



Optimal Solutions for the Future

PUMA 4100/5100XL series



**Powerful Heavy-duty
Turning center with
Max. turning length
3m**

**PUMA 4100XL series
PUMA 5100XL series**

ver. EN 160609 SU

Basic structure

In order to reach high stability and quality, main structure is made with the help of high-level casting.

Structural stability of box guideway

The machine series is enough to cut hard material. PUMA 4100/5100XL series has been developed as one of PUMA 4100/5100 line-up.



Model	Chuck size (inch)	Standard model (Max. turning length 1m)			L(Long)-model (Max. turning length 2m)			XL(Extra long)-model (Max. turning length 3m)			
		2-axis	M	Y	2-axis	M	Y	2-axis	M	Y	
PUMA 4100 series	A	12	○	○	-	○	○	-	○	○	-
	B	15	○	○	-	○	○	-	○	○	-
	C	21	○	○	-	○	○	-	○	○	-
PUMA 5100 series	A	15	○	○	-	○	○	○	○	○	-
	B	21	○	○	-	○	○	○	○	○	-
	C	Big bore	○	-	-	○	-	○	○	-	-

Machining area

The best-in-class spindle motor power and turning area that makes it optimized for the heavy duty cutting for mid-to-large-sized parts.

Various machine line-up and wide range of machining

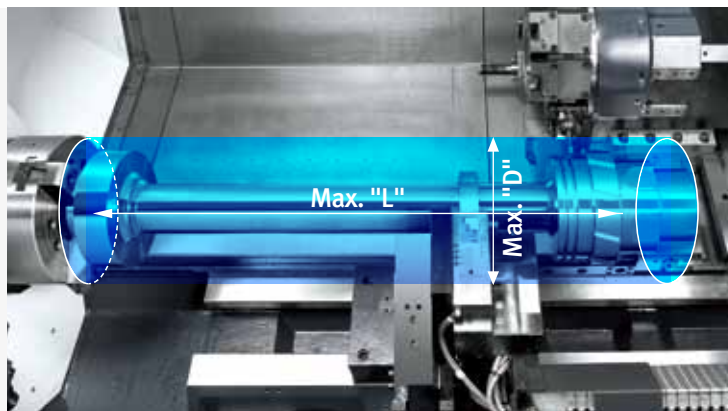
To meet the variety of customers industry, PUMA 4100/5100 series has total 36 models with a variety of spindle and working range.

Max. turning dia. (Max. "D")

ø650*mm
(ø25.6 inch)

Max. turning length (Max. "L")

3042*mm
(119.8 inch)



Function	Model	Max. "D" mm(inch)	Max. "L" mm(inch)
2-axis (for Turning)	PUMA 4100A/LA/XLA	550 (21.7)	1074 / 2124 / 3152 (42.3 / 83.6 / 124.1)
	PUMA 4100B/LB/XLB	550 (21.7)	1042 / 2092 / 3120 (41 / 82.4 / 122.8)
	PUMA 4100C/LC/XLC	550 (21.7)	1002 / 2052 / 3080 (39.4 / 80.8 / 121.3)
	PUMA 5100A/LA/XLA	650 (25.6)	1032 / 2082 / 3082 (40.6 / 82.0 / 121.3)
	PUMA 5100B/LB/XLB	650 (25.6)	992 / 2042 / 3042 (39.1 / 80.4 / 119.8)
	PUMA 5100C/LC/XLC	650 (25.6)	992 / 2042 / 3042 (39.1 / 80.4 / 119.8)
M-model (for Turn-Milling)	PUMA 4100MA/LMA/XLMA	560 (22.0)	1010 / 2060 / 3100 (39.8 / 81.1 / 122.0)
	PUMA 4100MB/LMB/XLMB	560 (22.0)	978 / 2028 / 3068 (38.6 / 79.9 / 120.8)
	PUMA 4100MC/LMC/XLMC	560 (22.0)	938 / 1988 / 3028 (36.9 / 78.2 / 119.2)
	PUMA 5100MA/LMA/XLMA	650 (25.6)	992 / 2042 / 3068 (39 / 80.4 / 120.8)
	PUMA 5100MB/LMB/XLMB	650 (25.6)	952 / 2002 / 3028 (37.5 / 78.8 / 119.2)
Y-axis model (for Turn-Milling)	PUMA 5100LYA/LYB/LYC	550 (21.7)	2050 / 2020 / 2020 (80.7 / 79.5 / 79.5)

* PUMA 5100XLB / XLC

Spindle

A variety of spindle motor and spindle through hole (Spindle bore) sizes are available to meet customers' application.

Spindle variation to meet various needs

PUMA 4100/510 series has various spindle through hole upto 275mm(10.8-inch). Both high capacity spindle of up to 45kW(60.3Hp) and 2-step gear box ensure unrivalled power and machining capacity.

