# **MACHINE TOOL LINE-UP**

# TOSHIBA MACHINE

## **Best Partner of Leading Industries**

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#### **TOSHIBA MACHINE** Best Partner of Leading Industries

Our machine tools produce components for key manufacturing industries worldwid

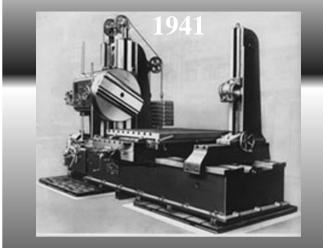
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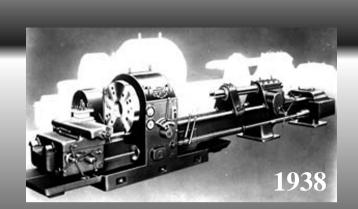
The Machine Tool Products of TOSHIBA MACHINE manufactures the key parts of various equipment and devices related to the environmental sustainability and the environmental conservation high-quality and efficiently.

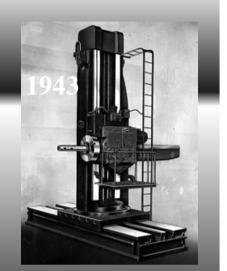
## **HBM LINE-UP**

With long history and various experience, Toshiba Machine's Horizontal Boring & Milling Machines

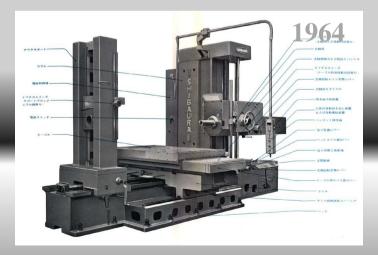
## HISTORY







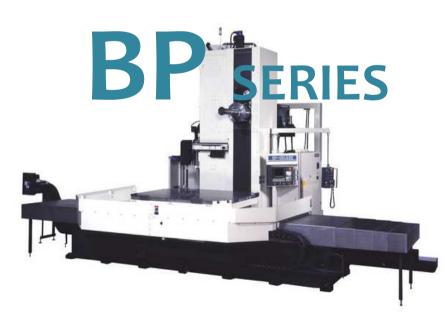
With long history and various experience, Toshiba Machine's Horizontal Boring & Milling Machines











# BTD-200QH

	BEST
SM	<b>ALL HBM</b>
IN	MARKET

BTD-200QH

Main machine specifications (standard)			BTD-200QH		
hain machi	ne specifications (su	andard)		Standard	with APC
	X-axis travel (Cross mov	vement of table)	mm (in)	1 50	0 (59)
-	Y-axis travel (Vertical movement of spindle head)		mm (in)	1 200 (47.2)	1 000 (39.3)
	Z-axis travel (Longitudin	al movement of table)	mm (in)	700	27.5)
Travel	W-axis travel (Quill exter		mm (in)	400	15.7)
	Distance from table surfa	ace to spindle centerline	mm (in)	0~1 200 (0~47.2)	0~1 000 (0~39.3)
	Distance from table center	line to spindle gage plane	mm (in)	450~1 150	(17.7~45.2)
	Table working surface		mm (in)	1 000×1 200	(39.3×47.2)
Table	Table loading capacity		kg (lbs)	4 000 (8 800)	3 500 (7 700)
Table	Table surface configuration (Pitch of T-slots: 160 mm)		mm (in)	6 T-slots, size 22 ,pitch 160 (size 0.86, pitch 6.	
	Minimum table indexing	angle	deg	0.0001	
	Rotating spindle diameter	ar	mm (in)	110	(4.9)
	Extended quill diameter		mm (in)	200	(7.8)
Caladia	Spindle speed		min <sup>-1</sup>	20~3 000	[15~5 000]
Spindle	Number of spindle speed ranges			1 range	[2 ranges]
	Type of spindle taper hole			7/24 tap	er No.50
	Spindle bearing inner diameter		mm (in)	110	(4.9)
		X,Y,Z	mm/min (ipm)	12 000	(472.4)
	Rapid traverse rate W		mm/min (ipm)	5 000	(196.8)
Feedrate	B		deg/min	1 080	
	Feedrate	X,Y,Z	mm/min (ipm)	1~6 000 (0.	039~236.2)



# **BTD** series

# BEST SELLER HBM IN MARKET

Machine Specifications			BTD-110H.R16
ravel		-	
X-axis travel (Cross movement of table)		mm (in)	2 000 (78.7)
Yaxis travel (Vertical movement of spindle head)		mm (in)	1 500 (59.1)
Z-axis travel (Longitudinal movement of table)		mm (in)	1 450 (57.1)
W-axis travel (Spindle extension)		mm (in)	500 (19.7)
Distance from table surface to spindle center		mm (in)	0~1 500 (59.1)
Distance from table center to milling spindle gauge	plane	mm (in)	550~2 000
able			A AND MORE LUCEDON
Table working surface		mm (in)	1 400 x 1 600 (55.1x63)
Table loading capacity		kg (lbs)	6 300 (13 860)
Table surface configuration(Pitch of T-slots 160mm,	size22mm)		9T-slots
Spindle			
Spindle diameter		mm (in)	110 (4.3)
Spindle speed range	min-1	5~3 000	
eedrate			
9.	X,Y, Z	mm/min (ipm)	12 000 (472.4)
Rapid traverse rate	W	mm/min (ipm)	5 000 (196.9)
17794-100 N 201 N 241 D 2200	В	deg/min	720
Feedrate	X,Y, Z	mm/min (ipm)	1~6 000 (0.04~236.2)
Automatic tool changer (ATC)			
Type of tool shank			MAS BT50
Tool storage capacity		38 (60, 90, 120)	
Spindle drive motor			
(30min./cont.rating)		kW (HP)	AC15/11 (AC20/15)
Aachine size		10. A.S.	
Machine height		mm (in)	4 000 (157.5)
Floor space		mm (in)	5 130 x 6 310 (202x248.4)
Mass of machine (including NC equipment)		kg (ibs)	28 000 (61 600)

