

SMEC

SAMSUNG MACHINE TOOLS

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ISO 9001 COMPANY
IK-2743



SMEC

SAMSUNG MACHINE TOOLS

General Catalog





www.esimec.com

Smart One, Global One

"A company a better future and dreams"

SMEC(Samsung Machine tool Engineering Company) started as Samsung heavy industry Ltd. 1989 and branched out from Samsung Techwin Ltd.

We produce machine tools, semiconductor equipment, robots with the technology and management successfully for 20 years..

We are certified by ISO9001 and CE for our manufacturing technology.

We are exporting our manufacturing technology to Europe, America, South America, Asia, Africa and Oceania and as a reliable partner, we supply parts and equipment for many world-class major companies of automobile, aerospace, semiconductor, display and robot industry.

We will do our best as your confident partner with the best-proved technology.

HISTORY IN BRIEF

- 1989** Started as machine tool division of Samsung Heavy Industries, Ltd.
- 1990** Signed technical license agreement with OKK to manufacture CNC machining centers
- 1991** Signed technical license agreement with Mori Seiki to manufacture CNC turning centers
- 1996** Signed technical license agreement with Toshiba to manufacture 5 side processing machining centers
- 1999** Spinned out from Samsung Aerospace Co., Ltd. and changed its name to SMEC Co., Ltd.(Samsung Machine Tools)
- 2000** Founded Changwon factory
- 2001** Established R&D center in Changwon, Korea
- 2003** Developed robot components and robot assembly for LCD glass (7G)
- 2005** Developed 8th generation LCD Link type robot (first time in the world)
- 2005** Developed Semiconductor I/C chip bonder machine
- 2007** Developed Electric circuit board Laser machine
- 2008** Developed self-control type robot
- 2008** Developed 11th generation LCD robot
- 2009** Export to 48 countries
- 2011** Developed 9-axis Multi-Tasking Machine (iMT 420ST)
- 2012** Partisped Simtos and IMTS, Developed 5-axis Machining center (FTV 630)

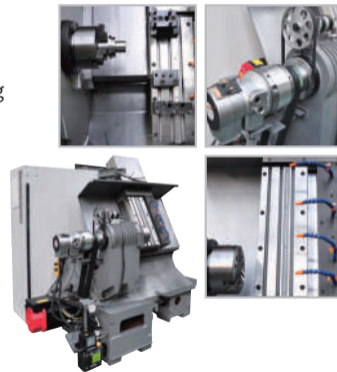


PL 1600G / 1600CG

GANG TYPE CNC TURNING CENTERS



High Speed 60° degree
slant type one bed casting
structure



PL 1600G

Compact, efficient and user friendly machine design

PLYD SERIES

Major Specifications

DESCRIPTION		PL 1600G	PL 1600CG
Swing over the bed	mm	ø 540	ø 540
Max. machining diameter × length	mm	ø 170 × 250	ø 170 × 250
Max. machining bar size	mm	ø 45	ø 52
Chuck size	inch	6	8
Spindle speed	rpm	6,000	4,000
Spindle nose	ASA	A2-5"	A2-6"
Spindle motor(cont./30min)	kW	7.5/11	11/15
Rapid traverse (X/Z)	m/min	30/36	30/36
Axis travel (X/Z)	mm	420/250	420/250
Number of tool positions	ea	6	6
Shank size for square tool	mm	20 × 20	20 × 20
Shank size for boring bar	mm	ø 25	ø 25
Tailstock travel	mm	-	-
Machine weight	kgf	3,000	3,000
Required floor space	mm	2,375 × 1,697	2,375 × 1,697
Controller		Fanuc Oi-Mate TD, Fanuc Oi-TD	

PL 1600 / 1600C PL 1600M / 1600CM

LM & BOX TYPE CNC TURNING CENTERS



Excellent vibration absorbing 45 degree slant type one bed casting structure to ensure heavy loads and superior finishes



PL 1600

High precision and maximum productivity

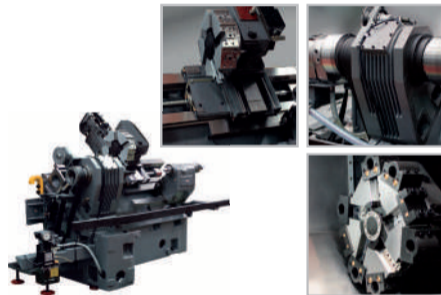


Major Specifications

DESCRIPTION		PL 1600	PL 1600C	PL 1600M	PL 1600CM
Swing over the bed	mm	ø 530			
Max. machining diameter × length	mm	ø 290 × 307	ø 290 × 270,5	ø 250 × 291	ø 250 × 261,6
Max. machining bar size	mm	ø 45	ø 51	ø 45	ø 51
Chuck size	inch	6	8	6	8
Spindle speed	rpm	6,000	4,000	6,000	4,000
Spindle nose	ASA	A2-5"	A2-6"	A2-5"	A2-6"
Spindle motor(cont./30min)	kW	7,5/11	11/15	7,5/11	11/15
Rapid traverse (X/Z)	m/min	24/30			
Axis travel (X/Z)	mm	165/350			
Number of tool positions	ea	12(10)	10	12(10)	
Shank size for square tool	mm	20 × 20 (BMT 45)	25 × 25 (BMT 45)	20 × 20 (BMT 45)	
Shank size for boring bar	mm	ø 40			
Milling motor(cont./30min)	kW	-	-	2,2/3,7	
Tailstock travel (Opt.)	mm	(80)			
Machine weight	kgf	3,500	3,600	3,600	3,700
Required floor space	mm	1,870 × 1,593		2,155 × 1,593	
Controller		Fanuc Oi-Mate TD, Fanuc Oi-TD			

PL 15 / 15L
PL 20 / 20L

BOX WAY TYPE TURNING CENTERS



The strongest spindle power in similar spec. machine
adaptation broad and stabilized motor
compact size
The smallest floor space in similar spec. machine

PL 15

Focused on stabilized management and sustainability

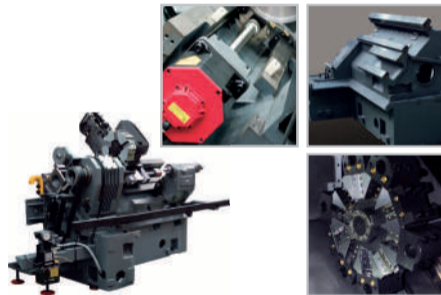
PLYD SERIES

Major Specifications

DESCRIPTION		PL 15	PL 15L	PL 20	PL 20L
Swing over the bed	mm	∅ 450	∅ 450	∅ 450	∅ 450
Max. machining diameter × length	mm	∅ 300 × 300	∅ 300 × 520	∅ 300 × 300	∅ 300 × 520
Max. machining bar size [Opt.]	mm	∅ 45	∅ 45	∅ 52 [∅ 66]	∅ 52 [∅ 66]
Chuck size	inch	6	6	8	8
Spindle speed	rpm	6,000	6,000	4,000	4,000
Spindle nose	ASA	A2-5"	A2-5"	A2-6"	A2-6"
Spindle motor(cont./30min) [Opt.]	kW	11/15	11/15	15/18.5 [F Oi-TD : 11/15]	15/18.5 [F Oi-TD : 11/15]
Rapid traverse (X/Z)	m/min	24/20	24/20	24/24	24/24
Axis travel (X/Z)	mm	180/330	180/560	180/330	180/560
Number of tool positions [Opt.]	ea	10 [12]	10 [12]	10	10
Shank size for square tool [Opt.]	mm	25 × 25 [20 × 20]	25 × 25 [20 × 20]	25 × 25	25 × 25
Shank size for boring bar	mm	∅ 40	∅ 40	∅ 40	∅ 40
Tailstock travel	mm	80	80	80	80
Machine weight	kgf	3,500	3,700	3,700	3,900
Required floor space	mm	2,455 × 1,525	2,805 × 1,444	2,455 × 1,525	2,805 × 1,444
Controller		Fanuc Oi-Mate TD, Fanuc Oi-TD			

