70.5)
Cutting speed	m/min (ipm)	210 (8278)	210 (8278)	210 (8278)
Feedrate	mm/rev (ipr)	0.55 (0.02)	0.55 (0.02)	0.55 (0.02)
Spindle speed	r/min	965	338	207
Cutting depth	mm (inch)	4.5 (0.18)	6 (0.24)	10 (0.6)



ID turning (Rough cutting)

	unit	PUMA GT2100	PUMA GT2600	PUMA GT3100
Cutting speed	m/min (ipm)	270 (10630)	270 (10630)	280 (11023.6)
Feedrate	mm/rev (ipr)	0.3 (0.01)	3 (0.1)	3 (0.1)
Spindle speed	r/min	1131	1131	849
Cutting depth	mm (inch)	3 (0.1)	3 (0.1)	3 (0.1)
Tool length	length / dia.	3.5D	3.5D	4.0D



U drilling (2axis)

	unit	PUMA GT2100	PUMA GT2600	PUMA GT3100
Chip removal rate	cm^3/min ($inch^3$/min)	567 (34.6)	914 (55.8)	1040 (63.5)
Cutting speed	m/min (ipm)	200 (7874)	200 (7874)	200 (7874)
Feedrate	mm/rev (ipr)	0.18 (0.007)	0.29 (0.011)	0.26 (0.01)
Spindle speed	r/min	1011	1011	796
U drill dia.	mm (inch)	63 (2.5)	63 (2.5)	80 (3.1)



Face milling

	unit	PUMA GT2100M	PUMA GT2600M	PUMA GT3100M
Chip removal rate	cm^3/min ($inch^3$/min)	47.9 (2.9)		68 (4.1)
Cutting speed	m/min (ipm)	120 (4724)		280 (11023.6)
Feedrate	m/min (ipm)	190 (7481)		558 (21968.5)
Spindle speed	r/min	606		1115
Cutting depth	mm (inch)	4 (0.2)		2 (0.1)
Face mill dia.	mm (inch)	63 (2.5)		80 (3.1)



End milling

	unit	PUMA GT2100M	PUMA GT2600M	PUMA GT3100M
Chip removal rate	cm^3/min ($inch^3$/min)	90 (5.5)		133.8 (8.2)
Cutting speed	m/min (ipm)	60 (2362)		70 (2755.9)
Feedrate	m/min (ipm)	250 (9843)		223 (8779.5)
Spindle speed	r/min	1060		1115
Cutting depth	mm (inch)	20 (0.7)		30 (1.2)
End mill dia.	mm (inch)	18 (0.7)		20 (0.7)



Tapping

	unit	PUMA GT2100M	PUMA GT2600M	PUMA GT3100M
Tap size	-	M20 x P2.5		
Cutting speed	m/min (ipm)	15 (591)		
Feedrate	m/min (ipm)	2.5 (98.4)		
Spindle speed	r/min	240		

* The results, indicated in this catalogue are provides as example. They may not be obtained due to differences in cutting conditions and environmental conditions during measurement.

Standard / Optional Specifications

Diverse optional devices and features are available to meet specific customer requirements

● standard features ○ option △ Pre-discussion is required X Not available

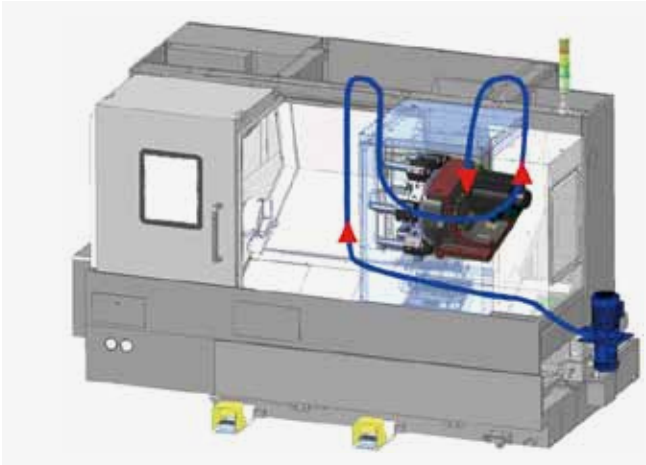
NO.	Description	Features	PUMA GT2100/300	PUMA GT2100M/ 300	PUMA GT2100 / M
1	Chuck	8 inch	●	●	●
2		10 inch	○	○	○
3		12 inch	X	X	X
4		15 inch	X	X	X
5		No chuck	○	○	○
6	Jaw	Soft Jaw	○	○	○
7		Hard jaw	○	○	○
8	Chucking Option	DUAL PRESSURE CHUCKING	○	○	○
9		CHUCK CLAMP CONFIRMATION	○	○	○
10	Steady rest	Hydraulic	X	X	△
11		Programmable	X	X	△
12	V stand	V stand for shaft workpiece	△	△	△
13	Tailstock	Mannual	X	X	●
14		Programmable	X	X	○
15		Live center	X	X	●
16		Built-in dead center	X	X	○
17	Coolant Pump	1.5 bar	●	●	●
18		Increase Power (4.5/7/10/14.5/70 bar)	○	○	○
19	Additional coolant pump (for option)	4.5 bar	○	○	○
20	Coolant options	Oil skimmer	○	○	○
21		Coolant chiller	△	△	△
22		Coolant pressure switch	○	○	○
23		Coolant level switch	○	○	○
24		Chuck coolant	○	○	○
25		Coolant gun	○	○	○
26	Chip disposal options	Side type chip conveyor	○	○	○
27		Rear type chip conveyor	○	○	○
28		Chip bucket	○	○	○
29		Air blower	○	○	○
30		Mist collector interface	○	○	○
31		Integrated mist collector	○	○	○
32	Measuring & automation	Tool setter (Manual)	○	○	○
33		Tool setter (Automatic)	○	○	○
34		Part catcher with parts box	○	○	○
35		Part catcher with parts conveyor	△	△	△
36		Auto door	○	○	○
37		Bar feeder interface	○	○	○
38	Others	Tool load monitoring system	○	○	○
39		Linear scale (Xaxis /Zaxis)	○	○	○
40		Signal tower	○	○	○
41		Air gun	○	○	○
42		Automatic power off	○	○	○

● standard features ○ option △ Pre-discussion is required X Not available

NO.	Description	Features	PUMA GT2100B / MB	PUMA GT2600 / M	PUMA GT2600L / LM	PUMA GT3100 / M	PUMA GT3100L / LM
1	Chuck	8 inch	X	X	X	X	X
2		10 inch	●	●	●	X	X
3		12 inch	X	○	○	●	●
4		15 inch	X	X	X	○	○
5		No chuck	○	○	○	○	○
6	Jaw	Soft Jaw	○	○	○	○	○
7		Hard jaw	○	○	○	○	○
8	Chucking Option	DUAL PRESSURE CHUCKING	○	○	○	○	○
9		CHUCK CLAMP CONFIRMATION	○	○	○	○	○
10	Steady rest	Hydraulic	△	△	△	○	○
11		Programmable	△	△	△	○	○
12	V stand	V stand for shaft workpiece	△	△	△	△	△
13	Tailstock	Mannual	●	●	●	●	●
14		Programmable	○	○	○	○	○
15		Live center	●	●	●	●	●
16		Built-in dead center	○	○	○	○	○
17	Coolant Pump	1.5 bar	●	●	●	●	●
18		Increase Power (4.5/7/10/14.5/70 bar)	○	○	○	○	○
19	Additional coolant pump (for option)	4.5 bar	○	○	○	○	○
20	Coolant options	Oil skimmer	○	○	○	○	○
21		Coolant chiller	△	△	△	△	△
22		Coolant pressure switch	○	○	○	○	○
23		Coolant level switch	○	○	○	○	○
24		Chuck coolant	○	○	○	○	○
25		Coolant gun	○	○	○	○	○
26	Chip disposal options	Side type chip conveyor	○	○	○	○	○
27		Rear type chip conveyor	○	○	X	△	X
28		Chip bucket	○	○	○	○	○
29		Air blower	○	○	○	○	○
30		Mist collector interface	○	○	○	○	○
31		Integrated mist collector	○	○	○	○	○
32	Measuring & automation	Tool setter (Manual)	○	○	○	○	○
33		Tool setter (Automatic)	○	○	○	○	○
34		Part catcher with parts box	○	○	○	○	○
35		Part catcher with parts conveyor	△	△	△	○	○
36		Auto door	○	○	○	○	○
37		Bar feeder interface	○	○	○	○	○
38	Others	Tool load monitoring system	○	○	○	○	○
39		Linear scale (Xaxis /Zaxis)	○	○	○	○	○
40		Signal tower	○	○	○	○	○
41		Air gun	○	○	○	○	○
42		Automatic power off	○	○	○	○	○

Peripheral Equipments

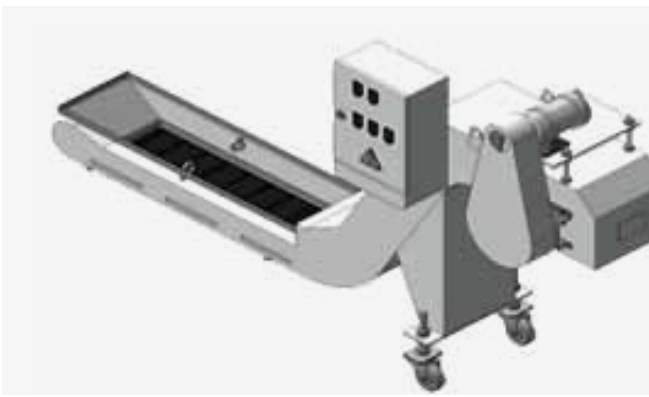
Coolant system



Coolant pump	Output pressure (bar)		Filter	Std./Opt.
	60Hz	50Hz		
pump1	1.5	1	Screen filter	std.
pump2	4.5	3		opt.
pump3	7	5		
pump4	10	7		
pump5	14.5	10		
pump6	28	10.5		
pump7	70	-	Dual bag filter	
pump8	70	-	Paper filter	

Chip conveyor option 26

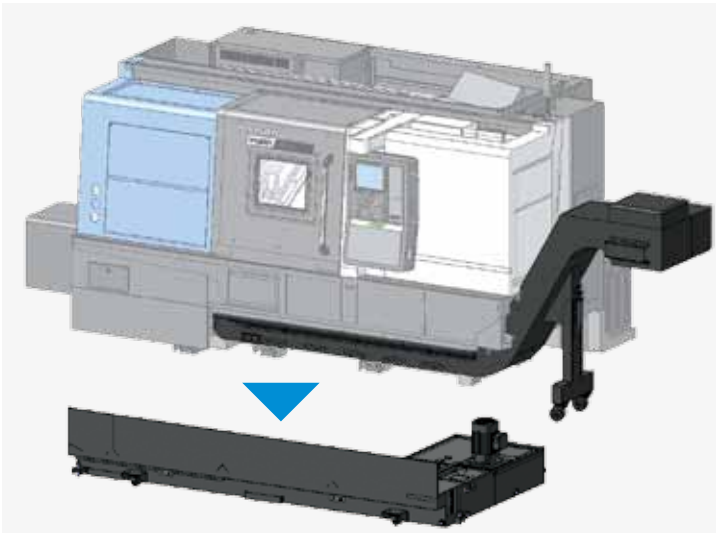
The conveyor provides a superior chip removal system and is designed with a stable structure for easy maintenance and reduced leakage. By selecting the correct type of conveyor, the efficiency of the machine working area is increased.



Chip conveyor type	Material	Description
Hinged belt	Steel	Most typical type of chip conveyor. Appropriate for steel materials generating chips of length of 30 mm or more.
Screw	Steel	Chip conveyor with smallest footprint. Demands 80% of footprint comparing to hinged belt.
Magnetic scrapper	Cast iron	Chip conveyor with magnet equipped : Appropriate for cast iron workpieces generating fine chips

Easy-to-clean coolant tank

The coolant tank can be dismantled without disassembling the chip conveyor. Operating convenience is significantly enhanced.



