

Mytrunnion SERIES



5 - AXIS VERTICAL MACHINING CENTERS

SIMPLIFY THE COMPLICATED

MYTRUNNION SERIES





5-Axis powerhouses for today's more intricate and complex machining applications.

Mytrunnion Series 5-Axis Machining Centers deliver the exceptionally high levels of accuracies demanded by producers of high-precision complex components. They have the capacity and power to cut the vast array of materials used in today's demanding industries such as aerospace, medical and mold.

- The perfect choice for machining intricate parts requiring simultaneous 5-axis contouring
- Ultra-high accuracies of +/- 0.002mm (+/-0.000079") / full stroke
- Highly rigid, ultra-high precision Roller Gear Cam Table in 4th and 5th axes
- Kitamura's original Icon-driven Arumatik®-Mi control delivers super-fast, super-smooth control processing for optimum machining of complex workpieces and included are a variety of simultaneous 5-axis machining control functions as standard features



4G, 5G, 7G 5-Axis Machining Centers

- Available in three sizes, the Mytrunnion Series is designed for ultra high-precision simultaneous 5-Axis machining of complex components up to Ø1,170mm x 740mm high (Ø46.1"x 29.1"). Superior rapid feeds of 50m/min (1,969ipm) X, Y-Axes position the spindle and work quickly for unmatched productivity.
- The trunnion table features "zero-backlash" construction and is driven by an ultra high-precision roller gear cam in the 4th & 5th axes. The trunnion design assures maximum stiffness and machining flexibility by allowing the workpiece to be positioned closer to the spindle.
- All models feature 150 (-120 to +30) degree A-Axis tilting trunnion tables. C-Axis table rotation is 360 degrees with a 0.001 degree minimum indexing command.

Arumatik Pioneering Icon CNC Operation

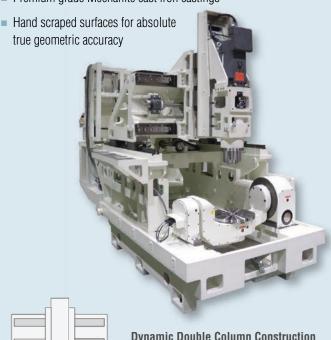
- 67 million Pulse Encoder technology with 8,192 block look ahead processing speed
- Software upgrades throughout the life of the control
- Fanuc user-friendly
- Customizable and comfortable user experience
- Video Guidance and Visual Programming screens
- Advanced 5-axis NC simulation & verification software
- Anywhere Remote mobile notification and machine monitoring suite
- Efficient, ultra-high speed tool handling slashes idle time. Mytrunnion 5-axis vertical machining centers employ a variety of tool selection systems well suited for any application. Generous 50/60T (100 opt.) ATC's are conveniently located toward the rear of the machine for optimum operator accessibility, offering flexibility in the parts you produce.





Designed for speed, rigidity and flexibility in complex 5-axis machining.

- Double column bridge type construction
- Built-in trunnion design allows for maximum stiffness and flexibility with the ability to position the workpiece closer to the spindle
- Premium grade Meehanite cast iron castings



Dynamic Double Column Construction Outstanding support and stability even

throughout long Y-Axis stroke movement offers exceptional cutting load characteristics and optimum accuracy.

Symmetrical construction extends thermal stability over the Y-Axis travel.



Mytrunnions are available in 3 sizes to meet your specific 5-Axis requirements.

Mytrunnion-4G



Mytrunnion-5G







KITAMURA® MACHINERY CO., LTD.

Kitamura Machinery Co., Ltd. (Headquarters) TEL: +81 766 63 1100

www.kitamura-machinery.co.jp E-mail: mycenter@kitamura-machinery.co.jp

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Kitamura Machinery of U.S.A., Inc. (Chicago)

TEL: +1 847 520 7755

www.kitamura-machinery.com E-mail: info@kitamura-machinery.com

Kitamura Machinery GmbH (Düsseldorf)

