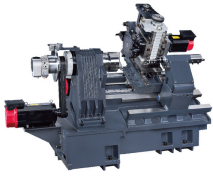
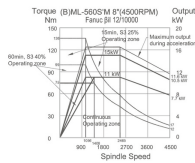


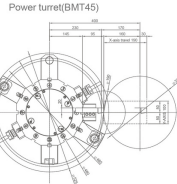
ML-560SY / ML-560MY
LINEAR GUIDE WAY



SPINDLE POWER AND TORQUE DIAGRAM



TOOL INTERFERENCE DIAGRAM



STANDARD ACCESSORIES

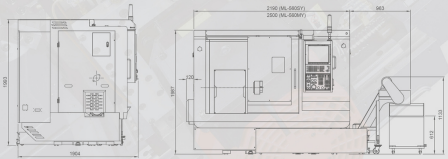
- Fanuc Oi-TF PLUS(1) controller
- A2-6 spindle
- 8" 3-jaw hydraulic chuck
- Soft jaws (1set) & Hard jaws (1set)
- 12T Sauter live tool BMT45
- Full enclosed splash guard
- Air blow for chuck
- Programming hydraulic tailstock with MT No.4 Quill
- Boring bar bushings (Ø8, 10, 12, 16, 20, 25) x φ32
- Taper Sleeve (MT No. 1, 2) x φ32

- Heat exchanger for electrical cabinet
- Foot pedal for chuck
- Auto lubrication system
- Work lamp
- End of program indicator (3-colors)
- Coolant system
- Chain type chip conveyor + cart
- Tool kits with box
- Leveling bolt and pads

OPTIONAL ACCESSORIES

- Mitsubishi / Siemens controller
- Automatic door
- Collet chuck
- Tool setter
- Bar feeder
- Workpiece measurement
- Bar feeder interface
- Coolant through tool
- Parts catcher
- 2 steps Gear box
- Oil skimmer
- Air conditioner for electrical cabinet
- Oil & mist collector
- Hydraulic steady rest
- Coolant gun
- Scraper type chip conveyor + cart
- X/Z axis linear scale
- Transformer
- Stabilizer
- CE certificate

DIMENSIONAL DRAWINGS

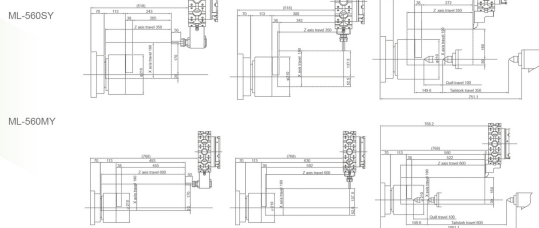


SPECIFICATIONS

	ITEM	UNIT	ML-560SY	ML-560MY
			C-axis	C-axis
CAPACITY	Swing over bed	mm	Ø700	Ø700
	Swing over saddle	mm	Ø560	Ø560
	Distance between noses	mm	500	750
	Max. machining diameter	mm	Ø320	Ø320
	Max. work length	mm	280	530
TRAVEL RANGE	Slant angle of bed	°	30°	30°
	X-axis	mm	190(160+30)	190(160+30)
	Z-axis	mm	350	600
	Y-axis	mm	±50	±50
	C-axis	°	360 (°0.001 °)	360 (°0.001 °)
SPINDLE	Spindle speeds	rpm	0~4,500	0~4,500
	Spindle nose		A2-6	A2-6
	Spindle bore diameter	mm	Ø62	Ø62
	Front bearing inner diameter	mm	Ø100	Ø100
CHUCK	Draw bar bore	mm	Ø52	Ø52
	Chuck diameter	mm	8"	8"
TURRET	Type	pcs	SAUTER BMT45	SAUTER BMT45
	Stations		12	12
	Modal		434.016	434.016
LIVE-TOOL FEED RATE	Square tool shank height	mm	20x20	20x20
	Boring bar shank diameter	mm	Ø32	Ø32
	Indexing time	sec.	0.5	0.5
TAILSTOCK	Spindle speeds	rpm	6,000	6,000
	Rapid traverse	m/min	X:30 Z:30	X:30 Z:30
	Quill type		Automatic	Automatic
	Quill diameter	mm	Ø65	Ø65
MOTORS	Tapered bore type	Live center	MT4	MT4
	Quill travel	mm	100	100
	Tailstock travel	mm	350	600
	Main spindle	KW	Ø12 (11/15)	Ø12 (11/15)
ACCURACY	Live-tool	KW	Ø312,000(3.7/5.5)	Ø312,000(3.7/5.5)
	X axis motor	KW	Ø12 (1.8)	Ø12 (1.8)
	Y axis motor	KW	Ø12 (1.8)	Ø12 (1.8)
	Z axis motor	KW	Ø22 (3.0)	Ø22 (3.0)
	Chip conveyor	KW	0.2	0.2
	Coolant pump	KW	0.96	0.96
POWER	Positioning	mm	±0.003	±0.004
	Repeatability	mm	±0.002	±0.003
MACHINE SIZE	Requirements	KVA	26KAV	26KAV
	Height	cm	199	199
	Floor space	cm	338x191	369x191
	Weight (w/CNC)	kgs	3,860	4,200

Note: Specifications are subject to change without further notice.

