

*High Performance Turning Center*

# CUTEX 160



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High Performance Turning Center

## MAIN FEATURE

- Splendid & easy access/maintenance design
- Box type single slant 45° bed frame
- The best rapid traverse in its level class : 36m/min(1,417ipm)
- 0.15 sec tool indexing time & reducing lead time
- Complex machining with turn mill
- User oriented easy operation & easy access structure



## Hi-Speed Spindle

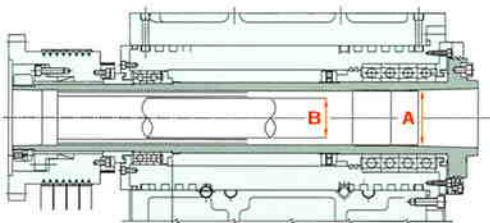


- Chuck size : 6"
- Spindle nose : A2-5
- Max. spindle speed 6,000rpm
- Spindle motor power  
-Std. : 7.5/5.5kW(10/7HP)  
-Opt. : 11/7.5kW(15/10HP)

● The powerful chucking offers the stable cutting and high precision during high speed machining.

## Stable Structure Spindle

Unit : mm (inch)



**A** (spindle hole)

Ø56(Ø2.2)

**B** (work size)

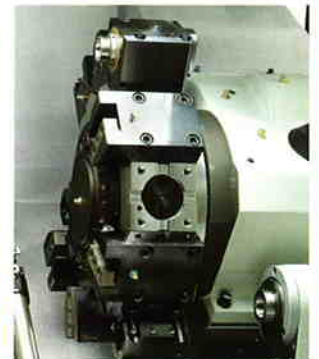
Ø43(Ø1.7)

CUTEX-160

## Quick Indexing Turret

Standard

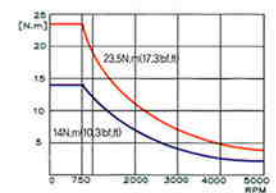
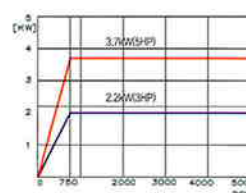
Turn Mill (Opt.)



- Turret type : 3piece+servo
- Turret station : 12station
- Rotation time : 0.35sec
- Tool to tool : 0.15sec
- Repeatability : ± 0.6sec
- Clamp force : 4,300kgf(9,480lbf)
- Driven tools for milling, tapping, drilling contribute to highly intensive process with spindle indexing(MC:0.001, M:2.5) by an AC spindle motor.

## Spindle power diagram (Turn mill)

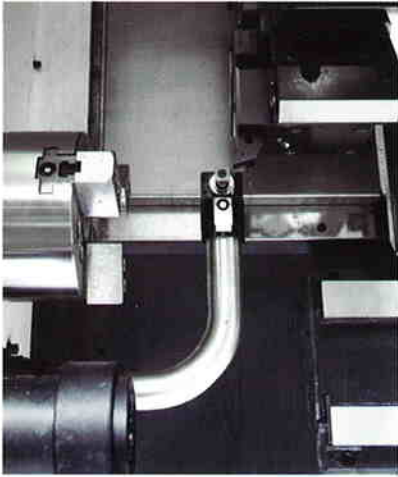
• α 2 10,000i 3.7/2.2kW(5/3HP) 5,000rpm



## High Performance Turning Center

### Various Function

● Tool presetter



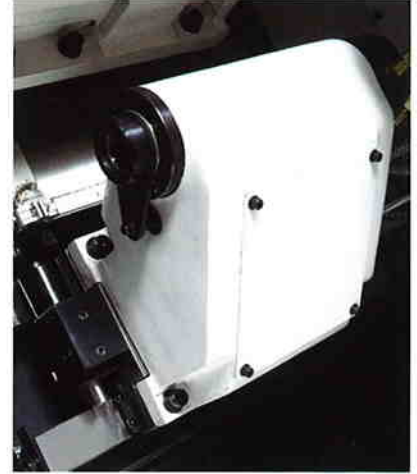
Tool position adjust, work piece zero point, and coordinate system set-up can be set by simply touching the touch sensor. Thus, tool set-up time is shortened to less than 15sec. And this option achieves high productivity and high precision.

