LV1400/2000
HYUNDAI WIA Ram Type Vertical Turning Center

www.wardcnc.com
The CNC Turning Center LV1400/2000 Series, designed by Hyundai WIA with years of expertise and the latest technology, is designed to maximize productivity for machining large work.

<table>
<thead>
<tr>
<th>LV1400</th>
<th>LV2000MF/MM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Max. Swing</strong></td>
<td>Ø1,450 (57.1&quot;)</td>
</tr>
<tr>
<td><strong>Max. Turning Dia.</strong></td>
<td>Ø1,400 (55.1&quot;)</td>
</tr>
<tr>
<td><strong>Max. Turning Length</strong></td>
<td>850 (33.5&quot;)</td>
</tr>
<tr>
<td><strong>Table Size</strong></td>
<td>Ø1,000 (39.4&quot;)</td>
</tr>
<tr>
<td><strong>Max. Load Capacity</strong></td>
<td>4,400 (9,700)</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>492</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>37/30 (49.6/40.2)</td>
</tr>
<tr>
<td><strong>Ram Size</strong></td>
<td>200×200 (7.9&quot;×7.9&quot;)</td>
</tr>
<tr>
<td><strong>Travel (X/Z)</strong></td>
<td>-50~+825 (-2&quot;~+32.5&quot;)/800 (31.5&quot;)</td>
</tr>
</tbody>
</table>
Heavy Duty, Large Work Capacity, Ram Type Vertical Turning Center

LV1400/2000

- Strengthened heavy duty cutting ability with 2 step gear driven spindle (table)
- Main spindle with cross roller bearings and box guideway for high rigidity
- Rigid table structure for processing heavy loads
- 3 step hydraulic cylinder type crossrail (LV2000MM)
- Various Machining: Turning, tapping, milling, grinding etc. (LV2000MF/2000MM)
- Linear scale on all axes as standard (LV2000MF/2000MM)

www.wardcnc.com
LV1400
Highly Rigid Bed Structure for Heavy Duty Cutting
Ram Type Vertical Turning Center

01 Highly Stable Bed Structure
40” chuck installed bed with separate Bed Saddle structure minimizes vibration and thermal displacement during heavy duty cutting.

02 Hardened Plate Box Guideway
Highly rigid hardened plate attached box guideway increases rigidity and reduces vibration. Also, linear scales on all axes provided as standard enable precise machining.

- Rigidity 10% UP compared to standard box guideway

03 Highly Rigid Table
2 step gear driven table provides excellent performance in all speed ranges, especially in low speed. The spindle is designed for maximum torque of 8,035 N·m (5,926.3 lbf·ft), suitable for heavy duty machining.

04 Ram Head
Ram Head Travel: 800 mm (31.5”)
Ram Size: 200×200 mm (7.9”×7.9”)

www.wardcnc.com
Basic Structure

Ram Type Vertical Turning Center for Heavy Duty Cutting

- **Travel** (X/Z Axis): -50~+825/800 mm (~-2”~+32.5”/31.5”)
- **Table Size**: Ø1,000 (39.4”)
- **Table Power** (Max./Cont.): 37/30 kW (49.6/40.2 HP)
- **Table Torque** (Max./Cont.): 8,035/6,515 N·m (5,926.3/4,805.2 lbf·ft)
- **Number of Tools**: 12 [16 (Only Turning)] Tools
LV2000MF/2000MM
Highly Rigid Bed Structure for Heavy Duty Cutting
Ram Type Vertical Turning Center

01
Hardened Plate Box Guideway
Highly rigid hardened plate attached box guideway increases rigidity and reduces vibration.
Also, linear scales on all axes provided as standard enable precise machining.
- **Rigidity 10% UP** compared to standard box guideway

02
High Rigidity Table
2 step gear driven table provides excellent performance in all speed ranges, especially in low speed. The spindle is designed for maximum torque of 23,242N-m (17,142.4 lbf-ft) - option, suitable for heavy duty machining.

03
Ram Head
Ram Head Travel: 915 mm (36”)
Ram Size: 240x240 mm (9.4”x9.4”)

3 Step Crossrail (LV2000MM)
3 step hydraulic cylinder crossrail (250 mm (9.8”)x3) enables minimization of vibration and load by extending the length of the ram depending on the machining area. This unique design allows high performance in heavy duty operations.
Basic Structure

Highly Rigid Bed Structure
LV2000MF/MM with 63” chuck is optimized for heavy duty cutting. Separate Bed Saddle structure made of cast iron minimizes vibration and thermal displacement.

