

# MODELS **2SI-6,8** and **2SI-10** CNC Two Spindle Indexer

## Machine Specifications

		2SI-6	2SI-8	2SI-10	
Range	Max.turning diameter	180mm (7.0")	210mm (8.2")	310mm (12.2")	
	Max.turning length	120mm (4.7")		200mm (7.8")	
Spindle	No. of spindle	2		2	
	Chuck size	6"	8"	10"	12"
	Spindle motor	7.5 / 5.5KW (10 / 7.5HP)		15 / 18.5KW (20 / 25HP)	
	Spindle R.P.M	50-5000	35-3500	30-3000	
	Tool Turret	No. of tool stations	8 or 12 or Gang tool type		8 or 12 or Gang tool type
Tool Turret	Max. No. of power tool	6 tools		6 tools	
	Tool spindle R.P.M	200-5000		200-5000	
	N.C. Slide	X-axis travel	120mm (4.7")	170mm (6.7")	
N.C. Slide	Z-axis travel	170mm (6.7")		205mm (8.0")	
	Rapid feed rate	15m / min (600" / min)		15m / min (600" / min)	
	Weight and Dimensions	Floor to spindle center	960mm (37.8")		1100mm (43.3")
Floor space		1900 (74.8") X 1600 (63")		2450 (96.5") X 2200 (86.6")	
Weight		3600kg (8000lb)	3800kg (8400lb)	5500kg (12200lb)	

※ It is also possible to attach 12" chucks on 2SI-10  
 ※ The power tool of Turret is option.

## CNC Specifications

Model	Fanuc 0i-TD
Simultaneous controlled axes	2 axes
Command increment	0.001mm (0.00004")
Override	0-100%
Sequence	Fanuc
Part program storage size	512kbyte
Number of registerable programs	800
Tool offset pairs	200
Between spindle Compensation function	Spindle offset
Multi-language display	English, France, Chinese, German, Italian, Korean, Portuguese, Spanish, Turkish etc

## CNC Other Standard Functions

- Inch / Metric conversion
- Graphic display
- Dry run
- Single block
- Machine lock
- Direct drawing dimension programming
- Tool geometry / wear compensation
- Tool nose radius compensation
- Variable Lead thread cutting
- Custom macro
- Canned cycles
- Multiple repetitive cycle
- Optional chamfering / corner R
- Tool life management
- Spindle info. Screen display
- Alarm history display
- others

## Standard Accessories

- Hydra. unit
- Coolant device
- Total splash guard
- Auto door
- Work light
- Leveling block
- Hand tool kit
- Foot switch (in case of Manual type machine)

## Options

- High power at lower RPM spec.
- Power chuck
- Loading spindle orientation
- High-pressure coolant
- Coolant through spindle
- Live tool unit
- Robot
- Gantry loader
- Tail-stock
- In / Out conveyor
- Tool holder
- Chip conveyor
- Mist collector etc.

※ Product specifications, accessories, and machine appearance are subjected to change without notice.

## Other Products

(Shimada also offers)

- Multi-Spindle Chucker Type
  - 6 spindle SC-6E
  - CNC 6 spindle CN-660
  - Built in type ISM B6-27
  - 8 spindle SS-8
  - CNC 8 spindle SS-8NC
- CNC 4 Spindle Lathe
  - Horizontal HS4200
  - Vertical VT4-350
- CNC 2 Spindle Indexer
  - 2SI-6
  - 2SI-8
  - 2SI-10
- Multi-Spindle Bar Type
  - CNC 6 spindle B6-16NC
  - B6-27NC
  - B6-32NC

# SHIMADA



**SHIMADA MACHINERY CO.,LTD.**

Head office 3-1-18 Sawakihama Mito-cho,  
 Toyokawa, Aichi 441-0304  
 TEL +81- (0) 533-76-3381  
 FAX +81- (0) 533-76-3386  
 URL <http://www.smd.co.jp>