# OUR SOLULUTION OF LARGE PART MACHINING

MACHINE	SPECIFICATIONS			BP-130.R22	BP150-R22
TRAVEL	X-axis travel (Cross movement of table)	mm (in)	4 640 (160)		
	Y-axis travel (Vertical movement of spindle hea	d)	mm (in)	2 540	(100)
-	Z-axis travel (Longitudinal movement of table)		mm (in)	1 524	(60)
	W-axis travel (Spindle extension)		mm (in)	711	(28)
	Distance from table surface to spindle center		mm (in)	0 to 2 540	(0 to 100)
	Distance from table center to milling spindle gage plane		mm (in)	812.8 to 2336.8 (32 to 92)	609.6 to 2133.6 (24 to 84)
TABLE	Table working surface		mm (in)	1 800 x 2 200 (70.8 x 86.8)	
11 1 1 1 - C - H - C - H	Table loading capacity		kg (lbs)	20 000 (44,000)	
	Table surface configuration		mm	11 T-slots, size 22	
	Pitch of T-slots 160mm (6.3in)		(in)	(11 T-slots, size 0.87)	
	Minimum table indexing angle (B-axis)		degree	0.0001	
SPINDLE	Spindle diameter		mm (in)	130 (5.1)	150 (5.9)
	Spindle speed range		min-1	5 to 2 500	
	Milling spindle nose diamete		mm (in)	250 (9.8)	
	Type of spindle taper holer			ISO 50	
FEEDRATE	Rapid traverse rate	X,Y, Z	mm/min (ipm)	n) 10 000 (393)	
		W	mm/min (ipm)	5 000 (196)	
		в	deg/min	500	
	Feedrate	X,Y, Z	mm/min (ipm)	1 to 6 000 (0.04 to 236.2)	

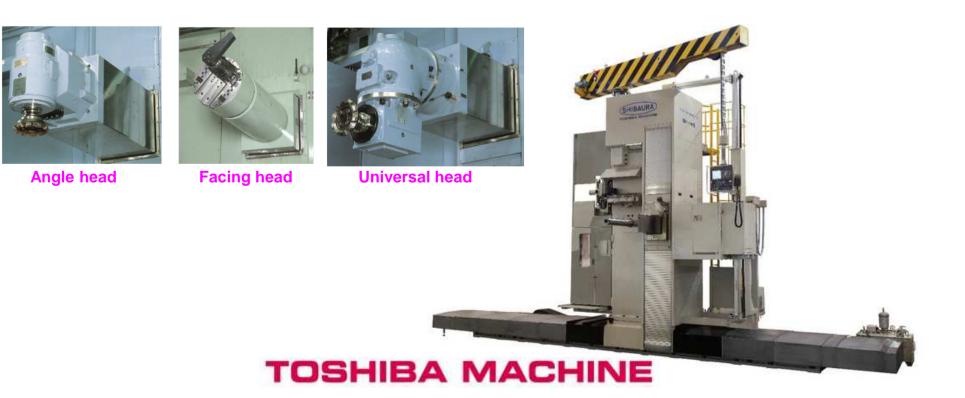
**BP** series

# BTH SERIES HIGH-RIGIDITY HIGH-ACCURACY HIGH-SPEED



Main specific	ations			BTH-130.R24
	X-axis traverse (Cross movement of table)		mm [in]	3 000 [118]
	Y-axis traverse (Vertical movement of spin	ndle head)	mm (in)	2 300 [ 90.5]
Travel	Z-axis traverse (Longitudinal movement of	d table)	mm [in]	1 500 (60)
	W-axis taverse (Spindle extension)	and the Alexandration	mm (in)	700 (28)
	Distance from table surface to spindle ce	nter	mm (in)	900 to 2 400 (35.4 to 95.4)
	Distance from table center to milling spin	dle gauge plane	mm [in]	0 to 2 300 [0 to 90.5]
	Table working surface		mm (in)	2 000 x 2 400 [78.7 x 94.4]
Table	Table loading capacity		kg [lbs]	20 000 [ 44 000]
Checkle and	Table surface configuration		mm [in]	9-Tslot, size 22, pitch 160[size 0.86, pitch 6.2]
Carlos Carlos	Spindle diameter		mm (in)	130 (5.1)
Spindle	Spindle speed range (op)		min-1	5 to 2 500 (6 to 4 000)
		X.Y.Z	mm/min [ipm]	14 000 [551.1]
	Rapid feed rate	W	mm/min [ipm]	5 000 [196.8]
Feedrate		В	deg/min	500
	Feedrate		mm/min [ipm]	1 to 7 000 [0.04 to 275.5]
Automatic tool changer	Type of tool shank			MAS BT50
	Tool storage capacity	38		
Spindle drive motor	(30min./cont.rating)		kW [HP]	AC22/18.5 [AC30/25] (AC30/22[AC40/30])
	Machine height		mm [in]	5 060 [199.2]
Machine size	Floor space	4.5	mm [in]	7 250 x 6 950 [285.4 x 273.6]
A CONTRACTOR OF CONTRACTOR	Mass of machine (including NC equipment	nt)	kg [lbs]	45 000 [99 000]
	Positioning accuracy	X,Y,Z	mm [in]	±0.016 [±0.00063] per full length
25623200	FUSIDUTING BUCUISUY	W	mm [in]	±0.012 [±0.00047] per full length
Accuracy	Repeatability	X,Y Z	mm [in]	±0.007 [±0.00027]
	hepealauliny	Ŵ	mm [in]	±0.008 [±0.00031]
Machine color	Exterior painting (Urethane)			R4-383 (Munsell 5Y8.4/0.5) N2.5

