



L.K Machinery Corp.

# HT series



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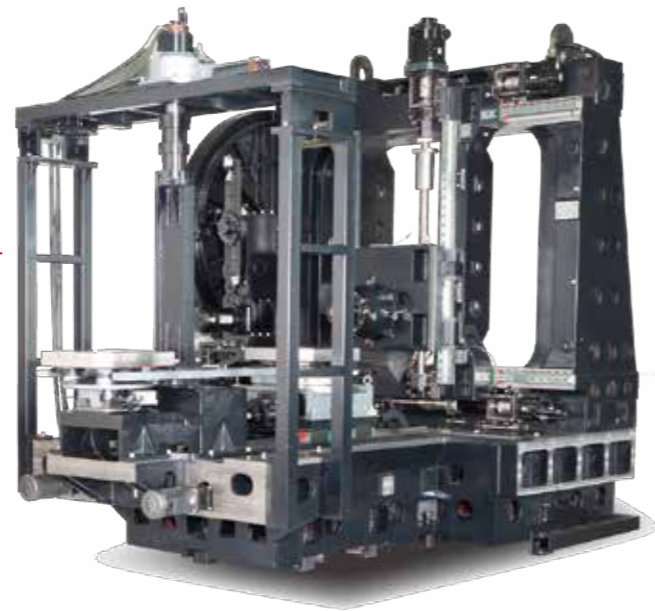
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CE ISO 9001  
ISO 14001

HT201903(E)

# HT-400 HT-500

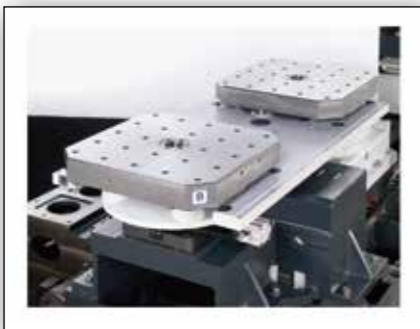
## Crane Type APC System



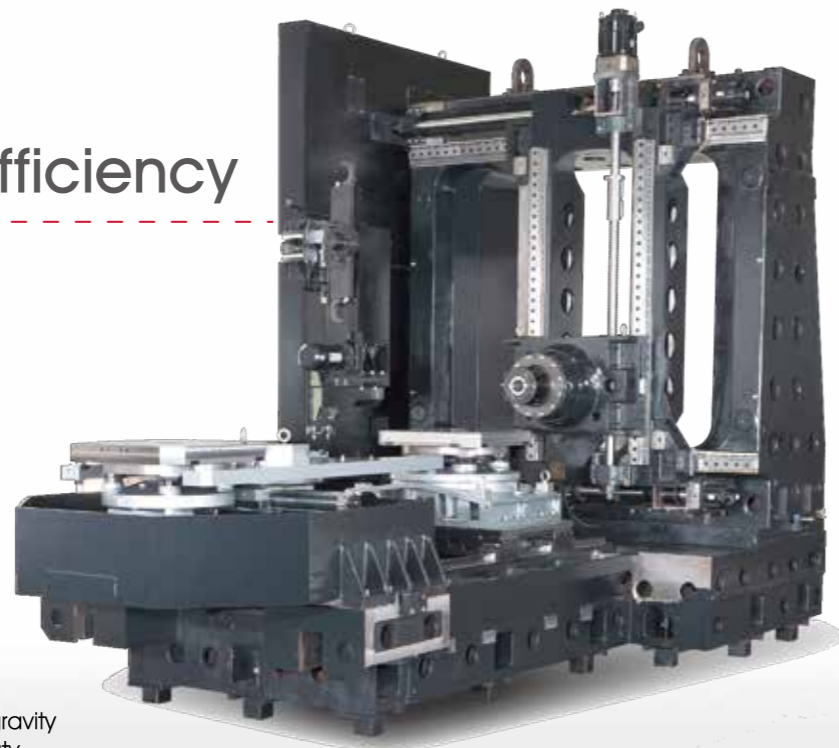
- ▶ With a table load of 400 kg(HT-400) and 600 kg(HT-500), the Crane Type pallet change unit is the perfect solution. The driving system on top of the pallet changer design provides rapid and smooth movement and fast cycle completion. Moreover, the pallet change unit is independently installed on the machine top; it is easy for technical service and regular maintenance.
- ▶ The pallet change unit is independently installed on the top of the machine allowing for easy maintenance.