PL 240 PL 240LM

BOX WAY TYPE TURNING CENTERS



The strongest spindle power in similar spec. machine
adaptation broad and stabilized motor
compact size
The smallest floor space in similar spec. machine

PL 240

Focused on stabilized management and sustainability



Major Specifications

[] : Big Bore

DESCRIPTION		PL 240	PL 240LM
Swing over the bed	mm	ø 510	ø 510
Max. machining diameter × length	mm	ø 350 × 540	ø 350 × 540
Max. machining bar size [Opt.]	mm	ø 52 [ø 66]	ø 52 [ø 66]
Chuck size	inch	8	8
Spindle speed	rpm	4,000	4,000
Spindle nose	ASA	A2-6"	A2-6"
Spindle motor(cont./30min)	kW	15/18.5	11/15
Rapid traverse (X/Z)	m/min	24/24	18/24
Axis travel (X/Z)	mm	200/560	200/560
Number of tool positions	ea	10	12(BMT55)
Shank size for square tool	mm	25 × 25	25 × 25
Shank size for boring bar	mm	ø 40	ø 40
Tailstock travel	mm	80	80
Machine weight	kgf	4,000	4,300
Required floor space	mm	2,805 × 1,444	2,753 × 1,560
Controller		Fanuc Oi-Mate TD, Fanuc Oi-TD	

PL 20M
PL 25 / L / M / LM

BOX WAY TYPE TURNING CENTERS



'Curvic' Coupling turret for easy maintenance after collision.
Rigid single tube type bed design (45 degree slant) ensures minimum bending and torsion even during heavy duty cutting and high speed turning operations.
Wide guide area sufficient to absorb working loads.

PL 25M

Stabilized Structure that Optimizing Productivity

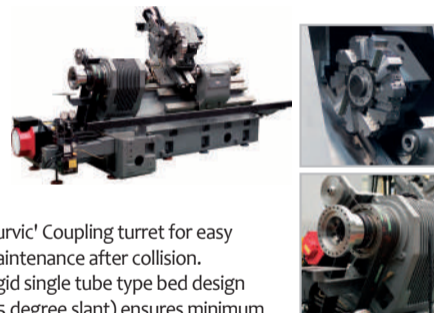
PLYD SERIES

Major Specifications

DESCRIPTION		PL 20M	PL 25	PL 25L	PL 25M	PL 25LM
Swing over the bed	mm	650	520	520	650	650
Max. machining diameter × length	mm	365 × 520	380 × 530	380 × 1,030	365 × 520	365 × 1,020
Max. machining bar size	mm	66	77	77	77	77
Chuck size	inch	8	10	10	10	10
Spindle speed	rpm	4,000	3,500	3,500	3,500	3,500
Spindle nose	ASA	A2-6	A2-8	A2-8	A2-8	A2-8
Spindle motor(cont./30min)	kW	11/15	18,5/22	18,5/22	18,5/22	18,5/22
Rapid traverse (X/Z)	m/min	18/24	18/24	18/24	18/24	18/24
Axis travel (X/Z)	mm	225/540	220/590	220/1,090	225/540	225/1,040
Number of tool positions (Opt.)	ea	12/BMT65	10 (12)	10 (12)	12/BMT65	12/BMT65
Shank size for square tool	mm	25 × 25	25 × 25	25 × 25	25 × 25	25 × 25
Shank size for boring bar	mm	∅ 50	∅ 50	∅ 50	∅ 50	∅ 50
Tailstock travel	mm	100	80	100	100	100
Machine weight	kgf	5,100	5,000	6,200	5,300	6,600
Required floor space	mm	3,190 × 1,675	3,300 × 1,675	3,615 × 1,675	3,300 × 1,675	3,885 × 1,675
Controller		Fanuc Oi-TD				

PL 30
PL 30L

BOX WAY TYPE TURNING CENTERS



'Curvic' Coupling turret for easy maintenance after collision.
Rigid single tube type bed design (45 degree slant) ensures minimum bending and torsion even during heavy duty cutting and high speed turning operations.
Wide guide area sufficient to absorb working loads.

PL 30

Stabilized Structure that Optimizing Productivity

PLYD SERIES

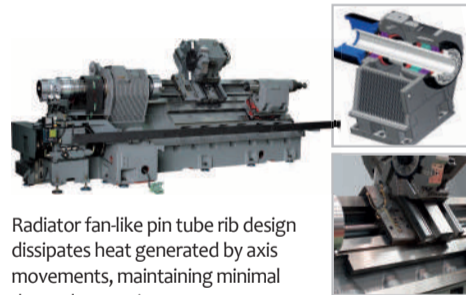
Major Specifications

[] : Big Bore

DESCRIPTION		PL 30	PL 30L
Swing over the bed	mm	650	650
Max. machining diameter × length	mm	400 × 550	400 × 1,050
Max. machining bar size [Opt.]	mm	77 [91]	77 [91]
Chuck size [Opt.]	inch	10 [12]	10 [12]
Spindle speed [Opt.]	rpm	3,500 [2,500]	3,500 [2,500]
Spindle nose	ASA	A2-8	A2-8
Spindle motor(cont./30min)	kW	18.5/22	18.5/22
Rapid traverse (X/Z)	m/min	18/24	18/24
Axis travel (X/Z)	mm	230/600	230/1,100
Number of tool positions [Opt.]	ea	10 [12]	10 [12]
Shank size for square tool	mm	25 × 25	25 × 25
Shank size for boring bar	mm	∅ 50	∅ 50
Tailstock travel	mm	80	100
Machine weight	kgf	5,100	6,500
Required floor space	mm	3,300 × 1,740	3,885 × 1,740
Controller		Fanuc Oi-TD	

PL 35 / 35L PL 35M / 35LM

BOX WAY TYPE TURNING CENTERS



Radiator fan-like pin tube rib design dissipates heat generated by axis movements, maintaining minimal thermal expansion.

Low vibration & high rigidity are maintained by separation the spindle motor & gear box from spindle.