Ram Type Vertical Turning Center for Heavy Duty Cutting
- **Travel** (X/Z Axis): -250~+1,180/915 mm (-9.8”~+46.5”/36”) (C Axis): 360°
- **Table Size**: Ø1,600 (63”)
- **Number of Tools**: 18 [16 (Only Turning)] Tools
- **Table Power** (Max/Cont.): 37/30 [45/37] kW [49.6/40.2 [60.3/49.6] HP]
- **Table Torque** (Max/Cont.):
  - 22,096/17,916 [23,242/19,110] N·m [16,297.2/13,214.2 [17,142.4/14,094.8] lbf·ft]
Table & Spindle

Long Lasting High Accuracy & Excellent Performance
Vertical Turning Center

Spindle

A highly rigid cross roller bearing structure is utilized for heavy duty operations as it minimizes vibration and thermal displacement. LV2000MF/MM includes C-axis control with ring gear and ring sensor which is superior in noise control and precision indexing than other gear box applied machines.

▫ Max Torque : 23,242 N-m (17,142.4 lbf-ft)

www.wardcnc.com
Table Machining Area

The maximum working height of 1,700 mm (66.9") - LV2000MM enables various workpiece machining.

**Table Size (X/Y axis)**
- LV1400: Ø1,000 (39.4")
- LV2000MF/MM: Ø1,600 (63")

**Max. Turning Height**
- LV1400: 850 mm (33.5")
- LV2000MF: 950 mm (37.4")
- LV2000MM: 1,700 mm (66.9")
Ram Head & ATC Magazine

ATC Magazine

ATC is driven by a servo motor which provides faster tool change time and easier maintenance.

LV1400: 12EA (Turning 12) [16EA (Turning 16)]
LV2000MF/MM: 18EA (Turning 10 + Milling 7 + Dummy 1) [16EA (Turning 16)]
Ram Head

Various types of machining are possible with ram head: milling with rotary tool, turning, tapping, drilling, grinding and etc.

- **Ram Head Travel (Z-axis)**
  - LV1400: 800 mm (31.5″), LV2000MF/MM: 915 mm (36″)
- **Ram Size**
  - LV1400: 200 mm² (7.9 inch²), LV2000MF/MM: 240 mm² (9.4 inch²)
- **Max. Torque**: 769 N·m (567.2 lbf·ft)
- **Live Tool Speed**: 2,400 rpm

Machining Variation

- **O.D Turning**
- **Tapping**
- **Milling**

- **Tool Size (O.D/I.D)**
  - LV1400: Ø 32/Ø 20 (Ø 1.3″/Ø 0.8″)
  - LV2000MF/MM:
    - Ø 32/Ø 25 (Ø 1.3″/Ø 1″)
- **Max. Tool Weight**: 50 kg (110.2 lb)
- **Max. Tool Length**
  - LV1400: 400 mm (15.7″)
  - LV2000MF/MM: 740 mm (29.1″)

Through Spindle Coolant (**LV2000MF/MM**)

Through Spindle Coolant is exceedingly useful when drilling deep holes. It helps increase the lifetime of the tool, while decreasing cycle time.

- **Std.**: 10 bar (145 psi)
- **Opt.**: 20 bar (290 psi)
### Machining Capability

**LV-RAM Type**

**Excellent Performance, High Accuracy Cutting Vertical Turning Center**

#### Cutting Speed
- 100 mm/min (3.94 ipm)

#### Forwarding Speed
- 0.7 mm/min (0.027 ipm)

#### Depth of Cut
- 14.0 mm

#### Chip Discharge
- 980 cm³/rev

#### Material (JIS): S45C (Carbon steel)

#### Improved Machining Capacity: Tapping 40% UP

#### Table Size Ø2,000 (78.7˝) Cutting Capacity

*The above results might be different by types of machining circumstances.*

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**Other Machine**

- **M32**
- **M52**

**LV2000MM**

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[www.wardcnc.com](http://www.wardcnc.com)
User Convenience

Various Devices for User Convenience

Manual Q-Setter

Quick and accurate tool calibration can be done by contacting the tool tip with the sensor. This process is done easily with the use of M-Code and the calibration process takes roughly 30 seconds.

