KAAST

# F-Turn CNC

## 330 | 485

### CNC High Performance Slant Bed Lathe 25x32'' to 37x124''

## **STANDARD** CONFIGURATION

- FANUC 0i-TF Controller
- ZF Gearbox (330)
- Manual Tailstock (330)
- Tailstock with Programmable Motion (485)
- Electric Cabinet Air Cooler
- Hydraulic 10-Position Turret (330)
- Hydraulic 12-Position Turret (485)
- Spindle Oil Cooling (485)
- Coolant System, 3 bar (44 psi)
- Chip Conveyor
- Three-Color Warning Light
- Automatic Lubrication
- Tool Kit and Work Light

## **OPTIONAL** CONFIGURATION

- Tailstock w/ Programmable Motion (330)
- Automatic Tool Setting Device
- C-Axis with Live Tools
- Hydraulic Chuck
- Mechanical Chuck (485)

The F-turn CNC models are built for precision and durability, featuring a heavy-duty spindle with either a **2-step ZF** (330) or **3-step gearbox** (485) for optimized torque and speed control. They come with **hydraulic-driven tool turrets** offering high positioning accuracy, available in **10-position** (330) and **12-position** (485) versions. A **12-position turret with live tooling** (330) is also available for advanced machining tasks. The **hydraulic pump** powers both the 3-jaw chuck and the turret for smooth operation.

For added versatility, the machines can be equipped with a **steady rest** (330) to support long parts during machining. **Spindle oil cooling** (485) ensures effective heat removal and temperature control in the spindle and gearbox. A **programmable hydraulic tailstock**, driven by a servodrive and controlled via **CNC M-codes** (485), allows precise, automated positioning for improved efficiency.

**VDI 50 Power Turret**

**ZF Gearbox**

**3-Step Gearbox**

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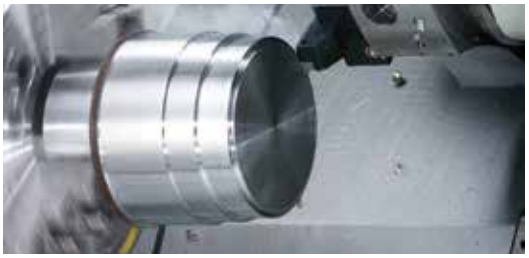

