# SE SERIES

High Speed Double Column Machining Center


## High Speed and High Accuracy Machining of Mold Industry. High Efficient Machining of Aluminum Structure.

SE high speed machining center has a 50% increase in productivity by excellent mechanism and structural performance.
Extraordinary performance particularly meets high speed and high accuracy machining of mold, and mass removal machining of aluminum alloy.
The performance of High Speed Machining (HSM) is created by precise mechanism and multiple spindle combination.

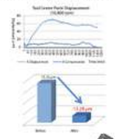
- 0.5G Axial Thrust.
- Spindle Speed Reaches 28,000 rpm.
- 20 m/min Feedrate.
- Precise Contour Accuracy.
- Delicate Surface Roughness.
- Positioning Accuracy P 0.007mm.
- Repeatability Ps 0.003mm.
- Aluminum Alloy Chips Removal Rate 7,000 cc/min.

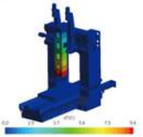



- Box shape, symmetrical, and thermal friendly structure enables outstanding rigidity and precise accuracy.
- Anti-bending and distortion-resistant characteristic supports whole Z-axis travel and provides best straightness.

### Friendly Thermal Accuracy

Ambient Temperature Compensation (ATC) 0.005mm
Spindle Thermal Compensation (STC) 0.02mm





### Aerospace Aluminum Frame

- Size : 1,425 x 680 x 75 mm
- Material : Al6061
- Tool : D25 End Mill
- Speed : 10,500 rpm
- Ap: 70 mm
- Tool Path : Equal TEA Angle Path

#### Features

- 24 m/min High Cutting Feedrate
- 2.8 times Tool Diameter~Cutting Depth Ratio
- 2000 cc/min High Material Removal Rate
- Alumina Cutting Efficiency: 90 cc/kW (2 Times Productivity)

### Car Headlight Mold

- Size : 800 x 550 x 250 mm
- Material : P20 (HRC30° )
- Tool : D10R5 Ball End
- Finish Pitch: 0.15mm
- Tool Path : 45° Projection Cutting
- Speed : 12,000 RPM
- Cutting Feedrate : 4,000mm/min

#### Features

- 0.2G High Acceleration Mold Finishing
- High Feed Rough Machining: D40R1, F10,000mm/min, 160cc/min
- High Feed Mold Surface Finishing : D10R5 Ball End, F4,000mm/min
- High Surface Roughness : Ra0.4 μm
- 0.04 mm Contour Accuracy

| Model | X axis | Y axis | Z axis | Table dimension | Max. table load | Spindle motor (cont./ 30 min rated) | Spindle speed | Cutting feed rate | Rapid traverse(x/y/z) |
|---|---|---|---|---|---|---|---|---|---|
| Unit | mm | mm | mm | mm | kg | kW | rpm | mm/min | m/min |
| SE-1612 | 1,600 | 1,200 | 800/1,000 (Opt.) | 1,800 x 1,100 | 8,000 | 15 / 18.5 | 15,000 | 1~24,000 | 24 / 30(Opt.) |
| SE-2112 | 2,100 | | | 2,000 x 1,000 | 10,000 | | | | |
| SE-2612 | 2,600 | | | 2,800 x 1,100 | 12,000 | | | | |
| SE-1618 | 1,600 | 1,800 | 800/1,000 (Opt.) | 1,800 x 1,600 | 8,000 | 15 / 18.5 | 15,000 | 1~24,000 | 24 / 30(Opt.) |
| SE-2118 | 2,100 | | | 2,300 x 1,600 | 10,000 | | | | |
| SE-2618 | 2,600 | | | 2,800 x 1,600 | 12,000 | | | | |
| SE-3118 | 3,100 | | | 3,300 x 1,600 | 14,000 | | | | |

For details, please refer to Machine Specification Instruction

High Speed Machining