Machinery Solutions, Inc.

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EMAIL QUOTATION
STOCK #UD100000

Machinery Solutions, Inc. is pleased quote the following machine for your consideration:

(1) Hyundai Wia HD3100SY Slant Bed Turning Center with Fanuc i Plus Control
35 HP Main Spindle with 4" Bar Capacity, Sub Spindle, Y-Axis Turret with 5,000 RPM, Hinge Belt Chip Conveyor, (2022 Model)
LOW HOURS – CLEAN - very good condition.

PRICE ……$ 163,900.00

■ FEATURES

- **Hyundai Wia Fanuc i Series - Smart Plus controller**
- **Main spindle: Max. 2,800 rpm Belt driven spindle**
  - **✓34.9 HP (26kW) (S3 25%) / 775.2 lbf.ft torque at 200 rpm**
  - **✓12" 3-jaw chuck**
  - **✓Ø4.0" (Ø102mm) bar capacity**
- **Sub spindle: Max. 4,500 rpm Belt driven spindle**
  - **✓10.1HP (7.5kW) (S2 15min) / 62.7 lbf.ft torque at 845 rpm**
  - **✓6" 3-jaw chuck**
- **Ø16.5" (Ø420mm) Max. turning diameter**
- **29.9" (760mm) turning length**
- **Live Tool: Max. 5,000 rpm**
  - **✓7.4 HP (5.5kW) (30min) / 51.6 lbf.ft torque at 750 rpm**
- **30° slanted one-piece bed structure**
- **Box guideways**
- **945 IPM (24 m/min) X and 1,181 IPM (30 m/min) Z&ZB axis rapid traverse**
- **394 IPM (10 m/min) Y axis rapid traverse**
- **BMT65P 12 station 24 position turret**
- **Y-axis with 4.7" (120mm) stroke**
- **Tool size: □3/4" / Ø2" (□20mm / Ø50.8mm)**
- **Double Pre-Tensioned Ball screws**
- **Chip Conveyor**
- **Separate coolant tank**
- **3 color tower signal light**
- **Full enclosure splash guard**
- **Parts catcher (Sub)**
- **Full contouring C-axis**

Optional Items Included:

- Auto Door
- Royal QG65 Sub-spindle Chuck with Collet Changer
- Approximately (20) QG65 Collets (Range between 3/16” to 2-1/2”)
- Main Spindle Parts Catcher
- Coolant Wash Gun
- (4) 1” Single Block OD Turning Tool Holders
- Upgraded 145 PSI Coolant Pump
- Manual Guide I conversational software
- (4) Live Tools included as standard (total)

■ SPECIFICATIONS - Standard

CAPACITY:

Swing over bed	Ø31.5" (Ø800mm)
Swing over carriage	Ø26.4" (Ø670mm)
Max. turning diameter	Ø16.5" (Ø420mm)
Max. turning length	29.9" (760mm)

SPINDLE (Main / Sub):

Chuck size	12" / 6"
Bar Capacity	Ø4" / Ø2.0" (Ø102 / 51mm)
Spindle bore	Ø4.5" / Ø2.4" (Ø115 / Ø62mm)
Spindle speed	2,800 / 4,500 rpm
Spindle nose	A2-11 / A2-5
A.C. Spindle Motor (S3 25%)	34.9 / 10.1 HP (26 / 7.5 kW)
Max. spindle torque (S3 25%)	775.2 / 62.7 lbf.ft (1,051 / 85 N.m)

TRAVEL:

X / Y axis travel	10.4" / 4.7" (265 / 120mm)
Z / ZB axis travel	32.7" / 32.7" (830 / 830mm)
X / Y axis rapid traverse rate	945 / 394 IPM (24 / 10m/min)
Z / ZB axis rapid traverse rate	1,181 IPM / 1,181 IPM (30 / 30m/min)
X / Y axis ball screw diameter	Ø1.26" / Ø1.26" (Ø32 / Ø32mm)
Z / ZB axis ball screw diameter	Ø1.57” / Ø1.57" (Ø40 / Ø40mm)
X / Y axis guideway span	12.6" / 12.6" (320 / 320mm)
Z / ZB axis guideway span	17.3" / 15.4" (440 / 390mm)