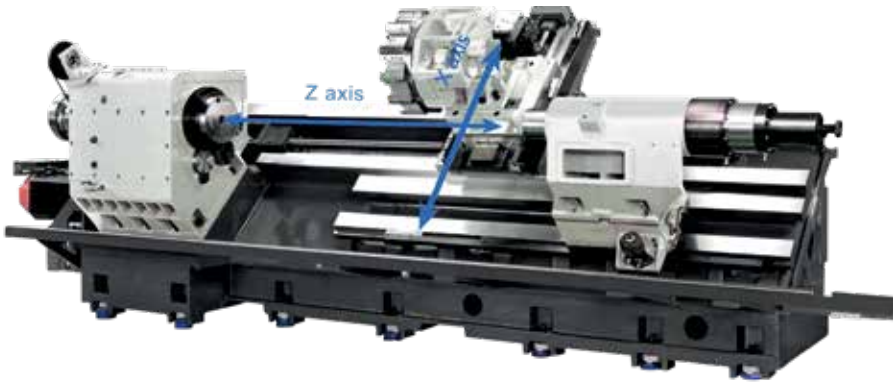


| F-Turn CNC | | | 330/820 | 330/1560 | 330/2340 | 330/3100 | 485/1200 | 485/1700 | 485/2200 | 485/3200 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 25” x 32” | 25” x 61” | 25” x 92” | 25” x 122” | 37” x 46” | 37” x 66” | 37” x 85” | 37” x 124” |
| Swing over Bed | | mm | 660 (25.75”) | | | | 970 (37.75”) | | | |
| Swing over Carriage | | mm | 480 (18.5”) | | | | 720 (28”) | | | |
| Max Workpiece Diameter | | mm | 500 (19.5”) | | | | 850 (33”) | | | |
| Distance Between Centers | | mm | 820 (32”) | 1560 (61”) | 2340 (92”) | 3100 (122”) | 1200 (46”) | 1700 (66”) | 2200 (85”) | 3200 (124.5”) |
| Chuck Mount | | | A2-8 [Opt. A2-11] | | | | A2-11 [Opt. A2-15, A2-20] | | | |
| Spindle Bore Diameter | | mm | 102 (3.95”) [Opt. 165 (6.5”)] | | | | 155 (6”) [Opt. 228 (8.8”), 305 (11.8”), 355, (14”)] | | | |
| Max Bar Diameter | | mm | 89 (3.4”) [Opt. 116 (4.5”)] | | | | 115 (4.5”) [Opt. 135, 205 (5.3, 8”)] | | | |
| Speeds | | rpm | 625–2500 | | | | 2–1500 | | | |
| No of Spindle Speeds | | # | 2 Steps (ZF-Gears) | | | | 3 Steps | | | |
| Max Speed Opt Live Tool | | rpm | 0–2000 | | | | 0–2000 | | | |
| Chuck Diameter | | mm | 300 (11.7”) [Opt. 380 (14.75”)] | | | | 380 (14.75”) [Opt. 450 (17.5”), 610 (23.75”), 810 (31.5”)] | | | |
| Number of Tools | | # | 10 [Opt. 12] | | | | 12 | | | |
| Toolholder Dimensions | | mm | 32x32 (1.25x1.25”) [Opt. 25x25 (1x1”)] | | | | 32x32 (1.25x1.25”) | | | |
| Axial Tool Post Dimensions | | mm | 50 (2”) | | | | 50 (2”) | | | |
| Travels | X-Axis | mm | 280 (10.75”) | | | | 450 (425 + 25) (17.5+1”) | | | |
| | Z-Axis | mm | 885 (34.5”) | 1630 (63.5”) | 2400 (94.5”) | 3165 (124.6”) | 1200 (46.5”) | 1700 (66”) | 2200 (85.5”) | 3200 (124.5”) |
| Rapid Traverse – X-Axis | | m/min | 12 (468”/min) | | | | 12 (468”/min) | | | |
| Rapid Traverse – Z-Axis | | m/min | 15 (585”/min) | | | | 15 (585”/min) | | | |
| Cutting Feed Rates | | mm/min | 0.001–500 (0.000039–19.68”/min) | | | | 0.001–500 (0.000039–19.68”/min) | | | |
| Motor Spindle Power | | kW | 22/26 (30/35 Hp) | | | | 30/37 (40/50 Hp) | | | |
| Servo X-Axis Drive | | kW | 4 (5.5 Hp) | | | | 4 (5.5 Hp) | | | |
| Servo Z-Axis Drive | | kW | 4 (5.5 Hp) | | | | 4 (5.5 Hp) | | | |
| Hydraulic System Motor | | kW | 2.2 (3 Hp) | | | | 3.75 (5 Hp) | | | |
| Tailstock (Type) | | | Manual [Opt. Programmable] | | | | Programmable | | | |
| Tailstock Travel | | mm | 780 (30”) | 1540 (60”) | 2300 (90”) | 3060 (120”) | 850 (33”) | 1450 (56.5”) | 1950 (76”) | 2950 (115”) |
| Tailstock Quill Travel | | mm | 100 (3.9”) | | | | 200 (7.8”) | | | |
| Tailstock Quill Diameter | | mm | 110 (4.3”) | | | | 200 (7.8”) | | | |
| Tailstock Quill Taper | | | MT5 | | | | MT6 | | | |
| Hydraulic System Capacity | | l | 80 (21 gal) | | | | 80 (21 gal) | | | |
| Coolant Tank | | l | 140 (36 gal) | 200 (52 gal) | 260 (68 gal) | 320 (82 gal) | 230 (60 gal) | 265 (70 gal) | 295 (78 gal) | 360 (95 gal) |
| Dimensions (L) | | mm | 5300 (208”) | 6060 (239”) | 6820 (269”) | 7590 (299”) | 6160 (240”) | 6660 (260”) | 7160 (280”) | 8160 (319”) |
| Dimensions (W/H) | | mm | 2100x2235 (83x88”) | | | | 2230x2445 (87x96”) | | | |
| Weight | | kg | 8870 (19,514 lbs) | 11300 (24,860 lbs) | 13700 (30,140 lbs) | 16000 (35,200 lbs) | 14200 (31,240 lbs) | 14950 (32,890 lbs) | 15700 (34,540 lbs) | 17200 (37,840 lbs) |
| Item No. | | | 1630091 | 1630092 | 1630170 | 1630171 | 1630093 | 1630094 | 1630095 | 1630096 |

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