

MCV1400/1600

VERTICAL
MACHINING
CENTER

LONG CHANG MACHINERY CO., LTD.

- MEEHANITE cast iron for all major machine parts.
- Expert and precision scraping.
- 3-Axis ball screws with high precision C3 grade.
- Automatic central lubrication system.
- Rigid 8000 rpm spindle unit.
- Excellent heavy cutting performance.
- High efficiency and stable accuracy.
- Wider door open design.
- Fully enclosed splashguard for elegant outlook.



NEW MACHINING FOCUS

VERTICAL MACHINING CENTER



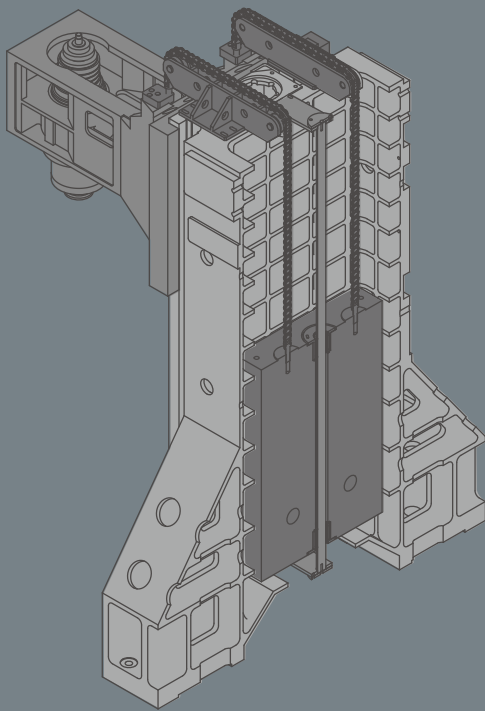
EXPERT
AND PRECISION
SCRAPING

The sliding surfaces are coated with precisely scraped TURCITE-B antifriction lining material. It is carefully hand scraped to achieve high accuracy and good retention of lubricating oil essential for a long accurate.

- The main structural components with heavy triangular webbing throughout for maximum rigidity and vibration damping .
- The extra-wide base, saddle and column with enlarged box type slideways eliminate overhang on both ends of table travel.
- 3-axis double gibs design for smooth movement of axes.



CENTRAL GUIDED COUNTERWEIGHT MECHANISM



- Headstock in oversized box type construction.
- Enlarged slideway for heavy machining performance.