Model group	Coolant tank capacity (L (galon))
PUMA GT2100/300	150 (39.6)
PUMA GT2100 [B]	190 [190] (50.2 [50.2])
PUMA GT2600 [L]	220 [268] (58.1 [70.8])
PUMA GT3100 [L]	235 [275] (62.1 [72.7])



1.
Axis - tool number display
(only for PUMA GT3100)

Axis and tool number display in machine ensures the selected axis just before turning MPG during handle mode and to make it easier to see the number of the tool at working position



2.
Tool setter
(Tool length measurement)
option 32, 33

The tool setter facilitates setting of tools, and fast and precise length compensation of abraded tool.



3.
Full sliding cover on tailstock guideway

Application of a full cover is to prevent the heat of chips from being transferred to the bed and guideway. The tailstock guideway can be protected and chips can be removed easily.

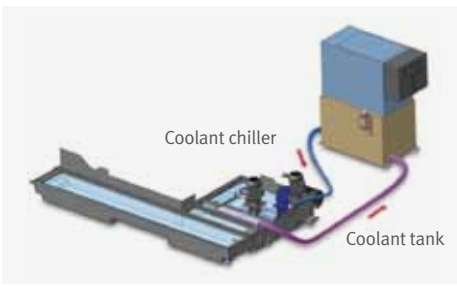
Oil skimmer option 20

The oil skimmer keeps coolant and lubricant isolated from each other for extending lifecycle of coolant.



Coolant chiller option 21

Detachable coolant chiller is recommended to keep thermal error minimal and get higher machining precision.



Part catcher option 34

The part catcher automatically accepts parts completed of machining, and ejects them out of the system.



Mist collector option 31

The mist collector absorbs airborne oil vapor and fine dusts in the system to improve working environment.



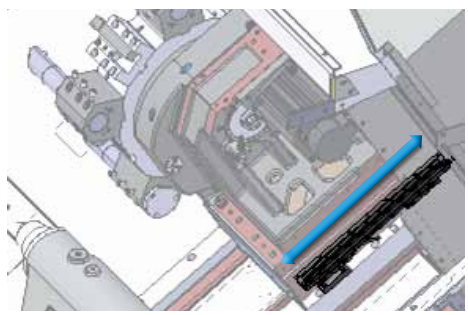
Collet chuck option

The collet chuck is ideal for loading workpiece of small diameter and light weight



Linear scale (X axis/Z axis) option 39

Linear scale is available to all axes for high accuracy.



DOOSAN-FANUC i

Apply Fanuc CNC on the Doosan machine to fulfill best performance and productivity

User-friendly OP Panel

The operation panel of new design enhances operating convenience by common buttons and positioning, and uses qwerty type keyboard for easy and fast operation.



10.4 inch Display

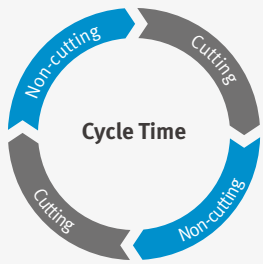
- **USB & PCMCIA card (Std.)**
- **Qwerty type keyboard**
- **Ergonomic new design**
- **Easy to put button switch for attached option**

Easy Operation Package

Doosan Easy Operation Package (EOP) supports the user with tool, help desk, operation, functionalities to maximize operational efficiency and user convenience.

Improve Productivity

Reduced non-cutting cycle time
10%



Non-cutting time during machining process is dramatically reduced to guarantee the highest productivity.

Operation / Maintenance



Tool load monitoring option

During cutting operation, abnormal load caused by wear or damage of the tool is detected and an alarm is triggered to prevent further damage.



Turret recovery help

The software is to help users recover turret step by step from trouble situation where it does not work. It can quickly recover your valuable machine.



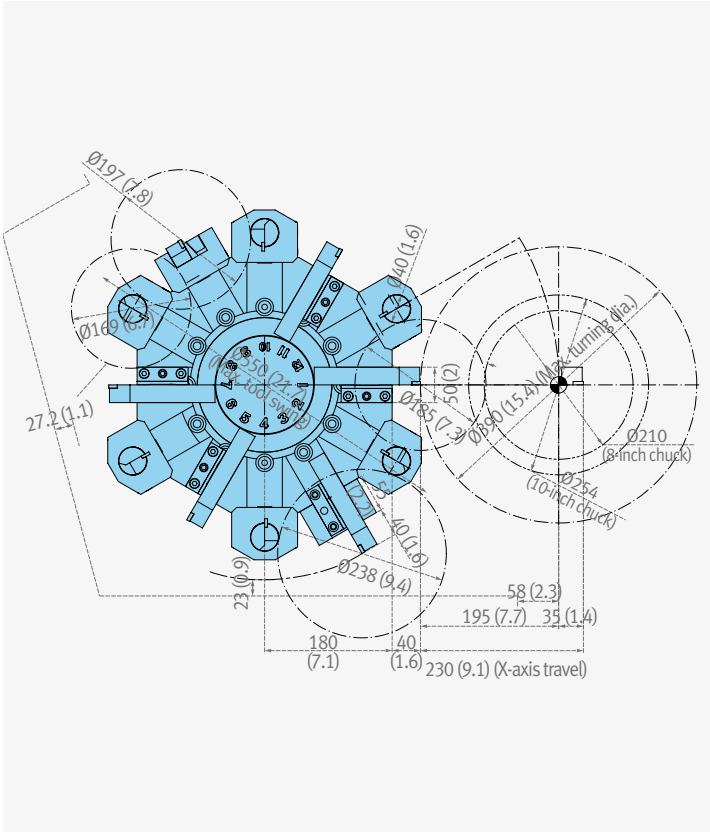
Work management

The function is capable of checking operation hours of the system, and quantity of finished workpieces.

Tool Interference Diagram

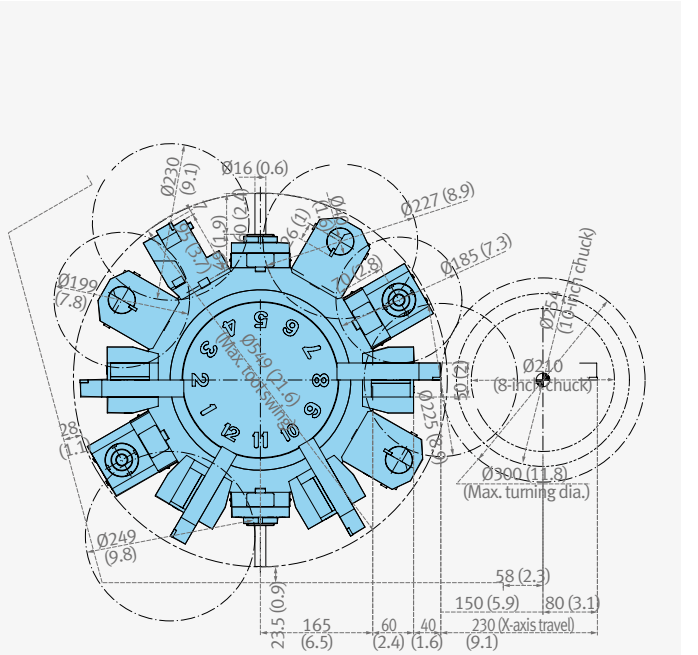
PUMA GT2100 (2axis, 12station)

Unit: mm (inch)



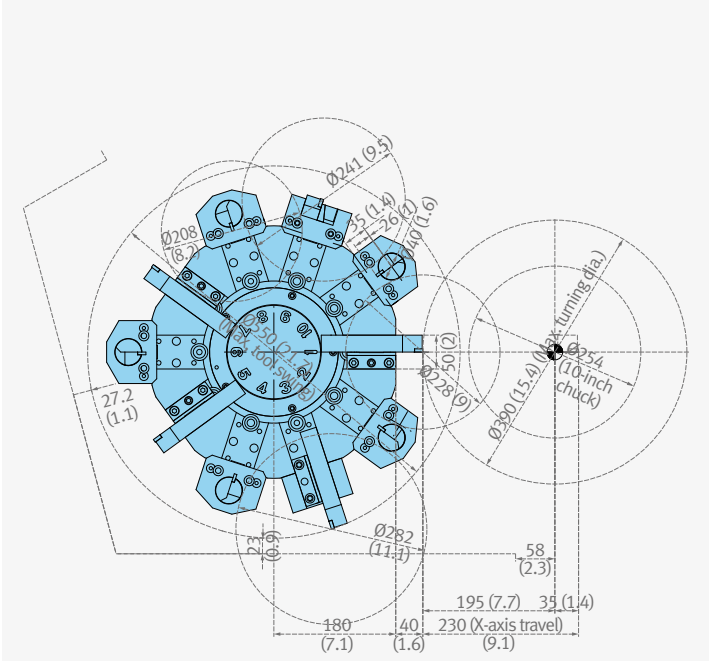
PUMA GT2100M (M, 12station, BMT55P)

Unit: mm (inch)



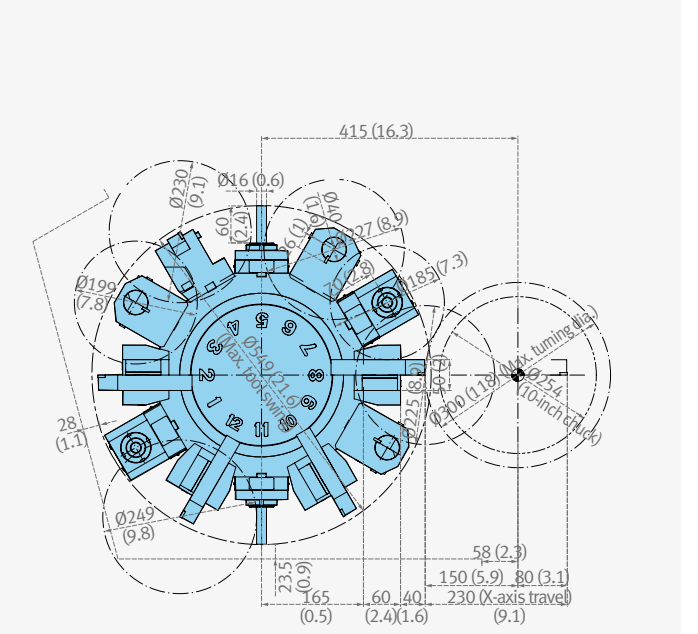
PUMA GT2100B (2axis, 10station)

Unit: mm (inch)



PUMA GT2100MB (M, 12station, BMT55P)

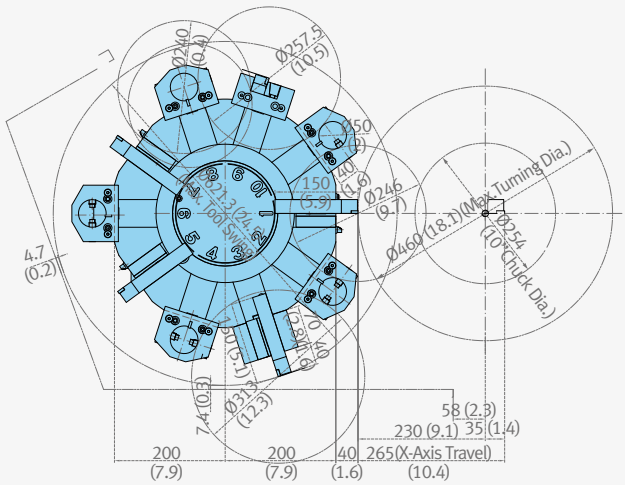
Unit: mm (inch)