PL 35

The Special Design that Achieve High Rigidity

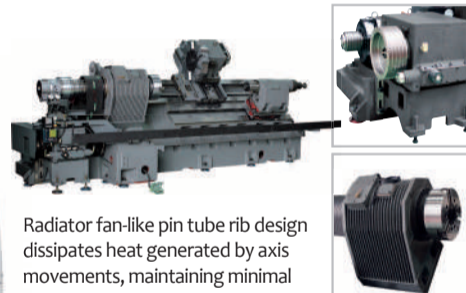


Major Specifications

DESCRIPTION		PL 35	PL 35L	PL 35M	PL 35LM
Swing over the bed	mm	600	600	680	680
Max. machining diameter × length	mm	420 × 780	420 × 1,530	500 × 780	500 × 1,530
Max. machining bar size [Opt.]	mm	91 [117,5]	91 [117,5]	91 [117,5]	91 [117,5]
Chuck size [Opt.]	inch	12 [15]	12 [15]	12 [15]	12 [15]
Spindle speed [Opt.]	rpm	2,500 [2,000]	2,500 [2,000]	2,500 [2,000]	2,500 [2,000]
Spindle nose [Opt.]	ASA	A2-8 [A2-11]	A2-8 [A2-11]	A2-8 [A2-11]	A2-8 [A2-11]
Spindle motor(cont./30min)	kW	18,5/22	18,5/22	18,5/22	18,5/22
Rapid traverse (X/Z)	m/min	12/15	12/15	20/24	20/24
Axis travel (X/Z)	mm	240/855	240/1,605	280/825	280/1,575
Number of tool positions (Opt.)	ea	10 (12)	10 (12)	12/BMT65	12/BMT65
Shank size for square tool	mm	25 × 25	25 × 25	25 × 25	25 × 25
Shank size for boring bar	mm	50	50	50	50
Tailstock travel	mm	120	120	120	120
Machine weight	kgf	8,000	9,000	8,300	9,300
Required floor space	mm	3,885 × 1,847	4,990 × 1,847	3,885 × 1,897	4,990 × 1,897
Controller		Fanuc Oi-TD			

PL 40
PL 40L

BOX WAY TYPE TURNING CENTERS



Radiator fan-like pin tube rib design dissipates heat generated by axis movements, maintaining minimal thermal expansion.

Low vibration & high rigidity are maintained by separation the spindle motor & gear box from spindle.

PL 40

The Special Design that Achieve High Rigidity

PLYD SERIES

Major Specifications

DESCRIPTION		PL 40	PL 40L
Swing over the bed	mm	680	680
Max. machining diameter × length	mm	500 × 780	500 × 1,530
Max. machining bar size	mm	117.5	117.5
Chuck size	inch	15	15
Spindle speed	rpm	2,000	2,000
Spindle nose	ASA	A2-11	A2-11
Spindle motor(cont./30min)	kW	18.5/22	18.5/22
Rapid traverse (X/Z)	m/min	12/15	12/15
Axis travel (X/Z)	mm	280/855	280/1,605
Number of tool positions (Opt.)	ea	10 (12)	10 (12)
Shank size for square tool	mm	25 × 25	25 × 25
Shank size for boring bar	mm	50	50
Tailstock travel	mm	120	120
Machine weight	kgf	8,200	9,200
Required floor space	mm	3,885 × 1,897	4,990 × 1,897
Controller		Fanuc Oi-TD	

PL 45L / 45XL PL 45LM / 45XLM

BOX WAY TYPE TURNING CENTERS



Enhancing your productivity by design that reducing idle-time.
Enhancing accuracy by process without tools shift between machines.

PL 45

Once-only Chucking lets You Turn, Mill, Drill and Top

PLYD SERIES

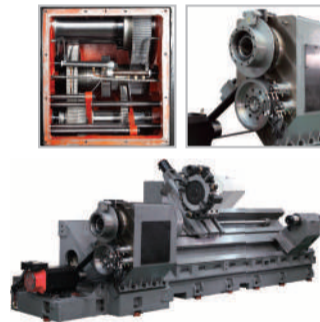
Major Specifications

[] : Big Bore

DESCRIPTION		PL 45L	PL 45XL	PL 45LM	PL 45XLM
Swing over the bed	mm	775	775	775	775
Max. machining diameter × length	mm	690 × 2,255	690 × 3,055	620 × 2,255	620 × 3,055
Max. machining bar size [Opt.]	mm	117.5 [165.5]	117.5 [165.5]	117.5 [165.5]	117.5 [165.5]
Chuck size (Opt.)	inch	15 (18/21/24)	15 (18/21/24)	15 (18/21/24)	15 (18/21/24)
Spindle speed (Opt.)	rpm	2,000 (1,800/1,500/1,200)	2,000 (1,800/1,500/1,200)	2,000 (1,800/1,500/1,200)	2,000 (1,800/1,500/1,200)
Spindle nose [Opt.]	ASA	A2-11 [A2-15]	A2-11 [A2-15]	A2-11 [A2-15]	A2-11 [A2-15]
Spindle motor(cont./30min)	kW	30/37	30/37	30/37	30/37
Rapid traverse (X/Z)	m/min	20/18	20/10	20/18	20/10
Axis travel (X/Z)	mm	350/2,330	350/3,130	350/2,330	350/3,130
Number of tool positions	ea	12	12	12/BMT75	12/BMT75
Shank size for square tool	mm	32 × 32	32 × 32	32 × 32	32 × 32
Shank size for boring bar	mm	60	60	60	60
Tailstock travel	mm	150	150	150	150
Machine weight	kgf	13,000	20,000	13,000	20,000
Required floor space	mm	5,570 × 2,153	6,350 × 2,290	5,570 × 2,153	6,350 × 2,290
Controller		Fanuc Oi-TD			

PL 60 / 60L PL 60M / 60LM

BOX WAY TYPE TURNING CENTERS



The strongest power and the highest accuracy in its class, by optimized design.

PL 60

High-performance Large Machining Capacity Turning Center

PLYD SERIES

Major Specifications

DESCRIPTION		PL 60	PL 60L	PL 60M	PL 60LM
Swing over the bed	mm	1,030	1,030	1,030	1,030
Max. machining diameter × length	mm	900 × 1,000	900 × 3,200	900 × 1,000	900 × 3,200
Max. machining bar size	mm	140	140	140	140
Chuck size (Opt.)	inch	21 (24)	21 (24)	21 (24)	21 (24)
Spindle speed (Opt.)	rpm	1,500 (1,200)	1,500 (1,200)	1,500 (1,200)	1,500 (1,200)
Spindle nose	ASA	A2-15	A2-15	A2-15	A2-15
Spindle motor(cont./30min)	kW	37/45	37/45	37/45	37/45
Rapid traverse (X/Z)	m/min	12/18	12/10	12/18	12/10
Axis travel (X/Z)	mm	470/1,050	470/3,270	470/1,050	470/3,270
Number of tool positions	ea	12	12	12(BMT85P)	12(BMT85P)
Shank size for square tool	mm	32 × 32	32 × 32	32 × 32	32 × 32
Shank size for boring bar	mm	80	80	80	80
Tailstock travel	mm	150	150	150	150
Machine weight	kgf	16,500	22,000	16,500	22,000
Required floor space	mm	5,098 × 2,564	7,400 × 2,760	5,098 × 2,564	7,400 × 2,760
Controller		Fanuc Oi-TD			

PL 80 / 80L PL 80M / 80LM

BOX WAY TYPE TURNING CENTERS



The strongest power and the highest accuracy in its class, by optimized design.