Controller

Swing Arm Control Panel

Swing arm control panel minimizes unnecessary movement of workers and allows optimal control and handling. The optional CNC 3-axis MPG adds even more accessibility to workers.

Precision Device (LV2000 MF/MM)

Linear Scale

Linear scale increases positioning accuracy and reduces thermal displacement, this ensures high quality end product manufacturing.

Screw Conveyor (LV2000MM)

Improved Chip Disposal Capability

A screw type chip conveyor is located in front of the table which makes chip removal easier.
# SPECIFICATIONS

## Standard & Option

<table>
<thead>
<tr>
<th>LV1400</th>
<th>LV2000MF/MM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td><strong>Option</strong></td>
</tr>
<tr>
<td>40&quot; 3 Jaw Hydraulic Chuck</td>
<td>50&quot; 4 Jaw Independent Chuck</td>
</tr>
<tr>
<td>Soft Jaw (set)</td>
<td>50&quot; 4 Jaw Hydraulic Chuck</td>
</tr>
<tr>
<td>Chuck Clamp Foot Switch</td>
<td>Gun Coolant</td>
</tr>
<tr>
<td>Chuck Open/Close Confirmation Device</td>
<td>Chip Conveyor (Hinge) Chip disposal - Rear, Right</td>
</tr>
<tr>
<td>Standard Tool Holder</td>
<td>Chip Wagon (Standard 180 ℓ [47.5 gal])</td>
</tr>
<tr>
<td>Standard Coolant (Nozzle)</td>
<td>Chip Wagon (Swing 200 ℓ [52.8 gal])</td>
</tr>
<tr>
<td>Bed Flushing</td>
<td>Chip Wagon (Large Size 330 ℓ [87.2 gal])</td>
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<tr>
<td>Coolant Tank</td>
<td>Q-setter</td>
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<tr>
<td>Front Door Inter-Lock</td>
<td>Air Conditioner</td>
</tr>
<tr>
<td>3 Color Call Light</td>
<td>Oil Skimmer</td>
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<tr>
<td>Work Light</td>
<td>3 Color Call Light &amp; Buzzer</td>
</tr>
<tr>
<td>Leveling block</td>
<td>Transformer</td>
</tr>
<tr>
<td>Foundation Bolt &amp; Nut</td>
<td>Auto Power Off</td>
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<tr>
<td>XZ Axis Linear Scale</td>
<td>Mill Removal</td>
</tr>
<tr>
<td>High Column 200mm (7.9&quot;) UP</td>
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</tr>
<tr>
<td>Air Gun</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>LV1400</strong></th>
<th><strong>LV2000MF/MM</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1084-40-203: FACE HOLDER A(2EA)</td>
<td>1084-40-204: BORING BAR HOLDER (2EA)</td>
</tr>
<tr>
<td>1084-40-205: FACE HOLDER B(1EA)</td>
<td>1084-40-206: FACE HOLDER (11EA)</td>
</tr>
<tr>
<td>1084-40-207: BORING BAR(1EA)</td>
<td>1084-40-208: BORING BAR(1EA)</td>
</tr>
<tr>
<td>1085-40-201: FACE HOLDER A(2EA)</td>
<td>1085-40-204: BORING BAR HOLDER (2EA)</td>
</tr>
<tr>
<td>1085-40-305: BORING BAR (1EA)</td>
<td>1085-40-306: BORING BAR (1EA)</td>
</tr>
</tbody>
</table>

Please see p.16 & 17 for more information.