# HT-630 HT-800

## Heavy Duty with Efficiency

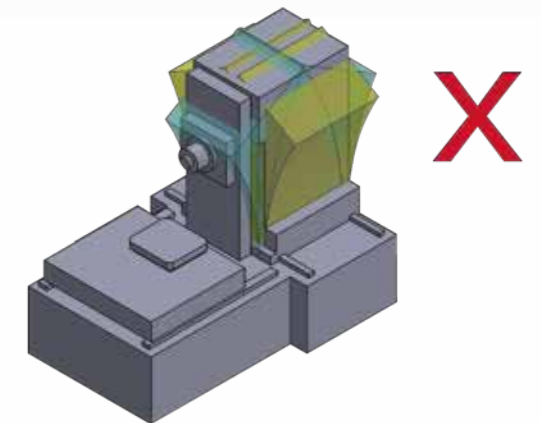
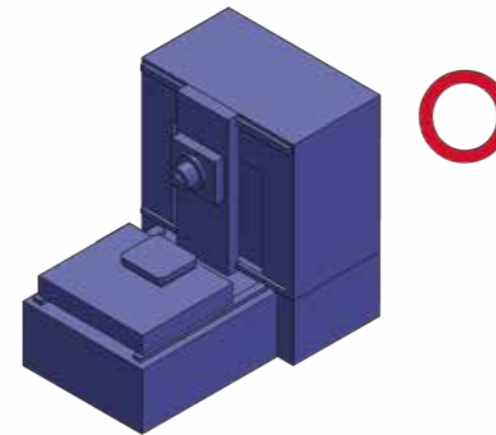
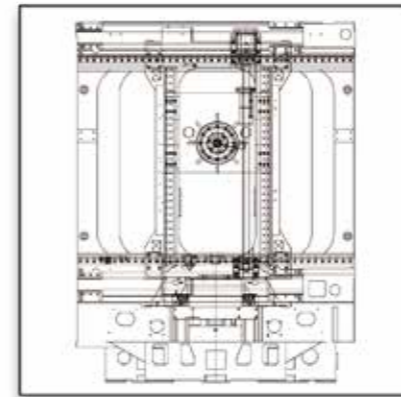


Hydraulic / Servo (opt.)



- ▶ The hydraulic pallet change system allows for a 1200 to 2000 kg workpiece. The low center of gravity design of the axial driving system and heavy duty pallet changer provides a solid platform for superior cutting capability

## Box-in-Box Structure



### Rigidity with Outstanding Dynamic Accuracy

- ▶ High acceleration/deceleration requires absolute structural rigidity to keep cutting time short. The LK HT horizontal machining centers adopt Box-in-Box design which firmly anchors two pre-tensioned X Axis ball screws for the optimum motion control performance and it upholds the best cutting results.

- ▶ The conventional single column jerks while moving at high speed which leads to poor workpiece surface and also reduces the life span of the ball screw and linear guide ways.

# Machining area

## ▶ HT-400

Maximum diameter of workpiece

Ø630 mm



600 mm

Maximum height of workpiece

Maximum loading weight of pallet

400 kg

## ▶ HT-500

Maximum diameter of workpiece

Ø700 mm



700 mm

Maximum height of workpiece

Maximum loading weight of pallet

600 kg

## ▶ HT-630

Maximum diameter of workpiece

Ø1000 mm



1000 mm

Maximum height of workpiece

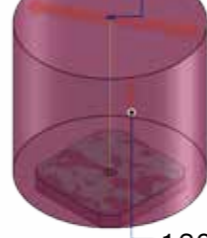
Maximum loading weight of pallet

1200 kg

## ▶ HT-800

Maximum diameter of workpiece

Ø1300 mm



1200 mm

Maximum height of workpiece

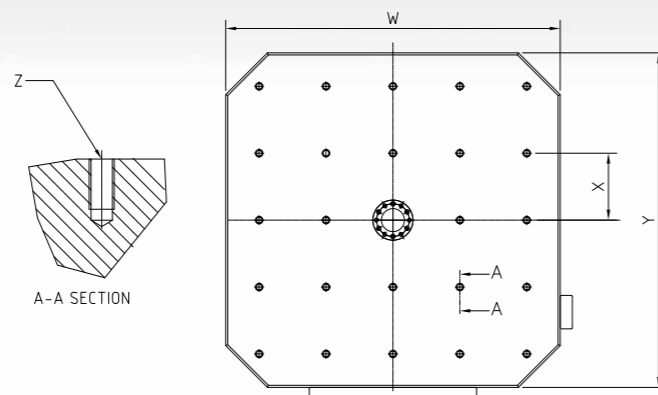
Maximum loading weight of pallet

2000 kg

## ▶ Pallet dimension

	HT-400	HT-500
<b>W</b>	400	500
<b>X</b>	80	100
<b>Y</b>	400	500
<b>Z</b>	24-M16	24-M16