# BF/BSF FLOOR TYPE HBM SERIES FOR EXTRA-LARGE PARTS



# HMC LINE-UP

BMC-800

# BMC-1000(5)

**BMC** series

## **BM-U series**

TOSHIBA MACHIN

With long history and various experience, Stable, powerful and precise, Toshiba Machine's Horizontal Machining Centre

## **BMC** series

## Horizontal Machining centre for heavy duty cutting



Machine	specification	BMC-800	BMC-1000
Travel	X-axis travel Pallet cross	1250mm	1600mm
	Y-axis travel S;pindle head vertical	1000mm	1250mm
	Z-axis travel Column longitudinal	900mm	1200mm
	Distance from spindle centre to table top	75 to 1075mm	75 to 1325mm
	Distance from spindle nose to table centre	200 to 1100mm	200 tgo 1400mm
Pallet	Pallet size	800x800mm	1000x1000mm
	Pallet loading capacity	2000kg	2500kg
	Pallet surface	24-M16 Tap	36-M20 Tap
	Pallet indexing	Every one degree	Every one degree
Spindle	Spindle speed	15 to 5000rpm	15 to 5000rpm
	Spindle speed range	2 steps	2 steps
	Type of spindle taper hole	ISO NO.50 taper	ISO NO.50 taper
	Spindle bearing inner diameter	100mm	100mm
	Spindle drive motor	AC 22/18.5kW	AC 22/18.5 kW

# BMC-1000(5) Horizontal Machining Centre with 5-axis machining



Machine	specification		BMC-1000(5)
Travel	X-axis travel	Pallet cross	1500mm
	Y-axis travel	S;pindle head vertical	1500mm
	Z-axis travel	Column longitudinal	1250mm
	A-axis	Tilting angle (Tilting angle of pallet)	10 to -100 degree
	B-axis	Rotating angle (Rotating angle of pallet)	360 degree
	Pallet horizontal	(A=0 degree)	
		Distance from palet surface to spindle centre (Y)	-550 to +950mm
		Distance from pallet centre to spindle gauge line (Z)	250 to 1500mm
	Pallet vertical (A	=-90 degree)	
		Distance from palet surface to spindle centre (Y)	-550 to +950mm
		Distance from pallet centre to spindle gauge line (Z)	50 to 1300mm
Pallet	Pallet size		1000x1000mm
	Pallet loading cap	pacity	
		Pallet horizontal	2500kg
		Loading moment (Pallet tilted)	4900 N-m
	Pallet surface		36-M20 tap
	Locating method	of work piece	Edge-locator
Spindle	Spindle speed ra	nge	15 to 5000 rpm
	Type of spindle t	aper hole	7/24 taper NO.50
	Spindle drive mo	tor	22/18.5 kW
		Optional feature for heavy duty cutting	30/22kW



# BM-series Horizontal Machining Centre with 5-axis machining

## **BM-U series**



					BM S	eries	
	Main Specifications			800	1000	1250	
				000	Basic	12	.50
	X-axis travel (Long	jitudinal	mm		18	800	
Travel	Y-axis travel (Verti	cal	mm		16	500	
Traver	Z-axis travel (Cross W-axis travel (Cross		mm	1 600			
			mm	300			
	Pallet working surf	200		800×1	1 000	×1 000	1 250×
Pallet	Fallet working sur	ace	mm	000	1 000×1 000		1 250
Pallet	Pallet loading capa	city	kg	3 000			
	Minimum table indexing		deg	1 (sequence:0.001)			1)
Spindle Spindle speed		min <sup>-1</sup>	$20 \sim 10\ 000$				
Motor	Spindle drive	K	W		AC 3	0/22	

## VTL LINE-UP

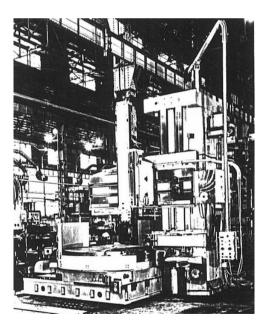


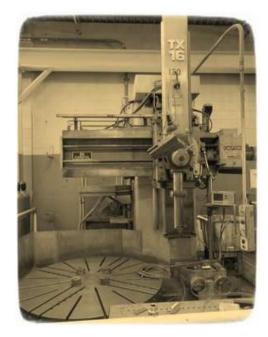
Toshiba Machine's wide line-up of Vertical Boring and Turning Mills is provided to satisfy various needs of machining.

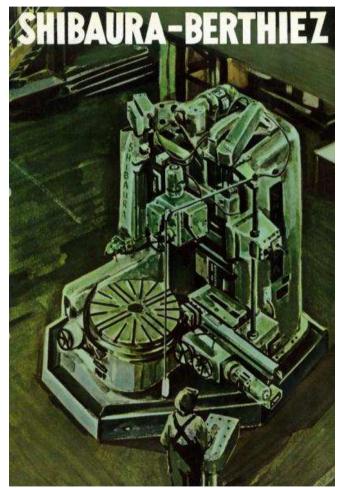
#### History

## TOSHIBA MACHINE VTL LINE-UP

In 1955 BERTHIEZ's technical cooperation (Shibaura Engineering Works Co., Ltd. at the time) since 2600 VTL machines about making experience and 60 years of tradition.