Prior consultation is required when applying spindle contouring control for gear driven spindle.
Specifications are subject to change without notice for improvement.
LV1400

LV2000MF

LV2000MM

External Dimensions

unit: mm (in)

www.wardcnc.com
### Tooling System

**LV2000MF/MM**

<table>
<thead>
<tr>
<th>Tooling</th>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>S</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACE HOLDER-A</td>
<td>1085-40-201</td>
<td>219</td>
<td>240</td>
<td>32</td>
<td>STD.</td>
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<tr>
<td>FACE HOLDER-B</td>
<td>1085-40-204</td>
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<td>240</td>
<td>32</td>
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<tr>
<td>FACE HOLDER-C</td>
<td>1085-40-203</td>
<td>219</td>
<td>240</td>
<td>32</td>
<td>OPT.</td>
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<tr>
<td>BORING BAR HOLDER</td>
<td>1085-40-202</td>
<td>219</td>
<td>240</td>
<td>32</td>
<td>OPT.</td>
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<tr>
<td>FACE HOLDER-R</td>
<td>1085-40-205</td>
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<td>240</td>
<td>32</td>
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<tr>
<td>FACE HOLDER-L</td>
<td>1085-40-206</td>
<td>219</td>
<td>240</td>
<td>32</td>
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<tr>
<td>CONNECTION HOLDER</td>
<td>1085-40-207</td>
<td>219</td>
<td>240</td>
<td>32</td>
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<tr>
<td>EXTENSION HOLDER</td>
<td>1085-40-208</td>
<td>219</td>
<td>240</td>
<td>32</td>
<td>OPT.</td>
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<tr>
<td>BORING BAR</td>
<td>1085-40-209</td>
<td>219</td>
<td>240</td>
<td>32</td>
<td>OPT.</td>
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<tr>
<td>BORING BAR</td>
<td>1085-40-305</td>
<td>219</td>
<td>240</td>
<td>32</td>
<td>OPT.</td>
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<td>EXTENSION BAR</td>
<td>1085-40-306</td>
<td>219</td>
<td>240</td>
<td>32</td>
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</tbody>
</table>

### Further Information
- **Ram Type Vertical Turning Center**
- **HYUNDAI WIA MACHINE TOOL**

Visit [www.wardcnc.com](http://www.wardcnc.com) for more details.
SPECIFICATIONS

Tooling System

LV2000MF/MM

Grinding Head

Angle Head

These attachments are only applicable in mm unit.
### Specifications

**Tooling Travel Range**

**Machining Range**

**Minimum Boring**

**Chucking Range**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV1400</td>
<td>1000</td>
<td>800</td>
<td>850</td>
<td>285</td>
<td>200</td>
<td>319</td>
<td>*</td>
<td>*</td>
<td>1052</td>
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<tr>
<td>LV2000MF</td>
<td>1600</td>
<td>915</td>
<td>950</td>
<td>335</td>
<td>240</td>
<td>291</td>
<td>1501</td>
<td>451</td>
<td>1661</td>
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<tr>
<td>LV2000MM</td>
<td>1600</td>
<td>915</td>
<td>MAX.1700 (MAX.67) MIN.950 (MIN.37.4)</td>
<td>335</td>
<td>240</td>
<td>291</td>
<td>1501</td>
<td>451</td>
<td>1661</td>
</tr>
</tbody>
</table>

* : The shape of soft jaw changes chucking area.

