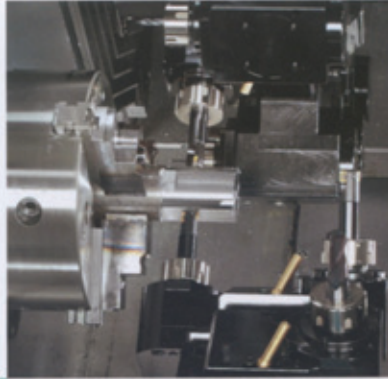
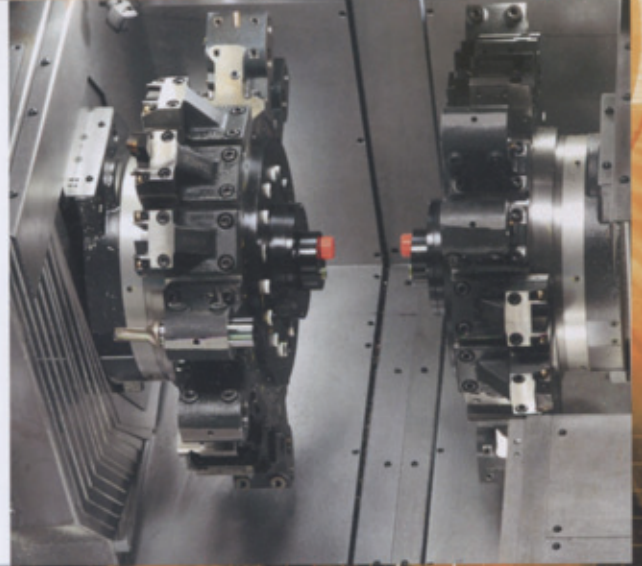