**CNC SYSTEM SALES, INC.**

**R. Kent Baker**  
 President

(317) 251-2770 Office  
 (317) 251-2888 Fax  
 (317) 431-7191 Cell  
[kbaker@cncsystemsales.com](mailto:kbaker@cncsystemsales.com)

Production Master Twin

# 2SI-6 and 8 2SI-10

2SI Series CNC TWO SPINDLE INDEXER  
 RELOAD WHILE MACHINING



Shimada .... Japan's leading manufacturer of CNC multi-spindle lathes



# MODELS **2SI-6, 8** and **2S I-10**

## Production Master Twin CNC TWO SPINDLE INDEXER

The **2SI** models uniquely connect two spindles, one turret, and a Fanuc controller into a highly productive, cost effective machine tool package. Each model provides an easily customized machining platform which combines the advantages of multiple spindle productivity with the accuracy, flexibility, and the simple set-up routines of a CNC lathe.

Each spindle is alternately indexed between the machining and loading positions. Upon completion of the machining cycle, the spindle magazine-drum indexes 180 degrees, bringing a new part into the machining zone, and, at the same time, taking the completed part out. After the loading-station's chuck is unloaded and reloaded, and the machining is completed, the magazine is indexed again, and the process begins anew.



**Zero down time for loading / unloading**

The in and out handling of the workpieces takes place during the machining cycle.

**First and second operations on one machine**

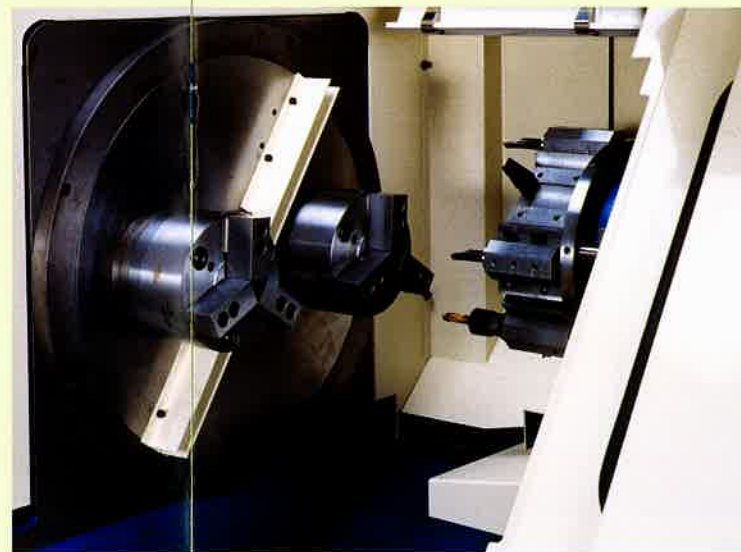
By flipping the part, every other index produces a finished part.

**Convenient Manual or Trouble-free Automatic Loading**

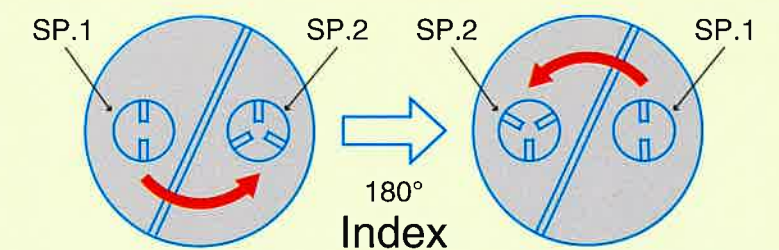
The loading station is outside the machine, separated from the machining area by a sliding door. Our design affords the operator a safe and ergonomic work environment, or can be customized to workpiece-matching automation.