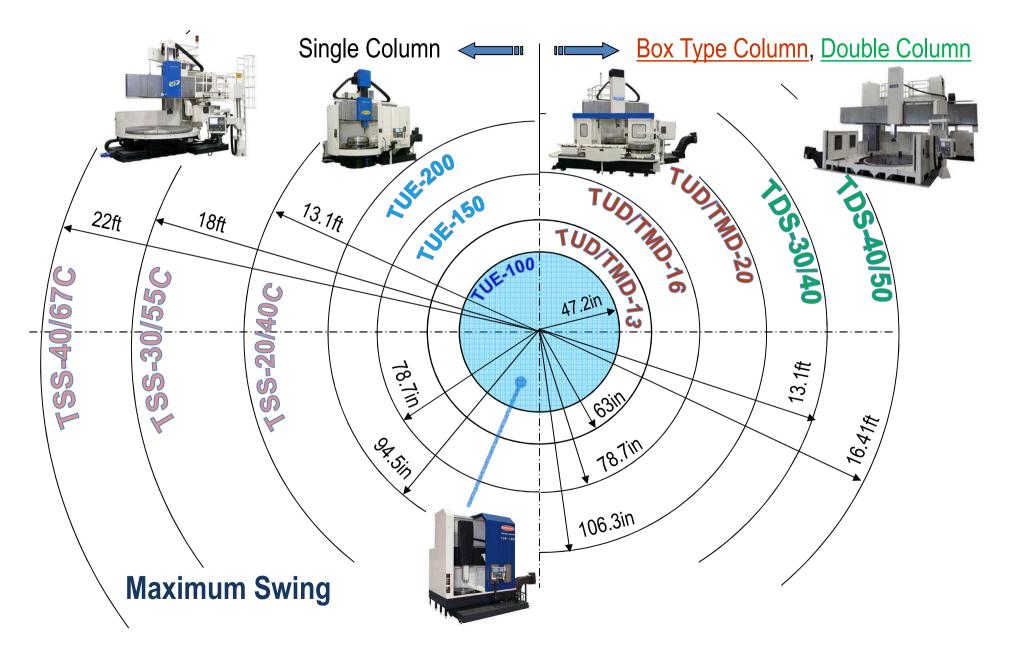




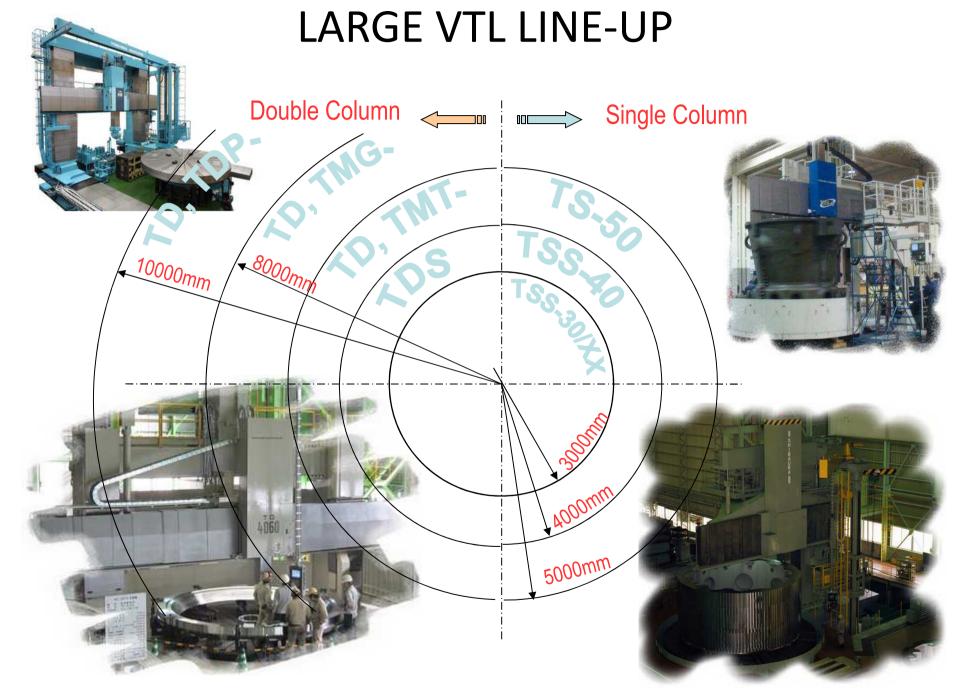


#### Wide range of machining

## **VTL LINE-UP**



#### Wide range of machining





# TUE 100 NEW VTL IN MARKET

Full- enclosure for high-pressure coolant

SHIBAURA TOSHIBA MACHIN TUE-10

Machine s	pecifications (Standard)		TUE-100
	Table diameter	mm[in]	1 016 [40.0]
	Maximum swing	mm[in]	1 200 [47.2]
Capability	Maximum height from table top to ram bottom	mm[in]	1 055 [41.5]
and	Maximum cutting height	mm[in]	850 [33.4]
capacity	Maximum cutting diameter	mm[in]	1 200 [47.2]
	Maximum cutting force of ram	N[lbf]	19 600 [4 406]
	Maximum load on table	kg[lb]	2 000 [4 400]
Travel	Horizontal travel of rail head(X-axis)	mm[in]	-510 ~ 750 [-20.0 ~ 29.5]
	Vertical travel of ram(Z-axis)	mm[in]	800 [31.4]
	Rotation speed(2 ranges) Low	min <sup>-1</sup>	2~150
Table	High	min <sup>-1</sup>	8~600
	Maximum torque	N∙m[lbf•ft]	9 834 [7 253] (at 36min <sup>-1</sup> )
	Rapid traverse rate of rail head	m/min[ipm]	15 [590.5]
Feed rate	Rapid traverse rate of ram	m/min[ipm]	12 [472.4]
	Feed rate	mm/min[ipm]	1~2000[0.04~78.7]
	Туре		Automatic tool clamp
Ram	Guideways		Dual parallel
	Section	mm[in]	250 × 230 [9.84×9.06]
	Type of tool shank		7/24 taper No.50
Tool	Type of retention knob		JIS 50 PU
	Automatic tool changer (ATC)		Tool storage capacity : 12 tools



