

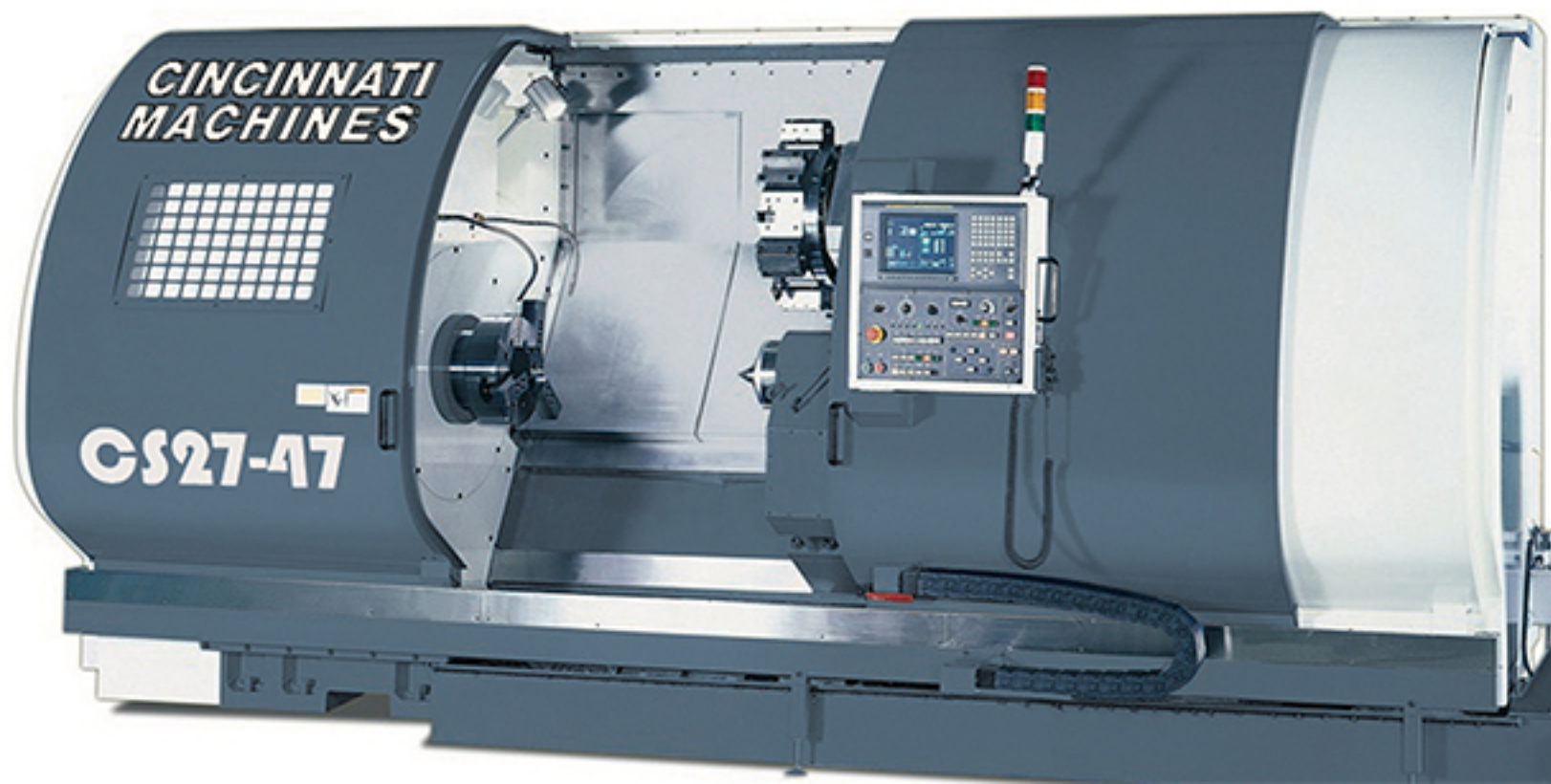
# **CINCINNATI MACHINES**

## **CS/CSX Series**

**HEAVY-DUTY**

**CNC UNIVERSAL TURNING CENTERS**

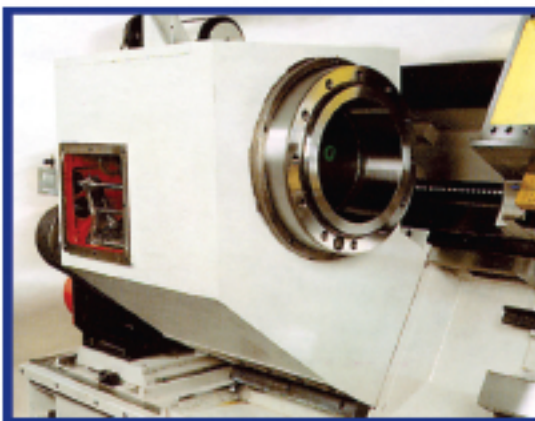
**BIG SWING,  
BIG BORE,  
BIG CENTERS,  
BIG POWER,  
BIG CAPACITY**



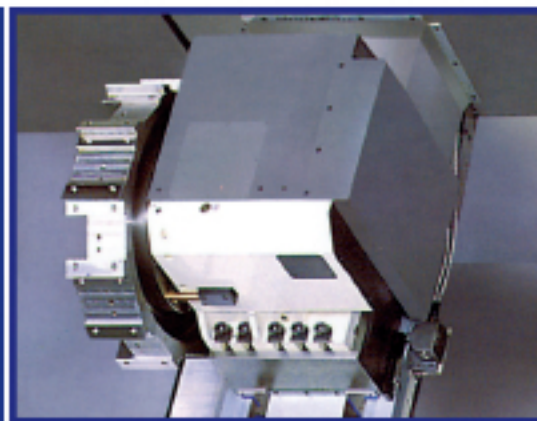


# SERIOUS MACHINING CAPABILITIES

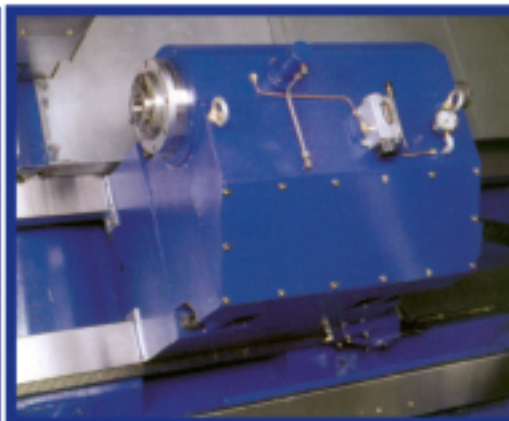
## MASSIVE HEAVY-DUTY MEEHANITE CASTINGS THROUGHOUT



The powerful heavy-duty headstock delivers high torque