**muratec**



**High Productivity Multi-Tasking Machine**

**MT200**



**MURATA MACHINERY, LTD.**

High Productivity Multi-Tasking Machine

# MT200

# Multiple Operations by Multiple Turrets

Flexibility : Bar and Chuck work

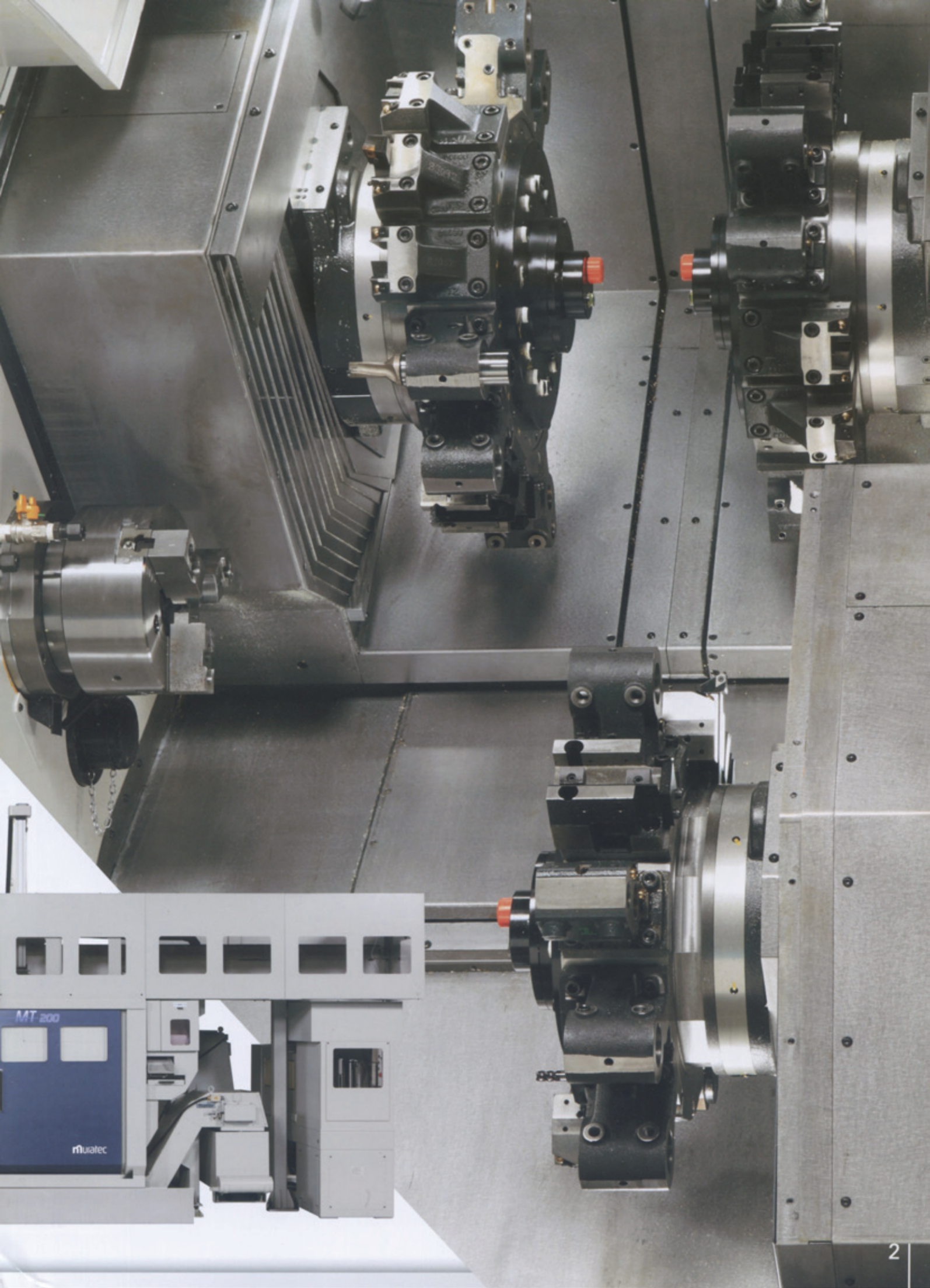
All-In-One Solution with Flexible automation

## High Performance and Compact Design

- 55 mm Dia. Bar size on both spindles (65 mm Dia. Option)
- 15 kW Spindle Motor (Both Spindles)
- Y-axis 80 mm stroke on All Turrets
- 5.6 kW Live Tool Motor on All Turret Positions
- High Speed 3-Axis CNC Gantry Loader
- Compact Floor Space 3.2 m x 2.1 m (W x D)









High Productivity Multi-Tasking Machine

# MT200



## Specifications

Target parts size :  $\phi$  55 bar material ( $\phi$ 65 Option)  
maximum  $\phi$ 210 Chuck work

Spindle motor : 15 kW/30min (Left/Right)