PL 80

High-performance Large Machining Capacity Turning Center

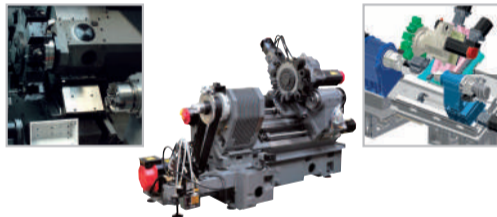
PLYD SERIES

Major Specifications

DESCRIPTION		PL 80	PL 80L	PL 80M	PL 80LM
Swing over the bed	mm	1,030	1,030	1,030	1,030
Max. machining diameter × length	mm	900 × 1,000	900 × 3,200	900 × 1,000	900 × 3,200
Spindle through hole diameter	mm	∅ 320	∅ 320	∅ 320	∅ 320
Chuck size (Opt.)	inch	(32)	(32)	(32)	(32)
Spindle speed	rpm	750	750	750	750
Spindle nose	ASA	A1-20	A1-20	A1-20	A1-20
Spindle motor(cont./30min)	kW	37/45	37/45	37/45	37/45
Rapid traverse (X/Z)	m/min	12/18	12/10	12/18	12/10
Axis travel (X/Z)	mm	470/1,050	470/3,270	470/1,050	470/3,270
Number of tool positions	ea	12	12	12(BMT85P)	12(BMT85P)
Shank size for square tool	mm	32 × 32	32 × 32	32 × 32	32 × 32
Shank size for boring bar	mm	80	80	80	80
Tailstock travel	mm	150	150	150	150
Machine weight	kgf	16,500	22,000	16,500	22,000
Required floor space	mm	5,098 × 2,564	7,400 × 2,760	5,098 × 2,564	7,400 × 2,760
Controller		Fanuc Oi-TD			

PL 2000MS / 2000SY PL 2500SY

INTEGRATED CNC TURNING CENTERS



- BMT Type machining feature providing ultimate integrated machining capability on the workpiece
- Synchronized C1-axis(Main spindle) and C2-axis(Subspindle) indexing provides machining flexibility in a wide variety of workpiece configurations.

PL 2000SY

Integrated machining operations in one set-up through Sub-spindle and Y-Axis

PLYD SERIES

Major Specifications

DESCRIPTION		PL 2000MS	PL 2000Y	PL 2000SY	PL 2500Y	PL 2500SY
Swing over the bed	mm	650	650	650	650	650
Max. machining diameter × length	mm	354 × 460	360 × 535	360 × 520	360 × 520	360 × 505
Max. machining bar size(Main/Sub[Opt.])	mm	66/36	66/-	66/36	77/-	77/36[52]
Chuck size (Main/Sub[Opt.])	inch	8/6	8/-	8/6	10/-	10/6[8]
Spindle speed(Main/Sub[Opt.])	rpm	4,000/6,000	4,000/-	4,000/6,000	3,500/-	3,500/6,000[4,000]
Main Spindle motor(cont./30min)	kW	11/15	11/15	11/15	18.5/22	18.5/22
Sub Spindle motor(cont./30min) [Opt.]	kW	5.5/7.5	-	5.5/7.5	-	5.5/7.5 [11/15]
Max. traverse (X/Z/Y/B)	mm	210/515/-/500	235/580/100/580	235/580/100/580	235/580/100/565	235/580/100/565
Number of tool positions	ea	12(BMT65)	12(BMT65)	12(BMT65)	12(BMT65)	12(BMT65)
Shank size for square tool	mm	25 × 25	25 × 25	25 × 25	25 × 25	25 × 25
Shank size for boring bar	mm	50	50	50	50	50
Machine weight	kgf	5,500	5,600	5,800	5,700	5,900
Required floor space	mm	3,458 × 1,700	3,658 × 1,930	3,658 × 1,930	3,658 × 1,930	3,658 × 1,930
Controller		Fanuc Oi-TD, Fanuc 32i-B				

PL 6VG(R,L) PL 250V(R,L)

VERTICAL LATHE



PL 6VG

Vertical lathe developed for automatic process line of automobile and electric parts and maintain high accuracy in long-term machining process

Major Specifications

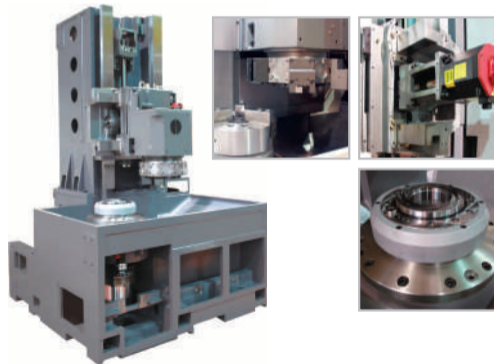
DESCRIPTION		PL 6VG(R,L)	PL 250V(R,L)
Swing over the bed	mm	540	540
Max. machining diameter × length	mm	250 × 190	430 × 280
Chuck size	inch	6	8
Spindle speed	rpm	4,000	4,000
Spindle nose	ASA	A2-6	A2-6
Spindle motor(cont./30min)	kW	11/15	11/15
Rapid traverse (X/Z)	m/min	24/24	24/24
Axis travel (X/Z)	mm	230/280	230/280
Number of tool positions	ea	6	12
Shank size for square tool	mm	-	25 × 25
Shank size for boring bar	mm	-	40
Machine weight	kgf	5,000	5,300
Required floor space	mm	1,690 × 2,057	1,690 × 2,200
Controller		Fanuc Oi-MD, Fanuc Oi-TD	



- Quiet & Heat Design
- Possible to make versatile automatic system line

PL 800V(R,L) PL 800VM(R,L)

VERTICAL LATHE



PL 800V

PL 800V is a heavy duty, ultra precision turning center, box way design, 2 step gear box, servo driven turret adopted.

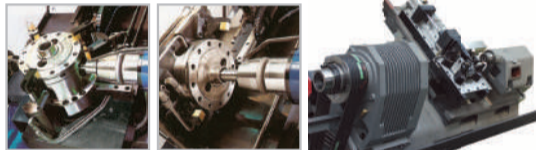
PLYD SERIES

Major Specifications

DESCRIPTION		PL 800V(R,L)	PL 800VM(R,L)
Swing over the bed	mm	890	890
Swing over saddle	mm	740	740
Max. turning diameter × length	mm	810 × 800	810 × 800
Chuck size	inch	15(18,21,24)	15(18,21,24)
Spindle speed	rpm	2,000	2,000
Spindle nose	ASA	A2-11	A2-11
Main spindle motor(cont./30min)	kW	22/30	22/30
Rapid traverse (X/Z)	m/min	20/20	20/20
Axis travel (X/Z)	mm	430/800	430/800
Guide way type (X/Z)	-	BOX Guide	BOX Guide
Number of tool positions	ea	12	12/BMT75
Servo motor (X/Z)	kW	3/4	3/4
Rotary tool spindle motor	kW	-	5.5/7.5
Machine weight	kgf	11,000	11,000
Required floor space	mm	2,000 × 3,350	2,000 × 3,350
Controller		Fanuc Oi-TD	

PL 25DC (DIFF.CASE)

CNC TURNING CENTERS



- Operator accessible automatic hydraulic fixture and tool mounting and removing unit
- Work automatic clamp / unclamp
- 45° Slant bed structure, Access, Operation and rapid chips removing is easy.