to the precision spindle through 4 speed ranges. You have choices from 40 to 60 hp, and speed ranges from 300 rpm (21" bore) to the standard 1200 rpm (6" bore).



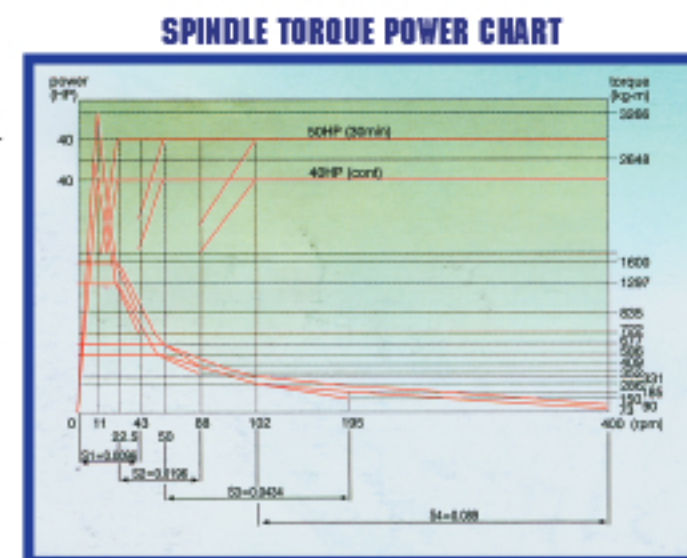
The heavy-duty yet fast and precise turret employs a conical clutch that provides random bi-directional tool selection in only 1 second (adjacent), 2.7 seconds (max). The standard 12 station turret utilizes VDI or polygon tooling, and is available with the "LIVE TOOLING" OPTION.