**Milling Function**

Available with optional C axis with live tooling



※ Loading spindle cover is optional



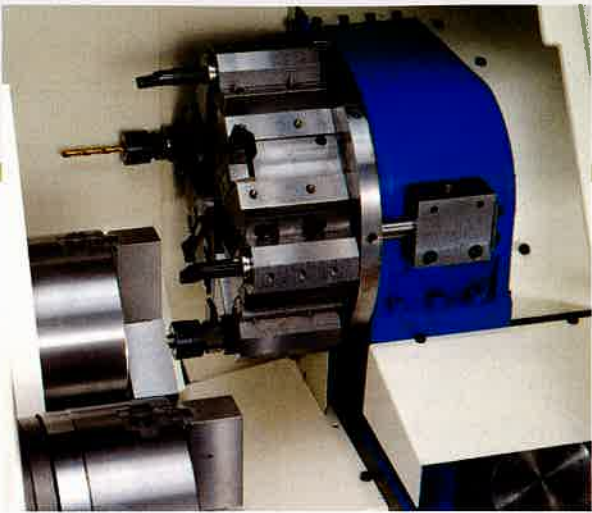
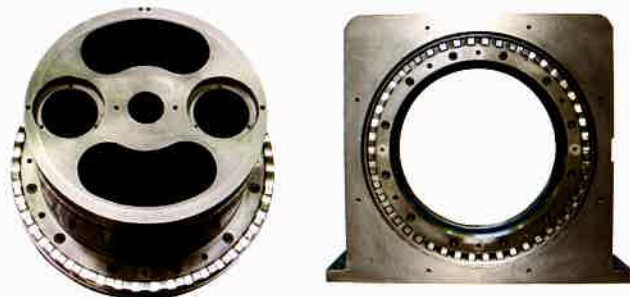
The **2SI** allows you to machine;  
a) the same operation on each spindle, or  
b) a different operation, or part, on each spindle



# AUTOMATION EXAMPLES

## Spindle magazine indexing by Curvic Coupling

The spindle's magazine-drum is positioned by a large diameter, precision curvic coupling which insures reliable and long-lived index repeatability accuracy.



Since the loading spindle is outside of the machine, customized automation can easily be added. Be it robot or gantry, interfacing a work handling system with one of our **2SI** models isn't complicated.



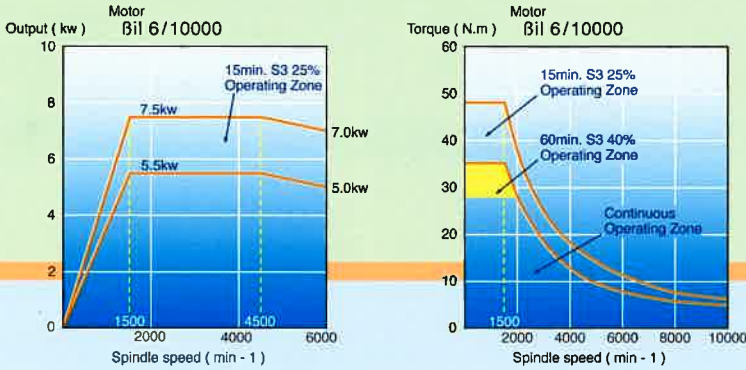
3-axis gantry loader with tray exchanger



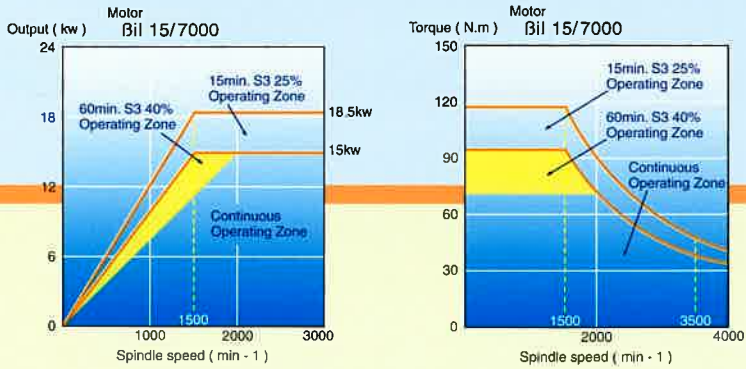
2-axis gantry loader with rotary stocker