DIMENSIONAL DRAWINGS



LATHE 800 SERIES
BOX WAY & LINEAR GUIDE WAY

SPECIFICATIONS

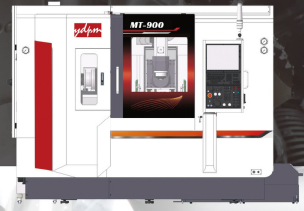
ITEM	UNIT	BML / ML-800S	BML / ML-800M	BML / ML-800L
Swing over bed	mm	Ø800		
Swing over saddle	mm	Ø600, OPT Y-axis: [Ø500]		
Max. machining diameter	mm	Ø620, OPT Y-axis: [Ø600]		
Standard turning diameter	mm	Ø600, OPT Y-axis: [Ø500]		
Max. work length	mm	2,000		3,000
Slant angle of bed	°	STD: 30°; OPT: 60°(Y-axis)		
X-axis	mm	340(310+30)		
Z-axis	mm	1,100	2,100	3,100
Y-axis	mm	OPT: ±80	OPT: ±80	OPT: ±80
C-axis	°	OPT: 360	OPT: 360	OPT: 360
Spindle speeds	rpm	STD: 2,500(12"), OPT: 2,000(15"), 1,200(15"), 1,000(18")		
Spindle nose	mm	STD: A2-8; OPT: A2-11, A2-15		
Chuck size	mm	STD: Ø304(±2.8 12"); OPT: Ø318(±2.11 15"), Ø405(±2.11 15"), Ø450(±2.15 18")		
Spindle bore diameter	mm	STD: Ø105; OPT: Ø134, Ø160, Ø182		
Draw bar bore	mm	STD: Ø91; OPT: Ø117.5, Ø142, Ø165		
Front bearing diameter	mm	STD: Ø140; OPT: Ø180 / Ø220 / Ø240		
Type	pcs	STD: [Lio Shing] LS-320 (Hydraulic); OPT: [Lio Shing] LS-320SV (Servo)		
Disc shape / No. of tools		STD: 10; OPT: 12		
Square tool shank height	mm	32x32		
Boring bar shank diameter	mm	Ø50		
Indexing time	sec.	0.95		
Max. rotary tool speed	rpm	Opt: 4,000		
Rapid traverse(X/Y/Z/C axis)	m/min	24/7/24, C:50rpm/min / 20/7/20, C:50rpm/min / 20/7/12, C:50rpm/min		
Quill diameter	mm	STD: Ø125; Opt: Ø150		
Tapered bore type (live center)		STD: MT5 fixed type; OPT: MT5 rotary type		
Quill travel	mm	160		
Tail stock travel	mm	1,100	2,100	3,100
Spindle motor	kw	STD: α22 (22/26) or gear box; Opt: α30 (30/37), α40(37/45)		
Live-tool motor	kw	α6 (5.5 / 7.5)		
X/Y/Z-axis motors	kw			
Coolant pump	kw	0.85		
Requirements	KVA	STD: 26		
Height	mm	2,044 (w/ Y-axis: 2,450)	2,044 (w/ Y-axis: 2,450)	2,044 (w/ Y-axis: 2,450)
Floor space	mm	5,034 x 2,284 / 5,034 x 2,284 / 7,034 x 2,284		
Weight (w/CNC)	kg	12,000 (w/ Y-axis: 12,400)	15,000 (w/ Y-axis: 15,400)	17,000 (w/ Y-axis: 17,400)
Fanuc type		Fanuc Oi-TF Plus (1)		
Mitsubishi type		M80A		

Note: Specifications are subject to change without further notice.

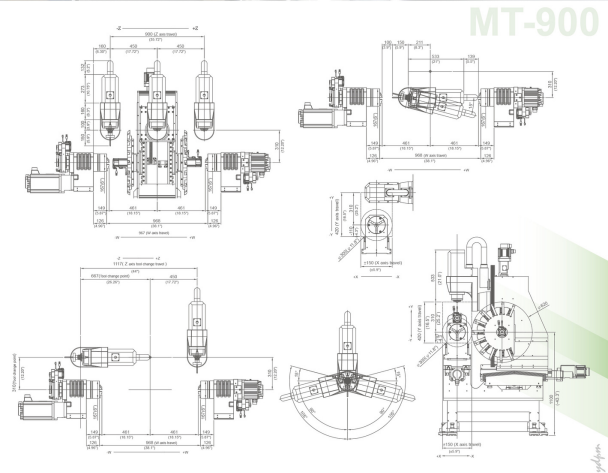
MT-900 LINEAR GUIDE WAY

Multiple-Axis Mill-Turn Composite
Machining Center

MT-900 has a 5 axis milling head, two turrets, a tool magazine and twin spindle. The design layout allows to maintain a large work envelope for both lathe operations – turning and milling. All 6 sides of a part can be machined without an operator being needed to manually re- fixture the workpiece. So nearly any part can be machined in an automated manner.