TURRET (BMT65P):

Number of tools	12
Turning tool shank size	□3/4" (□20mm)
Boring bar diameter	Ø2" (Ø50.8mm)
Turret index time (1 step)	0.2 sec
Turret clamping force	13,575 lbf (6,158 kgf)
Live Tool Motor Power / Torque (30min)	7.5 HP (5.5 kW) / 51.6 lbf.ft (70 N.m)
Milling Tool Speed	5,000 RPM

COOLANT and HYDRAULIC SYSTEM:

Coolant tank capacity	52.8 gal (200 liter)
Hydraulic tank capacity and required oil	7.9 gal (30 liter) / VG32
Lubrication tank capacity and required oil	0.5 gal (1.8 liter) / VG68

GENERAL:

Machine Height	77.2" (1,960 mm)
Floor Space (L) with side conveyor & coolant tank	178.8" (4,542 mm)
Floor Space (W)	75.2" (1,910 mm)
Machine weight	13,889 lbs (6,300 kg)
Power required	33 kVA / 220V
Voltage Required	205 - 235 Volts / 3 Phase

Specifications are for reference only and subject to confirmation of buyer.

HYUNDAI WIA

HYUNDAI WIA FANUC i Series – Smart Plus

[ ] : Option

Controlled axis / Display / Accuracy Compensation	
Control axes	2 axes (X, Z) / 3 axes (X, Z, C) / 4 axes (X,Z,Y,C)
	5 axes (X, Z, B, C, A) / 6 axes (X, Z, Y, B, C, A)
	7 axes (X1/Z1, X2/Z2, B2, C1/C2)
Simultaneously controlled axes	2 axes [Max. 4 axes]
Designation of spindle axes	3 axes [Max. 4 axes]
Least setting Unit	X, Z, Y, B axes : 0.001 mm (0.0001 inch)
	C, A axes : 0.001 deg
Least input increment	X, Z, Y, B axes : 0.001 mm (0.0001 inch)
	C, A axes : 0.001 deg
Inch / Metric conversion	G20 / G21
High response vector control	
Interlock	All axes / Each axis
Machine lock	All axes
Backlash compensation	± 0~9999 pulses (exc.Rapid traverse / Cutting feed)
Position switch	
LCD / MDI	15 inch LCD unit (with Touch Panel)
Feedback	Absolute motor feedback
Stored stroke check 1	Over travel
Stored stroke check 2, 3	
PMC axis control	
Operation	
Automatic operation (Memory)	
MDI operation	
DNC operation	Needed DNC software / CF card
Program restart	
Wrong operation prevention	
Program check function	Dry run
Single block	
Search function	Program Number / Sequence Number
Interpolation functions	
Nano interpolation	
Positioning	G00
Linear interpolation	G01
Circular interpolation	G02, G03
Exact stop mode	Single : G09, Continuous : G61
Dwell	G04, 0 ~ 9999.9999 sec
Skip	G31
Reference position return	1st reference : G28, 2nd reference : G30
	Ref. position check : G27
Thread synchronous cutting	G33
Thread cutting retract	
Variable lead thread cutting	
Multi / Continuous threading	
Feed function / Acc. & Dec. control	
Manual feed	Rapid traverse
	Jog : 0~2,000 mm/min (79 ipm)
	Manual handle : x1, x10, x100 pulses
	Reference position return
Cutting Feed command	Direct input F code
Feedrate override	0 ~ 200% (10% Unit)
Rapid traverse override	1%, F25%, 50%, 100%
Override cancel	
Feed per minute	G98
Feed per revolution	G99
Look-ahead block	1 block
Program input	
Tape Code	EIA / ISO
Optional block skip	1 ea
Absolute / Incremental program	G90 / G91
Program stop / end	M00, M01 / M02, M30
Maximum command unit	± 999,999.999 mm (± 99,999.9999 inch)
Plane selection	X-Y : G17 / Z-X : G18 / Y-Z : G19
Workpiece coordinate system	G52, G53, 6 pairs (G54 ~ G59)
Manual absolute	Fixed ON
Programmable data input	G10
Sub program call	10 folds nested
Custom macro	#100 ~ #199, #500 ~ #999
G code system	A, B/C
Programmable mirror image	G51.1, G50.1
G code preventing buffering	G4.1
Direct drawing dimension program	Including Chamfering / Corner R
Conversational Program	SmartGuide-i

