



**AERO**

# Aero Turn

## **BT-380**

*CNC Turning Center*

**With 10" Chuck & Fanuc 0i-Tc Control**

### STANDARD FEATURES

POWERFUL 30 HP SPINDLE OUTPUT  
3,500 RPM MAXIMUM SPINDLE SPEED  
10" HYDRAULIC CHUCK, 3.05" BAR CAPACITY  
493 FT-LBS. OF TORQUE @ 195 RPM (30 MINUTE RATING)  
RIGID ONE PIECE 30° SLANT BED  
PRECISION HARDENED & GROUND BALLSCREWS  
HARDENED & GROUND BOXWAY CONSTRUCTION  
HEAT EXCHANGER FOR ELECTRICAL CABINET  
AUTOMATIC LUBRICATION SYSTEM/ FLOW ALARMS  
FLUORESCENT WORK LAMP  
HIGH QUALITY & RUGGED MEEHANITE® CASTINGS  
45 GAL. HIGH CAPACITY COOLANT TANK  
SET OF HARD & SOFT JAWS  
MT-5 LIVE CENTER

FAST 12 POSITION SERVO TURRET  
NON-STOP BI-DIRECTIONAL TOOL INDEXING  
HYDRAULIC CLAMPING/ CURVIC COUPLING  
TAILSTOCK <sup>W/</sup> PROGRAMMABLE QUILL  
ABSOLUTE POSITIONING ENCODERS  
AC DIGITAL SERVO & SPINDLE DRIVES  
8.4" LCD COLOR MONITOR  
TOOL PATH GRAPHICS/ MAUAL GUIDE I  
MACRO B & HIGH SPEED SKIP FUNCTION  
640 METERS MEMORY  
PCMCIA EXPANSION SLOT/ RS 232 INTERFACE  
SWIVEL DESIGNED CONTROL PANEL  
AIR GUN

### BASIC SPECIFICATIONS

#### *SPINDLE*

Horse Power  
Spindle Nose  
Through Hole / Bar Capacity  
Spindle Speed Range (10" Chuck)

#### *BT-380*

30 HP (30 Min.)  
A2-8  
3.62"/ 3.05"  
3,500 RPM

#### *TRAVEL*

X Axis Travel (Maximum Cross Travel)  
Z Axis Travel  
Swing Over Bed  
Swing Over Carriage  
Max. Turning Diameter  
Distance Between Center  
Max. Turning Length

9.05"  
21.65"/31.5"/41.4"  
23.62"  
15.74"  
16.14"  
21.46"  
19.68"/29.57"/39.4"

#### *FEED*

X-Axis Rapid  
Z-Axis Rapid

788 IPM  
945 IPM

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## **TURRET**

Number of Tools	12
Tool Size (O.D. / I.D.)	□1.0" / Ø1.0"
Tooling	4 ea. 1.5" ID Tool Holders, 2 ea. CTT(coolant thru) 2 ea. Face Tool Holders 1 set of boring sleeves

## **TAIL STOCK**

Quill Diameter	3.35"
Max. Quill Travel	3.94"
Quill Taper	MT-#5
Tailstock Travel	22.83"/32.7"/42.5"

## **GENERAL**

Machine Net Weight	11,000 lbs.
Shipping Weight	12,200 lbs.
Power Consumption	35 kVA
Floor Spacing (W x D x H)	108"+ 34" x 68" x 73"

## **DETAILED SPECIFICATIONS**

### **WORKING CAPACITY**

Swing over Bed	23.62"
Swing over Carriage	15.74"
Maximum Turning Diameter	16.14"
Bar Working Capacity	Ø2.55"
Distance Between Center	21.46"
Max. Turning Length	19.68"

### **SPINDLE**

Spindle Motor	FANUC ALPHA P30 Digital Spindle Motor
Horsepower	30 HP (30 min.)
Spindle Drive	
Chuck Diameter	10"
Spindle Nose	A2-8
Spindle thru-hole Diameter	Ø 3.62"
Bar Capacity	3.05"
RPM Range Low/High	3500 rpm
Spindle Center Height from Floor	38.9"
Maximum Torque	493 ft-lbs.

### **X AXIS**

Ballscrew: Diameter	Ø 1.26" / 32mm
Class	JIS C3
Pitch	0.472" / 12mm
Feed Rate: Rapid Traverse	787 ipm
Travel:	9.05"
Motor Horse Power	4
Maximum Axial Thrust Force	6,980 ft. lbs.



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### Z AXIS

Ballscrew: Diameter	Ø 1.57" / 40mm
Class	JIS C3
Pitch	0.630" / 16mm
Feed Rate: Rapid Traverse	945 ipm
Travel:	21.65"
Motor Horse Power	4
Maximum Axial Thrust Force	5,817 ft. lbs.