PL 25DC

Creating epoch-making DIFF case spherical / face milling machining using CNC Lathe DIFF.CASE machining tools

PLYD SERIES

Major Specifications

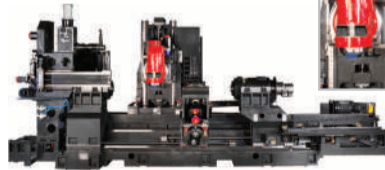
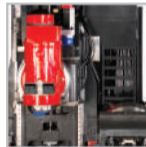
DESCRIPTION		PL 25DC
Swing over the bed	mm	520
Spindle speed	rpm	2,500
Spindle node	-	A2-8
Spindle Bore Diameter	mm	ø 86
Spindle motor(cont./30min)	kW	18,5/22
Rapid traverse (Z axis)	m/min	24
Max. moving distance (Z axis)	mm	390
Feed Motor (Z axis)	kW	3,0
Taper of Tailstock Spindle	-	MT5
Tailstock Spindle Diameter	mm	ø 85
Tailstock Spindle Travel	mm	80
Tailstock Travel	mm	200 (Hydraulic cylinder)
Tailstock Clamping(at 45kgf/cm ²)	kgf	11,000
Machine weight	kgf	4,300
Required floor space	mm	3,023 × 2,555
Controller		Fanuc Oi-TD

iMT 420ST

CNC TURNING & MACHINING CENTERS



- Only one setting lets the material be ready and the task be achieved in completion!
- High speed / high rigidity multi-tasking



iMT 420ST

9-axis integrated Multi-tasking Machining Centers

iMT SERIES

Major Specifications

DESCRIPTION			iMT 420ST	DESCRIPTION			iMT 420ST
Capacity	Swing over the bed	mm	670	ATC.	B axis index method	-	servo,M+CAM index+3Pcx,coupling
	Max. turning diameter × length	mm	670(420)/2,018		Tool shank	-	HSK 63A
Travels	X1/Z1 axis	mm	850/2,110	Magazine capacity (Opt.)	ea	40 (60,80)	
	B axis	deg	± 120	Max. tool dia./length/weight	mm	∅ 90/400/8	
	Y/W axis	mm	420/1,950	Tool change time(T-T)	sec	1.8	
	X2/Z2 axis	mm	250/1,900	Turret (MC)	Turret shank	-	BMT55
1st Spindle	Spindle speed	rpm	35~4,000		Number of tool stations	ea	8
	Chuck size (Opt.)	inch	10 (12)		Square shank size	mm	□25/∅ 40
2nd Spindle	Spindle nose	ASA	A2-8		Tool indexing time	sec	0.2
	Spindle through hole diameter	mm	∅ 78	Rotary tool spindle speed	rpm	35~5,000	
	Min. spindle indexing angle(C axis)	deg	0,001	Feed rate	X1/X2/Z1/Z2/Y/W axis	m/min	50/50/50/50/30/50
Max. torque	Nm	600	B axis		rpm	50	
Milling Spindle	Spindle speed	rpm	35~10,000		C1/C2 axis	rpm	500
	Turning tool size	mm	□25/∅ 40	Machine weight	kgf	18,000	
	Max. torque	Nm	233	Required floor space (L × W × H)	mm	6,979 × 3,063 × 3,091	
	Min.spindle indexing angle (B axis)	deg	0,001	Controller		Fanuc 31i-B5	

LCV 30A / 30B

SMALL MACHINING CENTERS



- High speed tool changing time and rapid traverse
- Wide machining range from nonferrous metals to metal

LCV 30A

Best in processing small parts with high productivity



Major Specifications

DESCRIPTION		LCV 30A	LCV 30B
Travel X/Y/Z	mm	500×320×330	500×320×330
Distance from table top to spindle spindle nose	mm	150-480	220-550
Working Surface - table size	mm	500×1000	600×400
Loading capacity	kgf	2-150	Fixed table
Table surface configuration	mm	40-M16×100×100	32-M16×80×80
Spindle Speed	min ⁻¹	10,000(15,000)	10,000(15,000)
Spindle Motor(30min/const.)	kW	3,7/5,5	3,7/5,5
Max spindle torque	kgf.m	3,6/2,4(2,4/1,4)	3,6/2,4(2,4/1,4)
Rapid Traverse(X/Y/Z)	m/min	48	48
Tool Shank	-	BT30	BT30
Tool Changing Time(T-T)	sec	0,7	0,7
Magazine Capacity	ea	16	16
Required floor space (L×W×H)	mm	1,425×3,440×2,143	1,425×3,040×2,143
Machine weight	kgf	3,200	3,100
Controller		Fanuc Oi-MD	

LCV 380D / 380S

SMALL MACHINING CENTERS

LCV 380D

Superior Structure Design for Reliable Machining Performance



Major Specifications

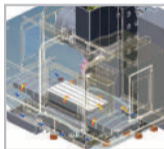
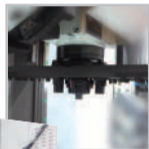
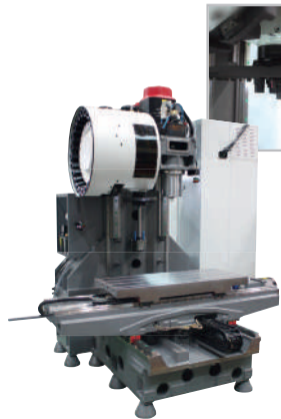
DESCRIPTION		LCV 380D	LCV 380S
Travel X/Y/Z	mm	520×380×350	520×380×340
Distance from table top to spindle spindle nose	mm	200-550	220-570
Working Surface - table size	mm	2-600×420	2-600×420
Loading capacity	kgf	2-200	Fixed table
Table surface configuration	mm	2×33-M16×90×90	35-M16×80×80
Spindle Speed [Opt.]	min ⁻¹	12,000 [15,000]	12,000 [15,000]
Spindle Motor(30min/const.) [Opt.]	kW	3.7/5.5 [5.5/7.5]	3.7/5.5 [5.5/7.5]
Max spindle torque [Opt.]	kgf.m	3.6/2.4 [4.9/3.6]	3.6/2.4 [4.9/3.6]
Rapid Traverse(X/Y/Z)	m/min	50	50
Tool Shank	-	BT30	BT30
Tool Changing Time(T-T)	sec	0.85	0.85
Magazine Capacity	ea	20	20
Required floor space	mm	1,771×3,713×2,485	1,771×3,313×2,485
Machine weight	kgf	4,500	4,300
Controller		Fanuc Oi-MD	