TEL: +49 211 65 6077

www.kitamura-machinery.eu Email: info@kitamura-machinery.eu



SPECIFICATIONS MYTRUNNION SERIES

| | Mytrunnion-4G | Mytrunnion-5G | Mytrunnion-7G |
|---|---|---|--|
| Table | | | |
| Table Size | Ø400mm (15.7") | Ø630mm (Ø 24.8") | Ø1,000mm (Ø39.4") |
| Table Indexing | 4th & 5th Axes 0.001° | 4th & 5th Axes 0.001° | 4th & 5th Axes 0.001° |
| Max. Table Load | 200kg (440 lbs) | 400kg (880 lbs) | 2,000kg (4,400 lbs) |
| Max. Workpiece Dia. | Ø550mm (Ø21.7") | Ø630mm (Ø24.8") | Ø1,170mm (Ø46.1") |
| Max. Workpiece Height | 400mm (15.7") | 500mm (19.7") | 740mm (29.1") |
| Travels | | | |
| X-Axis Travel | 610mm (24.0") | 815mm (32.1") | 1,190mm (46.9") |
| Y-Axis Travel | 610mm (24.0") | 745mm (29.3") | 1,380mm (54.3") |
| Z-Axis Travel | 500mm (19.7") | 500mm (19.7") | 765mm (30.1") |
| A-Axis Travel | 150 Degrees (-120 to +30) | 150 Degrees (-120 to +30) | 150 Degrees (-120 to +30) |
| C-Axis Travel | 0 to 360 Degrees Full 5th Axis | 0 to 360 Degrees Full 5th Axis | 0 to 360 Degrees Full 5th Axis |
| Dist. from Table Surface to Spindle Nose (A-Axis = 0) | 150 to 650mm (5.9" to 25.6") | 100 ~ 600mm (3.9" ~ 23.6") | 150 to 915mm (5.9" to 36.0") |
| Spindle | | | |
| Spindle Taper | #40 NST (HSK-A63 Option) | NST. No. 40 (HSK-A63 Option) | #50 NST (HSK-A100 Option) |
| Spindle Speed | 40 ~ 15,000min ⁻¹ (20,000min ⁻¹ Opt.) | 20 to 20,000 min ⁻¹ | 35 ~ 12,000min ⁻¹ (8,000min ⁻¹ Opt.) |
| Drive Method | Direct Drive | Gear Drive, 4-Step | Gear Drive, 4-Step |
| Max. Spindle Torque | 95.5 N•m (70.4 ft•lbs) | 273N•m (201.3 ft•lbs)/15 min | 585.9 N•m (432.1 ft•lbs) |
| Spindle Motor | 15kW (20HP AC/10 min) | 15.0kW (20 HP AC/15 min) | 40kw (53 HP AC/15 min.) |
| | 7.5kW (10HP AC/Cont.) | 11.0kW (15 HP AC/30 min) | 22kw (30 HP AC/Cont.) |
| | | 7.5kW (10 HP AC/Cont.) | |
| Feed | | | |
| Rapid Feed X, Y | 50m/min (1,969ipm) | 50m/min (1,969ipm) | 50m/min (1,969ipm) |
| Rapid Feed Z | 25m/min (984ipm) | 25m/min (984ipm) | 30m/min (1,181ipm) |
| Rapid Feed A | 18,000 deg/min (50min ⁻¹) | 2,160 deg/min (6.0 min ⁻¹) | 9,000 deg/min (25min ⁻¹) |
| Rapid Feed C | 18,000 deg/min (50min ⁻¹) | 6,000 deg/min (16.6 min ⁻¹) | 9,900 deg/min (27.5min ⁻¹) |
| Cutting Feed Rate X, Y, Z | 24m/min (945ipm) | 24m/min (945ipm) | 30m/min (1,181ipm) |
| ATC | | | |
| Tool Storage Capacity | 60 Tools (Opt. 100) | 50 Tools (Opt. 100) | 100 Tools |
| Tool Selection Method | Memory Random | Random, Bi-directional, Fixed Pot | Memory Random |
| Tool Holder Style | CT (BT) 40 (HSK-A63 Option) | MAS CT (BT) 40 (HSK-A63 Option) | CT (BT) 50 (HSK-A100 Option) |
| Max. Tool Dia. w/ Adj. Pots Empty | Ø75 x 300mm (Ø3.0 x 11.8") Ø150 x 300mm (Ø5.9 x 11.8") | Ø75 x 300mm (Ø3.0" x 11.8") Ø150 x 300mm (Ø5.9" x 11.8") | Ø125 x 450mm (Ø4.9" x 17.7") Ø240 x 450mm (Ø9.4" x 17.7") |
| Max. Tool Weight | 10kg (22 lbs.) | 10kg (22 lbs.) | 25kg (55 lbs.) |
| Tool to Tool | 2.2 seconds | 4.9 seconds | 3.3 seconds |
| Chip to Chip | 5.8 seconds, min. | 9.5 seconds, min. | 9.7 seconds, min. |
| Utilities | | | |
| Power Requirement | 45KVA, 200v AC, 3 Phase | 45KVA, 200v AC, 3 Phase | 65KVA, 200v AC, 3 Phase |
| Air Requirement | 0.5 MPa, 350L/min (90psi, 13cfm) | 0.5 MPa, 450L/min (90 psi,16 cfm) | 0.5 MPa, 400L/min (90 psi, 15 cfm) |
| Machine Dimensions | | | |
| Required Space (W x D) | 2,421 x 3,706mm (95.3" x 145.9") | 2,428 x 4,665mm (95.6"x 183.7") | 3,672 x 5,320mm (144.6" x 209.4") |
| Machine Height | 2,850mm (112.2") | 3,277mm (129.0") | 4,169mm (164.1") |
| Table Height | 750mm (29.5") | 815mm (32.1") | 1,110mm (43.7") |
| Machine Net Weight | 9,100kg (20,020 lbs.) | 17,400kg (38,280 lbs.) | 33,000kg (72,600 lbs.) |
| Control | Arumatik®-Mi Control | Arumatik®-Mi Control | Arumatik®-Mi Control |