Tool Interference Diagram

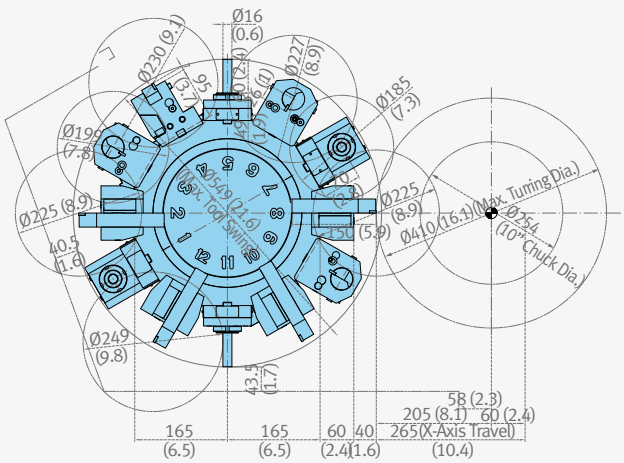
PUMA GT2600 (2axis, 10station)

Unit: mm (inch)



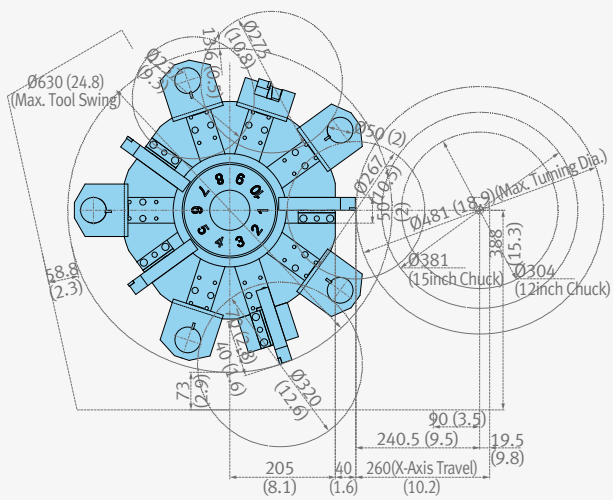
PUMA GT2600M (M, 12station, BMT55P)

Unit: mm (inch)



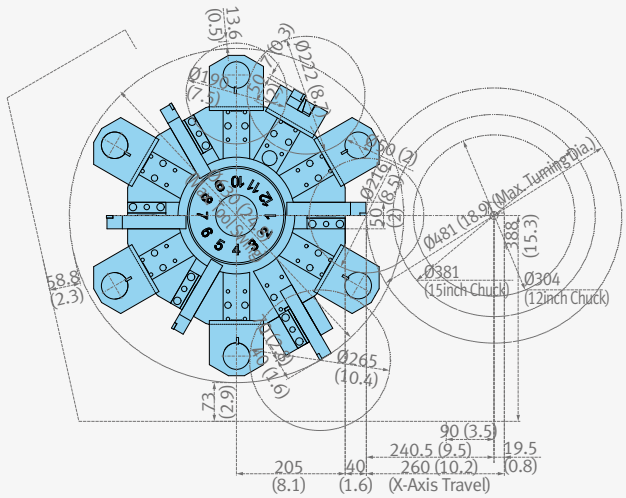
PUMA GT3100 (2axis, 10station)

Unit: mm (inch)



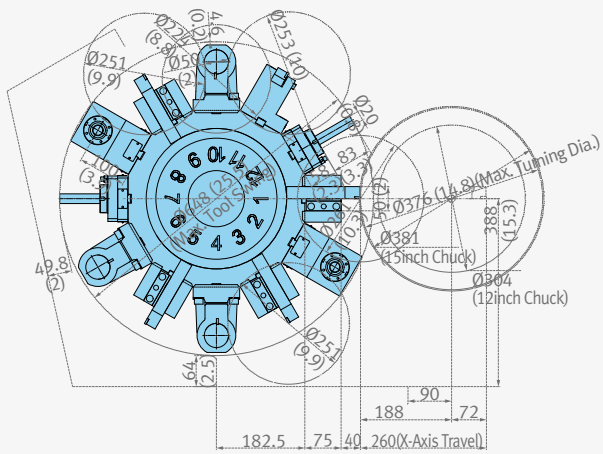
PUMA GT3100 (2axis, 12station, option)

Unit: mm (inch)



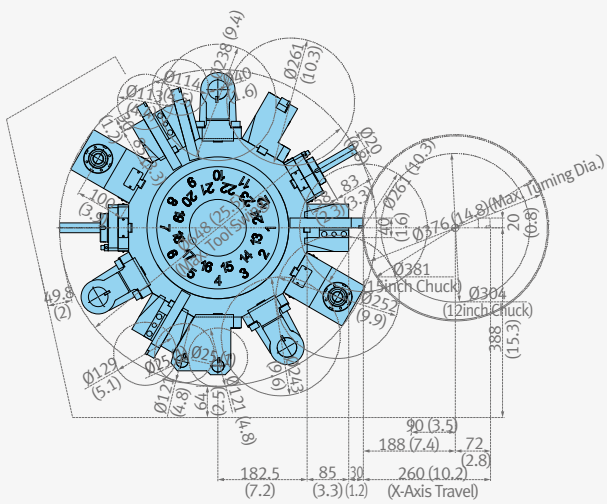
PUMA GT3100M (2axis, 12station)

Unit: mm (inch)



PUMA GT3100M (M, 24station, BMT65P option)

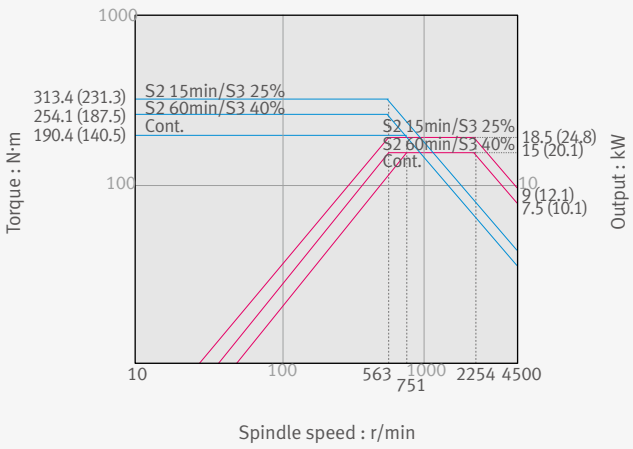
Unit: mm (inch)



Spindle Power – Torque Diagram

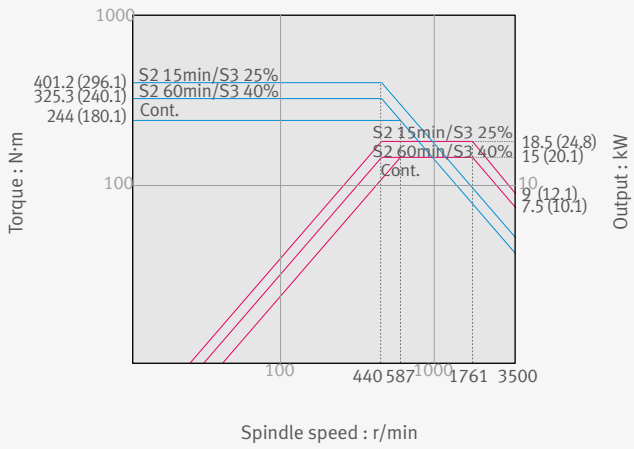
PUMA GT2100, PUMA GT2100M
PUMA GT2100/300, PUMA GT2100M/300

•NC: DOOSAN FANUC i
•Spindle speed: 4500 r/min



PUMA GT2100B, PUMA GT2100MB

•NC: DOOSAN FANUC i
•Spindle speed: 3500 r/min



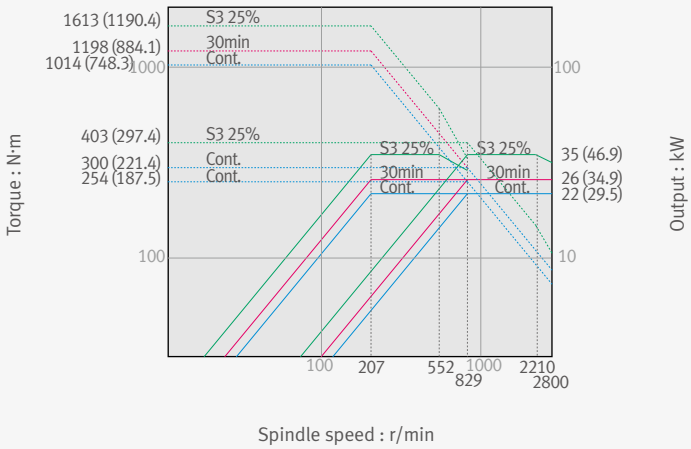
PUMA GT2600 series

•NC: DOOSAN FANUC i
•Spindle speed: 3500 r/min



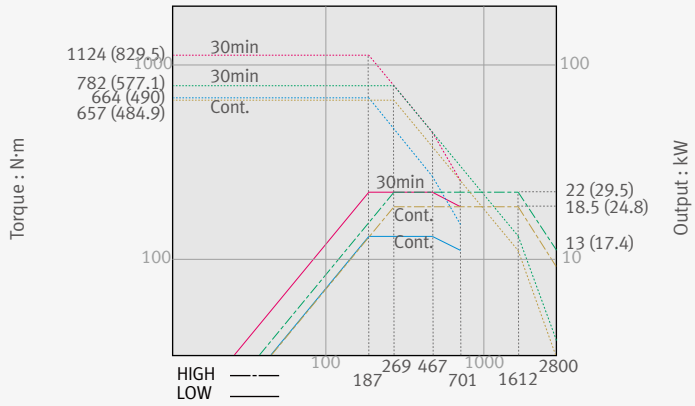
PUMA GT3100, PUMA GT3100L

- NC: DOOSAN FANUC i
- Spindle speed: 2800 r/min (Gear box)



PUMA GT3100M, PUMA GT3100LM

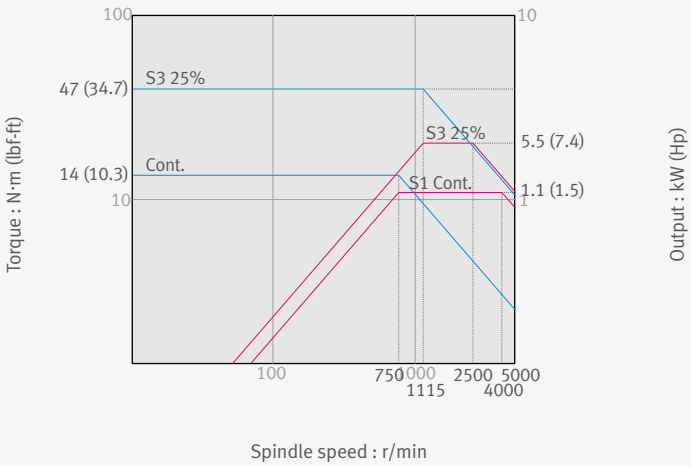
- NC: DOOSAN FANUC i
- Spindle speed: 2800 r/min



Rotary tool

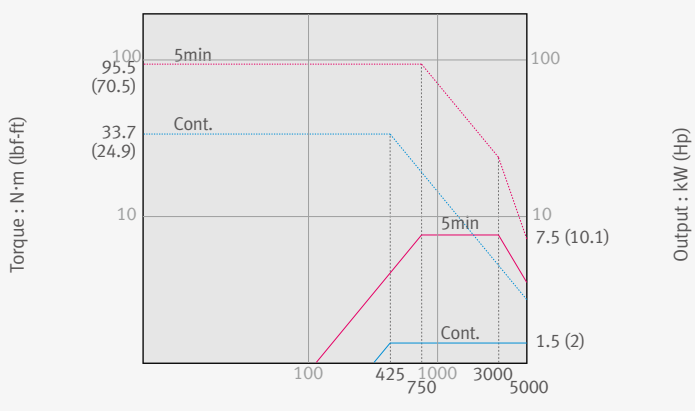
PUMA GT2100M/300, PUMA GT2100M, PUMA GT2100MB PUMA GT2600M, PUMA GT2600LM