# TUE SERIES BEST SELLER VTL IN MARKET

Main specifications		TUE-150	TUE-200
Table diameter	mm(in)	1450(57.09)	2000(78.74)
Maximum swing	mm(in)	2000(78.74)	2400(94.09)
Maximum cutting height	mm(in)	1550(6	67.72)
Maximum table load	kg(lb)	8000(17600)	15000(33070)
Vertical travel of ram	mm(in)	900(3	5.43)
Table speeds	min <sup>-1</sup> (rpm)	$2-400 \left( \frac{\text{Low}: 2\sim 100}{\text{High}: 8\sim 400} \right)$	$2-240 \left( \frac{\text{Low}: 2\sim60}{\text{High}: 8\sim240} \right)$
Table drive motor	kW(HP)	45 / 37(6	

755-0

Machine Specification	S	TSS-30/55C(S)	TSS-40/67C(S)
Table diameter	mm [in]	3 000 [118.1]	4 000 [157.48"]
Maximum swing	mm [in]	5 500 [216.5]	6 700 [263.78"]
Maximum cutting height	mm [in]	2 200 [86.6]	2 600 [102.36"]
Maximum load on table	kg [lb]	20 000 [44 092]	25 000 [55115lb]
Maximum cutting force on ram	N [lbf]	30 000 [6 744]	30 000 [66138lbf]
Horizontal travel of rail head (X-axis)	mm [in]	2 150 [84.6]	2 450 [96.46"]
Vertical travel of ram (Z-axis)	mm [in]	1 500 [59.0]	
Table speed	min-1	2~80	
Maximum table torque	N∙m [lbf-ft]	45 785 [33 771]	
Spindle speed	min-1	15~1 500	
Maximum spindle torque	N·m [lbf-ft]	350 [258]	
Ram Type		Closed type	
Ram Sectional dimensions	mm [in]	250 x 250 [9.84 x 9.84]	1

UNIQUE SINGLE COLUMN FOR LARGE PARTS TSS-C SERIES



## LONG SELLER, 2-axis VTL HIGH SPEC, RELIABILITY

# TUD SERIES

Machine Specifications		Unit	TUD-13	TUD-16	<b>TUD-20</b>
Table Diameter		mm(in)	1,250(49.2)	1,600(63.0)	2,000(78.7)
Max. Swing		mm(in)	1,600(63.0)	2,000(78.7)	2,700(106.3)
Max. height from table top to ram bottom	Without APC	mm(in)	1,300(51.2)	1,550(61.0)	1,800(70.9)
Max. height from table top to fam bottom	With APC	mm(in)	1,100(43.3)	1,350(51.2)	1,550(61.0)
Max. cutting height	Without APC	mm(in)	1,10043.3)	1,350(53.1)	1,600(63.0)
Wrax. cutting height	With APC	mm(in)	900(35.4)	1,150(45.3)	1,350(53.1)
Maximum cutting force of ram		N (lbf)	24,500 (5,500)	24,500 (5,500)	24,500 (5,500)
Table load on table	on the Machine	Kg(lb)	8,000 (17,600)	10,000 (22,000)	15,000 (33,000)
	on the APC	kg(lb)	4,000 (8,800)	5,000 (11,000)	7,000 (15,400)
Horizontal travel of rail head	X-axis mm(in)	mm(in)	-630 to 920	805 to 1,120	-1005 to 1,370
nonzontal travel of fail nead	A-axis	11111(111)	(-24.8 to 36.2)	(31.7 to 44.1)	(-39.6 to 53.9)
Vertical travel of ram	Z-axis	mm(in)	800(31.5)	800(31.5)	1,050(41.3)
Vertical travel of crossrail		mm(in)	500 (19.7)	500 (19.7)	750 (29.5)
Table speeds		min-1 (rpm)	2 to 450	2 to 350	2 to 250
Maximum table torque		N-m (ft-lbf)	16,775	23,065	33,100
waximum table torque		1 <b>N-III</b> (IU-IDI)	(12,370)	(17,010)	(24,410)

## LONG SELLER TURNING CENTRE HIGH SPEC, RELIABILITY

Machine Specifications		Unit	TMD-13	TMD-16	TMD-20
Table Diameter		mm(in)	1,250(49.2)	1,600(63.0)	2,000(78.7)
Max. Swing		mm(in)	1,600(63.0)	2,000(78.7)	2,700(106.3)
Mary haisht from table ton to mar hottom	Without APC	mm(in)	1,300(51.2)	1,550(61.0)	1,800(70.9)
Max. height from table top to ram bottom	With APC	mm(in)	1,100(43.3)	1,350(51.2)	1,550(61.0)
	Without APC	mm(in)	1,10043.3)	1,350(53.1)	1,600(63.0)
Max. cutting height	With APC	mm(in)	900(35.4)	1,150(45.3)	1,350(53.1)
Maximum cutting force of ram		N (lbf)	24,500 (5,500)	24,500 (5,500)	24,500 (5,500)
	on the Machine	Kg(lb)	8,000 (17,600)	10,000 (22,000)	15,000 (33,000)
Table load on table	on the APC	kg(lb)	4,000 (8,800)	5,000 (11,000)	7,000 (15,400)
		·····	-630 to 920	805 to 1,120	-1005 to 1,370
Horizontal travel of rail head		mm(in)	(-24.8 to 36.2)	(31.7 to 44.1)	(-39.6 to 53.9)
Vertical travel of ram		mm(in)	800(31.5)	800(31.5)	1,050(41.3)
Vertical travel of crossrail		mm(in)	500 (19.7)	500 (19.7)	750 (29.5)
Table speeds		min-1 (rpm)	2 to 450	2 to 350	1 to 250
Martine de la deserva			16,775	23,065	33,100
Maximum table torque		N-m (ft-lbf)	(12,370)	(17,010)	(24,410)
Spindle speed		min-1	25 to 3,000	25 to 3,000	25 to 3,000
N		N	420	420	420
Maximum spindle torque		N-m(ft-lbf)	(310)	(310)	(310)