Max. spindle through hole diameter	Model	Max. spindle through hole diameter mm(inch)
Ø275mm (Ø10.8 inch)	PUMA 4100	A 115 (4.5)
		B 132 (5.2)
		C 181 (7.1)
	PUMA 5100	A 132 (5.2)
		B 181 (7.1)
		C 275 (10.8)



Max. spindle speed **1500* r/min**

Max. spindle power (30min/cont.) **45/37* kW**
(60.3 / 49.6 Hp)

Max. spindle torque **2957* N·m**
(2182.3 ft-lb)

* PUMA 5100MB / LMB / XLMB

Tailstock

High rigidity of hydraulic tailstock is available as standard to provide stable support of long workpieces.


Proven quality of tailstock for Long tube machining

The tailstock supported by hardened and ground boxed ways is structurally one-piece with the machine base to ensure the best structural rigidity. Its rigid quill supports heavy work pieces while maintaining machining accuracy.

Tailstock travel **3070* mm (120.9 inch)**

Quill travel & diameter **120* mm (4.7 inch)**

Live center **MT#6**
Option : Built-in Dead center MT#5



* PUMA 4100/5100XL series

Turret

Servo-driven turret has enhanced customer satisfaction and trust through a faster and more stable rotation of the tool station.

Servo driven Turret


The 2-axis(for Turning) machine comes with a 10 or 12 station turret depending on the model, while M/Y-models are equipped with 12-station turret.

2-axis(for turning) model

No. of tool stations

PUMA 4100A series
12 ea (std.)
10 ea option

PUMA 4100B/C series
PUMA 5100 series
10 ea (std.) **12 ea** option



M,Y Model

BMT75P

No. of tool stations
12 ea



Major Specifications

PUMA 4100 / 5100XL series



Description	Unit	PUMA 4100XL series		PUMA 5100XL series	
		A / B / C	MA / MB / MC	A / B / C	MA / MB
Max. turning diameter	mm (inch)	550 (21.7)		650 (25.6)	
Max. turning length	mm (inch)	3152 / 3120 / 3080 (124.1 / 122.8 / 121.3)	3100 / 3068 / 3028 (122 / 120.8 / 119.2)	3082 / 3042 / 3042 (121.3 / 119.8 / 119.8)	3068 / 3028 (120.8 / 119.2)
Chuck size	inch	12 / 15 / 21		15 / 21 / Order made	
Spindle through hole diameter	mm (inch)	115 / 132 / 181 (4.5 / 5.2 / 7.1)		132 / 181 / 275 (5.2 / 7.1 / 10.8)	132 / 181 (5.2 / 7.1)
Max. spindle speed	r/min	3000 / 2000 / 1500		2000 / 1500 / 1000	2000 / 1500
Spindle motor power (30min./cont.)	kW (Hp)	A / B - model : 35 / 26 / 22 (46.9 / 34.9 / 29.5)* C - model : 37 / 30 (49.6 / 40.2)	MA / MB - model : 30 / 22 (40.2 / 29.5) MC - model : 37 / 30 (49.6 / 40.2)	A - model : 37 / 30 (49.6 / 40.2) B / C - model : 45 / 37 (60.6 / 49.6)	MA - model : 37 / 30 (49.6 / 40.2) MB - model : 45 / 37 (60.6 / 49.6)
NC system	-	DOOSAN-FANUC i / FANUC 32i (SIEMENS 828D / 840D)**			

* on S3 25%/30min./cont

** The other NC system application instead of FANUC should be checked with Doosan



Doosan Machine Tools

<http://www.doosanmachinetools.com>

www.facebook.com/doosanmachinetools

Optimal Solutions for the Future

Head Office

Yeonkang Bldg., 6th FL., 270, Yeonji-dong,
Jongno-gu, Seoul, Korea
Tel +82-2-3670-5345 / 5362
Fax +82-2-3670-5382

Doosan Machine Tools China

Room 101,201,301, Building 39 Xinzhuan Highway
No.258 Songjiang District,China Shanghai(201612)
Tel +86 21-5445-1155
Fax +86 21-6405-1472

Doosan Machine Tools Japan

#2412, Mita Kokusai Bldg. 1-4-28 Mita,
Minato-ku, Tokyo 108-0073, Japan
Tel +81 3 5730 9013
Fax +81 3 5730 9016

Doosan Machine Tools America

19A Chapin Rd., Pine Brook, NJ 07058, U.S.A.
Tel +1-973-618-2500
Fax +1-973-618-2501

Doosan Machine Tools Europe

Emdener Strasse 24, D-41540 Dormagen, Germany
Tel +49-2133-5067-100
Fax +49-2133-5067-001


Doosan Machine Tools India

106 / 10-11-12, Amruthahalli, Byatarayanapura,
Bellary road, Bangalore-560 092, India
Tel +91-80-4266-0122 / 121 / 100



* For more details, please contact Doosan Machine Tools.

* The specifications and information above-mentioned may be changed without prior notice.

* Doosan Machine Tools Co., Ltd. is a subsidiary of MBK Partners, a Korean private equity firm. The trademark  DOOSAN is used under a licensing agreement with Doosan Corporation, the registered trademark holder.