- Column traverse type high rigidity travel axis for high accuracy
- High rigidity roller guide & high accuracy ball screw(C3 Class)

LCV 500

MACHINING CENTER FOR PART SERIES



LCV 500

High Speed and High Productivity Compact
LM Guide Machining Centers



Major Specifications

DESCRIPTION		LCV 500
Travel X/Y/Z	mm	1,050×520×520
Distance from table top to spindle spindle nose	mm	150-670
Working Surface - table size	mm	1,200×510
Loading capacity	kgf	800
Table surface configuration	mm	18H8 T-slot×P125×4ea
Spindle Speed (Opt.)	min ⁻¹	Belt : 8,000 (Belt : 12,000, Direct : 10,000)
Spindle Motor(30min/cont.)	kW	11/15
Max spindle torque	kgf.m	9.7
Rapid Traverse(X/Y/Z)	m/min	36/36/30
Tool Shank	-	BT40
Tool Changing Time(T-T)	sec	1.8
Magazine Capacity (Opt.)	ea	24 (30)
Required floor space (L×W)	mm	2,950×2,050
Machine weight	kgf	6,200
Controller		Fanuc Oi-MD, 31i-A

LCV 550 / 650

MACHINING CENTER FOR PART SERIES



- High accuracy and durability, market approved machining center
- High productivity for small mold of electric product

LCV 550

Box way type machining center for high degree of accuracy workpiece



Major Specifications

DESCRIPTION		LCV 550	LCV 650
Travel X/Y/Z	mm	1,150×550×520	1,350×650×635
Distance from table top to spindle spindle nose	mm	150-670	200-835
Distance from pallet center to column	mm	600	675
Working Surface - table size	mm	1,200×550	1,550×650
Loading capacity	kgf	800	1,000
Table surface configuration	mm	18H8 T-slot×P110×5ea	18H8 T-slot×P110×5ea
Spindle Speed	min ⁻¹	Direct : 8,000 (Belt : 8,000, Direct-BT40 : 12,000)	
Spindle Motor(30min/cont.)	kW	11/15	11/15
Max spindle torque	kgf,m	29,2/14,6	29,2/14,6
Rapid Traverse(X/Y/Z)	m/min	24/24/20	24/24/20
Tool Shank	-	BT50 (BT40)	BT50 (BT40)
Tool Changing Time(T-T)	sec	2.5 (1.8)	2.5 (1.5)
Magazine Capacity	ea	24 (BT40 : 30)	24 (BT40 : 30)
Required floor space	mm	3,200×2,150	3,315×2,977
Machine weight	kgf	7,000 (6,800)	11,000 (10,900)
Controller		Fanuc Oi-MD, 31i-A	

LCV 66 / 80

MACHINING CENTER FOR MOLD SERIES



- Strong torque for work to mold manufacturing, and wide guide surface for distributing the loads

LCV 66

Machining center for high accurate mold of electric or semiconductor

Major Specifications

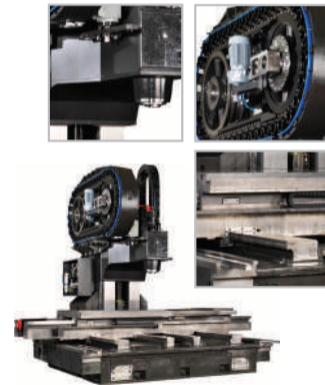
DESCRIPTION		LCV 66	LCV 80
Travel X/Y/Z	mm	1,520×660×650	1,700×825×650
Distance from table top to spindle spindle nose	mm	200-850	200-850
Distance from pallet center to column	mm	685	835
Working Surface - table size	mm	1,700×650	1,700×800
Loading capacity	kgf	2,000	2,500
Table surface configuration	mm	22H8 T-slot×P125×5ea	18H8 T-slot×P125×5ea
Spindle Speed	min ⁻¹	6,000	6,000
Spindle Motor(30min/cont.)	kW	15/18,5	15/18,5
Max spindle torque	kgf,m	62.4/50,6	62.4/50,6
Rapid Traverse(X/Y/Z)	m/min	20/20/16	20/20/16
Tool Shank	-	BT50	BT50
Tool Changing Time(T-T)	sec	2,45	2,45
Magazine Capacity (Opt.)	ea	24 (30,40)	24 (30,40)
Required floor space	mm	4,220×3,570	4,220×3,870
Machine weight	kgf	12,000	15,000
Controller		Fanuc Oi-MD, 31i-A	

LCV 850 / 1060

MACHINING CENTER FOR MOLD SERIES



- Stabilized 6guide way BED structure for high rigidity



LCV 1060

Optimized machining tools for die or cast mold of electrics, automobile, aircraft parts machining.

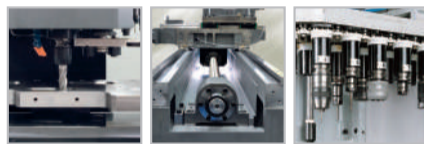


Major Specifications

DESCRIPTION		LCV 850	LCV 1060
Travel X/Y/Z	mm	2,000×850×800	2,500×1,060×900
Distance from table top to spindle spindle nose	mm	200-1,000	200-1,100
Distance from pallet center to column	mm	950	1,100
Working Surface - table size	mm	2,050×850	2,800×1,060
Loading capacity	kgf	3,000	5,000
Table surface configuration	mm	22H8 T-slot×P140×6ea	22H8 T-slot×P150×7ea
Spindle Speed	min ⁻¹	8,000 (12,000)	8,000 (12,000)
Spindle Motor(30min/cont.)	kW	15/18.5 (25/30)	15/18.5 (25/30)
Max spindle torque	kgf·m	62.5/50.7 (42.7/24.2)	62.5/50.7 (42.7/24.2)
Rapid Traverse(X/Y/Z)	m/min	20/20/16	16/16/16
Tool Shank	-	BT50 (BBT50)	BT50 (BBT50)
Tool Changing Time(T-T)	sec	2.45	2.45
Magazine Capacity	ea	24 (30,40)	24 (30,40)
Required floor space	mm	5,900×4,206×3,752	6,700×4,380×3,660
Machine weight	kgf	18,000	25,000
Controller		Fanuc Oi-MD, 31i-A	

LCV 30LB / 30XLB

MACHINING CENTER FOR PARTS SERIES



- Flexible X-axis dimension fit workpiece size of customer
- High speed tool changing time and rapid traverse
- The machining quality & accuracy approved from customer / user satisfaction

LCV 30LB

Unique structural design for high efficiency & high productivity in machining fields