# TMD SERIES

# DOUBLE COLUMN FOR LARGE PARTS

	Unit	TDS-30/40(S)	TDS-40/50(S)
Table Diameter	mm(in)	3 000 (118.11)	4 000 (157.48)
Max. Swing	mm(in)	4 000 (157.48)	5 000 (196.85)
Max. cutting height	mm(in)	2 500 (98.4259	2 750 (108.268)
Table loading capacity	Kg(lb)	30 000 (13 608)	30 000 (13 608)
Table speed	min-1	150	100
C-axis Motor		servo	servo
C-axis scale		standard	standard
Spindle speed	min-1	3 000	3 000
Cross-rail Position		Step (250X8Pos.)	Step (250X8Pos.)
ATC		24 (48)	24 (48)
NC (FANUC)		FS 31i-B	FS 31i-B



# **TDS** series

## DOUBLE COLUMN TYPE MACHINING CENTER



Double Column Type Machines as our mother machine provide suitable capability to make high-accuracy and large-sized components.





Machir	ne Specificati	MPC-EII series								
	h	Aodel		2140	2150	2640	2650	2660	3140	
X-axis travel (table longitudinal direction)		mm(in)	4500(175.5)	5500(214.5)	4500(175.5)	5500(214.5)	6500(253.5)	4500(175.5		
	Y-axis travel (spinfle head crosswise direction)		(in) mm	2900(1	2900(113.1) 3400(132.6) 3900(152					
_	Z-axis travel (ram vertica	avel (ram vertical direction) mm(in)		900(35.1)						
Travel	W-axis travel (crossrail elevation)		1000(39.4)(5 positions available at 250mm(9.8in.)intervals) (1500(59)(7 positions available at 250mm(9.8in.)intervals))							
	Height (distance from table top	ose) mm(in)	1750(2250)(68.2(87.7))							
	Distance between column steen	an Tawaide German for work-pe	e mm(in)	2100(81.9) 2600(101.4)				3100(120.9		
Table	Table working surface		mm (in)	1800x4000 (70.8x157.4)	1800×5000 (70.8×196.8)	2000x4000 (78.7x157.4)	2000x5000 (78.7x196.8)	2000x6000 (78.7x236.2)	2500x4000 (98.4x157.4	
10.000000	Table loading capacity		kg(ibs)		20000(44000)	1		30000(66000)	6.	
	Spindle Speed Number of spindle speed ranges		min <sup>-1</sup>	30~4000(6000)						
				2						
Spindle	Spindle taper hole			7/24 taper No.50						
1 Beccounter	Spindle bearing inner diameter mm(in)		N-m (kgf-m) (ft-lbf)	1528(156)(1158)						
			mm(in)	100(3.9)						
			mm(in)	380x380(14.9x14.9)						
		X/Y	mm/min(in/min)	25000(984)						
	Rapid traverse	Z	mm/min(in/min)	10000(393.7)						
Feedrate	3	W	mm/min(in/min)	1000(39.3)						
	Feedrate	X/Y	mm/min(in/min)			1~10000(0	).03~393.7)			
	r dour ato	z	mm/min(in/min)	1~10000(0.03~393.7)						
200.037	Type of tool shank					MAS	BT50			
ATC	Type of retention knob			MAS P50T-1(45')						
Tool storage capacity		tools	36							
	Machine height mm(in)		6490(6990)(255.5(275.1))							
Machine size	Ploor space mim (in)			6800x11000 (267.7x433)	6800x13100 (267.7x515.7)			7300x15100 (287.7x594.4)		
CNC system	Ē.					TOSNL	10 000			

Machine Specifications			MPC-EII series						
	Model		3150	3160	3180	3650	3660	3680	
	X-axis travel (table longitudinal direction)	mm(in)	5500(214.5)	6500(253.5)	8500(331.5)	5500(214.5)	6500(253.5)	9000(315.0)	
travel	Y-axis travel (spinfle head crosswise direction)	ad crosswise direction) mm(in)		3900(152.1)			4400(171.6)		
	Height (distance from table top face to verticual spindle nose)	mm(in)	1750(2250) (1695(2195)incase of model 3180,3680) (68.2(87.7) (66.1(			5.1 (85.6)})			
table	Table working surface	mm (in)	2500x5000 (98.4x196.8)	2500x6000 (98.4x236.2)	2700x8000 (106.2x315)	3100x5000 (122x196.8)	3100x6000 (122x236.2)	3100x8000 (122x315)	
	Table loading capacity	kg(lbs)	30000	(66000)	40000(88000)	30000	(66000)	40000(88000	
Feedrate	Rapid traverse X,Y	mm/min(in/min)	20000(787.4)						
Machine size	Floor space	mm (in)	7800x13100 (307x515.7)	7800x15100 (307x594.4)				8300x19900 (326.7x783.4)	