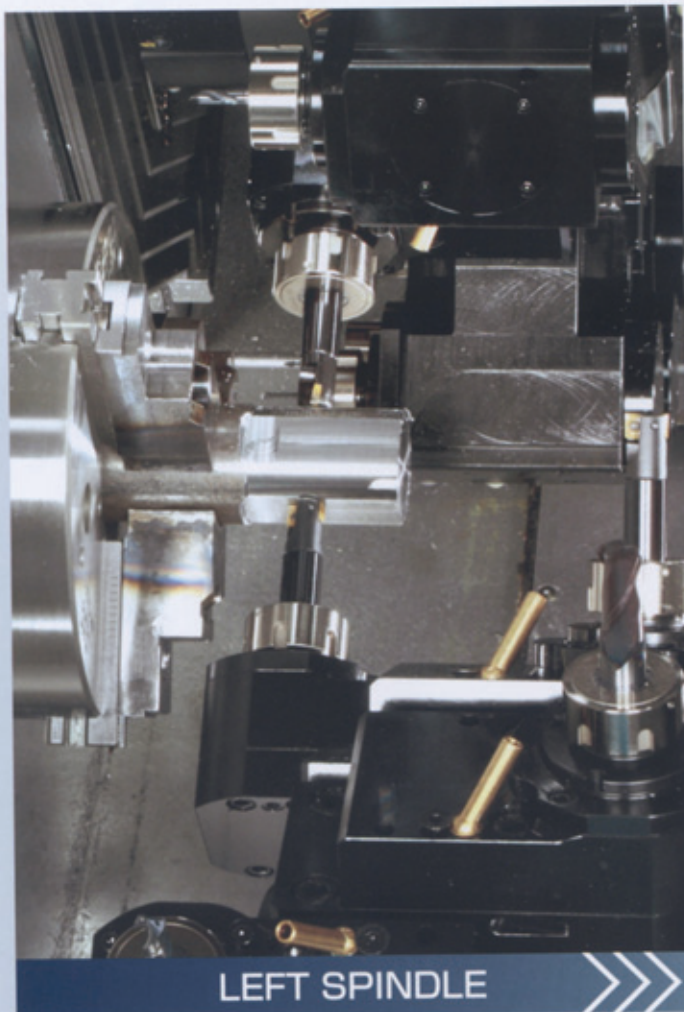
Turret : 2 turrets (3 turrets : Option)

Upper turret-15 station,  
Lower turret-12 station

Live tool & Y-axis function on all turrets

Live tool motor : 5.6 kW/30min

(On All Turret Positions)



Y-axis movement is available on both the upper and lower turrets. Simultaneous live tool machining is possible utilizing both the upper and lower turrets for each spindle. This allows for the manufacture of complex part geometries in an efficient manner.

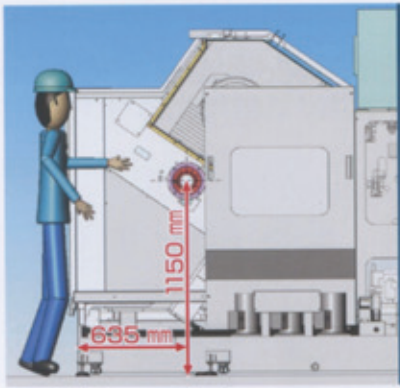
## SPECIAL L

With special tool  
stations on the

This feature pro  
in turn increase



## Workability and Maintainability

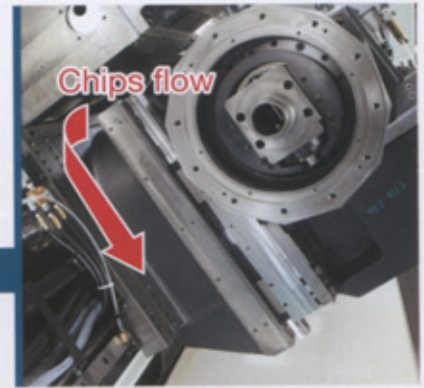


### Easy access to spindle

The MT200 design ensures easy access to the main spindles by reducing the distance between the machine front and the spindle center.

### Lower Turret Chip Flow

The lower turret is designed with appropriate space for chips to fall so that accumulation does not occur.

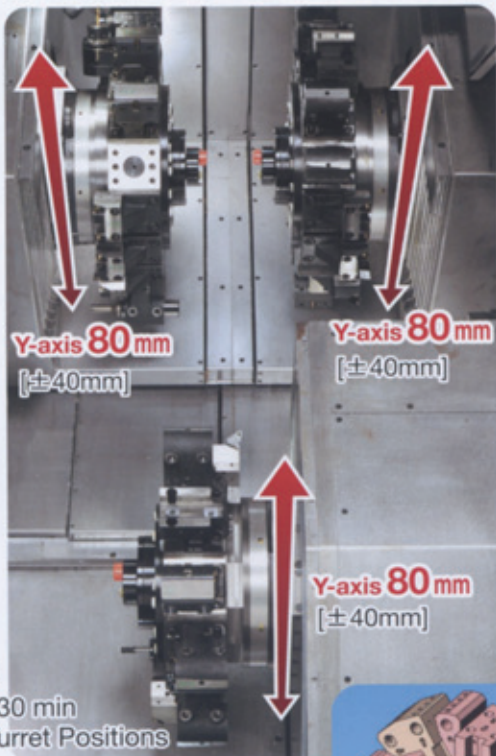


### Wide door Opening

Since the door opening area has been widened, workholding replacement, tool changeover, and maintenance work is easily performed.