Major Specifications

DESCRIPTION		LCV 30LB	LCV 30XLB
Travel X/Y/Z	mm	2,000 × 350 × 330	4,000 × 350 × 330
Distance from table top to spindle spindle nose	mm	240-570	240-570
Distance from pallet center to column	mm	397	397
Working Surface - table size	mm	400-2,200	400-4,130
Loading capacity	kgf	Fixed table	Fixed table
Table surface configuration	mm	M12 TAP	M12 TAP
Spindle Speed [Opt.]	min ⁻¹	10,000 [15,000]	10,000 [15,000]
Spindle Motor(30min/cont.) [Opt.]	kW	3.7/5.5 [2.2/3.7]	3.7/5.5 [2.2/3.7]
Max spindle torque [Opt.]	kgf,m	3.6/2.4 [2.4/1.4]	3.6/2.4 [2.4/1.4]
Rapid Traverse(X/Y/Z)	m/min	30/48/48	26/48/48
Tool Shank	-	BT30	BT30
Tool Changing Time(T-T)	sec	0.7	0.7
Magazine Capacity	ea	16	16
Required floor space	mm	4,767 × 4,280	6,656 × 4,158
Machine weight	kgf	8,500	13,000
Controller		Fanuc Oi-MD	

LCV 50XLB

MACHINING CENTER FOR PARTS SERIES



- Fit to machining to long-shaft workpiece or small quantity batch production
- All-axis high accuracy C3 type ball screw, roller guide for high speed, high rigidity and high accuracy
- Column loaded ATC structure for epoch-making time-loss reducing

LCV 50XLB

Unique structural design for high efficiency & high productivity in machining fields

MAAC SERIES

Major Specifications

DESCRIPTION		LCV 50XLB
Travel X/Y/Z	mm	4,000×510×550
Distance from table top to spindle spindle nose	mm	150-700
Distance from pallet center to column	mm	675
Working Surface - table size	mm	4,600×550
Loading capacity	kgf	800
Table surface configuration (Opt.)	mm	M16 (18H8 T-slot×P110×5ea)
Spindle Speed	min ⁻¹	10,000
Spindle Motor(30min/cont.)	kW	7.5/11
Max spindle torque	kgf.m	7.1/4.9
Rapid Traverse(X/Y/Z)	m/min	24/30/30
Tool Shank	-	BT40
Tool Changing Time(T-T)	sec	1.5
Magazine Capacity	ea	24
Required floor space	mm	7,700×3,970×3,080
Machine weight	kgf	21,000
Controller		Fanuc Oi-MD

LCV 600FX LCV 600G / 600H

MACHINING CENTER FOR DIE OR MOLD SERIES



High-efficient integrated machining center for refined work to various material



LCV 600FX glass, ceramic, silicone, quarts

LCV 600G quarts, graphite

LCV 600H Mold, aircraft parts

- Separated wipe structure double slide cover, high dustproof seal ball screw.
- Located bridge structure X,Z-axis to upper side for minimize heat-transformation! protection the pollution in transe
- DDR Rotary table(FX Spec.) for high-power, high-torque, high-accuracy, high-dustproof abrasion



Major Specifications

DESCRIPTION		LCV 600FX	LCV 600G	LCV 600H
Travel X/Y/Z	mm	900×600×450	900×600×450	900×600×450
Travel B	rpm	130	-	-
Distance from table top to spindle spindle nose	mm	60-510	350-800	65-510
Working Surface - table size	mm	ø 450	ø 1,050×600	ø 1,050×600
Loading capacity	kgf	460	800	800
Table surface configuration	mm	14H8 T-slot×P60×6ea	18H8 T-slot×P110×5ea	18H8 T-slot×P110×5ea
Spindle Speed	min ⁻¹	12,000	12,000	20,000
Spindle Motor(30min/cont.)	kW	11/15	11/15	11/15
Max spindle torque	kgf.m	9.7/7.1	9.7/7.1	9.7/7.1
Rapid Traverse(X/Y/Z)	m/min	20/20/20	20/20/20	20/20/20
Tool Shank (Opt.)	-	BT40 (BBT40)	BT40 (BBT40)	BBT40 (HSK63A)
Tool Changing Time(T-T)	sec	Armless	Armless	Armless
Magazine Capacity	ea	15	15	15
Required floor space	mm	2,500×2,725×3,140	2,500×2,725×3,140	2,500×2,725×3,140
Machine weight	kgf	10,000	10,000	10,000
Controller		Fanuc Oi-MD, Fanuc 31i-A		

FTV 630

5 AXIS MACHINING CENTER

FTV 630

A.C Axis swing table type 5 axis machining center for high accuracy productivity

MAAC SERIES

Major Specifications

DESCRIPTION	FTV 630	
Travel X/Y/Z	mm	630 × 900 × 600
A-axis (Table Tilting)	°	+30 ° ~ -120 °
C-axis (Table Indexing)	°	360 °
Table size	mm	□500 × 500 (ø 630)
Loading capacity	kgf	500
Table surface configuration	mm	18H8 T-slot 5ea
Max. Spindle Speed	min ⁻¹	15,000 (20,000)
Maximum torque	kgf.m	17/9.7
Tool Shank	-	BT40 (BBT40)
Rapid Traverse(X/Y/Z)	m/min	48/48/48
Rapid Traverse(A/C)	m/min	30
Magazine Capacity	ea	40
Spindle motor	kW	22/18,5
Required floor space	mm	3,600 × 3,145 × 3,600
Machine weight	kgf	15,000
Controller		Fanuc 31i-A5

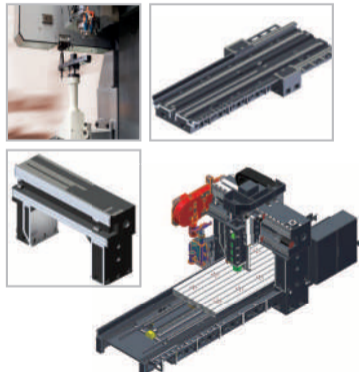


- Aero parts, impeller, large tool!
- High rigidity, high reliability roller guide
- Process-intergrated 5axis machining center with easy access to workpiece

LCV 1730

MACHINING CENTER FOR PARTS SERIES

- Largest machining range in its class
- Wide column and outstanding structured spindle head



LCV 1730

A machine for large size electric and autopart dies and molds

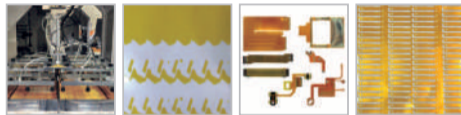
MAAC SERIES

Major Specifications

DESCRIPTION		LCV 1730
Travel X/Y/Z	mm	3,200 × 1,600 × 800
Distance from table top to spindle spindle nose	mm	200-1,000
Distance from column to column	mm	1,750
Working Surface - table size	mm	1,500 × 3,000
Loading capacity	kgf	10,000
Spindle Speed (Opt.)	min ⁻¹	6,000 (12,000)
Spindle Motor(30min/const.)	kW	30/25
Max spindle torque	kgf.m	42.8
Rapid Traverse(X/Y/Z)	m/min	24/24/16
Tool Shank	-	BBT50
Tool Changing Time(T-T)	sec	4.5
Magazine Capacity	ea	30 (40)
Required floor space	mm	3,550 × 7,900 × 4,050
Machine weight	kgf	24,000
Controller		Fanuc 31i-A, 0i-MD