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[www.wardcnc.com](http://www.wardcnc.com)
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specifications</th>
<th>LV1400</th>
<th>LV2000MF</th>
<th>LV2000MM</th>
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<tbody>
<tr>
<td><strong>CAPACITY</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Max. Swing</td>
<td>Ø1,450 (57.1&quot;)</td>
<td>Ø2,040 (80.3&quot;)</td>
<td></td>
</tr>
<tr>
<td>Max. Turning Dia</td>
<td>Ø1,400 (55.1&quot;)</td>
<td>Ø2,000 (78.7&quot;)</td>
<td></td>
</tr>
<tr>
<td>Max. Turning Height</td>
<td>850 (33.5&quot;)</td>
<td>950 (37.4&quot;)</td>
<td>1,700 (66.9&quot;)</td>
</tr>
<tr>
<td>Max. Load Capacity</td>
<td>4,400 (9,700)</td>
<td>10,000 (22,046)</td>
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</tr>
<tr>
<td><strong>FEED</strong></td>
<td></td>
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</tr>
<tr>
<td>X-Axis</td>
<td>-50 ~ +825 (-2&quot; ~ +32.5&quot;)</td>
<td>-250 ~ +1,180 (-9.8&quot; ~ +46.5&quot;)</td>
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<tr>
<td>Z-Axis</td>
<td>800 (31.5&quot;)</td>
<td>915 (36&quot;)</td>
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<tr>
<td>C-Axis</td>
<td>360</td>
<td></td>
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</tr>
<tr>
<td>W-Axis</td>
<td>-</td>
<td></td>
<td>250×3 Steps (9.8&quot;×3 Steps)</td>
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<tr>
<td><strong>RAPID TRAVERSE RATE</strong></td>
<td>12/12 (472/472)</td>
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<tr>
<td><strong>RAM HEAD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ram Size</td>
<td>200 (7.9&quot;)</td>
<td>Turning 240 (9.4&quot;) (Milling BT50)</td>
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</tr>
<tr>
<td>Live Tool Speed</td>
<td>2,400</td>
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</tr>
<tr>
<td>Live Tool Power (Max./Cont.)</td>
<td>18.5/15 (25/20.1) [High Torque Motor]</td>
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<td></td>
</tr>
<tr>
<td>Live Tool Torque</td>
<td>769 (567.2)</td>
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<tr>
<td><strong>TABLE</strong></td>
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<td></td>
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</tr>
<tr>
<td>Table Size</td>
<td>Ø1,000 (39.4&quot;)</td>
<td>Ø1,600 (63&quot;)</td>
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</tr>
<tr>
<td>Table Speed</td>
<td>492</td>
<td>258 [258]</td>
<td></td>
</tr>
<tr>
<td>Table Torque</td>
<td>8,035 (5,926.3)</td>
<td>22,096 (16,297.2)</td>
<td>23,242 (17,142.4)</td>
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<tr>
<td>Table Power (Max./Cont.)</td>
<td>37/30 (49.6/40.2)</td>
<td>37/30 (49.6/40.2)</td>
<td>45/37 (60.3/49.6)</td>
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<tr>
<td><strong>ATC</strong></td>
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</tr>
<tr>
<td>Number of Tools</td>
<td>12/16 (Turing 12/16)</td>
<td>18 (Turning 10 + Milling 7 + Dummy 1)</td>
<td>16 (Turning 16)</td>
</tr>
<tr>
<td>Tool Size</td>
<td>ØD mm(x)</td>
<td>Ø20 (Ø0.8&quot;)</td>
<td>Ø25 (Ø1&quot;)</td>
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<tr>
<td></td>
<td>ID mm(x)</td>
<td>α20 (α0.8&quot;)</td>
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<tr>
<td><strong>POWER</strong></td>
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<tr>
<td>Electric Power Supply</td>
<td>45</td>
<td>65</td>
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<tr>
<td><strong>MACHINE</strong></td>
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<td></td>
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</tr>
<tr>
<td>Floor Space (L×W)</td>
<td>3,685×3,276 (145.1&quot;×129&quot;)</td>
<td>5,683×3,879 (223.7&quot;×152.7&quot;)</td>
<td>5,683×3,937 (223.7&quot;×155&quot;)</td>
</tr>
<tr>
<td>Height</td>
<td>4,336 (170.7&quot;)</td>
<td>5,427 (213.7&quot;)</td>
<td>6,177 (243.2&quot;)</td>
</tr>
<tr>
<td>Weight</td>
<td>14,500 (31,967)</td>
<td>25,000 (55,116)</td>
<td>29,000 (63,934)</td>
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<tr>
<td><strong>NC</strong></td>
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</tr>
<tr>
<td>Controller</td>
<td>-</td>
<td>FANUC 32i-A</td>
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Prior consultation is required when applying spindle contouring control for gear driven spindle. Specifications are subject to change without notice for improvement.
**SPECIFICATIONS**

