



Productivity Proposal

MA-600HB

Horizontal Machining Center
X, Y, Z & and 1-degree B-axis



Appearance may vary according to final selected

Applicable Versions:

● Base offering ○ Available specification. △ Consult Okuma America

All Versions MA-600H	NT50 Spindle Taper			HSK63 class				
Spindle choices	6,000 rpm	12,000 rpm		15k	20k	25k	35k	
Available V-Flange	CAT 50	CAT 50	HSK 100	CAT 40	HSK A63	HSK A63	HSK A63	HSK F63
	●	○		○	△	○	○	△

Notes:

The alternate spindle choices are covered in the technical supplement
The MA-600HB for the 630 Okuma Production System is a separate proposal

OKUMA MA-600HB

Introduction

The MA Series CNC is the next evolution of Okuma CNC horizontal machining centers. The OKUMA MA-600HB is a 630mmpallet size horizontal machining center. Its core features produce the most efficient and convenient horizontal machining center available for milling, boring, drilling, and tapping. A rock solid production engine; for the basic through FMS applications

A thumbnail of the base offering:

- ✦ 630 mm square pallet
 - ✦ 50 taper 6,000 RPM, 40/30 hp VAC
 - ✦ 2 -speed range, integral motor-spindle
 - ✦ 217 psi through spindle coolant
 - ✦ 1 degree B indexing table
 - ✦ 12 second rotary 2-APC change
 - ✦ ATC : 2.0 sec. T-T, 4.4 sec C-C change*
 - ✦ 2,362 IPM rapid rates (60 mpm) @ 0.7G
 - ✦ 2,362 IPM max machining rate
 - ✦ Open access to work area— chips to the rear
 - ✦ Central flume w rear chip evacuation
 - ✦ 40 Tool ATC magazine
 - ✦ 220/440v transformer
 - ✦ One piece bed with 3-point bed support
 - ✦ Column feed
 - ✦ 24-7 Okuma Care + 1 year warranty
 - ✦ OSP-E100M *Hi-Content* CNC Control
 - ✦ 10.4" TFT 256 color display
 - ✦ Real time 3D animation
 - ✦ 1280m / 320m memory total /buffer)
 - ✦ 100 work coordinates
 - ✦ 200 tool offset registers
 - ✦ Simple load monitor
 - ✦ Tool life management
 - ✦ IMAP
 - ✦ Synchronized Tapping II
 - ✦ On screen pocket manual
 - ✦ User Task I + II
 - ✦ Helical Interpolation
 - ✦ 200 Common Variables
 - ✦ RS-232C Port (Serial Port)
 - ✦ Built-in 3.5" Floppy Disk Drive
- * Nominal test conditions

The OKUMA MA continues Okuma's fundamental commitment to total system engineering of its machine tools. This means, ALL Okuma design and manufacture of machine, motors, drives and controls and including the industry leading Okuma Care (24-7) support program.

This level of integration and support is an Okuma Trademark. Your Single Source.

Fast Facts about MA-600H

- ❖ **Expanded Travel Range**
 - ❖ X-axis 39.37"
 - ❖ Y-axis from 31.5" to **35.43"**
 - ❖ Z-axis from 31.89" to **39.37"**
- ❖ **High-speed axis feed (X, Y, and Z)**
 - ❖ Rapid increased from 1545 ipm to **2362 ipm**
 - ❖ Acceleration increased from 0.5 G to **0.7 G**
 - ❖ Production efficiency increased by **10%**
- ❖ **High-speed NC-ATC**
 - ❖ T-T time reduced from 2.2 to **2.0 sec**
 - ❖ C-C time reduced from 5.5 to **4.4 sec**
 - ❖ Optional ATC: 60, 100, 150, 200, 240, 320, [400(MA600H)]
- ❖ **High precision index table**

Curvic coupling: 1 degree indexing (Optional NC 0.001 deg)
Fast rapid of table 90deg / 180deg

 - ❖ 1 degree table **2.0 / 3.0 sec**
 - ❖ NC 0.001 table **2.5 / 3.5 sec**
 - ❖ Taper cone for better pallet seating accuracy
 - ❖ Same pallet as MA-60H
 - ❖ Between table and pallet wash
- ❖ **Eco-friendly lubrication**
 - ❖ Use of guideways with an oil retainer and OSP adaptive lubrication cycle.
 - ❖ Reduced oil consumption by 40% with a reduced noise level
- ❖ **High-speed NC-APC**
 - ❖ APC time reduced from 13.9sec to **12 sec.**
 - ❖ Pallet pool available, FMS systems available
- ❖ **High-accuracy**
 - ❖ Reinforced ballscrew brackets on both ends of all ball screws.
 - ❖ 3-point bed support provides easy installation and maintains high accuracy.
 - ❖ Optional ballscrew cooling and motor bracket cooling are available.
- ❖ **High-accuracy**
 - ❖ Reinforced ballscrew brackets on both ends of all ball screws.
 - ❖ Optional ballscrew cooling and motor bracket cooling are available.
- ❖ **Long Life cartridge spindle**
 - ❖ Wide selection of spindles
 - ◊ 50 Taper: 6,000rpm, 12,000rpm.
 - ◊ High speed (40taper/HSK63) : 15,000rpm, 20,000rpm, 25,000rpm, 35,000rpm.
 - ❖ Oil-air lubrication ensures longer spindle life
 - ❖ Cartridge spindle shortens the spindle change time from 3 days to 1 day.
- ❖ **Smooth and secure chip handling**
 - ❖ Chips are ejected into the center trough – exiting to the rear.
 - ❖ Broad opening twice as large as previous.
- ❖ **Smooth Operations**
 - ❖ Controlled by user friendly CNC: OSP-E100M
 - ❖ USA Hi-Content Specification