## Horse Power / Torque Chart

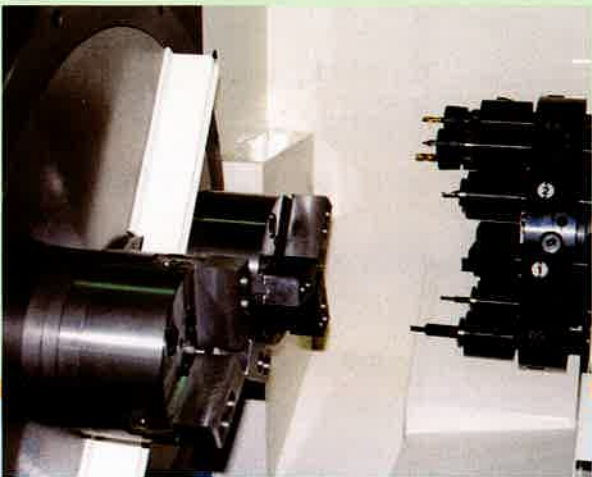
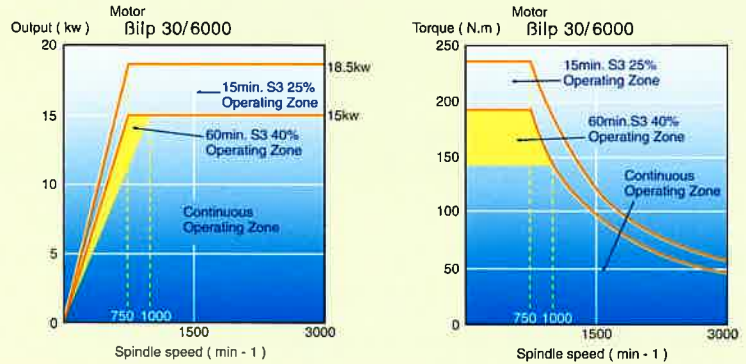
### 2SI-6/8



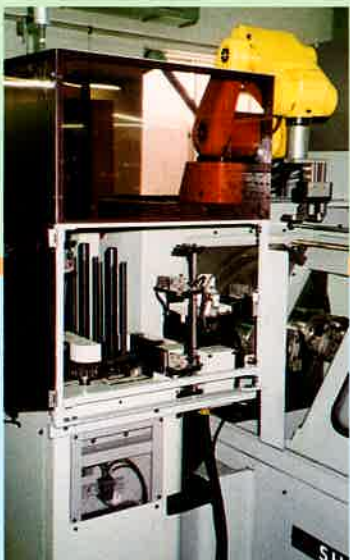
### 2SI-10



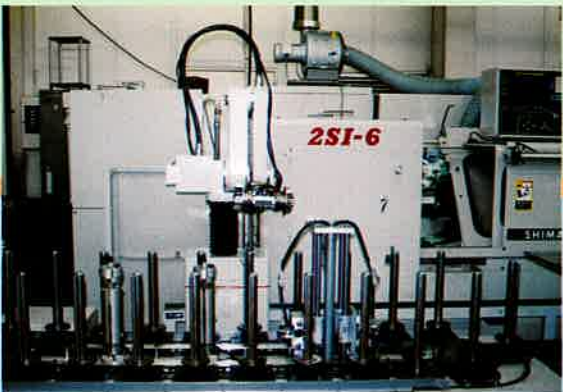
※ High Torque Motor 15/18.5kw (Optional)