The heavy-duty massive programmable tailstock provides maximum rigidity and the quill features 7.8" of travel to insure minimum turret interference. CS has a 5.7" dia quill while CSX is 9.25" dia.

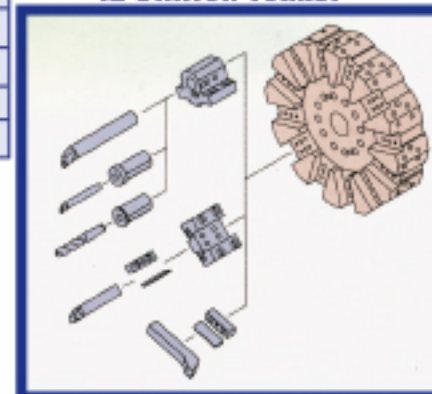
## CONSTRUCTION FEATURES

- \* 45/60° slant bed design insures maximum stability & chip management.
- \* Massive heavy-duty meehanite castings used throughout.
- \* Heavy-duty massive 4 range headstock with large bores.
- \* Powerful high torque spindle drive and motor (40-60HP).
- \* Hardened and precision ground bed ways are coated with turcite-B.
- \* Bed ways protected by telescoping guards.
- \* Precision large diameter ballscrews providing longevity and accuracy.
- \* Fast precision turret providing 1 second tool change.
- \* Heavy-duty massive and versatile programmable tailstock.
- \* Full enclosure splash guarding for chip/coolant control and safety.
- \* Hydraulic oil chiller unit to provide maximum stability.
- \* Digital scale feedback for maximum accuracy.
- \* FANUC 18iT CNC



| Spindle nose      |       | A2-11(8") | A2-15(9") | A2-15(10") | A2-20(12") | A2-20(14") | A2-28(16") | A2-28(21") |        |
|-------------------|-------|-----------|-----------|------------|------------|------------|------------|------------|--------|
| Spindle<br>Speeds | Range | 1         | 20-140    | 18-120     | 13-95      | 14-100     | 12-85      | 10-75      | 8-60   |
|                   |       | 2         | 38-240    | 30-200     | 25-185     | 26-180     | 23-180     | 18-110     | 15-95  |
|                   |       | 3         | 95-550    | 70-420     | 60-400     | 60-350     | 55-300     | 45-250     | 35-200 |
|                   |       | 4         | 200-1200  | 150-700    | 120-800    | 130-450    | 95-400     | 65-350     | 55-300 |

## 12 STATION TURRET



Standard VDI or polygon tooling

## CSW SERIES

High Speed Aluminum Wheel Turning Machine  
2000rpm spindle can handle up to 25" wheels