Cyma CL 600

UV LASER SYSTEM



Loader & Unloader Coverlay Film Fpcb Body

Actualization 2D On The Fly

As Moving Stage from Xaxis to Yaxis and Scanning Beam by Scan Mirror High precision without separating 600mm products

Loader & Unloader

Installing Loader & Unloader for Automation to contribute the productivity

Auto Scanning Calibration

Easy Auto Calibration when error occurred on Scanner

Auto Scaling

Scale Automation for correcting a tolerance by product's contraction and expansion

Auto Alignment

Alignment Automation of Sheet by vision camera on Full Cutting Operation

CL 600

UV LASER SERIES

Major Specifications

DESCRIPTION		CL 600
Laser	-	355mm UV LASER
Average Power	-	10w at 90kHz / Single Shot to 300kHz
Stage (X-Y)	-	Linear Motor / Max Speed : 1000mm/s
Max Operating Range	mm	600 × 500
Max Scanning Range	mm	155 × 155
Beam Spot Size	um	20~40
Cooler (Chiller)	-	Water Cooling System / 600watts at 20°C (8 Liter Tank)
Dust Collector	-	1.5Kw / Capacity : 25CMM
Loading & Unloading [Opt.]	-	Coverlay Film Cutting
Auto Alignment [Opt.]	mm	Fpcb Body full Cutting



Controller		FANUC Series		
Item		Specification	0i-MateTD	0i-TD
Controlled axis	Max. feed axes		3 AXIS	4 AXIS
	Max. simultaneously controlled axis		3	4
	Least command increment	0.001mm / 0.0001"	○	○
Operation functions	Pulse handle feed	X1, X10, X100	○	○
	Feedrate per minute	G98	○	○
	Feedrate per revolution	G99	○	—
Interpolation functions	Linear interpolation	G01	○	○
	Circular interpolation	G02, G03	○	○
	Dwell	G04	○	○
	Polar coordinate interpolation	G12.1, G13.1	○	○
	Cylindrical interpolation	G70.1	○	○
	Variable lead thread cutting	G34	○	○
	Continuous threading		○	○
	Reference position return	G28	○	○
	Reference position return check	G27	○	○
Polygon machining with two spindle	G50.2, G51.2	—	(C)	
Feed function	Rapid traverse rate override	F0, 25%, 50%, 100%	○	○
	Feedrate override		0~150%	0~150%
Spindle function	Spindle orientation		○	○
	Sub spindle orientation		—	Only SY,MS
	Rigid tapping		○	○
	Spindle synchronous control		—	Only SY,MS
Tool functions	Tool number command	T4-Digt / T2-Digt	T4-Digt	T4-Digt
	Tool nose radius compensation	G40 ~ G42	○	○
	Tool offset pairs		64	64
	Tool geometry/wear offset	GEOMETRY & WEAR DATA	○	○

Tool functions	Tool life management		○	○
	Tool path graphic display		○	○
	Automatic tool offset		—	○
	Direct input of tool offset value measured B		○	○
Program input	Absolute/incremental programming		○	○
	Multiple repetitive cycle	G70 ~ G76	○	○
	Canned cycles	G90, G92, G94	○	○
	Inch/metric conversion	G20 / G21	○	○
	Program restart		○	○
	Retraction for rigid tapping		○	○
	Max. programmable dimension	±99999.999mm/±9999.9999"	○	○
	M function	M3 digit	○	○
	Custom macro		○	○
	Canned cycle for drilling		○	○
	Direct drawing dimension programming		○	○
	Programmable data input	G10	—	○
	Optional block skip		○	○
	Workpiece coordinate system	G52 ~ G59	○	○
Number of registerable programs		400EA	400EA	
Setting and display	Alarm & Operator histor display	ALARM & OPERATION DISPLAY	○	○
	Run hour and parts count display	RUNNING TIME & PART NO. DISPLAY	○	○
	Display spindle & servo overload	SPINDLE & SERVO LOAD DISPLAY	○	○
	Self-diagnosis function		○	○
	Extended part program editing	COPY, MOVE, CHANGE OF NC PROGRAM	○	○
	Display screen		8.4" color	10.4" color
Data input/output	Memory card input/output		○	○
	USB memory input/output		○	○
Editing operation	Part program storage size	512Kbyte(1280m)	○	○
Manual guide i	Manual Guide I		—	Opt.

Controller		FANUC Series		
Item		Specification	0i-MD	31i-MD
Controlled axis	feed axes		X, Y, Z, (A, B)	X, Y, Z, (A, B)
	Max. feed axes		4(6) AXIS	4(6) AXIS
	Max. simultaneously controlled axis		4	4
	Least command increment	0.001mm / 0.0001"	○	○
Operation functions	Pulse handle feed	X1, X10, X100	○	○
	Feedrate per minute	G94	○	○
	Feedrate per revolution	G95	○	○
Interpolation functions	Linear interpolation	G01	○	○
	Circular interpolation	G02, G03	○	○
	Dwell	G04	○	○
	Cylindrical interpolation	G70.1	○	○
	Reference position return	G28	○	○
	Reference position return check	G27	○	○
Feed function	Rapid traverse rate override	F0, 25%, 50%, 100%	○	○
	Feedrate override		0~200%	0~200%
Spindle function	Spindle orientation		○	○
	Rigid tapping		○	○
Tool functions	Tool number command	T4-Digt / T2-Digt	T2-Digt	T2-Digt
	Tool nose radius compensation	G40 ~ G42	○	○
	Tool offset pairs		400	400
	Tool geometry/wear offset	GEOMETRY & WEAR DATA	○	○
	Tool life management		○	○
	Tool path graphic display		○	○

Tool functions	Automatic tool length measurement		○	○	
	Absolute/incremental programming		○	○	
	Multiple repetitive cycle	G70 ~ G76	○	○	
	Canned cycles	G90, G92, G94	○	○	
	Inch/metric conversion	G20 / G21	○	○	
	Program restart		○	○	
	Retraction for rigid tapping		○	○	
	Program input	Max. programmable dimension	±99999.999mm/±9999.9999"	○	○
		M function	M3 digit	○	○
		Custom macro		○	○
		Canned cycle for drilling		○	○
		Direct drawing dimension programming		○	○
		Programmable data input	G10	○	○
		Optional block skip		○	○
Workpiece coordinate system		G52 ~ G59	○	○	
Number of registerable programs			400EA	400EA	
Setting and display		Alarm & Operator histor display	ALARM & OPERATION DISPLAY	○	○
	Run hour and parts count display	RUNNING TIME & PART NO. DISPLAY	○	○	
	Display spindle & servo overload	SPINDLE & SERVO LOAD DISPLAY	○	○	
	Self-diagnosis function		○	○	
	Extended part program editing	COPY, MOVE, CHANGE OF NC PROGRAM	○	○	
	Display screen		10.4" color	10.4" color	
Data input/output	Memory card input/output		○	○	
	USB memory input/output		○	31i-A(x), 31i-B(O)	
Editing operation	Part program storage size		1280M	640M	
Manual guide i	Manual Guide I		Opt.	Opt.	