**FANUC 32i-A**

<table>
<thead>
<tr>
<th><strong>Axis control / Display unit</strong></th>
<th><strong>Controlled axes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. 4 axes are available</td>
<td>X, Y, Z, C axes</td>
</tr>
<tr>
<td></td>
<td>M-type machine</td>
</tr>
<tr>
<td></td>
<td>X, Y, Z, C axes</td>
</tr>
<tr>
<td></td>
<td>V-type machine</td>
</tr>
<tr>
<td><strong>Simultaneous controllable axes</strong></td>
<td>Z axes / Linear and circular (Max. 4 axes)</td>
</tr>
<tr>
<td><strong>Least input increment</strong></td>
<td>X, Y, Z, B axes</td>
</tr>
<tr>
<td></td>
<td>0.001 mm (0.0001&quot;)</td>
</tr>
<tr>
<td><strong>Least command increment</strong></td>
<td>C axis</td>
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<tr>
<td></td>
<td>0.001 deg</td>
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<tr>
<td><strong>High speed HRV control</strong></td>
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<tr>
<td><strong>Inch / Metric conversion</strong></td>
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<tr>
<td></td>
<td>0.001 / 0.001</td>
</tr>
<tr>
<td><strong>Interlock</strong></td>
<td>Each axis / All axes</td>
</tr>
<tr>
<td><strong>Machine lock</strong></td>
<td>All axes</td>
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<tr>
<td><strong>Emergency stop</strong></td>
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<tr>
<td><strong>Stored stroke check 1</strong></td>
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<tr>
<td></td>
<td>Over-travel</td>
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<tr>
<td><strong>Stored stroke check 2</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Stored stroke check 3</strong></td>
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</tr>
<tr>
<td><strong>Follow-up</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Servo-off</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Backlash compensation</strong></td>
<td>+/- 0 ~9999 pulses</td>
</tr>
<tr>
<td></td>
<td>(Rapid traverse &amp; cutting feed)</td>
</tr>
<tr>
<td><strong>Position switch</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Unexpected disturbance torque detection</strong></td>
<td>Back-spin torque limit (0BT)</td>
</tr>
<tr>
<td><strong>High-resolution transfer control (HRM)</strong></td>
<td>LCD / MDI</td>
</tr>
<tr>
<td></td>
<td>10.4&quot; Color LCD</td>
</tr>
</tbody>
</table>

**Operation**

- Automatic operation (memory)
- MDI operation
- Search function
- Program report
- Wrong operation prevention
- Buffer register
- Program check function
- Single block

**Feed functions**

- Manual jog feed
- Manual handle feedrate
- Feed command
- Feedrate override
- Jog override
- Rapid traverse override
- Override cancel
- Feed per minute / rotation

**Program input & interpolation functions**

- Linear interpolation
- Circular interpolation
- Swell
- Thread retract
- Variable lead threading
- 1st reference point return
- Reference point return check
- Reference point return check
- Program start / End
- Tape code
- Optional block skip
- Maximum programmable dimensions
- Program number
- Absolute and incremental programming
- Decimal point programming
- Plane selection
- Work coordinate system selection
- Manual absolute
- G code system
- Programmable data input
- Sub-program call
- Custom macro B

**Program input & interpolation functions**

- Addition of custom macro common variable #100 to #199, #500 to #999
- Multiple repetitive cycles
- Multiple repetitive cycles II
- Canned cycles for turning
- Manual guide i
- Conversational programming
- Sub / Main spindle function
- M-code function
- M-code function lock
- Lock up speed command
- Main sp. constant control
- Spindle speed override
- Spindle position decision
- Rigid tapping

**Tool function / Tool compensation**

- Tool function
- Tool offset pairs
- Tool offset
- Tool nose radius compensation
- Direct input of measured tool compensation value
- Tool life management

**Data input & editing functions**

- Reader / Puncher interface
- Memory card input/output
- Part program storage length
- Number of registrable programs expansion
- Memory lock
- Background editing
- External message
- Run hour / Parts count display
- Display of actual spindle speed and T code
- Actual cutting feedrate display
- Operating monitor screen
- Rod meter light
- Display / Graph display
- Spindle / Servo setting screen
- Selection of 5 optional language
- LCD screen display
- Screen saver
- Automatic data backup

**Functions according to machine specification**

- Cs contouring control
- Stored pitch error compensation
- Polar coordinate interpolation
- Cylindrical interpolation
- Canned cycles for drilling
- Spindle orientation expansion
- Spindle synchronous control
- Torque control
- Y axis offset
- Angular axis control
- Y type machine

**Option**

- High speed Ethernet
- 100 Mbps (Option board is required)
- Optional block skip
- 9 ea
- 3rd & 4th reference point return
- G code system
- Part program storage length
- Polygon turning
- Helical interpolation
- Dynamic graphic display
- Protection of data at 8 levels
- Direct drawing dimension programming

*Figures in inch are converted from metric values.*
*The FANUC controller specifications are subject to change based on the policy of company CNC supplying.*

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