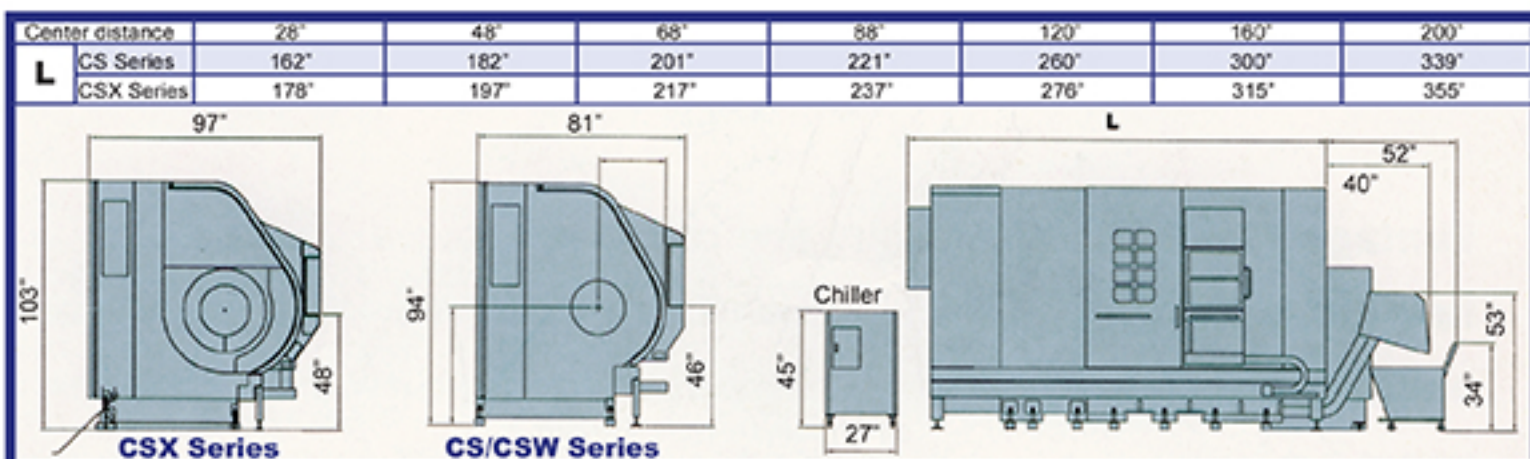
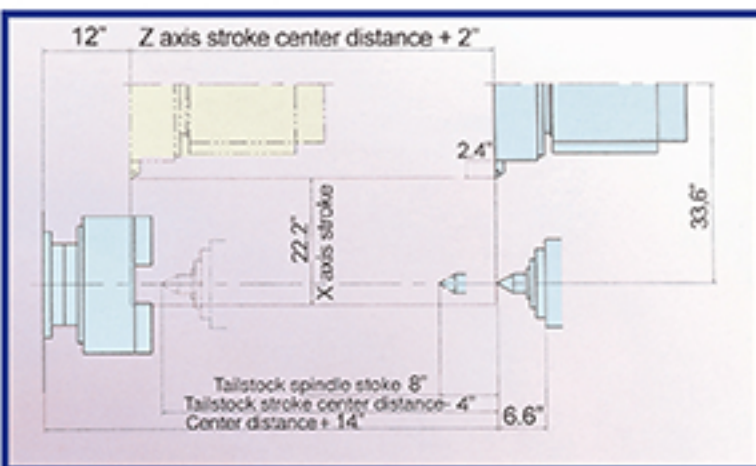
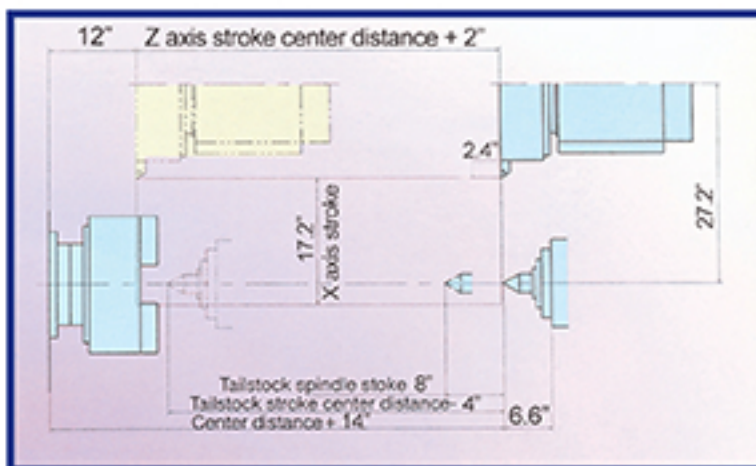