- Rotary tool speed: 5000 r/min



PUMA GT3100M, PUMA GT3100LM

- Rotary tool speed: 5000 r/min

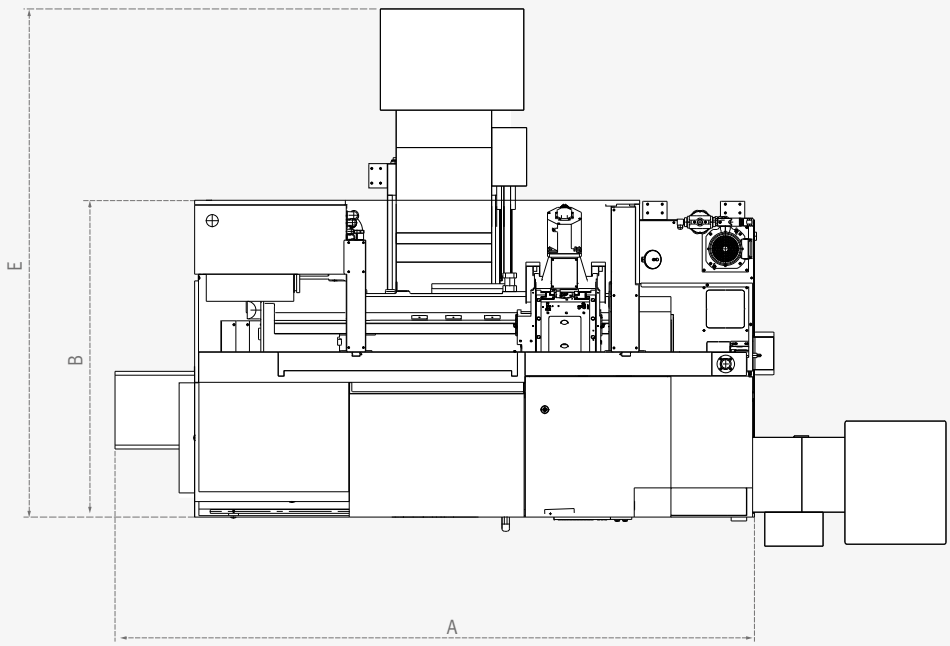


External Dimensions

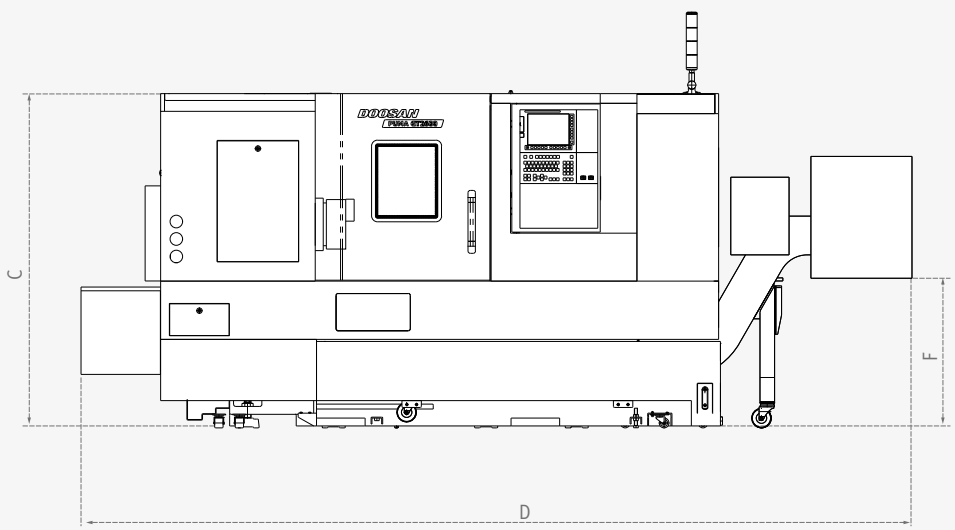
PUMA GT2100 / PUMA GT2600

Unit: mm (inch)

Top View



Front View



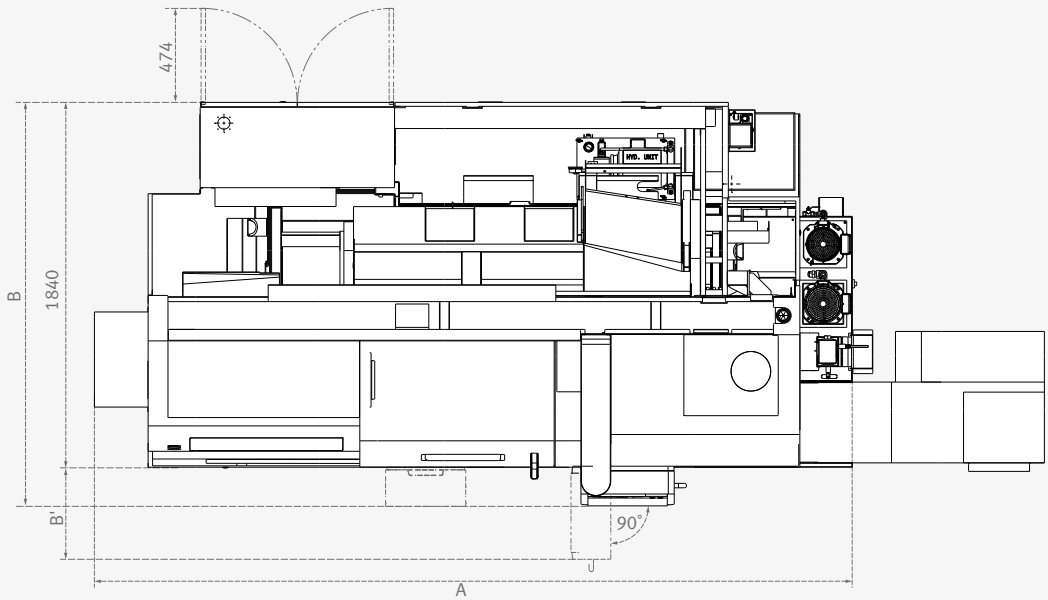
Model	A (Length)	B (Width)	C (Height)	D (Length with side type chip conveyor)		E (Width with rear type chip conveyor)		F (Height of chip outlet)**	
				Hinged belt	Screw	Hinged belt	Screw	Hinged belt	Screw
PUMA GT2100/300	2448(96.4)*	2448(96.4)*	1700(66.9)	3570(140.6)	3153(124.1)	2515(99.0)	2348(92.4)	800(31.5)	613(24.1)
PUMA GT2100	2940(115.7)	1628(64.1)	1700(66.9)	3895(153.3)	3478(136.9)	2588(101.9)	2348(92.4)	800(31.5)	613(24.1)
PUMA GT2100B	2985(117.5)	1628(64.1)	1700(66.9)	3940(155.1)	3523(138.7)	2588(101.9)	2348(92.4)	800(31.5)	613(24.1)
PUMA GT2600	3290(129.5)	1630(64.2)	1700(66.9)	4275(168.3)	3847.5(151.5)	2685(105.7)	2348(92.4)	800(31.5)	628(24.7)
PUMA GT2600L	3735(147.0)	1630(64.2)	1700(66.9)	4965(195.5)	4542(178.8)	(N/A)	(N/A)	800(31.5)	628(24.7)

*Specification with rear type coolant tank **Specification with side type chip conveyor

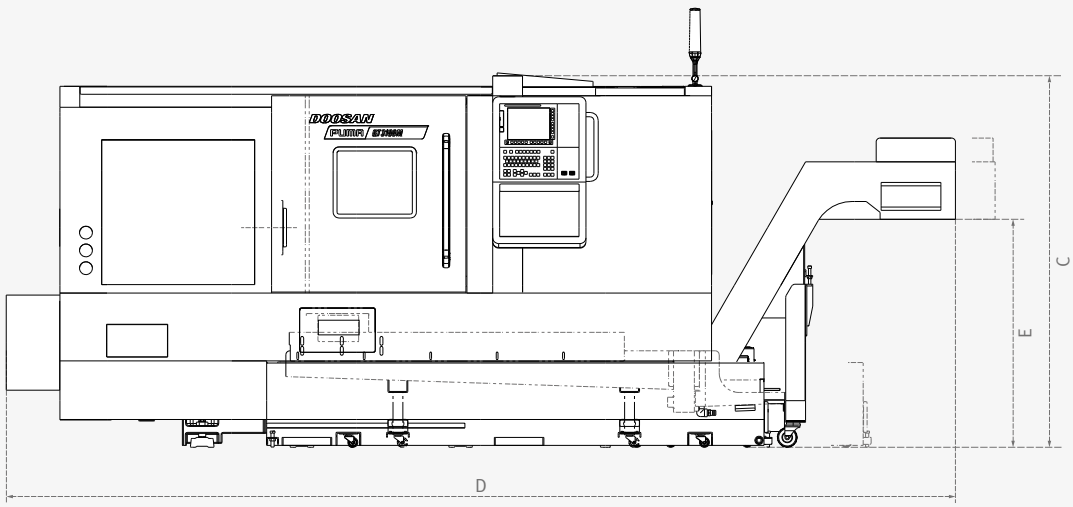
PUMA GT3100

Unit: mm (inch)

Top View



Front View



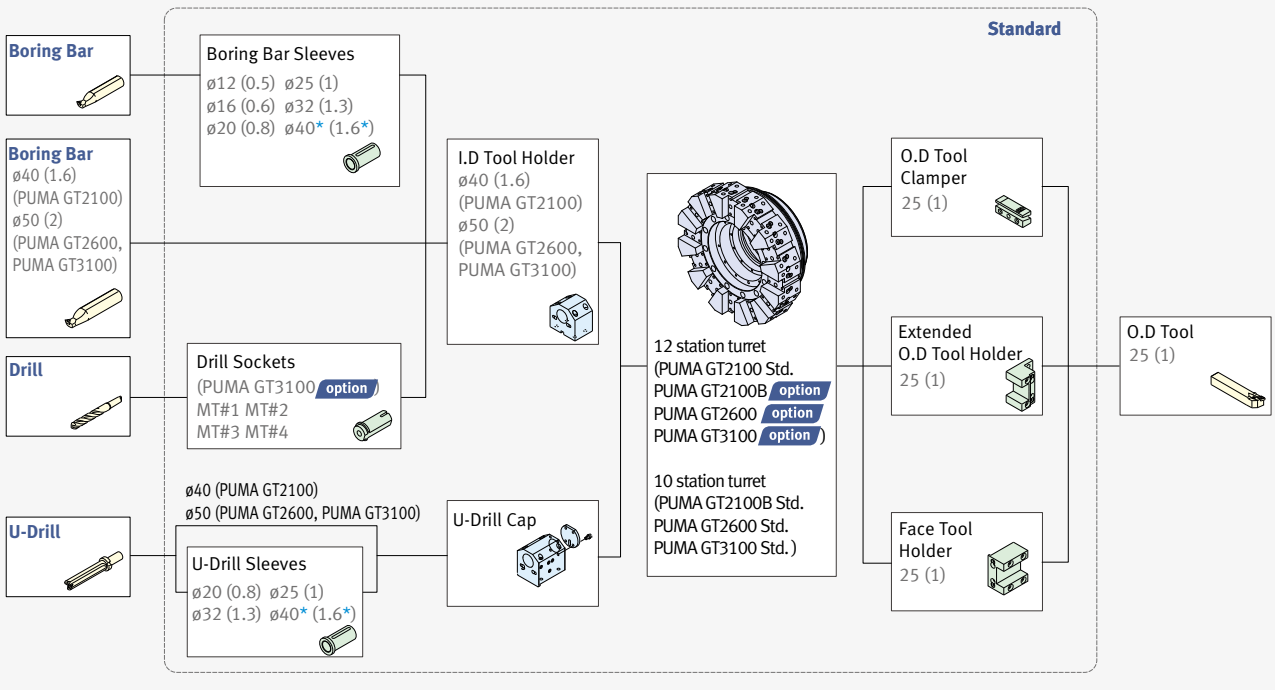
Model	A (Length)	B (Width)	B' (OP panel swivel range)	C (Height)	D (Length with side type chip conveyor)		E (Height of chip outlet)*		Width with rear type chip conveyor	
					Hinged belt	Screw	Hinged belt	Screw	Hinged belt	Screw
PUMA GT3100	4068 (160.2)	2035 (80.1)	465 (18.3)	1890 (74.4)	5033 (198.1)	4574 (180.1)	1150 (45.3)	624 (24.6)	Pre-discussion is required	(N/A)
PUMA GT3100M	3821 (150.4)				4786 (188.4)	4327 (170.4)				
PUMA GT3100L	4636 (182.5)	2035 (80.1)	755 (29.7)	2110 (83.1)	5775 (2.9)	(N/A)		(N/A)	(N/A)	
PUMA GT3100LM	4465 (175.8)				5604 (220.6)					