STANDARD SPINDLE

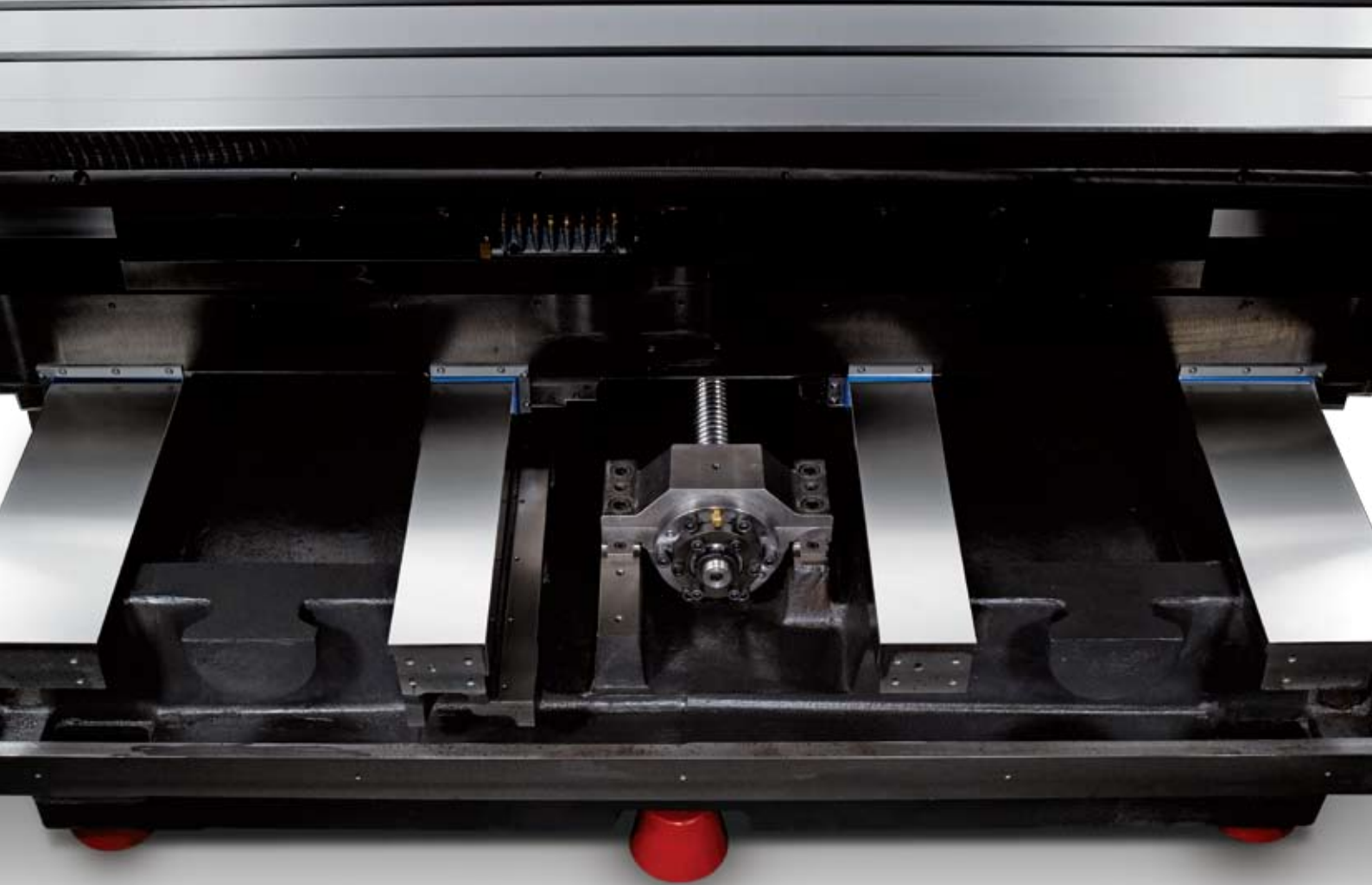
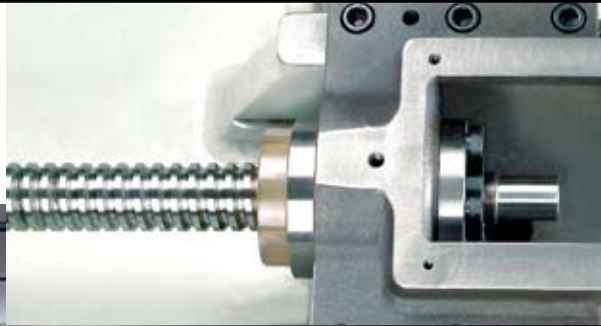
- Rigid 8000 rpm spindle unit
- Easy for after service
- High accuracy
- Cool jet around spindle
- High precision ceramic bearings
- Bearing size:7014 (4 pieces)



- Big diameter ball screws are preload and directly driven with servo motors to absolutely eliminate backlash between bearings and ball screws exhibiting excellent feeding accuracy.
- All axes are with highly precise C3 grade ball screws.
- Ball screws diameter X Y Z are 50mm



3-AXIS BALL
SCREWS PRELOAD



LARGE CROSS-SECTION
BOX WAYS



EASY LOADING INTO CONTAINER

- Only few pieces of metal sheets from front housing need to be removed for 20 feet open top container loading.
- More protection during transit.



EXCELLENT AND STABLE ACCURACY

- Machine inspected by HP laser and Ballbar system before shipment to ensure performance and quality.