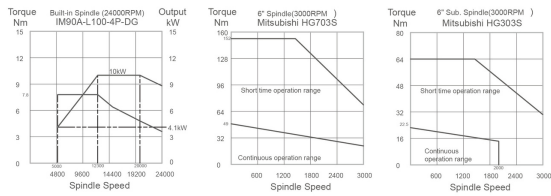


WORK ENVELOPE

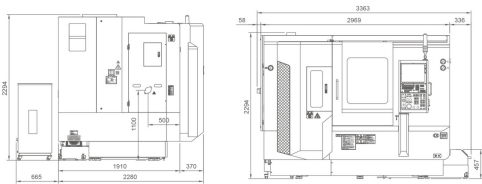


MT-900

SPINDLE POWER AND TORQUE DIAGRAM MT-900



DIMENSIONAL DRAWINGS



STANDARD ACCESSORIES

- Mitsubishi M80A, 15" LCD
- A2-5 spindle 3,000rpm (Main & Sub spindles)
- 6" 3-jaw hydraulic chuck (for Main & Sub spindles)
- Soft jaws*1set / Hard jaw * 2 sets
- Harmonic Gears for C axis * 2 sets
- 11 tools servo turret (left/right) * 2 sets
- Boring bar holder * 3 pcs
- Turning holder * 3 pcs
- Wedge type tool clamping * 16 pcs
- Boring bar bushings (Ø8, 10, 12, 16, 20, 25) x φ32 * 2 sets
- Taper sleeve MT no. 1, 2 x φ32 * 2 sets
- BBT30 built-in spindle 24,000rpm
- 24 tools auto tool change
- Coolant system
- Leveling bolts and pads
- Auto lubrication system
- Foot pedal for chuck*2 sets
- Tool box
- End of program indicator (3-color)
- YIDA manual

OPTIONAL ACCESSORIES

- Duet 3D PC Touchscreen Control
- Heidenhain angle encoder for C axis
- Oil skimmer
- Oil & moist collector
- Coolant gun
- Bar feeder
- Interface for bar feeder
- Parts catcher
- Chain type chip conveyor + cart
- Air conditioner for electrical cabinet
- Tool setter
- Workpiece measurement
- Transformer
- Stabilizer
- CE Certificate

SPECIFICATIONS MT-900

	ITEM	UNIT	MT-900
Capacity	Swing over bed	mm	Ø500
	Max. machining diameter	mm	Ø300
	Max. machining length	mm	922
Travels	X/Y/Z/B axis	mm	±150/420/600/±105
	C1/C2/A axis	mm	360/360/360
	W-axis	mm	968
Main/ Sub-Spindle	Spindle speeds	rpm	3,000
	Spindle nose	mm	A2-5
	Spindle bore diameter	mm	Ø56
	Front bearing inner diameter	mm	Ø80
	Draw bar diameter	mm	Ø45
	Chuck diameter	mm	6"
Milling Spindle	Tool shank		BBT-30
	Spindle speeds	rpm	24,000
	Spindle torque	Nm	7.8
	A-axis index	Arcmin	1
	Rotary angle		±105
B-axis	Index	Arcmin	1
	Max. speed	rpm	4,000
	Repeatability accuracy	Arcmin	±0.1
	Max. torque	Nm	1,080
	Rotary angle		360
C-axis (C1 & C2)	Index	Arcmin	1
	Max. speed	rpm	3,000
	Max. torque	Nm	49
Tool magazine	Tool capacity	pcs	24
	Max. tool diameter/ length	mm	Ø80 x 150
	Max. tool weight	kgs	3
	Tool change time(T-T)	sec.	4.8
Turret (Left/Right)	Type		Servo
	Tool capacity	pcs	11
	Square tool shank	mm	20x20
	Boring bar shank	mm	Ø32
	Main-spindle	kw	7
Motor	Sub-spindle	kw	3
	Milling Spindle	kw	10
	X/Y/Z/B/W axis	kw	1*5
	Tool magazine	kw	1
	Turret(Left/Right)	kw	0.75*2
Power	Hydraulic oil pump	kw	0.75
	Coolant pump	kw	0.85
	Requirement	KVA	30
Machine size	Height	cm	229
	L x W	cm	336x228
	Net weight	kg	5,000

Note: Specifications are subject to change without further notice.