### Operation panel

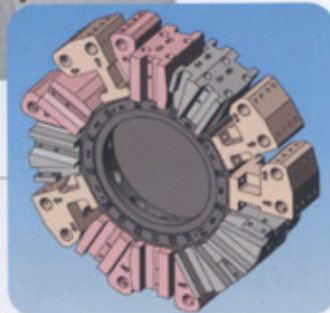
The buttons and layout of the operation panel have been designed in a manner that allows for easy operation of the Three Turrets.



Live tool  
5.6 kW/30 min  
On All Turret Positions

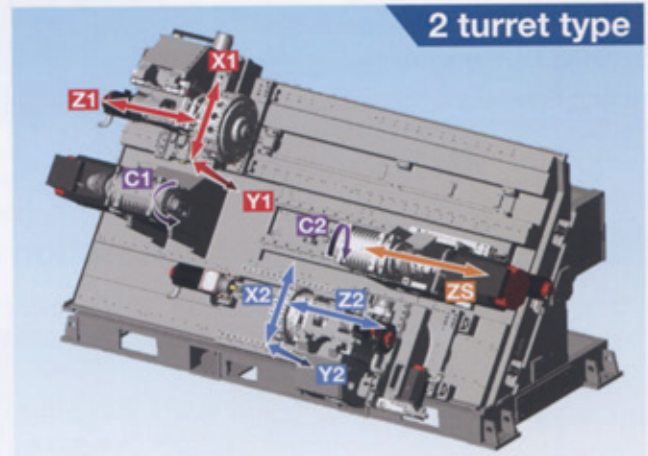
### OVER TURRET (Option)

By using cutting blocks, it is possible to utilize 24 tools per turret (Non-Live Tool Specification). This achieves reduction in changeover time which increases productivity.

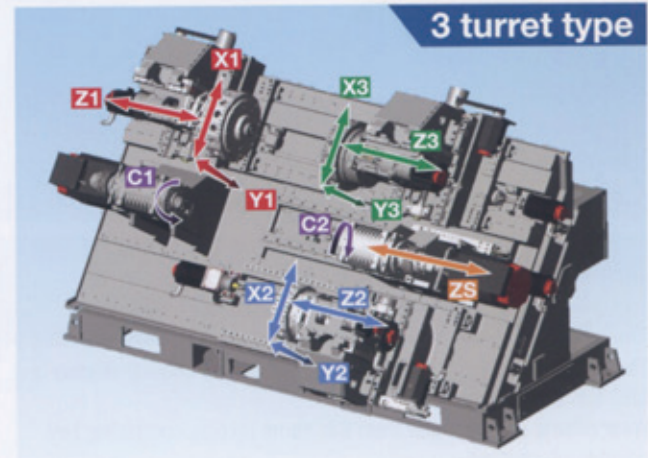


## Axis configuration

### 2 turret type



### 3 turret type





## Gantry Loader specifications

### High Speed 3-Axis CNC Gantry Loader



With the addition of the center partition to the machine, one spindle is isolated from the other spindle. This feature significantly reduces the negative affects of chips or coolant on the gantry loader. The gantry loader is isolated from the machining side during operation.