* Specification with side type chip conveyor

Tooling system

PUMA GT2100 / PUMA GT2600 / PUMA GT3100 (2axis, 10/12station)

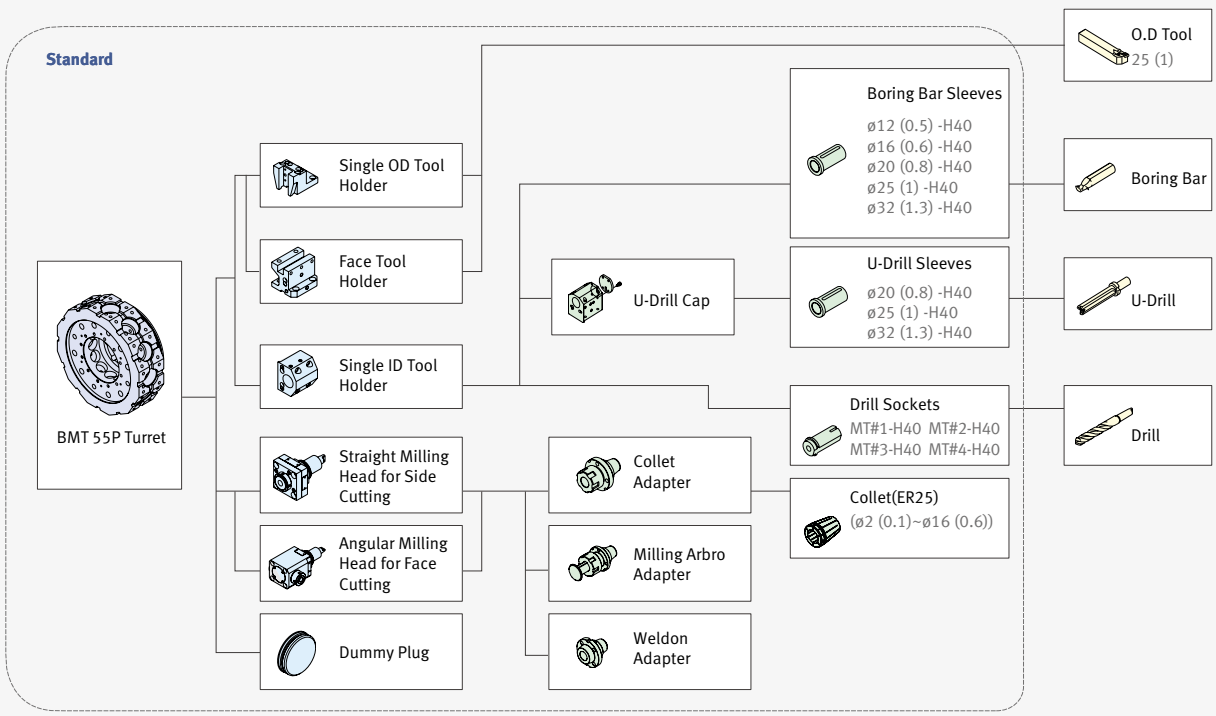
Unit: mm (inch)



*only for PUMA GT2600 / 3100

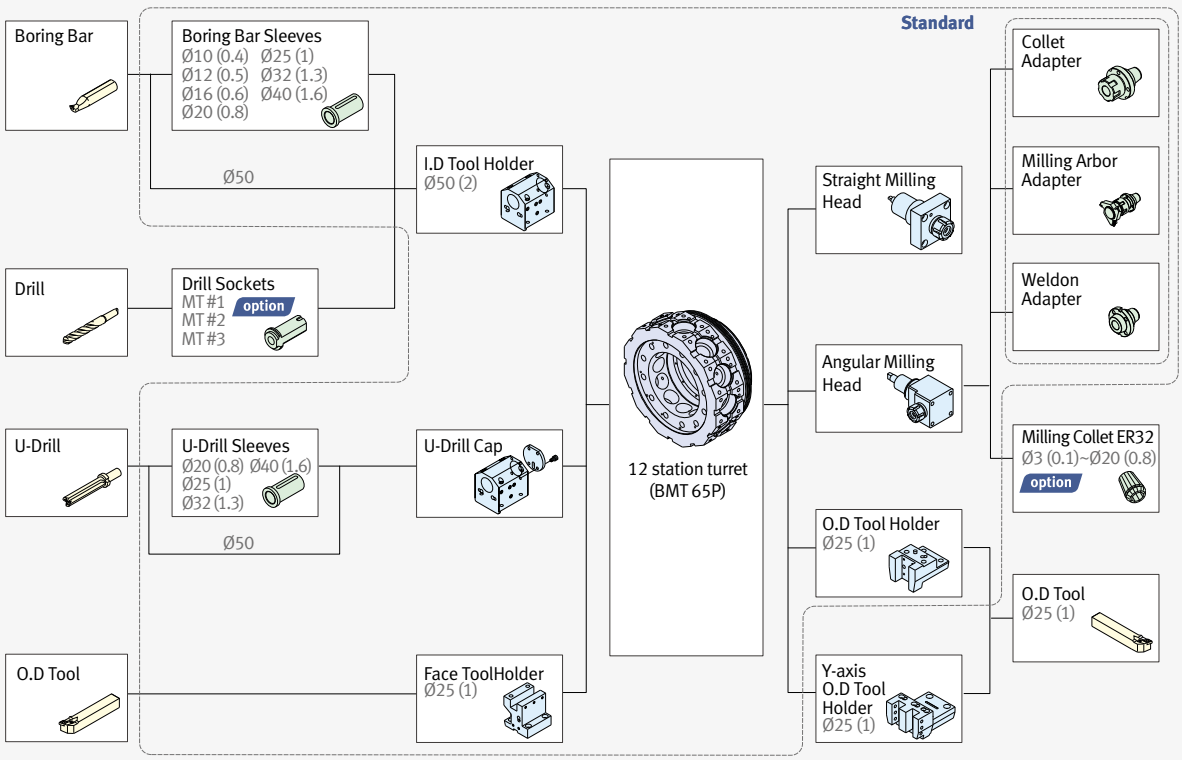
PUMA GT2100 / PUMA GT2600 (M, 12station, BMT55P)

Unit: mm (inch)



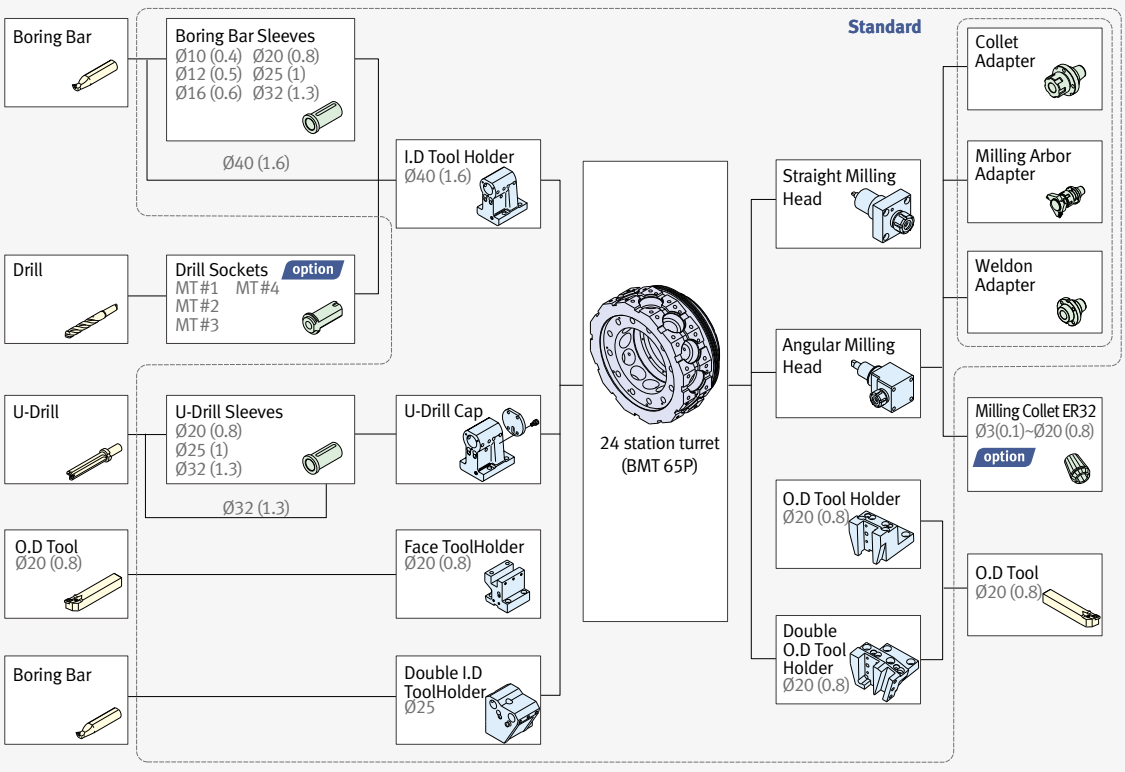
PUMA GT3100M / LM (12station, BMT65)

Unit: mm (inch)



PUMA GT3100M/LM (24station, BMT65P) option

Unit: mm (inch)

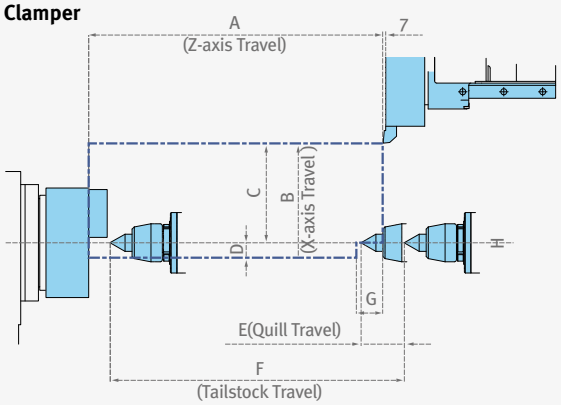


Working Range Diagram

PUMA GT2100 / PUMA GT2600 (2axis)

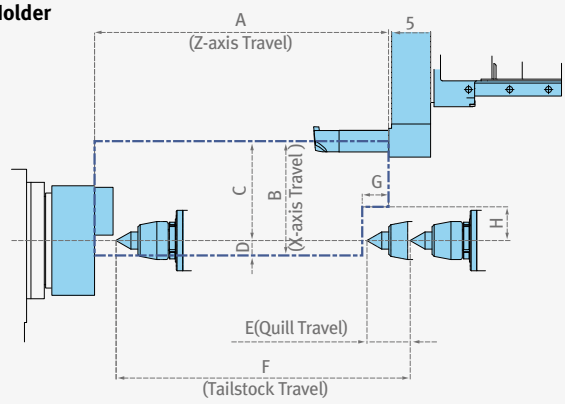
Unit: mm (inch)

