

SEIKI HU63A  
December, 1996

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## DETAILED PRICE LIST

### MITSUI SEIKI High Production Machining Center Model HU-63A

MITSUI SEIKI High Production Machining Center Model HU-63A, numerically controlled, with standard equipments including automatic tool changer and high production capability for milling, boring, tapping and reaming.

The constant accuracy of the main spindle is achieved by permanent temperature control. The oil is kept at a temperature of  $\pm 1^\circ$  to ambient temperature.

Due to a new gearing system with 2 gear steps a spindle torque of 600 Nm at a standard spindle speed range of 6.000 rpm is provided.

Our guaranteed accuracy according to VDI DGQ 3441,  $T_p$  max is 10  $\mu$ m for the full stroke.

## STANDARD FEATURES

### 1.) Working capacity

Table longitudinal stroke (X-axis)	900 mm
Spindle head vertical stroke (Y-axis)	800 mm
Table cross stroke (Z-axis)	800 mm
Distance from table surface to spindle axis	150 - 950 mm
Distance from spindle nose to table centre	150 - 950 mm
Interference dia. inside machine	850 mm
"    "    " on 2 APC	950 mm
Original positions	
X-axis	stroke center
Y and Z axes	+ end
B-axis	0 deg. (X-axis parallel with edge locator of pallet)
Axis guide way for linear axes	Steel square guide
X-axis	150 x 45 mm
Y-axis	75 x 40 mm
Z-axis	125 x 45 mm
Drive ball screw for linear axes	
X and Y axes	45 mm
Z-axis	50 mm

### 2.) Table (Pallet)

Direct turn type pallet changer	2 APC
Working surface	630 x 630 mm
Table index angle	1 deg., 360 pos.
Table indexing time	4 sec./90°
Pallet changing time	10 sec.
Pallet manual indexing at APC	4 x 90°
Pallet weight	300 kg
Positioning and clamping method of pallet	Taper cone x 4
Max. permissible load on pallet	1,200 kg
Tap holes on pallet	M 16, 24 places, T-slots (H18) x 5, 30 mm thicker, option
Pallet clamping force	9,400 kg
Height from floor to table top	1,100 mm 1,130 mm for T-slot pallets

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### 3.) Spindle head

Spindle taper  
Spindle diameter  
Spindle speed

ISO 7/24(BT-50)  
100 mm dia.  
15 - 6,000 rpm  
2 shift gear type  
(15 - 591 rpm low, 592 - 6,000 rpm high)

Override  
Spindle motor

50 - 120 %  
AC 15/ 18.5 KW  
Con. / 30 min ED

Spindle torque  
Spindle head cooler

600 Nm  
+/- 1° C to  
ambient temperature

Spindle lubrication  
Spindle orientation

Oil and air  
Electric servo system

### 4.) Feed Rate (X, Y and Z axes)

Rapid traverse

24,000 mm/min.  
32,000 mm/min. option  
0.1 - 10,000 mm/min.

Cutting feed

Minimum Resolution (X, Y, Z axis)  
B-axis

0.001 mm  
1° table 4 sec 90°  
0.001° table 10 rpm (option)

### 5.) Position Transducer

X, Y + Z Axis

Linear scale feedback system  
(Precision glass scale = standard)  
Pulsecoder feedback option  
Large diameter hearth coupling  
Rotary encoder option

B axis

### 6.) Automatic Tool Changer

Tool storage capacity  
Tool selection mode

60 tools  
fixed pot number  
bi-directional random selection  
MAS403 - BT-50  
450 mm

Tool shank  
Max. tool length  
(only at tool weight 15 kg)  
Max. tool diameter  
Max. tool diameter without adjacent tools

125 mm  
380 mm  
216 mm for full circle  
25 kg

Max. tool weight  
(only at tool length 320 mm)  
Maximum moment  
Tool changing time (tool to tool)  
Tool changing time (chip to chip)

32 Nm  
2 sec.  
9 sec. (when each axis remains at  
stroke centre)

Drive system for ATC magazine

hydraulic

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7.) **Machining Thrust**

Max. thrust (X, Y axis)  
(Z axis)

500 kg  
2,000 /1000 kg (5 min/cont.)

8.) **Machine Weight**

ca. 17,000 kg

9.) **Standard Machine Colour**  
(if not specified, machine will be painted grey)

RAL-7032 pebble grey

10) **Electric Motors**

Motor for spindle drive  
Motor for hydraulic unit  
Pump motor for coolant unit  
Compressor motor for spindle oil chiller  
Motor for spindle bearing lubrication  
Motor for cooling fan (hydraulic unit)  
Motor for guide way lubrication  
Motor for chip conveyor  
Motor for circulating of cooling oil for spindle  
Pump motor for standard flood coolant system

AC 18.5/15 KW, F-Model-30 α  
AC 5.5 KW  
AC 0.4 KW  
AC 0.6 KW  
90 W  
40 W  
90 W  
AC 0.2 KW x 3  
AC 0,75 KW  
AC 0,56 KW

11) **AC Servo Motors for X, Y + Z Axis**

X axis  
Y axis  
  
Z axis  
Table indexing motor  
B-axis (option)

FANUC α 22 AC 3.7 KW  
FANUC α 22 AC 3.7 KW  
with brake  
FANUC α 22 AC 3.7 KW  
FANUC AC 0.85 KW  
FANUC α 22 AC 3.7 KW

12) **Tank capacities**

Tank for hydraulic unit  
Tank for lubrication oil  
Tank for lubrication oil for spindle bearing  
Tank for spindle head cooler  
Tank capacity for standard flood coolant

60 l  
3.2 l  
2 l  
60 l  
400 l

13) **Power consumption**

50 KVA

14) **Compressed Air**

4 bar  
0.7 m<sup>3</sup>/min

15) **Measurements.....**  
length + width  
hight

5.42 x 3.21 m  
3,09 m

Floor space required incl. maintenance space

6 x 4 m