## Robust One Piece Casting with Hardened and Hand Scraped Box Slide Ways



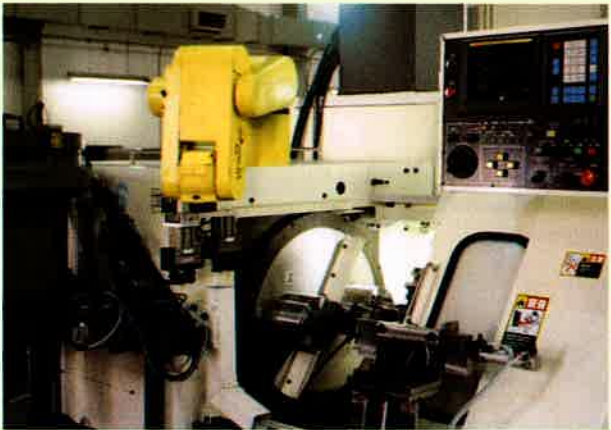
Robot with rotary stocker



Robot with rotary stocker



Robot with In & Out Conveyor

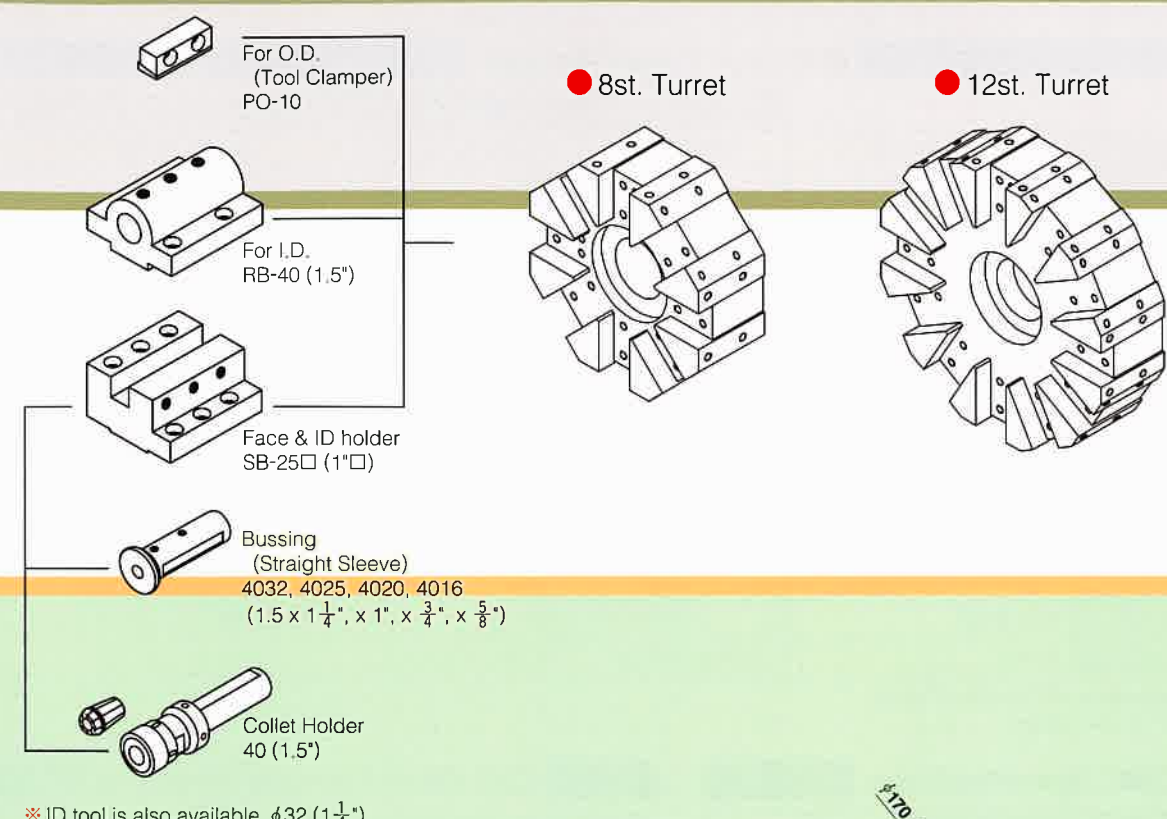
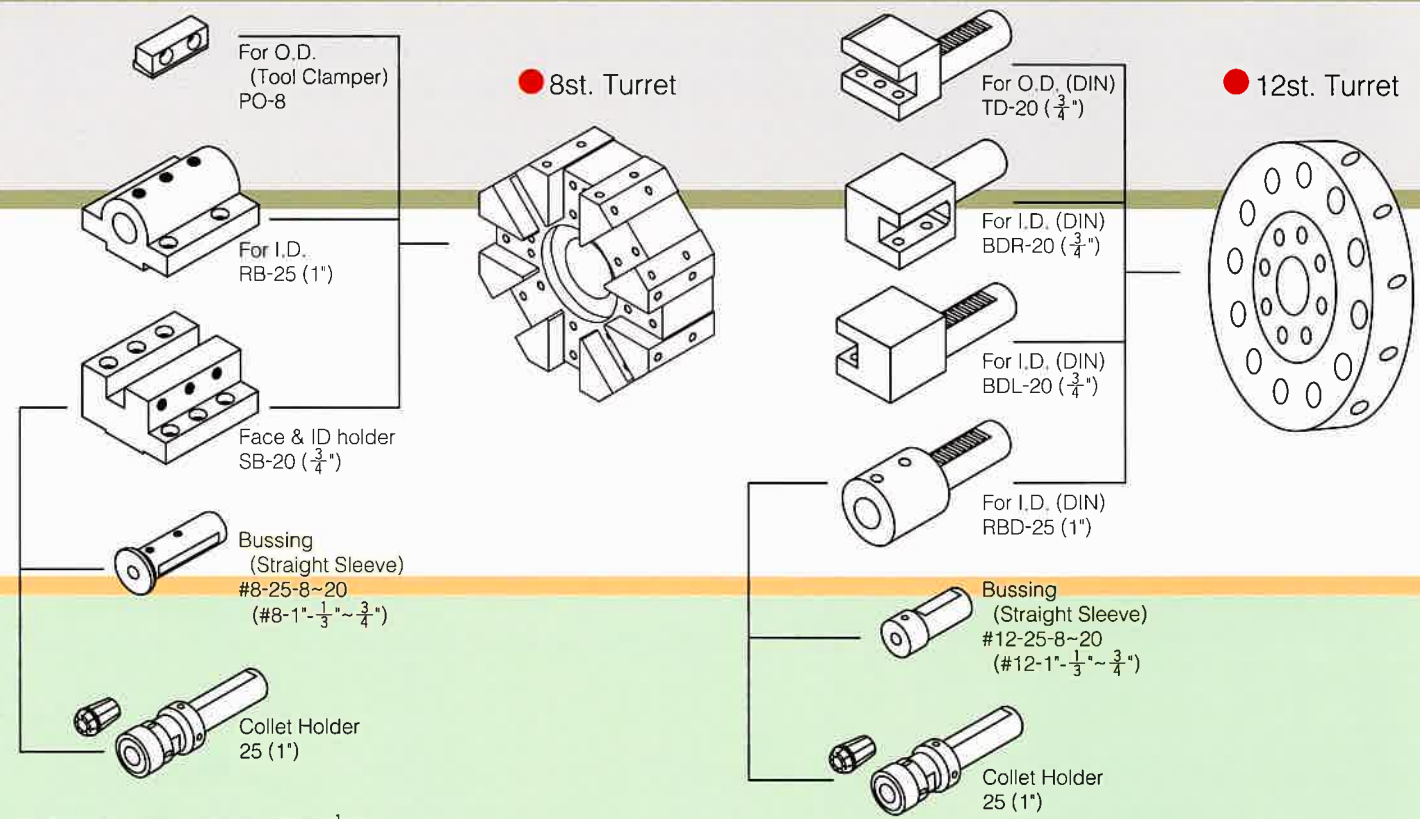