OD Clamper



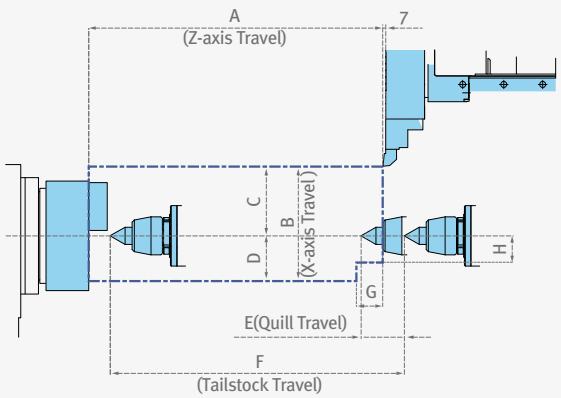
	A	B	C	D	E	F	G	H*
PUMA GT2100/300	330 (13.0)	230 (9.1)	195 (7.7)	35 (1.4)	-	-	-	-
PUMA GT2100	580 (22.8)	230 (9.1)	195 (7.7)	35 (1.4)	80 (3.1)	580 (22.8)	63 (2.5)	-20 (0.8)
PUMA GT2100B								
PUMA GT2600	680 (26.8)	265 (10.4)	230 (9.1)	35 (1.4)	100 (3.9)	680 (26.8)	61 (2.4)	0
PUMA GT2600L	1100 (43.3)		230 (9.1)	35 (1.4)	100 (3.9)	1100 (43.3)	61 (2.4)	0

ID Holder



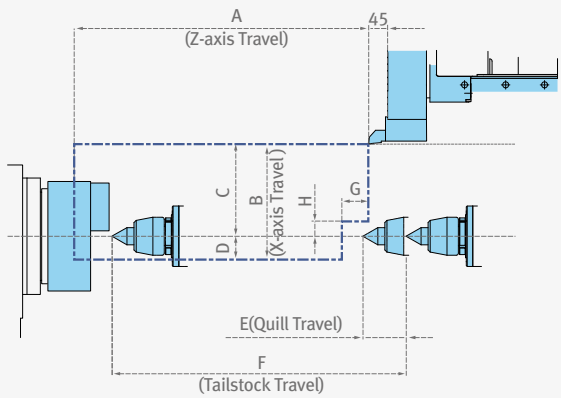
	A	B	C	D	E	F	G	H*
PUMA GT2100/300	330 (13.0)	230 (9.1)	200 (7.9)	30 (1.2)	-	-	-	-
PUMA GT2100	580 (22.8)	230 (9.1)	200 (7.9)	30 (1.2)	80 (3.1)	580 (22.8)	63 (2.5)	-15 (0.6)
PUMA GT2100B								
PUMA GT2600	680 (26.8)	265 (10.4)	230 (9.1)	35 (1.4)	100 (3.9)	680 (26.8)	61 (2.4)	78 (3.1)
PUMA GT2600L	1100 (43.3)		230 (9.1)	35 (1.4)	100 (3.9)	1100 (43.3)	61 (2.4)	78 (3.1)

Extended OD Holder



	A	B	C	D	E	F	G	H*
PUMA GT2100/300	330 (13.0)	230 (9.1)	140 (5.5)	90 (3.5)	-	-	-	-
PUMA GT2100	580 (22.8)	230 (9.1)	140 (5.5)	90 (3.5)	80 (3.1)	580 (22.8)	68 (2.7)	-75 (3.0)
PUMA GT2100B								
PUMA GT2600	680 (26.8)	265 (10.4)	160 (6.3)	105 (4.1)	100 (3.9)	680 (26.8)	61 (2.4)	-62 (2.4)
PUMA GT2600L	1100 (43.3)		160 (6.3)	105 (4.1)	100 (3.9)	1100 (43.3)	61 (2.4)	-62 (2.4)

Face Tool Holder



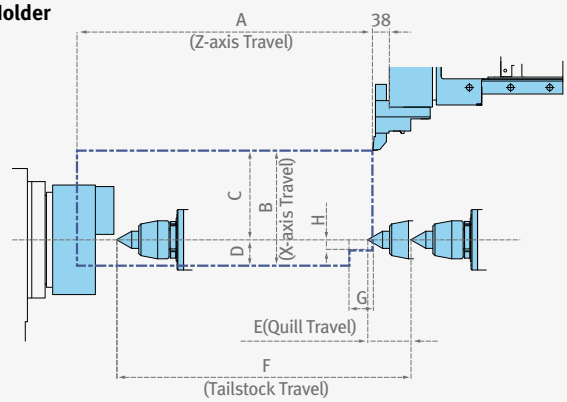
	A	B	C	D	E	F	G	H*
PUMA GT2100/300	330 (13.0)	230 (9.1)	178 (7.0)	52 (2.0)	-	-	-	-
PUMA GT2100	580 (22.8)	230 (9.1)	178 (7.0)	52 (2.0)	80 (3.1)	580 (22.8)	68 (2.7)	-37 (1.5)
PUMA GT2100B								
PUMA GT2600	680 (26.8)	265 (10.4)	213 (8.4)	52 (2.0)	100 (3.9)	680 (26.8)	61 (2.4)	35 (1.4)
PUMA GT2600L	1100 (43.3)		213 (8.4)	52 (2.0)	100 (3.9)	1100 (43.3)	61 (2.4)	35 (1.4)

* for H : (-) Downward direction of spindle center line / (+) Upward direction of spindle center line

PUMA GT2100M / PUMA GT2600M (M, BMT55P)

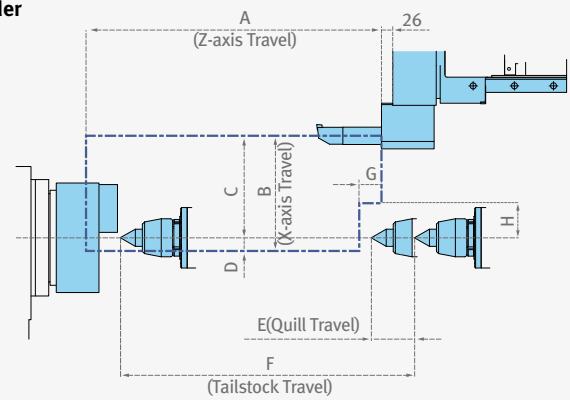
Unit: mm (inch)

OD Holder



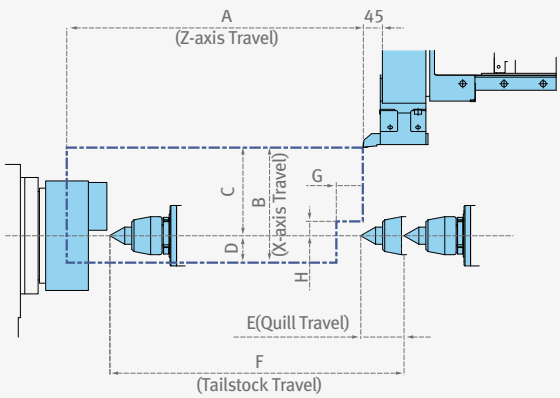
	A	B	C	D	E	F	G	H*
PUMA GT2100M/300	330 (13.0)	230 (9.1)	150 (5.9)	80 (3.1)	-	-	-	-
PUMA GT2100 M PUMA GT2100MB	580 (22.8)	230 (9.1)	150 (5.9)	80 (3.1)	80 (3.1)	580 (22.8)	77 (3.0)	-60 (2.4)
PUMA GT2600M	680 (26.8)	265 (10.4)	205 (8.1)	60 (2.4)	100 (3.9)	680 (26.8)	53 (2.1)	-25 (1.0)
PUMA GT2600LM	1100 (43.3)	265 (10.4)	205 (8.1)	60 (2.4)	100 (3.9)	1100 (43.3)	53 (2.1)	-25 (1.0)

ID Holder



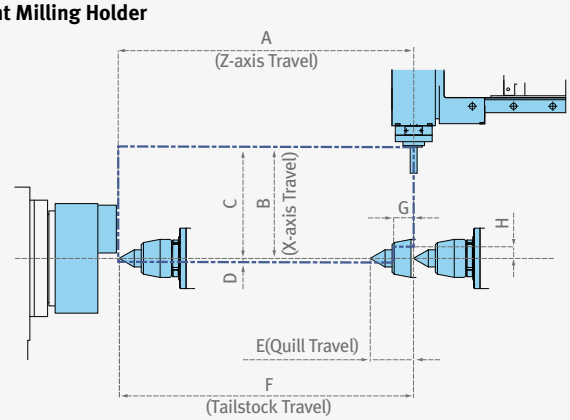
	A	B	C	D	E	F	G	H*
PUMA GT2100M/300	330 (13.0)	230 (9.1)	180 (7.1)	50 (2.0)	-	-	-	-
PUMA GT2100 M PUMA GT2100MB	580 (22.8)	230 (9.1)	180 (7.1)	50 (2.0)	80 (3.1)	580 (22.8)	77 (3.0)	-30 (1.2)
PUMA GT2600M	680 (26.8)	265 (10.4)	235 (9.3)	30 (1.2)	100 (3.9)	680 (26.8)	51 (2.0)	80 (3.1)
PUMA GT2600LM	1100 (43.3)	265 (10.4)	235 (9.3)	30 (1.2)	100 (3.9)	1100 (43.3)	51 (2.0)	80 (3.1)

Face Tool Holder



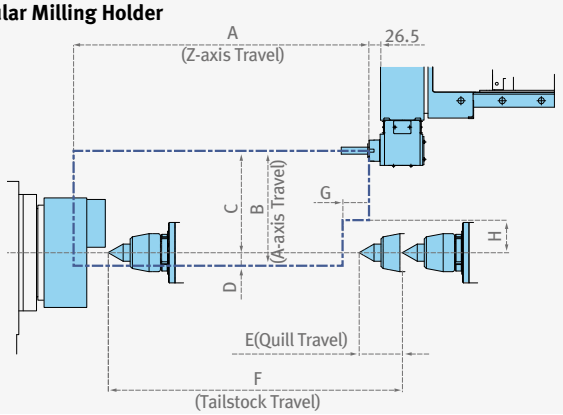
	A	B	C	D	E	F	G	H*
PUMA GT2100M/300	330 (13.0)	230 (9.1)	148 (5.8)	82 (3.2)	-	-	-	-
PUMA GT2100 M PUMA GT2100MB	580 (22.8)	230 (9.1)	148 (5.8)	82 (3.2)	80 (3.1)	580 (22.8)	77 (3.0)	-65 (2.6)
PUMA GT2600M	680 (26.8)	265 (10.4)	203 (8.0)	62 (2.4)	100 (3.9)	680 (26.8)	61 (2.4)	33 (1.3)
PUMA GT2600LM	1100 (43.3)	265 (10.4)	203 (8.0)	62 (2.4)	100 (3.9)	1100 (43.3)	61 (2.4)	33 (1.3)

Straight Milling Holder



	A	B	C	D	E	F	G	H*
PUMA GT2100M/300	330 (13.0)	230 (9.1)	201 (7.9)	29 (1.1)	-	-	-	-
PUMA GT2100 M PUMA GT2100MB	580 (22.8)	230 (9.1)	201 (7.9)	29 (1.1)	80 (3.1)	580 (22.8)	77 (3.0)	-9 (0.4)
PUMA GT2600M	680 (26.8)	265 (10.4)	256 (10.1)	9 (0.4)	100 (3.9)	680 (26.8)	46 (1.8)	26 (1.0)
PUMA GT2600LM	1100 (43.3)	265 (10.4)	256 (10.1)	9 (0.4)	100 (3.9)	1100 (43.3)	46 (1.8)	26 (1.0)

Angular Milling Holder



	A	B	C	D	E	F	G	H*
PUMA GT2100M/300	330 (13.0)	230 (9.1)	180 (7.1)	50 (2.0)	-	-	-	-
PUMA GT2100 M PUMA GT2100MB	580 (22.8)	230 (9.1)	180 (7.1)	50 (2.0)	80 (3.1)	580 (22.8)	77 (3.0)	-33 (1.3)
PUMA GT2600M	680 (26.8)	265 (10.4)	235 (9.3)	30 (1.2)	100 (3.9)	680 (26.8)	61 (2.4)	75 (3.0)
PUMA GT2600LM	1100 (43.3)	265 (10.4)	235 (9.3)	30 (1.2)	100 (3.9)	1100 (43.3)	61 (2.4)	75 (3.0)