● Parts catcher & Bar-feeder(Option)



Parts fall into parts catcher and high productivity is possible. Workpiece size -Max.  $\Phi 45\text{mm}$  ( $\Phi 1.8"$ ) L=160mm(6.3") Productivity elevation(Bar feeder)

● Built-in tail stock



Live center(MT#4) for high rigid machining. Easy to use by quill program(Opt.)

### Tooling System (Std.)

Unit : mm (inch)

OD&FACE CUTTING



□ 25 (1")

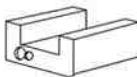


104029  
104030  
**FACE&ID HOLDER**  
144306  
(144362)

ID&FACE CUTTING



□ 25 (1")



**BORING BAR HOLDER**  
144305  
(144361)

ID CUTTING



$\Phi 32$  (1 1/4")



**BORING BAR SLEEVE**



$\Phi 10$  114354 (3/8") (124354)  
 $\Phi 12$  114355 (1/2") (124355)  
 $\Phi 16$  114356 (5/8") (124356)  
 $\Phi 20$  114357 (3/4") (124357)  
 $\Phi 25$  114358 (1") (124358)



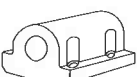
MT#1 114359 (124359)  
MT#2 114360 (124360)  
MT#3 114361 (124361)

**DRILL SPCKET**



$\Phi 20$  114362 (3/4") (124362)  
 $\Phi 25$  114362 (1") (124363)

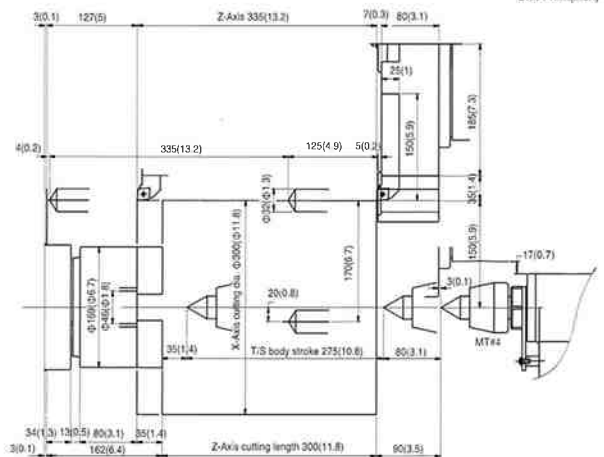
**U-DRILL SLEEVE**



**U-DRILL HOLDER(Opt.)**  
144352  
(144363)

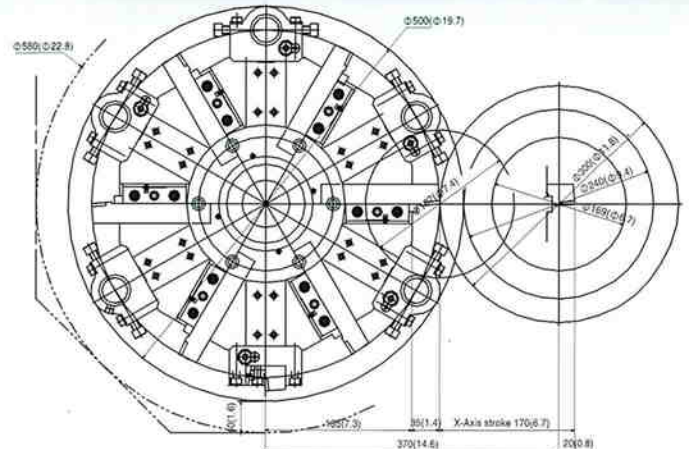
### Moving Range (Std.)