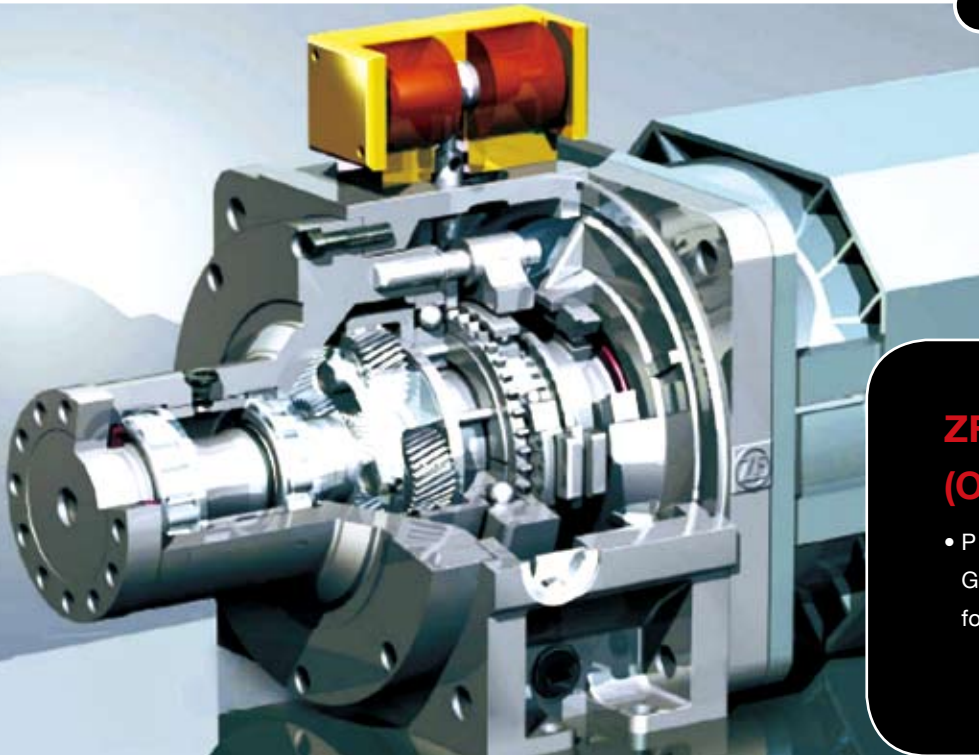
24 TOOLS MAGAZINE

AUTOMATIC TOOL CHANGE SYSTEM

- Random tool selection, strongly provides stable quality and precision.



30/32/40 TOOLS MAGAZINE (OPTION)



ZF GEAR BOX (OPTION)

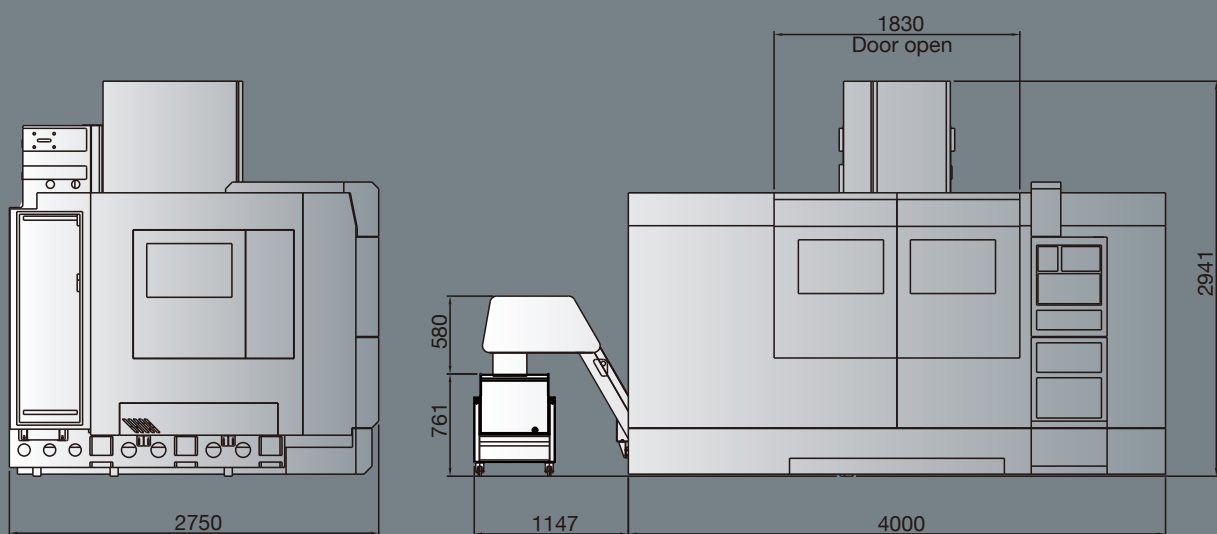
- Precision and powerful German ZF brand gear box for heavy cutting solution.