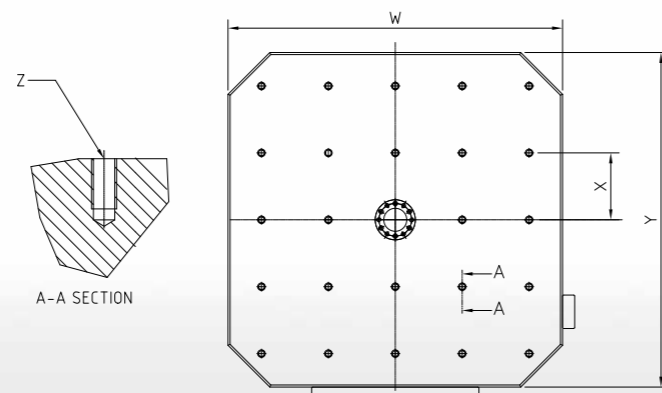
Unit:mm



## ▶ Pallet dimension

	HT-630	HT-800
<b>W</b>	630	800
<b>X</b>	125	160
<b>Y</b>	630	800
<b>Z</b>	24-M16	24-M16

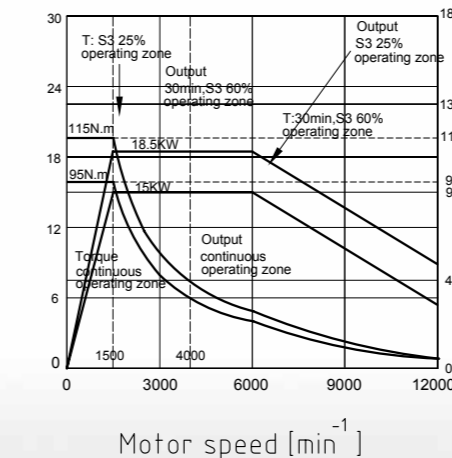
Unit:mm



# Power Chart

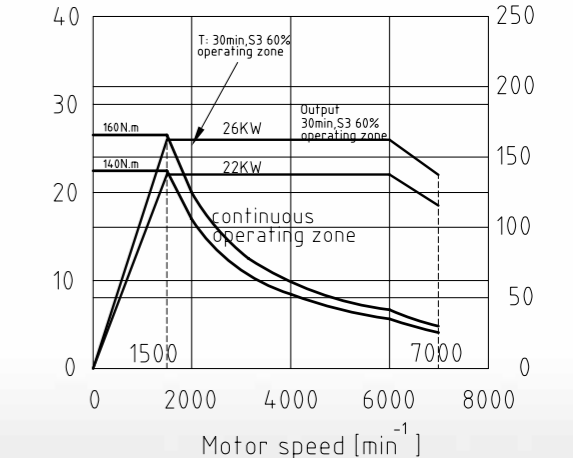
## ▶ HT-400/HT-500

Output FANUC  $\alpha 15$  Torque  
[KW] [N.m]



## ▶ HT-630/HT-800

Output FANUC  $\alpha 22$  Torque  
[KW] [N.m]