Unit : mm (inch)

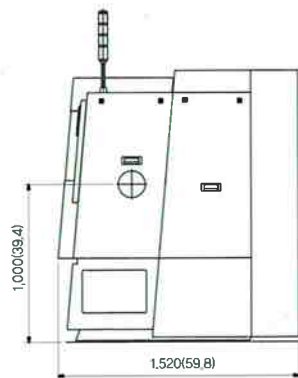
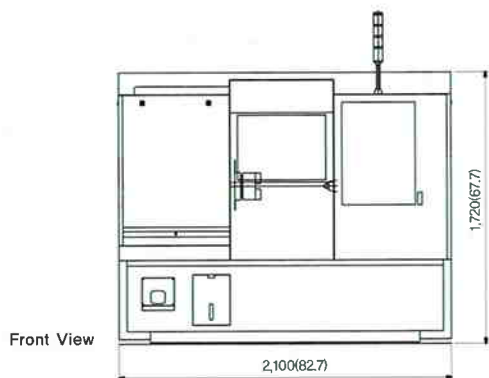


### Tool Interference Diagram (Std.)

Unit : mm (inch)



## Dimension



UNIT : mm(inch)

## Machine specifications

## NC Specifications (FANUC Oi-TC)

(S:Standard, O:Option)

		CUTEX-160	CUTEX-160 MC
<b>CAPACITY</b>	Swing over bed	mm(inch)	Ø550(21.7)
	Max. turning dia.	mm(inch)	Ø300(Ø11.8) / Ø260(Ø10.2)
	Std. turning dia.	mm(inch)	Ø170(Ø6.7)
	Max. turning length	mm(inch)	170(6.7)with T/S 300(11.8) / 170(6.7)with T/S 225(8.9)
<b>SPINDLE</b>	Chuck size	inch	6"
	Spindle nose	ASA	A2-5
	Max. speed	rpm	6,000
	Thr. spindle hole dia.	mm(inch)	Ø56(Ø2.2)
<b>TURRET</b>	Draw tube ID	mm(inch)	Ø45(Ø1.8)
	Spindle motor	kW(HP)	7.5/5.5(10.7)/(OPT 11/7.5(15/10))
	Spindle bearing dia.	mm(inch)	Ø90(Ø3.5)
	Turret type	-	3Piece+Servo
<b>TURN MILL (OPT.)</b>	Number of tools	EA	12
	Tool size	mm(inch)	□25xØ32(□1xØ1.3)
	Max. speed	rpm	5,000
	Max. drilling/tapping	mm(inch)/M	Ø16(Ø0.6)/M12
<b>FEEDRATE</b>	Turn mill motor	kW(HP)	3.7/2.2(5/3)
	Rapid(X/Z)	m/min(ipm)	36/36(1,417/1,417)
<b>TAIL STOCK (OPT.)</b>	Traverse(X/Z)	mm(inch)	170/335(6.7/13.2)
	Quill dia. / stroke	mm(inch)	Ø60/80(Ø2.4/3.1)
	Traverse	mm(inch)	275(10.8)
<b>POWER SOURCE</b>	Taper hole	-	MT#4
	Type	-	Live Center
<b>BED STRUCTURE</b>	Electrical power supply	kVA	20 / 25
		-	45° Slant
<b>DIMENSION</b>	Floor space(L/W)	mm(inch)	2,100x1,520(82.7x59.8)
	Height	mm(inch)	1,720
	Weight	kg(lb)	3,200(7,055) / 3,280(7,231)
<b>CONTROLLER</b>		-	FANUC Oi-TC