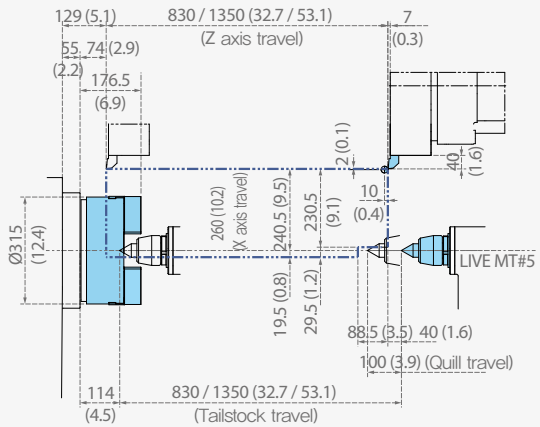
* for H : (-) Downward direction of spindle center line / (+) Upward direction of spindle center line

Working Range Diagram

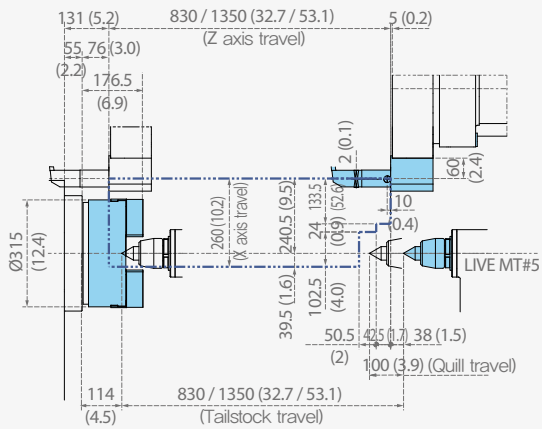
PUMA GT3100 / PUMA GT3100L (2axis)

Unit: mm (inch)

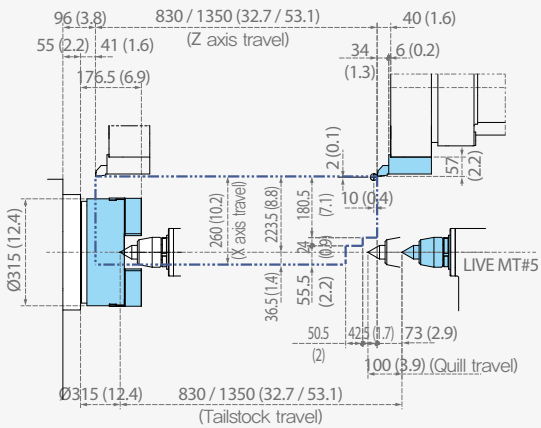
OD Holder



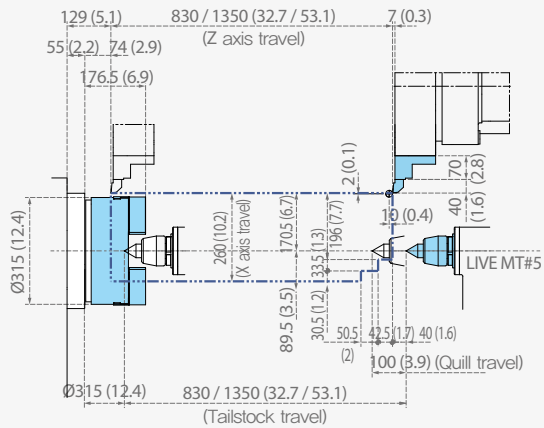
ID Holder



Face Tool Holder



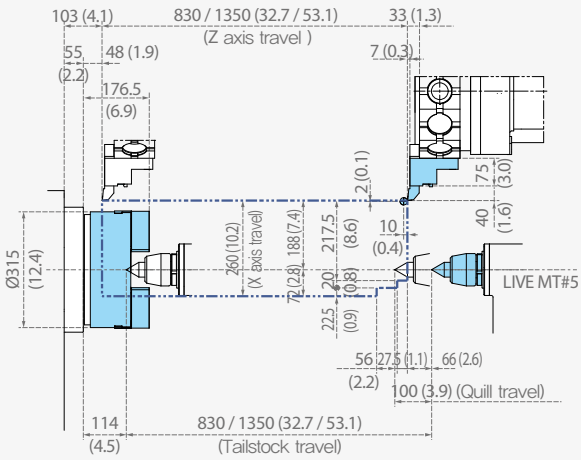
Extended OD Holder



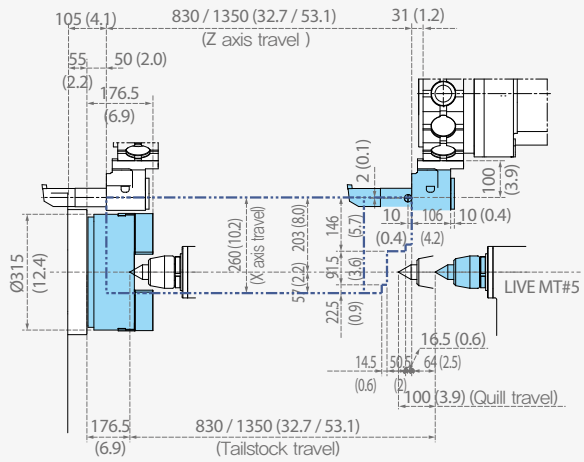
PUMA GT3100M / PUMA GT3100LM (M, BMT65P)

Unit: mm (inch)

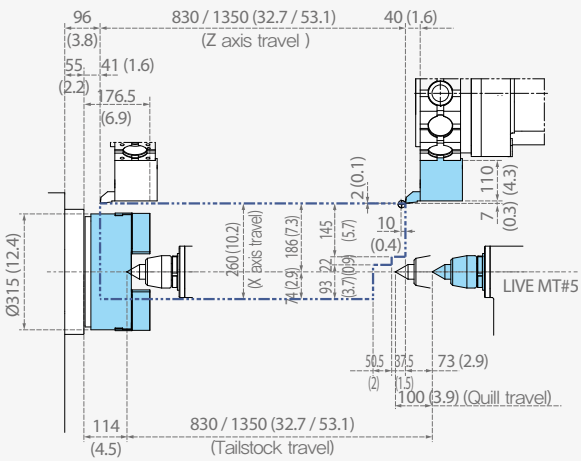
OD Holder



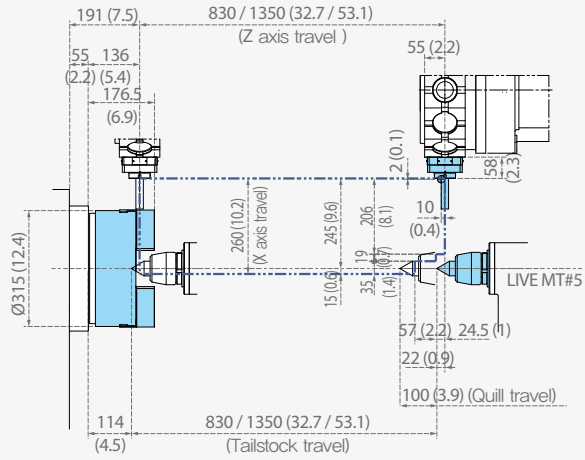
ID Holder



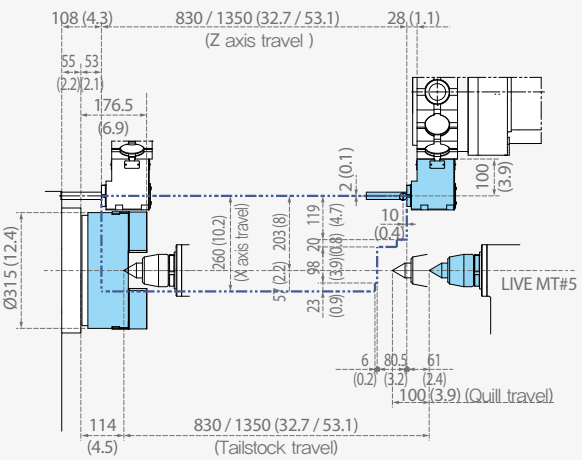
Face Tool Holder



Straight Milling Holder



Angular Milling Holder



Machine Specifications



Description			mm (inch)	PUMA GT2100 [/300]	PUMA GT2100M [M/300]
Capacity	Swing over bed		mm (inch)	600 (23.6)	
	Swing over saddle		mm (inch)	390 (15.4)	
	Recommanded turning dia.		mm (inch)	210 (8.3)	
	Max. turning dia.		mm (inch)	390 (15.4)	300 (11.8)
	Max turning length		mm (inch)	562 [312] (22.1 [12.3])	513 [263] (20.2 [10.4])
	Chuck size		inch	8 {10}*	
	Bar working dia.		mm (inch)	65 (2.6)	
Travels	Travel distance	X-axis	mm (inch)	230 (9.1)	
		Z-axis	mm (inch)	580 [330] (22.8 [13.0])	
Feedrates	Rapid Traverse Rate	X-axis	m/min (ipm)	24 (945)	
		Z-axis	m/min (ipm)	30 (1181)	
Main spindle	Max. Spindle speed		r/min	4500	
	Main spindle motor power		kW (Hp)	18.5 / 15 (25 / 20) (15min / cont.)	18.5 / 15 (25 / 20) (15min / cont.)
	Max. Spindle torque		N·m (lbf-ft)	313 (231)	
	Spindle nose		ASA	A2-6	
	Spindle bearing diameter (Front)		mm (inch)	110 (4.3)	
	Spindle through hole		mm (inch)	76 (3.0)	
	Min. spindle Indexing angle (C-axis)		deg	-	0.001
Turret	No. of tool stations		ea	12	12
	OD tool size		mm (inch)	25 x 25 (1 x 1)	
	Max. boring bar size		mm (inch)	40 (1.6)	
	Turret Indexing time (1 station swivel)		s	0.15	
	Max. Rotary tool speed		r/min	-	5000
	Rotary tool motor power		kW (Hp)	-	5.5 (7.4)
Tailstock	Tailstock travel		mm (inch)	580 [-] (22.8 [-])	
	Quill diameter		mm (inch)	80 [-] (3.1 [-])	
	Quill travel		mm (inch)	80 [-] (3.1 [-])	
	Quill bore taper		MT	MT#4 {#3(Dead)}* [-]	
Power source	Electric power supply (rated capacity)		kVA	29.04	30.43
Machine Dimensions	Length		mm (inch)	2940 [2285**] (115.7 [90.0**])	
	Width		mm (inch)	1628 [2448**] (64.1 [96.4**])	
	Height		mm (inch)	1700 (66.9)	
	Weight		kg (lbf)	3600 [3400] (7920 [7480])	3700 [3500] (8140 [7700])
Control	NC system			DOOSAN-FANUC i	