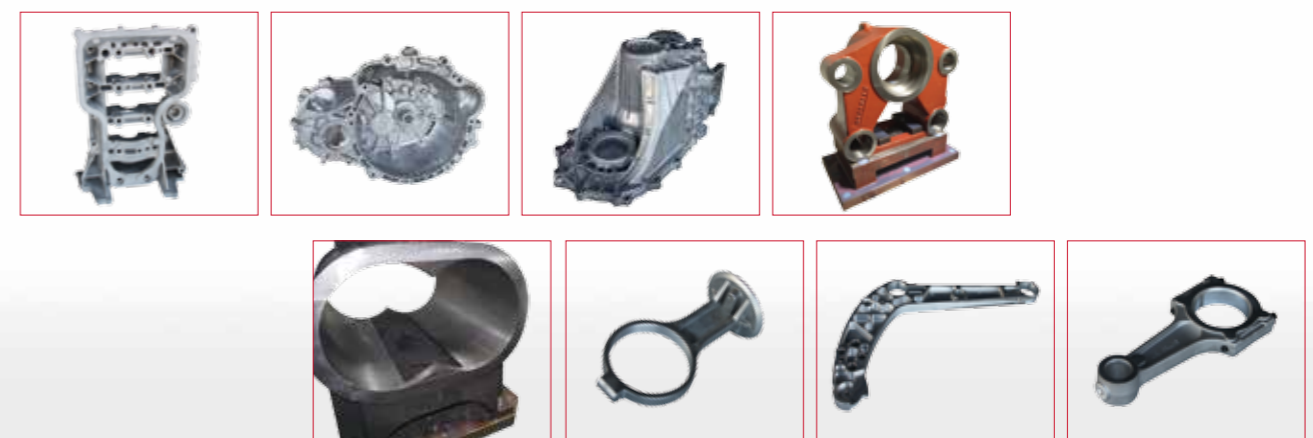


# Tool Change time



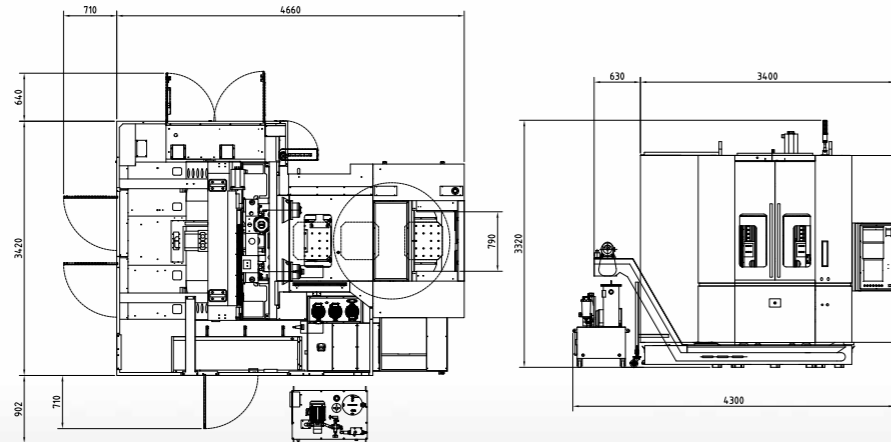
HT-400/500 ( 60 Tools )	4 SEC (T-T)	12 SEC (C-C)
HT-630/800 ( 60 Tools )	5 SEC (T-T)	14 SEC (C-C)