IN-HOUSE MODERN MANUFACTURING FACILITIES

We have OKUMA 5-face machining center TOYODA ,TOSHIBA ,MITSUI SEIKI Horizontal machining centers with pallet changers,OKUMA CNC lathes,Wanner ,OKUMA and TOYODA CNC grinders for building the best machines ,whole critical and precision parts are done in house.

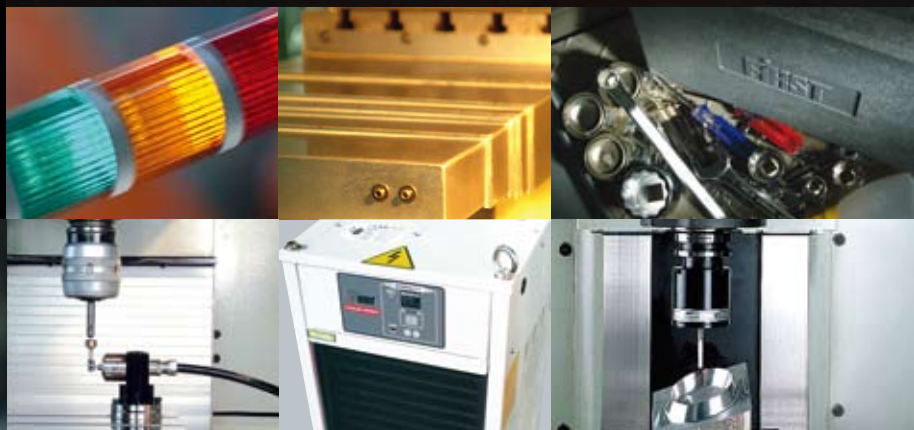


MACHINE DIMENSION



STANDARD ACCESSORIES

- #40 : Arm type ATC (24 tools)
- #50 : Arm type ATC (24 tools)
- Fully enclosed splash guard
- Chip flush system
- Coolant system
- Coolant tank & chip collector
- Automatic lubrication system
- Telescopic covers
- Portable electronic handwheel (FANUC)
- Working light
- Alarm light
- Tool box
- Operator's manual and parts list
- Leveling bolts, pads and nuts



OPTIONAL ACCESSORIES

- #40 : Arm Type ATC 32 or 40 tools
- #50 : Arm Type ATC 30 or 40 tools
- #40 : High-speed Spindle 10,000 rpm
- #50 : spindle 8,000 rpm
- Bigger spindle motor
- Spindle chiller
- Coolant through spindle system
- Air blow system for dry cutting
- Spiral or flat type chip conveyor
- 4th or 4+5th axis rotary table
- High precision linear scale
- Working piece measurement system
- Tool length measurement system
- Heat exchanger on electrical cabinet
- Power transformer
- CE (Safety door interlock)
- ZF gear box