PUMA GT2100B	PUMA GT2100MB	PUMA GT2600 [L]	PUMA GT2600M [LM]	PUMA GT3100 [L]	PUMA GT3100M [LM]
600 (23.6)		630 (24.8)		720 (28.3)	
390 (15.4)		460 (18.1)		590 (23.2)	
255 (10.0)		255 (10.0)		305 (12.0)	
390 (15.4)	300 (11.8)	460 (18.1)	410 (16.1)	481 (18.9)	376 (14.8)
550 (21.7)	501 (2.9)	658 [1078] (25.9 [42.4])	610 [1030] (24.0 [40.6])	755 [1275] (2.9 [50.2])	725 [1245] (28.5 [49.0])
10 {12}*		10 {12}*		12	
81 (3.2)		81 (3.2)		102 (4.0)	
230 (9.1)		265 (10.4)		260 (10.2)	
580 (22.8)		680 [1100] (26.8 [43.3])		830 [1350] (32.7 [53.1])	
24 (945)		24 (945)		24 (945)	
30 (1181)		30 (1181)		30 (1181)	
3500		3500		2800	2800
18.5 / 15 (25 / 20) (15min/cont.)	18.5 / 15 (25 / 20) (15min / cont.)	22 / 18.5 (30 / 25) (30min / cont.)	22 / 18.5 (30 / 25) (30min / cont.)	35 / 26 / 22 (S3 25% / 30min / cont.)	22 / 18.5 (30 / 25) (30min/cont.)
401.2 (296)		622 (459)		1613 (1190.4)	1123 (828.8)
A2-8		A2-8		A2-11	
140 (5.5)		140 (5.5)		160 (6.3)	
91 (3.6)		91 (3.6)		115 (4.5)	
-	0.001	-	0.001	-	0.001
10 {12}	12	10 {12}*	12	10 {12}	12 {24 position index}*
25 x 25 (1 x 1)		25 x 25 (1 x 1)		25 x 25 (1 x 1)	
40 (1.6)		50 (2.0)	40 (1.6)	50 (2.0)	
0.15		0.15		0.15	
-	5000	-	5000	-	5000
-	5.5 (7.4)	-	5.5 (7.4)	-	7.5 (10.1)
580 (22.8)		680 [1100] (26.8 [43.3])		830 [1350] (26.8 [45.3])	
80 (3.1)		100 (3.9)		100 (3.9)	
80 (3.1)		100 (3.9)		100 (3.9)	
MT#4 {#3(Dead)}*		MT#5 {#4(Dead)}*		MT#5 {#4(Dead)}*	
29.04	30.43	38.41		36	34
2985 (117.5)		3290 [3735] (129.5 [147.0])		4068 [4636] (160.2 [182.5])	3821 [4465] (150.4) [175.8])
1628 (64.1)		1630 (64.2)		2035 [2325] (80.1 [91.5])	
1700 (66.9)		1720 (67.7)		1890 [2110] (74.4 [83.1])	
3700 (8140)	3800 (8360)	4700 [5700] (10340 [12540])	4900 [5900] (10780 [12980])	5500 [6900] (216.5 [271.7])	5650 [7050] (222.4 [(277.6])
DOOSAN-FANUC i		DOOSAN-FANUC i		DOOSAN-FANUC i	

* { } : option ** PUMA GT2100/300 & PUMA GT2100M/300 : with Rear type coolant tank

*** The specifications and information above-mentioned may be changed without prior notice. For more details, please contact Doosan

NC Unit Specifications

● standard features ○ option X Not available

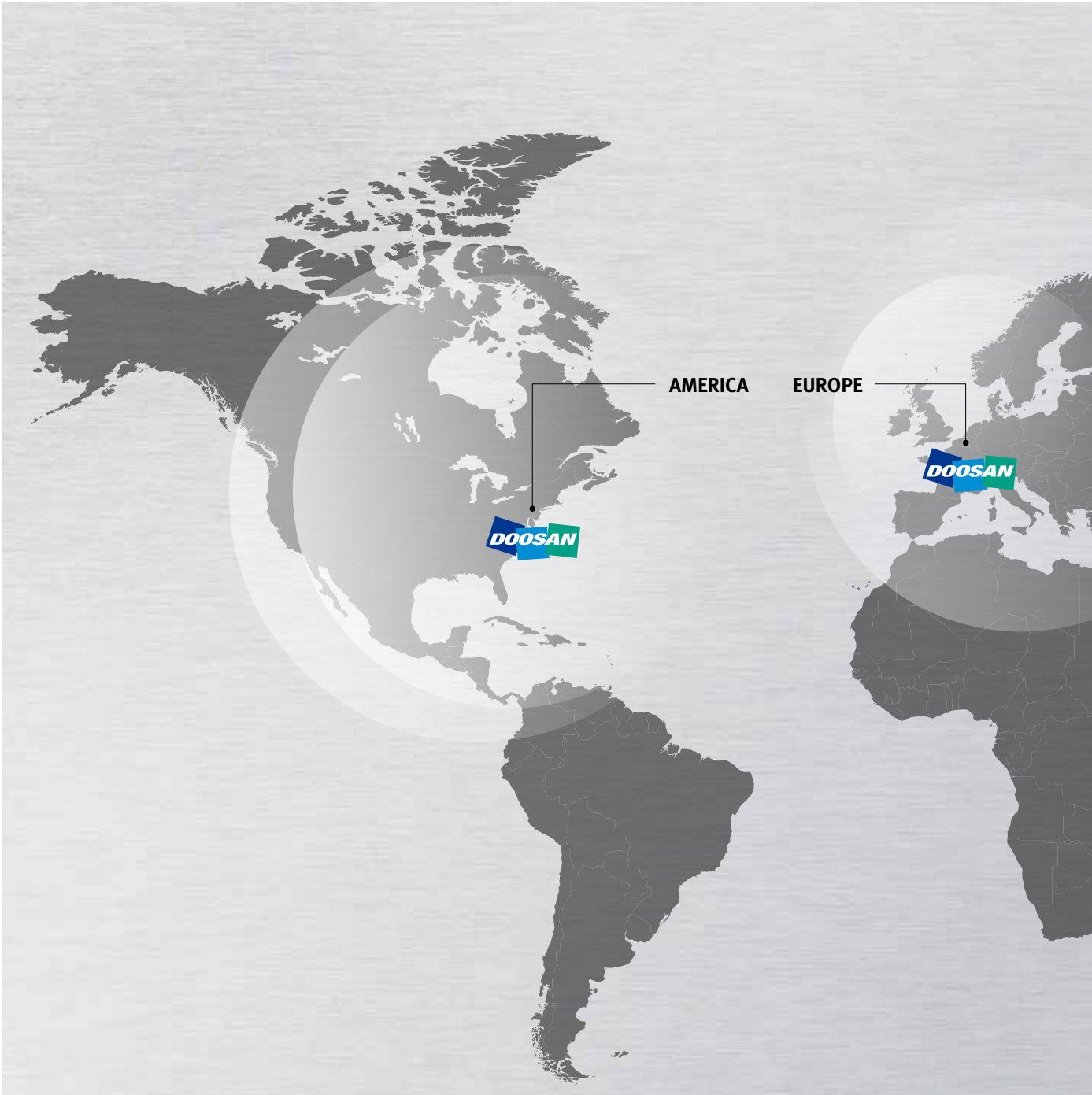
DOOSAN-FANUC i

No.	Item		Specification	2-Axis	M
1	Controlled axis	Controlled axes		2(X, Z)	3(X, Z, C)
2		Simultaneously controlled axes		2 axes	3 axes
3		Cs contouring control		X	●
4		Torque control		●	●
5		HRV2 control		●	●
6		Inch/metric conversion		●	●
7		Stored stroke check 1		●	●
8		Stored stroke check 2,3		●	●
9		Stored limit check before move		●	●
10		Chamfering on/off		●	●
11		Unexpected disturbance torque detection function		●	●
12		Position switch		●	●
13	Operation	DNC operation	Included in RS232C interface.	●	●
14		DNC operation with memory card		●	●
15		Wrong operation prevention		●	●
16		Dry run		●	●
17		Single block		●	●
18		Reference position shift		●	●
19		Handle interruption		○	○
20		Incremental feed	x1,x10,x100	●	●
21		Manual handle retrace		○	○
22	Interpolation functions	Nano interpolation		●	●
23		Linear interpolation		●	●
24		Circular interpolation		●	●
25		Polar coordinate interpolation		X	●
26		Cylindrical interpolation		X	●
27		Helical interpolation		X	○
28		Thread cutting, synchronous cutting		●	●
29		Multi threading		●	●
30		Thread cutting retract		●	●
31		Continuous threading		●	●
32		Variable lead thread cutting		●	●
33		Polygon machining with two spindles		X	●
34		High-speed skip	Input signal is 8 points.	○	○
35		2nd reference position return	G30	●	●
36		3rd/4th reference position return		●	●
37	Feed function	Override cancel		●	●
38		AI contour control I		○	○
39		AI contour control II		○	○
40		Rapid traverse block overlap		●	●
41	Program input	Optional block skip	9 pieces	●	●
42		Absolute/incremental programming	Combined use in the same block	●	●
43		Diameter/Radius programming		●	●
44		Automatic coordinate system setting		●	●
45		Workpiece coordinate system	G52 - G59	●	●

● standard features ○ option X Not available

No.	Item		Specification	2-Axis	M
46	Program input	Workpiece coordinate system preset		●	●
47		Direct drawing dimension programming		●	●
48		G code system	A	●	●
49		G code system	B/C	●	●
50		Chamfering/Corner R		●	●
51		Custom macro		●	●
52		Addition of custom macro common variables	#100 - #199, #500 - #999	●	●
53		Interruption type custom macro		●	●
54		Canned cycle		●	●
55		Multiple repetitive cycles	G70~G76	●	●
56		Multiple repetitive cycles II	Pocket profile	●	●
57		Canned cycle for drilling		●	●
58		Coordinate system shift		●	●
59		Direct input of coordinate system shift		●	●
60		Pattern data input		●	●
61	Operation Guidance Function	EZ Guidei(Conversational Programming Solution)		●	●
62		EZ Operation package		●	●
63	Auxiliary/Spindle speed function	Constant surface speed control		●	●
64		Spindle override	0 - 150%	●	●
65		Spindle orientation		●	●
66		Rigid tap		●	●
67		Arbitrary speed threading		○	○
68	Tool function/ Tool compensation	Tool offset pairs	128-pairs	●	●
69		Tool offset pairs	200-pairs	○	○
70		Tool offset		●	●
71		Tool radius/Tool nose radius compensation		●	●
72		Tool geometry/wear compensation		●	●
73		Automatic tool offset	G36/G37	●	●
74		Direct input of offset value measured B		●	●
75		Tool life management		●	●
76	Accuracy compensation function	Backlash compensation for each rapid traverse and cutting feed		●	●
77		Stored pitch error compensation		○	○
78	Editing operation	Part program storage size & Number of registerable programs	1280M(512KB)_400 programs	●	●
79		Part program storage size & Number of registerable programs	5120M(2MB)_400 programs	○	○
80		Program protect		●	●
81		Password function		●	●
82		Playback		●	●
83	Data input/output	Fast data server		○	○
84		External data input		●	●
85		Memory card input/output		●	●
86		USB memory input/output		●	●
87		Automatic data backup		○	○
88	Interface function	Embedded Ethernet		●	●
89		Fast Ethernet		○	○
90	Others	Display unit	10.4" color LCD	●	●
91		Robot interface	Robot interface with PMC I/O module	○	○
92			Robot interface with PROFIBUS-DP	○	○

Responding to Customers Anytime, Anywhere



Global Service Support Network

Corporations	Dealer Networks	Technical Centers	Factories
5	122	18	3

Technical Center: Sales Support, Service Support, Parts Support

Doosan Machine Tools' Global Network, Responding to Customer's Needs nearby, Anytime, Anywhere

Doosan machine tools provides a system-based professional support service before and after the machine tool sale by responding quickly and efficiently to customers' demands. By supplying spare parts, product training, field service and technical support, we can provide top class support to our customers around the world.



Domestic Service Support Network

Integrated Support Centers	Sales Branch Offices	Post-Sales Service Centers	Designated Repair Service Centers
2	7	6	31

Customer Support Service

We help customers to achieve success by providing a variety of professional services from pre-sales consultancy to post-sales support.

Supplying Parts

- Supplying a wide range of original Doosan spare parts
- Parts repair service

Field Services

- On site service
- Machine installation and testing
- Scheduled preventive maintenance
- Machine repair

Technical Support

- Supports machining methods and technology
- Responds to technical queries
- Provides technical consultancy

Training

- Programming / machine setup and operation
- Electrical and mechanical maintenance
- Applications engineering

Major Specifications

PUMA GT series



Description	Unit	PUMA GT2100	PUMA GT2600	PUMA GT3100
Max. turning dia.	mm (inch)	390 (15.4)	460 (18.1)	481 (18.9)
Max. turning length	mm (inch)	562 (22.1)	658 (25.9)	755 (29.7)
Standard chuck size	inch	8	10	12
Bar working dia.	mm (inch)	65 (2.6)	81 (3.2)	102 (4.0)
Max. spindle speed	r/min	4500	3500	2800
Max spindle power	kW (Hp)	18.5 (24.8)	22 (29.5)	35 (46.9)
NC system		DOOSAN FANUC i		

* Standard machine specification

Doosan Machine Tools

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