## HIGH SPEED & HIGH EFFICIENCY

-	Machine specifications		MPJ-2650		
	X-axis travel (Longitudinal movement to table)	mm (in)	5 200 [204.7]		
	Y-axis travel (Crosswise movement of spindle head)	mm (in)	3 000 [118.1]		
Travel	Z-axis travel (Vertical movement of ram)	mm (in)	800 [31.5]		
	W-axis travel (Elevation of crossrail), 250 pitches at 5 positions	mm [in]	1 000 [39.4]		
	Height (distance from table surface to vertical spindle gage plane)	mm (in)	1 850 [72.8]		
	Distance between columns	mm [in]	2 600 [102.4]		
Table	Table working surface	mm (in)	2 000×5 000 [78.7×196.9]		
Tuble	Table loading capacity (Plain table type)	kg [lbs]	25 000 (55 000)		
	Spindle speed range	min-1	30~4 000		
Spindle	Type of spindle taper hole		7/24 taper No.50		
opinare	Maximum spindle torque	N+m[Ft-lb]	600 [442.9]		
	Spindle bearing inner diameter				
Spindle ram	Туре	Open ram type			
opinare rain	Cross section size	mm (in)	380×380 [15×15]		
	Rapid traverse rate (X,Y,Z)	mm[in]/min	20 000 [787.4](X,Y) 10 000 [393.7](Z)		
Feedrate	Feedrate (X,Y,Z)	mm[in]/min	1~10 000 [0.04~393.7]		
	Crossrail feedrate (W)	mm[in]/min	1 000 [39.4]		
Tool	Type of tool shank	MAS BT50			
	Type of retention knob	-	MAS P50T-1( 45*)		
Motor	Spindle drive motor (30-minute rating/cont.)	kW [hp]	AC30 [40]/22 [29.3]		
	Machine height	mm (in)	6 473[254.8]		
Machine size	Floor space requirements	mm (in)	14 800X7 420 [582.7X292.1]		
	Mass of machine	kg [lbs]	33 000 [72 600]		
CNC system			FANUC Series 31i - MODEL B5		
Accuracy	Positioning accuracy	mm (in)	X.Y-axis±0.007/1000 [±0.0003/39.4] Z-axis±0.006/800 [±0.0003/31.5]		
	Repeatability	mm [in]	±0.003 [±0.0001]		
Painting color	Machine exterior		R4-383 (Munsell 5Y8.4/0.5 and N2.5) [Two-toned color]		
	Machine interior		Munsell10YR8/4		

**MPJ** series

FLEXIBILITY SATISFYING GLOBAL DEMAND



# **MCW** series

	Major Specifi	cations		MCW-4624	
	X-axis travel (crossrail longitudinal directio	mm (in)	4 600 (Cutting3 500+ATC1 100		
Y-axis travel (spindle head crosswise direction)   Travel Z-axis travel (ram vertical direction)				3 700 (145.7)	
				900 (35.4)	
Height (distance from table top sur		vertical spindle gage plane)	mm (in)	1 050 (41.3)	
Distance between columns (Maximum traversable clearance for work-piece)				4 580 (180.3)	
Plate working surface				3 200 x 2 400 (126 x 94.5)	
Fiate	Plate loading capacity	kg/m2 (psi)	10 000 (142 233)		
	Spindle speed	min <sup>-1</sup>	30~4 000		
Spindle	Spindle taper hole		7/24 taper No.50		
	Maximum spindle torque	N·m	1 528		
Spindle ram	Туре		Ram type		
Spinule rain	Cross-sectional size	mm(in)	380×380 (15×15)		
	Rapid traverse	(X/Y)	mm/min(ipm)	25 000 (975)	
Feedrate	napio uaverse	(Z)	mm/min(ipm)	10 000 (390)	
	Feedrate	(X/Y/Z)	mm/min(ipm)	1~10 000 (0.04~390)	
Motor	Spindle motor (50%ED/continuous)		kW(HP)	AC30/22 (40/30)	
Machine height			mm(in)	4 905 (193.1)	
Machine size	Floor space	mm(in)	7 900 × 8 932 (311 × 351.6)		
woodron 2406-03	Mass of machine		kg(lbs)	50 000 (110 000)	
CNC system		÷.		TOSNUC PX100	





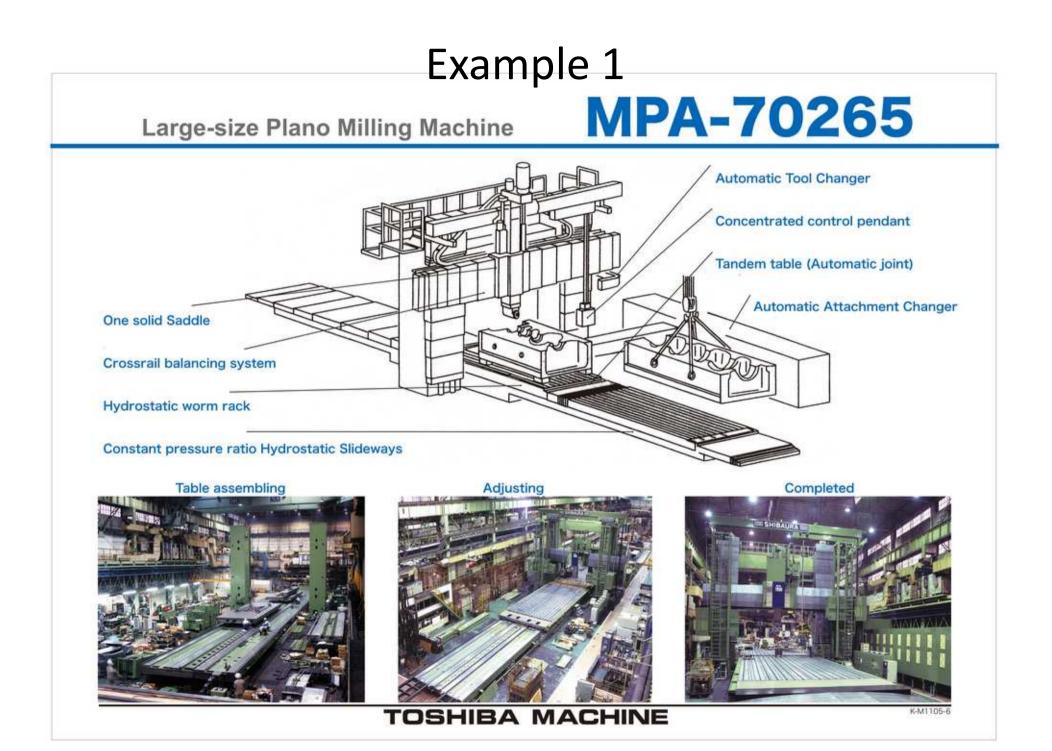
# MP SERIES MULTI-PURPOSE WITH 5-AXIS AND TURNING TABLE