**Model CSX 40U120**  
Heavy-Duty Universal CNC Turning Center  
with 16" bore and front and rear chucks



# CS Series Working Range

# CSX Series Working Range



| Model                        | CS Series                                                                                                  |                |                | CSX Series                                                                                                  |                   |            | CSW Series                |           |
|------------------------------|------------------------------------------------------------------------------------------------------------|----------------|----------------|-------------------------------------------------------------------------------------------------------------|-------------------|------------|---------------------------|-----------|
|                              | 27U                                                                                                        | 31U            | 37U            | 29U                                                                                                         | 34U               | 40U        | 21CSW                     | 25CSW     |
| Swing over bed               | 27.5"                                                                                                      | 31"            | 37.8"          | 35"                                                                                                         | 40"               | 45"        | 27.5"                     | 31"       |
| Swing over crossslide        | 21.6"                                                                                                      | 25"            | 33.4"          | 29"                                                                                                         | 34"               | 39"        | 21.6"                     | 25"       |
| Maximum cutting diameter     | 27.5"                                                                                                      | 31"            | 37.8"          | 35"                                                                                                         | 40"               | 45"        | 27.5"                     | 31"       |
| Distance between centers     | 28,                                                                                                        | 47,            | 67,            | 87,                                                                                                         | 126,              | 165,       | 205                       | N/A       |
| Bed width                    | 45"                                                                                                        | 45"            | 45"            | 53.5"                                                                                                       | 53.5"             | 53.5"      | 45"                       | N/A       |
| Bed way width                | 32.7"                                                                                                      | 32.7"          | 32.7"          | 37.4"                                                                                                       | 37.4"             | 37.4"      | 33"                       | N/A       |
| Crossslide width             | 19.7"                                                                                                      | 19.7"          | 19.7"          | 23.6"                                                                                                       | 23.6"             | 23.6"      | 19.7"                     | N/A       |
| OD turret positions          | Baruffaldi TB 320                                                                                          |                |                | 12                                                                                                          | Baruffaldi TB 400 |            | Baruffaldi TB 320         | 12        |
| ID turret positions          |                                                                                                            |                |                | 12                                                                                                          |                   |            | 12                        |           |
| Standard OD tool shank       | 1.25" x1.25"                                                                                               |                |                |                                                                                                             |                   |            | 1.25" x1.25"              |           |
| Maximum boring bar diameter  | 2.5"                                                                                                       | 2.5"           | 2.5"           | 4"                                                                                                          | 4"                | 4"         | 2.5"                      |           |
| Ballscrew diameter           | X 1.8", Z 2.5"                                                                                             | X 1.8", Z 2.5" | X 1.8", Z 2.5" | X 2", Z 3"                                                                                                  | X 2", Z 3"        | X 2", Z 3" | X 2", Z 3"                |           |
| Quill type                   | Built-in type, rotating tailstock quill                                                                    |                |                | Built-in type, rotating tailstock quill                                                                     |                   |            | N/A                       |           |
| Quill diameter               | 6.3"                                                                                                       | 6.3"           | 6.3"           | 9.25"                                                                                                       | 9.25"             | 9.25"      | N/A                       |           |
| Quill travel                 | 7.9"                                                                                                       |                |                |                                                                                                             |                   |            | N/A                       |           |
| Quill taper                  | #5MT                                                                                                       |                |                | #6MT                                                                                                        |                   |            | N/A                       |           |
| Spindle drive motor (HP)     | 40 Cont / 50Mtdr. (50 /60 Optional)                                                                        |                |                | 50 Cont. / 60 Mtdr.                                                                                         |                   |            | 40Cont/50Mtdr.(50 /60Opt) |           |
| Machine weight (28" Centers) | 24200 lbs                                                                                                  | 25080 lbs      | 26000 lbs      | 36300 lbs                                                                                                   | 37400 lbs         | 38500 lbs  | 22800 lbs                 | 23760 lbs |
|                              | 48" add 3300lb, 68"- 6600lb, 88"- 9900lb, 120"- 16500 lb, 160"- 23100lb, and for 200" machine add 29700 lb |                |                | 48" add 4840 lb, 68"- 9680lb, 88"- 14520lb, 120"- 24200lb, 160"- 33,800lb, and for 200" machine add 43560lb |                   |            | N/A                       | N/A       |

Machine Specifications and Features shown in this brochure are provided as a guide only and are subject to change without notice