Program input	
Multiple repetitive cycles I , II	
Canned cycle for turning	
Auxiliary function / Spindle speed function	
Auxiliary function	M & 4 digit
Level-up M Code	High speed / Multi / Bypass M code
Spindle speed function	S & 5 digit , Binary output
Spindle override	0% ~ 150% (10% Unit)
Multi position spindle orientation	M19 (S##)
FSSB Rigid tapping	
Constant surface speed control	G96, G97
Tool function / Tool compensation	
Tool function	T & 2 digit + Offset 2 digit
Tool life management	
Tool offset pairs	128 pairs
Tool nose radius compensation	G40, G41, G42
Geometry / Wear compensation	
Direct input of offset measured B	
Editing function	
Part program storage size	5,120m (2MB)
No. of registerable programs	1,000 ea
Program protect	
Background editing	
Extended part program editing	Copy, move and change of NC program
Memory card program edit	
Data input / output & Interface	
I/O interface	CF card, USB memory
	Embedded Ethernet interface
Screen hard copy	
External message	
External key input	
External workpiece number search	
Automatic data backup	
Setting, display and diagnosis	
Self-diagnosis function	
History display & Operation	Alarm & Operator message & Operation
Run hour / Parts count display	
Maintenance information	
Actual cutting feedrate display	
Display of spindle speed / T code	
Graphic display	
Operating monitor screen	Spindle / Servo load etc.
Power consumption monitoring	Spindle & Servo
Spindle / Servo setting screen	
Multi language display	Support 24 languages
Display language switching	Selection of 5 optional Languages
LCD Screen Saver	Screen saver
Unexpected disturbance torque	BST (Back spin torque limit)
Function for machine type	
Cs contour control (C & A axes)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Polar coordinate interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Cylindrical interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Polygon turning (2 Spindles)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Canned cycle for drilling	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Spindle orientation expansion	MS, SY TTS, TTMS, TTSY
Spindle synchronous control	MS, SY TTS, TTMS, TTSY
Torque control	MS, SY TTS, TTMS, TTSY
Y axis offset	Y, SY, TTSY
Arbitrary angular control	Y, SY, TTSY
Composite / Superimposed control	MS, SY, TTS, TTMS, TTSY
Balance cutting	TTS, TTMS, TTSY

Option	
Additional optional block skip	9 ea
Fast ethernet	Needed option board
Data server	Needed option board
Protection of data at 8 levels	
Tool offset pairs	200 pairs
Helical interpolation	
Optional block skip	40 ea, 200 ea (AICC II)

■ STANDARD FEATURES

- Hyundai Wia Fanuc - Smart Plus control
- Max. 2,800 rpm Belt driven spindle
- Powerful **34.9 HP (26 kW)** spindle motor
- Spindle orientation
- 87 PSI (6bar) multi-stage coolant pump
- Double Pre-Tensioned Ball screws
- Fast 945 IPM (24m/min) X, 394 IPM (10m/min) Y and 1,181 IPM (30m/min) Z and ZB axis rapid speed
- Manual Tool Setter
- Programmable Sub Spindle
- Parts Catcher (Sub)
- Right Side Hinge Type Chip Conveyor
- 3 color tower signal
- LNS bar feeder interface
- Standard Tooling ***(4 Live Tools + Basic ID/OD Static Holders)***
- Coolant Tank – 52 gallon
- Standard Hyd. Unit - 35Bar (508 psi) / 7.9 gal (30 ℓ) Tank

Terms: **Net, Prior to Shipment**

F.O.B: **North Carolina. Machine is under power and available for Inspection upon request.**

Delivery: **Immediate**