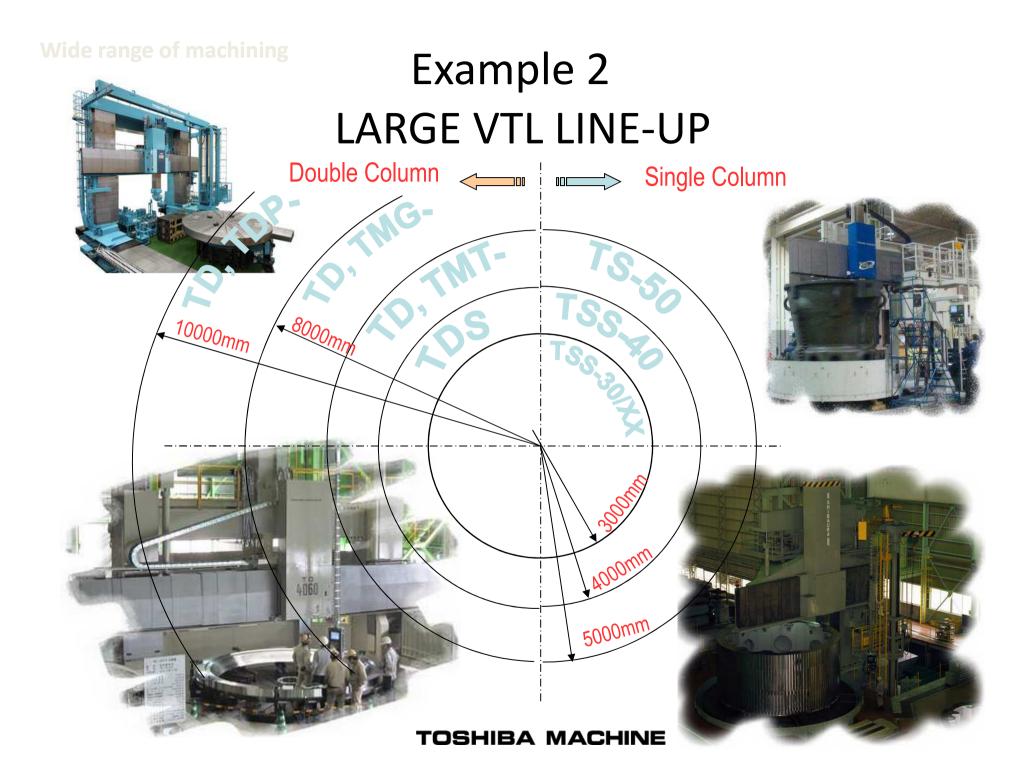
Machine Speci	lications	Unit	MP-2620(U)
Travel	X-axis travel (Longitudinal movement of table) Y-axis travel (Cross movement of spindle head) Z-axis travel (Vertical movement of ram) W-axis travel (Vertical movement of crossrall) C-axis travel (Vertical movement of crossrall) C-axis travel (Table) Height (Distance from table top surface to vertical spindle nose (Snout 240) Distance between columns (Maximum width between columns where workpiece can go through)	mm mm mm deg mm mm	2 500 3 400 800 1 000 (250 pitches, 5 positions) 360 1 785 2 600
Table	Table diameter Maximum load on table Table speed Number of table speed ranges Maximum table torque	mm kg min-1 N-m	2 000 10 000 2~250 2 ranges 20 000 (2040kgf·m)
Spindle	Spindle speed range No. of spindle speed ranges Type of spindle taper hole Maximum spindle torque Spindle bearing bore	min-1 N+m mm	40~10 000 2 ranges 7/24 taper No.50 722.7{73.7kgf·m} 100
Feedrate	Rapid traverse rate (DO NOT continue the rapid traverse rate operation for ten (10) minutes or over)	mm/min deg/min	X:40 000 (Table load: less than 3 000kg) :20 000 (Table load: more than 3 000kg) Y:40 000 (30m/min at both stroke end) Z:40 000 (Snout 240) :30 000 (Other attachment) C:1 080 (3min <sup>-1</sup> )
	Feedrate	mm/min deg/min	X,Y,Z: 1-20 000 C:1-1 080 (3min <sup>-1</sup> )
Machine size	Machine height Floor space Mass of machine	mm mm ka	6 600 8 500x10 000 55 000

## LARGE SIZE CUSTOMIZED MACHINE



Our large size machine tool products are called "MOTHER MACHINE". A good partner for large-sized components







# Special arrangement for FMS line with TMD-13 & BMC-1000(5)