Robot with Pusher and Bowl Feeder



# 2SI-6.8 Tool System & Cutting Area

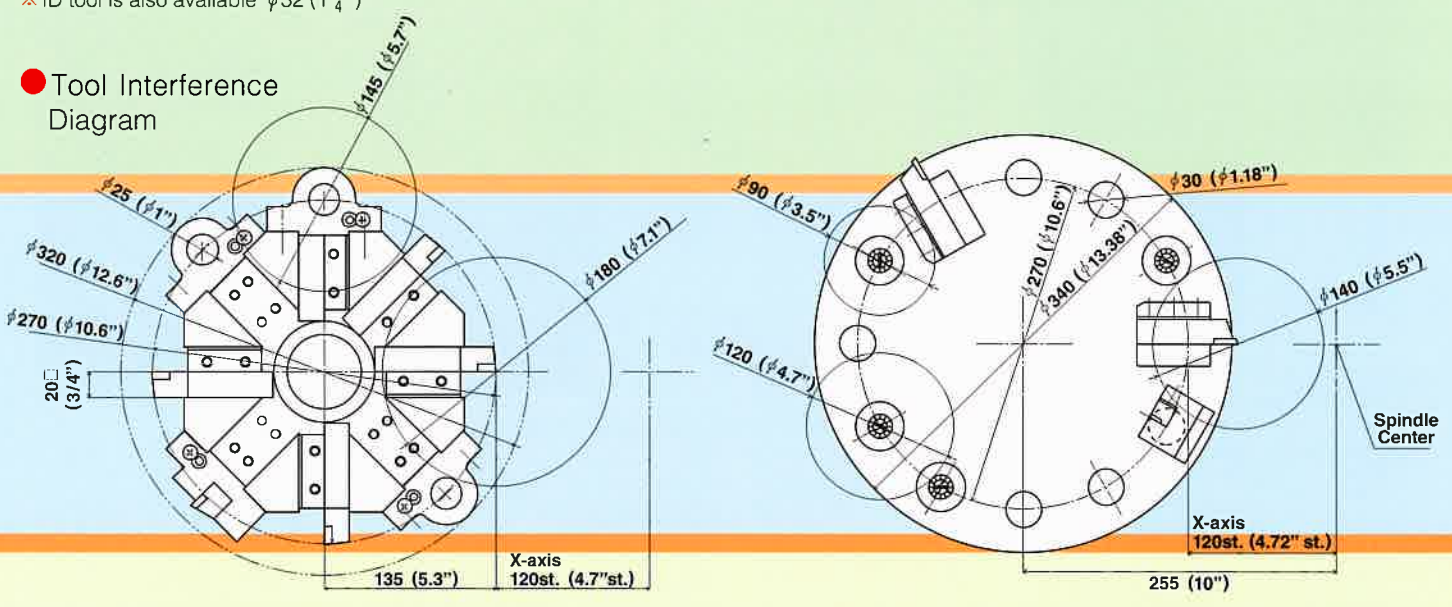
# Tool System & Cutting Area 2SI-10



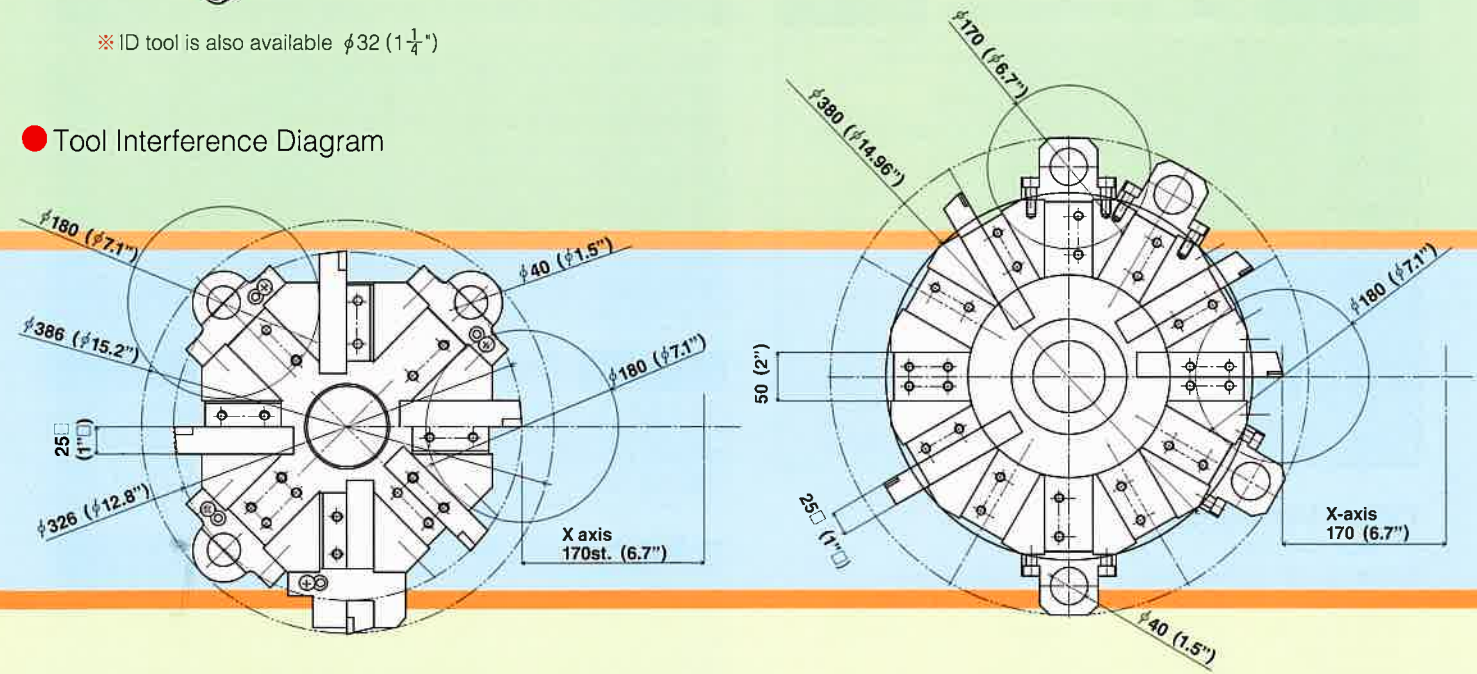
※ ID tool is also available  $\phi 32$  (1- $\frac{1}{4}$ "