Center partition

270° turn wrist

## Advanced user-friendly function and display

**TOOL COUNTER** UPPER

TOOL NO	CUTTING COUNT	CUTTING TIME	OFFSET/WEAR	GROUP						
SET	REST	PRE.	SET	REST	PRE.	No.	X	Z		
1	999	999	0	4	4	0	1	-0.001	-0.230	1
2	1000	200	0	0	0	0	2	-0.002	-0.022	1
3	1000	2	0	67	67	0	3	-0.003	-0.033	1
4	1000	300	0	4	4	0	4	-0.004	-0.044	1
5	1000	100	0	4	4	0	5	-0.005	-0.055	2
6	1000	1	0	0	0	0	6	-0.006	-0.066	2
7	1000	45	0	0	0	0	7	-0.007	-0.077	2
8	1000	32	0	4	4	0	8	-0.008	-0.088	2
9	1000	10	0	0	0	0	9	-0.009	-0.099	3
10	1000	10	0	0	0	0	10	-0.010	-0.100	3
11	1000	10	0	0	0	0	11	-0.011	-0.111	3
12	1000	10	0	0	0	0	12	-0.012	-0.122	3
13	1000	1000	0	0	0	0	13	-0.013	-0.133	4
14	1000	10	0	0	0	0	14	-0.014	-0.144	4
15	1000	1000	0	0	0	0	15	-0.015	-0.155	4

CURRENT TOOL : 0 CUTTING LOAD X: 0.0 % Z: 0.0 %  
 CHANGE RECDL : 25 MINUTES 2009/08/27 09:31 TOOL 00 UP F1RST

COUNT UP PREDICTION UNISURL CHANGE RECDL

SCREEN COPY HINO COUNT TIME GAUGE PRESET GROUP  
 SEC COMV COMV OFF COMV PRESET PRESET

**Tool Counter Function**

The MT200 includes the Muratec integrated tool counter display and CNC tool offset display. Wear offsets can be made from this same display combining tool counter information.

**TOOL MONITOR** UPPER

PROGRAM NO. > 00000

AXIS X PRE-LOAD 0

MONITOR DATA

(PATH)	(TOOL)	(MODE)	PEAK	AVERAGE	BASE	ACTION	PEAK MAX	AVE. MAX
ALM	WARN	ALM	WARN					

MONITOR PATH [ 0 ] % 0 50 100 X >> [ 0 ] L Z >> [ 0 ] S >> [ 0 ]

MONITOR PATH [ 0 ] % 0 50 100 X >> [ 0 ] R Z >> [ 0 ] S >> [ 0 ]