# Marketing Synergy

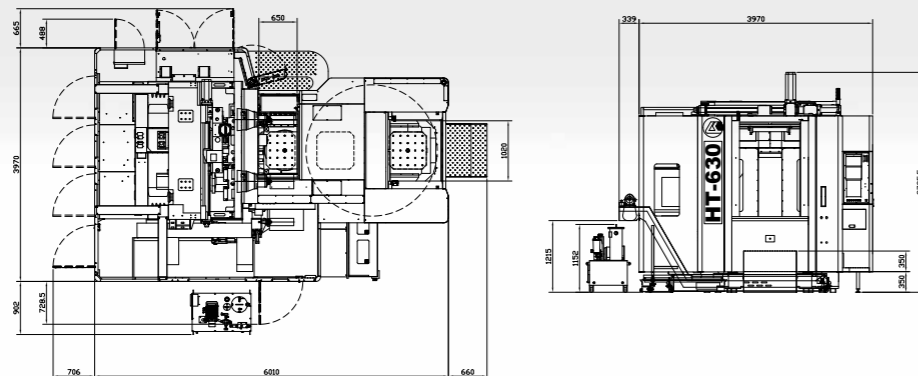


# Floor space

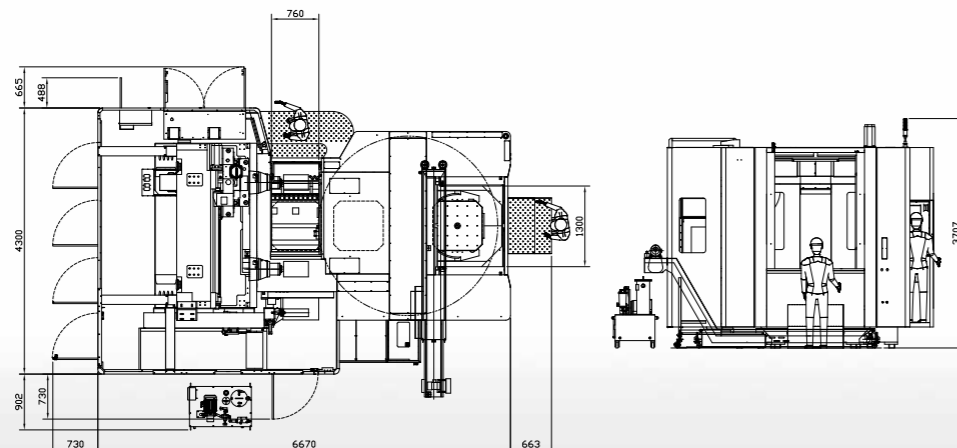
## ► HT-400/HT-500



## ► HT-630



## ► HT-800



# Specifications

Model	Unit	HT-400	HT-500	HT-630	HT-800
CNC Control System	-	Fanuc 0i-MF	Fanuc 0i-MF	Fanuc 0i-MF	Fanuc 0i-MF
<b>3 axis Travel</b>					
X axis Travel	mm	820	820	1050	1400
Y axis Travel	mm	720	720	900	1100
Z axis Travel	mm	635	635	1000	1000
Distance from Spindle Center to Table	mm	120-840	120-840	120-1020	120-1220
Spindle Nose to the Center of Table	mm	154-789	154-789	157-1157	259-1259
<b>Spindle</b>					
Spindle Speed	rpm	DDS 10,000	DDS 10,000	DDS 7,000	DDS 7,000
Spindle Nose	BT	#40	#40	#50	#50
Spindle Motor(Cont./30min)	kw	15 / 18.5	15 / 18.5	22 / 26	22 / 26
Spindle Torque	Nm	95.5	95.5	140	140
<b>Motor</b>					
X/Y/Z Axial Motor Power	kw	3 / 7 / 4	3 / 7 / 4	4 / 6 / 7	4 / 6 / 7
X/Y/Z Axial Motor Torque	Nm	12 / 30 / 22	12 / 30 / 22	22 / 38 / 30	22 / 38 / 38
B Axis Motor Power	kw	3	3	4	4
B Axis Motor Torque	Nm	12	12	22	22
APC Motor Power	kw	-	-	-	4
APC Motor Torque	Nm	-	-	-	22
<b>Table</b>					
Table Size	mm	400 x 400	500 x 500	630 x 630	800 x 800
T-Slot Size	mm	24 - M16 x P2.0	24 - M16 x P2.0	24 - M16 x P2.0	24 - M16 x P2.0
Max. Table Capacity	kg	400	600	1,200	2,000
Rotary Table Min. Scale	degree	1°	1°	1°	1°
Max. Workpiece Range	mm	Ø630 x 600	Ø700 x 700	Ø1000 x 1000	Ø1300 x 1200
<b>APC</b>					
Table Size	mm	400 x 400	500 x 500	630 x 630	800 x 800
Table Quantity	pcs	2	2	2	2
Max. Allowable Workpiece Load	kg	400 x 2	600 x 2	1200 x 2	2000 x 2
Change Time	sec	11	11	14	14
Motor	kw	-	-	-	4
<b>Rapid Travel</b>					
Rapid Travel(X/Y/Z)	m/min	48 / 48 / 48	48 / 48 / 48	48 / 48 / 48	48 / 48 / 48
Cutting Speed Rate	m/min	1-20	1-20	1-20	1-20
<b>Tool Magazine</b>					
Tool Change Type	-	Round-Rail	Round-Rail	Chain	Chain
Tool Capacity	set	60	60	60	60
Max. Tool Weight	kg	8	8	20	20
Max. Tool Length Distance	mm	300	300	450	450
Max. Tool Diameter	mm	Ø80 / Ø160	Ø80 / Ø160	Ø125 / Ø250	Ø125 / Ø250
Tool Change Time(T-T)	sec	4	4	5	5
<b>Others</b>					
Compress Air Supply	kg/cm <sup>2</sup>	6-6.5	6-6.5	6-6.5	6-6.5
Machine Size(LxWxH)	mm	5370 x 5040 x 3320	5370 x 5040 x 3320	7376 x 5537 x 3736	8063 x 5867 x 3707
Net Weight	kg	17,900	18,000	25,000	27,000

### Standard Equipment

- Fanuc 0i-MF
- CTS
- Spindle Tool Change Air Blow
- Water Curtain
- Coolant Flush System
- Separate Hand Wheel (MPG)
- Full Chip Enclosure
- Heat Exchanger

- Link Type Chip Conveyor
- Working Light
- Tri-color Indicator Lamp
- Tool Box
- Leveling Bolts & Blocks

### Optional Equipment

- Mitsubishi M80 / 15" LCD Screen
- Siemens 828D
- DDS 6,000/8,000/10,000rpm(HT-630/800)
- DDS 12,000/15,000rpm(HT-400/500)
- Built-in 10,000/12,000rpm(HT-630/800)
- Built-in 15,000rpm(HT-400/500)
- Chain Type (Servo) 60 tools(HT-400/500)
- Chain Type (Servo) 90/120 tools
- CTS 40/70Bar
- Automatic Tool Length
- Measurement System (Marposs TS-30)
- Automatic Workpiece Measurement System (OPM60)
- Grease Lubrication
- Screw Type Chip Conveyor
- 4 way APC distributor