## DETAILED SPECIFICATIONS

### BT-380

#### TURRET

Number of Tools	12
Turret Type	Servo
Shank Height for Square Tool	1"
Boring Bar Holder Diameter	Ø 1.5"
Turret Maximum Swing Diameter	22.8"
Turret Holding Force	7,800 lbs
Tool Indexing Time (adj. Tool)	.1 sec
Tooling	(4)ea. ID Tool Holders (2) ID w/ CTT 1 set of boring sleeves 2 ea. Face / ID Holders

#### TAILSTOCK

Quill Diameter	3.35"
Quill Taper	MT # 5
Quill Stroke	3.94"
Tailstock Stroke	22.83"

#### CAPACITY

Hydraulics Tank Capacity	26.4 gal
Lubrication Capacity	.53 gal
Coolant tank capacity	45 gal

#### DIMENSIONS

Floor Space w/ Chip Conveyor (W x D x H)	108" + 34" x 68" x 73"
Shipping Dimensions (W x D x H)	

#### WEIGHT

Net (w/ chip conveyor)	11,000 lbs.
Shipping	12,200 lbs.

#### POWER REQUIREMENTS

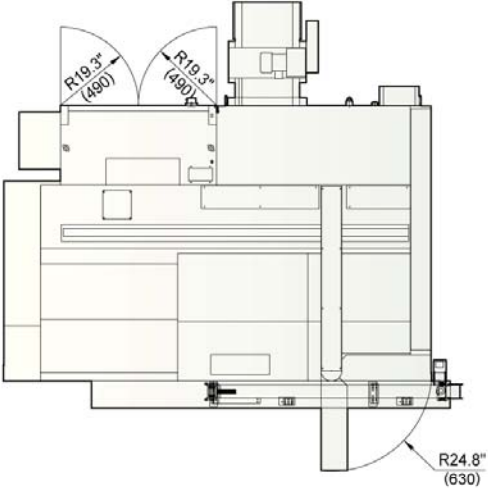
220 Volt AC 3 Phase / 66 AMPS / 25 KVA



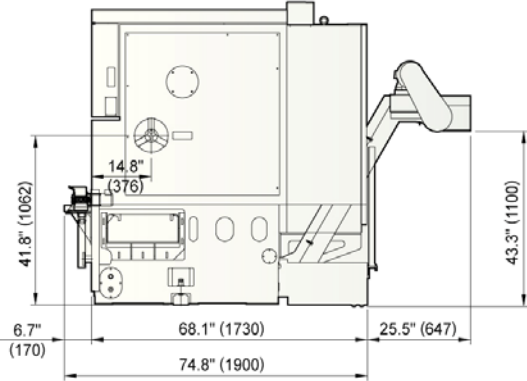
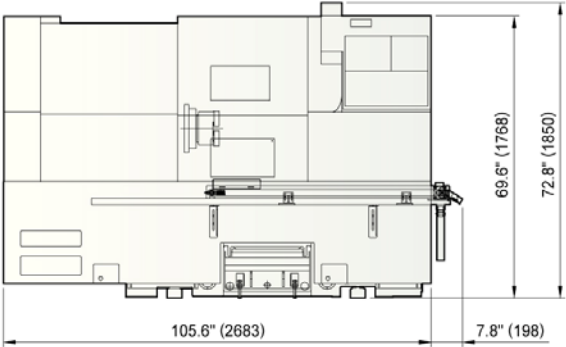
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## MACHINE DIMENSIONS



UNIT: Inch (mm)



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## Fanuc 0i-TC Standard Features:

- Controlled Path, 1 path
- Controlled Axis, 2 axis
- Simultaneously Control Axes, maximum 4 axis
- Axis Name, base axis, x, z, option y, a, b, c
- Least Input Increment, 0.001mm, 0.001°, 0.001"
- Servo HRV Control, HRV3
- Inch/mm Change, G20, G21
- Machine Lock
- Positions, G00
- Skip Function, G31
- Reference Position Return, G28
- Return Check, G27
- Feed Override, 0-254%
- JOG Override, 0-655.34%
- Rapid Traverse Override, F0,25,50,100%
- Cutting Feedrate Clamp
- TAPE Code, EIA RS244/ISO840
- Plane Select, G17, G18, G19
- Workpiece Coordinate System, G52-G59
- Programming Data Input, G10
- Multiple Repetitive Cycle 2, Pocket Profile
- Manual Guide 0i (8.4" Color LCD)
- Conversational Programming with Graphic Function
- G Code System, A/B/C
- Custom Macro B
- Chamfering/Corner R
- Canned Cycles
- External Workpiece Number Search, 9999
- External Tool Offset
- External Message
- Reader/Puncher Interface, Ch1, Ch2
- Cannel Cycles for Drilling
- Sub Program Call
- Multiple Repetitive Cycle
- Manual Absolute On and Off
- Part Program Storage, 640m
- Registerable Programs, 400
- Program Protect
- Background Editing
- Tool Offset Pars,  $\pm 6$  digits 64
- Tool Offset
- Tool Life Management
- Tool Offset Value Counter Input
- Spindle Override, 0-254%
- 1<sup>st</sup> Spindle Orientation
- Rigid Tapping
- Spindle Positioning
- Spindle Synchronous Control
- Actual Spindle Speed Output
- Multiple Command of Auxiliary Function
- Dynamic Graphic Display
- Graphic Function
- Data Protection Key, 4 types
- Program Display, 31 characters
- Parameter Setting and Display
- Alarm Display

### Fanuc Oi-TC Optional Features:

- Angular Axis Control
- Macro Executor, 512KB, 2MB, 4MB
- Manual Guide I (10.4" color LCD required)  
Servo Guide