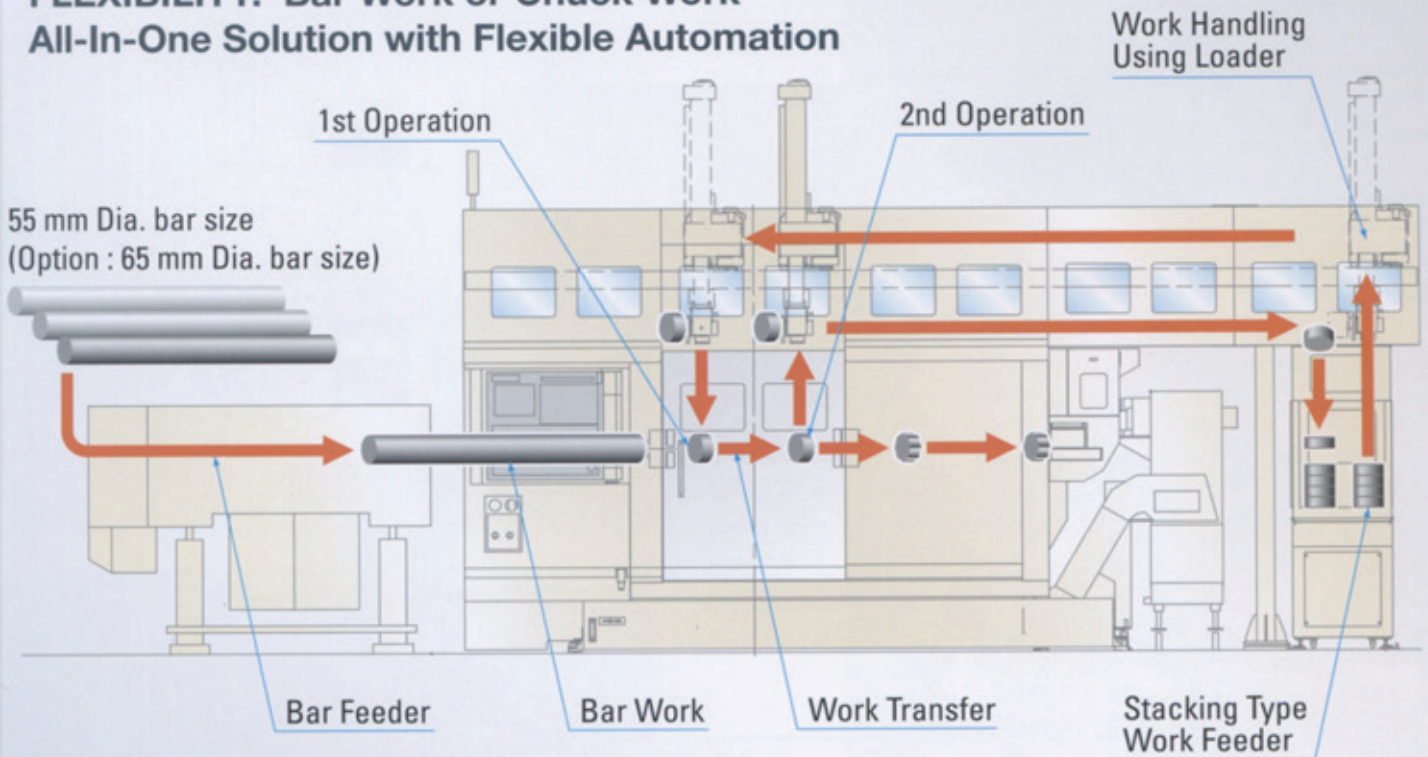
LEVEL LEVEL SYSTEM GRAPH GRAPH S/Y S/Y  
 MONITE SET SET GRAPH +10 -10 -X AXIS Z-AXIS X-AXIS

**Tool Monitor Function (Option)**

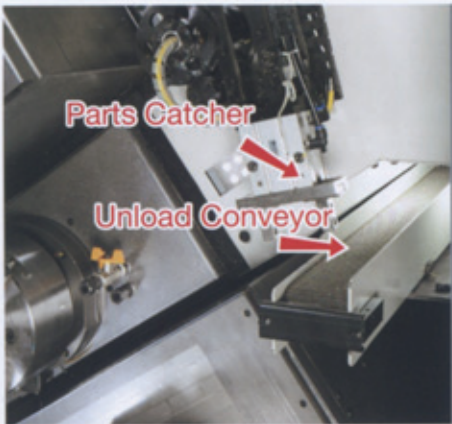
The MT200 prepares the MURATEC made "Tool Monitor Function" to check abnormal load, warning load and low level cutting loads. This function helps to detect tool/drill breakage during the cutting process.



## FLEXIBILITY: Bar Work or Chuck Work All-In-One Solution with Flexible Automation



### Application .....



#### Parts Catcher

A finished work piece of maximum size 65 x 160 can be unloaded from the right spindle automatically using the integrated 'Parts Catcher'. A combination of both the 'Parts Catcher' and a 'Bar Feeder' allows for unattended operation of both Bar and Chuck work.



#### Manual Tool Setter

Tool changeover time can be significantly reduced by utilizing the available Tool Setter. The Tool Setter is manually installed and is used to check the tool gauge lengths for both the upper and lower turrets. The Tool Setter can be manually mounted on both the left and right spindles and is manually removed from the machine during operation.