※ ID tool is also available  $\phi 32$  (1- $\frac{1}{4}$ "

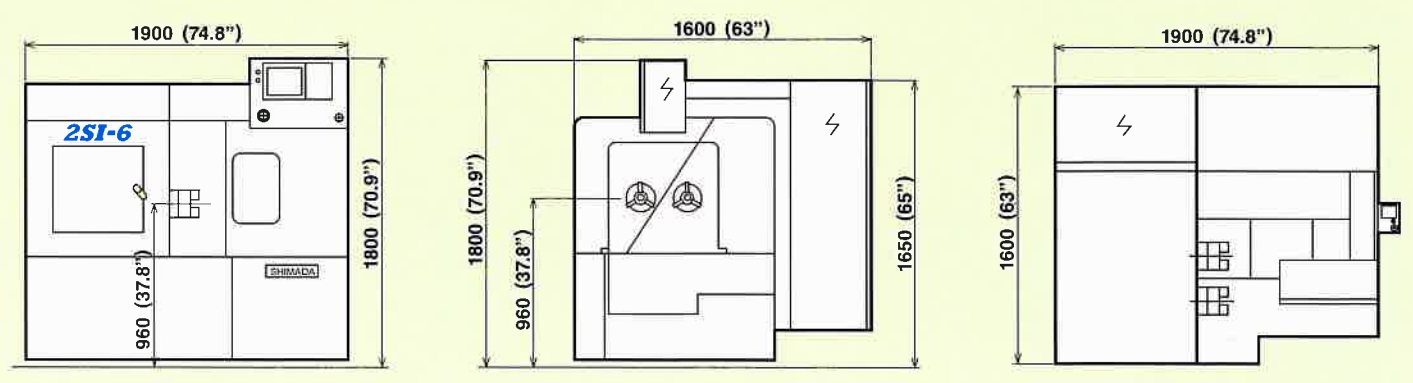
## ● Tool Interference Diagram



## ● Tool Interference Diagram



## Machine Size



## Machine Size