ITEM	SPEC
<b>CONTROLLED AXIS</b>	Controlled axis 2-axis \$ Controlable axis expansion 4-axis (MC, SVC, S Type spec) 0 Simultaneous controllable axis/expansion 2-axis / 4-axis S/O
<b>INPUT OPERATION</b>	Least input increment 0.001mm / 0.0001" \$ Axis name X,Z / U,W \$ Decimal point input Available \$ Inch/Metric conversion G20, G21 \$
<b>INTERPOLATION</b>	Positioning G00 \$ Linear interpolation G01 \$ Circular interpolation G02, G03 \$ Dwell (P per sec) G04 \$
<b>FEED FUNCTION</b>	Feed per minute (mm/min) G98 / G99 \$ Minimum increment of MPG 0.001 / 0.01 / 0.1mm (0.0001" / 0.001" / 0.01") \$ Rapid traverse override F0, F25, F50, F100 \$ Feedrate override 0-150% \$ Jog override 0-1260 mm/min \$
<b>PROGRAM STORAGE/EDIT</b>	Part program storage length 640(mi/240KB) \$ Number of stored programs 400EA \$ Part program editing ERASE, INPUT, CHANGE \$ Program number search O NUMBER SERCH \$ Sequence number search N NUMBER SERCH \$ Absolute/incremental programming TOGETHER POSSIBLE IN BLOCK \$
<b>COORDINATE SYSTEM</b>	Return to original point check G27 \$ Automatic zero return G28 \$ Coordinate system setting G50 \$ Tool offset memory 64 Pairs \$ Tool geometric & wear offset \$
<b>OPERATION SUPPORT FUNCTION</b>	Support function switch Machine lock, Single block, Dry run, Optional stop, Auto restart, Block skip \$
<b>DATA INPUT/OUTPUT</b>	Input/Output interface RS232C \$ Memory card interface \$
<b>S/T/M FUNCTION</b>	spindle function Command is S followed by 4digits \$ Constant surface speed G96,G97 \$ Tool (T) function Command is T followed by 4digits \$ Miscellaneous (M) function Command is M followed by 3digits \$
<b>PROGRAM SUPPORT FUNCTION</b>	Single canned cycle G90, G92, G94 \$ Multiple repetitive cycle G70-G76 \$ Custom macro B \$ Program data input G10 \$ Direct drawing dimension programming \$ Chambering/Corner R \$ Run hour display \$ Threading retract Stop after return first program line when machine was stop by reset \$
<b>DISPLAY</b>	LCD 8.4" color LCD \$ Graphic display \$ Display language Korea/English/Germany/Italy/Spain/Portugal \$
<b>SAFETY / MAINTNANCE</b>	Self diagnostic function \$ Store stroke limit Soft O.T. \$ Main spindle orientation \$ Background editing \$ Alarm history display \$ Clock function \$ Help function \$
<b>OPTION FUNCTION</b>	Tool offset memory 99, 400, 999 Pairs \$ Tool life management \$ Multiple repetitive cycle II \$ Workpiece coordinate system G54-G59 \$ Conversational automatic program Manual guide I \$ Manual guide O \$ Rigid tapping \$

\* Specifications are subject to change without notice. Not responsible for misprints or typographical errors.

## Standard Accessories

## Optional Accessories

- Hydraulic chuck & cylinder(6" Hollow)
- Soft jaw
- Hydraulic unit
- Coolant system
- Foot switch
- Work light
- Tool kit & box
- Operation manual & part list
- Tooling system
- Signal lamp(R,G)
- Leveling bolt & plate
- Door interlock

- Transformer(25kVA)
- Automatic door
- Tail stock(MT#4)
  - Body program
  - Quill program
- Chip conveyor & box(Side type)
- Trun mill & C-axis indexing(0.001")
- Air blower
- Air gun
- U-drill holder
- Coolant gun
- Tool & work counter
- Tool presetter
- Hard jaw
- NC cooler
- High pressure pump(6 bar)
- Parts catcher
- Chuck pressure check switch
- Main spindle motor(11/7.5kw)
- Signal lamp(R,G,Y)
- Bar feeder
- Bar feeder interface

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HCS-C14A-EngA-Rev.2 200608