### Programming support ... software



#### FANUC MANUAL GUIDE i

Integrated Operation & Programming Guidance with extremely simplified operations



#### 3D-CAM Software



## Specifications

### Machine specifications

Maximum Chuck size		φ 210 mm (8")
Maximum Swing (with plain head)	15 stations	φ 205 mm
	12 stations	φ 228 mm
Maximum bar diameter	Standard	φ 55 mm
	Option	φ 65 mm
Number of turret stations	T2	15 (upper) & 12 (lower)
	T3	15 (upper & right) & 12 (lower)
Use tool	O.D tool	□ 20 mm
	Boring bar	φ 40 mm
Spindle diameter at front bearing mounting	Standard	φ 100 mm
	Option	φ 110 mm
Spindle nose size		JIS A2-6
Spindle speed range	φ 100	5,000 rpm
	φ 110	4,000 rpm
Spindle drive motor		15 kW/30 min (11 kW/cont.)
Stroke 2 turrets spec.	Upper turret	X : 220 mm / Z : 770 mm / Y : ± 40 mm
	Lower turret	X : 200 mm / Z : 770 mm / Y : ± 40 mm
	Right spindle	Zs : 880 mm
Stroke 3 turrets spec.	Upper turret	X : 220 mm / Z : 220 mm / Y : ± 40 mm
	Lower turret	X : 200 mm / Z : 770 mm / Y : ± 40 mm
	Right turret	X : 220 mm / Z : 220 mm / Y : ± 40 mm
	Right spindle	Zs : 880 mm
Rapid traverse rate	All turrets	X-axes : 24 m/min
		Z-axes : 36 m/min
		Y-axes : 12 m/min
	Right spindle	Zs-axis : 36 m/min

### Live tool specifications

Live tool drive motor		5.6 kW (Maximum torque 18.0 Nm)
Maximum speed		4500 rpm
Maximum tool shank size		Milling : φ 16 mm, Tap : M16
C-axis positioning accuracy		± 0.015°
C-axis maximum speed		200 rpm
C-axis least move increment		± 0.001°

### CNC Gantry loader specifications

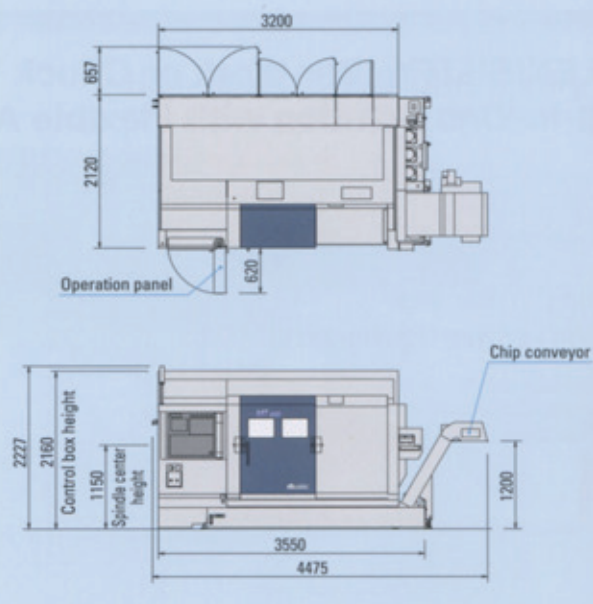
Loader workpiece handling capacity (size & weight)	3 Jaws	φ 140 mm × L105 mm, 5.0 kg
	2 Jaws	φ 65 mm × L160 mm, 4.0 kg
Stroke	Z-axis	Left : 2,080 mm,
		Right : 3,360 mm
	Y-axis	Up/Down : 680 mm
	X-axis	Front/Rear : 210 mm
Rapid traverse rate	Z-axis	Left/Right : 160 m/min
	Y-axis	Up/Down : 120 m/min
	X-axis	Front/Rear : 35 m/min