| Machine Specification | MCV1400 | | MCV1600 | |
|-----------------------------------|--|--------------------------------|--------------------------------------|--------------------------------|
| Travel | | | | |
| X-Axis | 1400 mm (55.11") | | 1600 mm (62.99") | |
| Y-Axis | 760 mm (29.92") | | | |
| Z-Axis | 680 mm (26.77") | | | |
| Spindle nose to table | 125 ~ 805 mm (4.92 ~ 31.69") | | | |
| Table | | | | |
| Table size | 1600 mm x 700 mm (62.99 ~27.55") | | 1800 mm x 700 mm (70.86 ~27.55") | |
| Floor to table | 960 mm (37.8") | | | |
| Max. table loading capacity | 2500KGS(5511.6Lbs) | | 3000KGS(6613.9Lbs) | |
| T-slot (number x width x pitch) | 5 x 22mm x 125mm (5 x 0.86" x 4.9") | | | |
| Spindle center to column | 760 mm (29.92") | | | |
| Feed system | | | | |
| Rapid traverse speed | X / Y: 24 M/min (944.8"/min) , Z: 20 M/min(787.4"/min) | | | |
| Feed motor (FANUC) | Alpha 22-3000i | | | |
| Ball screw diameter & pitch | X / Y / Z : 50 mm / 10 mm (2/0.4") | | | |
| Cutting feed rate | 1 ~ 10,000 mm/Min (0.04~393.7"/Min) | | | |
| Type of transmission | Direct Drive | | | |
| Spindle | | | | |
| Type of tool shank | BT 40 / CAT 40 / DIN 69871A | BT 50 / CAT 50 / DIN 69871A | BT 40 / CAT 40 / DIN 69871A | BT 50 / CAT 50 / DIN 69871A |
| Max. spindle speed | 8000 / 10000rpm (Op) | 6000 / 8000 rpm (Op) | 8000 / 10000rpm (Op) | 6000 / 8000 rpm (Op) |
| Spindle motor | Alpha 12-7000i 11/15 Kw | Alpha 15-7000i 15/18.5 Kw | Alpha 12-7000i 11/15 Kw | Alpha 15-7000i 15/18.5 Kw |
| Type of transmission | Belt / ZFGear Box (Op) | Belt / ZFGear Box (Op) | Belt / ZFGear Box (Op) | Belt / ZFGear Box (Op) |
| ATC | | | | |
| Tool storage capacity | 24 / 32 or 40 T (Op) | 24 / 30 or 40 T (Op) | 24 / 32 or 40 T (Op) | 24 / 30 or 40 T (Op) |
| ATC type | Arm type | | | |
| Max. tool diameter | 90 / 76 mm (3.54 ~ 2.99") | 110 / 127 mm (4.33 ~ 5") | 90 / 76 mm (3.54 ~ 2.99") | 110 / 127 mm (4.33 ~ 5") |
| Without adjacent tool | 170 / 127 mm (6.69 ~ 5") | 200 / 228 mm (7.87 ~ 8.97") | 170 / 127 mm (6.69 ~ 5") | 200 / 228 mm (7.87 ~ 8.97") |
| Max. tool length | 300 mm (11.81") | 300 mm (11.81") | 300 mm (11.81") | 300 mm (11.81") |
| Max. tool weight | 7 kg (15.43 Lbs) | 15 kg (33.06 Lbs) | 7 kg (15.43 Lbs) | 15 kg (33.06 Lbs) |
| Tool changing time (Tool to Tool) | 1.8 / 1.5 / 1.5 SEC | 2.9 SEC | 1.8 / 1.5 / 1.5 SEC | 2.9 SEC |
| Tool changing time (Chip to Chip) | 5.5 SEC | 6 SEC | 5.5 SEC | 6 SEC |
| Method of tool selection | Random selection | | | |
| | bi-directional magazine rotation | | | |
| Tool display | Yes | | | |
| Special tool management | Yes | | | |
| Coolant system | | | | |
| Coolant tank size | 650 L | | | |
| Coolant capacity | 105 L/min | | | |
| Chip Flush capacity | 125 L/min | | | |
| Machine size | | | | |
| Machine height | 2940 mm (115.75") | | 2940 mm (115.75") | |
| Floor space | 3600 mm x 2750 mm (141.7" x 108.26") | | 4000 mm x 2750 mm (157.5 "x 108.26") | |
| weight | 11980 kgs(5434 Lbs) | 12340 kgs(5597 Lbs) | 12040 kgs(5461 Lbs) | 12400 kgs(5625 Lbs) |
| Power source | | | | |
| Electrical power supply | 25 KVA / 3PH / 220 V / 50 / 60 HZ | | | |
| Compressed air supply | 6.0 kgf/cm^2 | | | |
| Controller | | | | |
| | FANUC / HEIDENHAIN / SIEMENS | | | |

* Specifications may different according to option accessories and are subject to change without notice.

Edition / A00



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