#### ■ Safety Specification

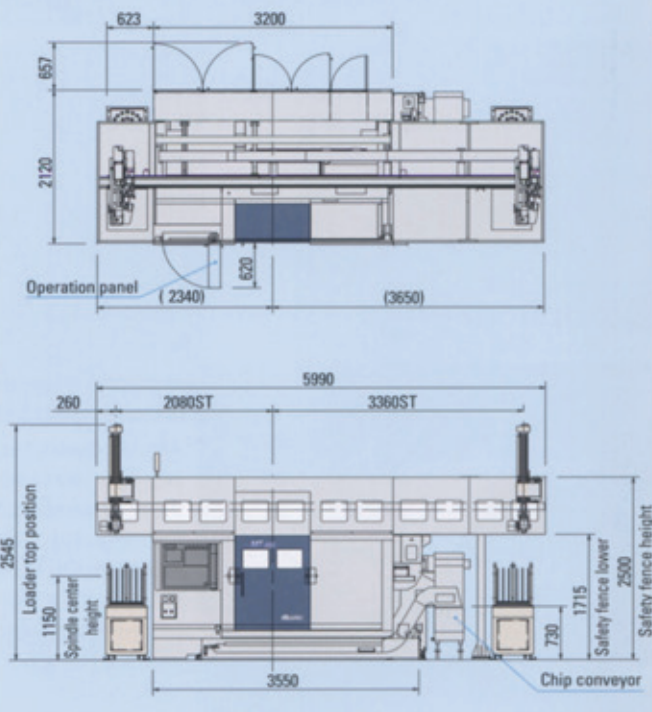
For EU countries, machines are built with CE-safety conformity.

## Floor Plan

### MT200



### MT200 (Gantry loader type)



\* Machine appearance may differ to that shown in the catalogue pictures

\* All specifications are subject to change without advanced notice

## MURATA MACHINERY, LTD. MACHINE TOOLS DIVISION

### International Business Dept.

2, Nakajima, Hashizume, Inuyama-shi, AICHI 484-8502, JAPAN  
TEL: +81-(0)568-61-3645 FAX: +81-(0)568-61-6455

### Headquarters

136, Takeda-Mukaishiro-cho, Fushimi-ku, KYOTO 612-8686, JAPAN  
TEL: +81-(0)75-672-8138 FAX: +81-(0)75-672-8691

http://www.muratec.co.jp  
e-mail info@muratec.co.jp

## MURATA MACHINERY USA, INC.

2120 Queen City Drive, P.O.Box 667609,  
Charlotte, N.C. 28208, U.S.A.  
TEL: +1-704-875-9280 FAX: +1-704-392-6541  
http://www.muratec-usa.com

## MURATA MACHINERY EUROPE GmbH

Hanns-Martin-Schleyer-Straße 3, D-47877, Willich, GERMANY  
TEL: +49-(0)2154-914-250 FAX: +49-(0)2154-914-283  
http://www.muratec-europe.de/  
e-mail info@muratec.de

## MURATA DO BRASIL COMERCIO E REPRESENTACAO DE MAQUINAS LTDA.

Estrada de Santa Isabel, 3383-KM 38,5,  
Itaquaquecetuba-SP, CEP 08599-000, BRASIL  
TEL: +55 (11) 4648-6222 FAX: +55 (11) 4648-6737  
http://www.muratec.com.br  
e-mail muratec@muratec.com.br

## MURATA MACHINERY (SHANGHAI) CO., LTD.

[Registry Add]  
135 Fu Te Xi Yi Rd., Wai Gao Qiao Free Trade Zone,  
Pudong, Shanghai, CHINA  
[Contact Add]  
150 Xin Gao Rd., Qingpu Industrial Zone,  
Shanghai, 201700, CHINA  
TEL: +86-(0)21-6921-2300 FAX: +86-(0)21-6921-2330

## MURATA (THAILAND) CO., LTD.

896/14 S.V.City Building 1, 9th Floor, Rama 3 Road  
Bangpongpan, Yannawa, Bangkok 10120, THAILAND  
TEL: +66-(0)2294-7734-40 FAX: +66-(0)2294-7732

