# FRST LONG CHANG MACHINERY CO., LTD.

## AC SERVO MILLING MACHINES LC-205 Series

### Features

The machine now comes standard with X & Y axis ball screws for smooth table transmission and long life for the screw and nuts.

The Delta control allows AC step less position with a position repeatable accuracy of 0.0002" with bolt pattern or non-pattern drilling cycle, milling cycle and "S" milling cycle allows auto use of machine with high accuracy.

Machine is standard with 3-Axis position display and X & Y axis feed meter.

Machine is equipped with X & Y axis motor locks, eliminating the need to manually clamp the table.

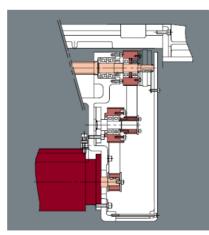
Equipped with an ISA40 spindle taper, the 5Hp AC inverter drive spindle head with 110mm (4.3") quill diameter allows heavy duty cutting with no vibrations for smooth finishes.

The control panel with a digital read control touch panel for the X, Y and Z-axis. Included for safety, all control switches wired to low voltage.



SPINDLE UNIT

Spindle is made from one piece of Ni-Cr alloy steel and supported by two precision angular contact and one ball bearing to ensure rigidity. The inner taper surface is induction hardened and precision ground to ensure durability. The spindle inner taper runout remains within 0.002mm.

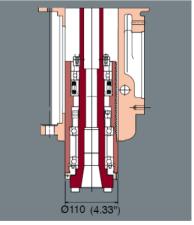


X, Y AXES TRANSMISSION SYSTEM

Driven by a powerful AC Servo motor. A backlash-free timing belt provides a large feedrate range and smooth axes motion. Easy to use automatic machining cycles. Machine can run automatically.



Model LC-205VHD illustrated



QUILL AND HOUSING

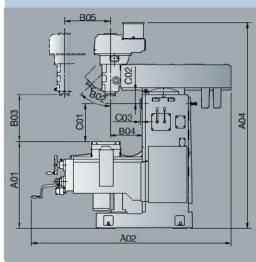
The 110mm (4.3") diameter large quill is chromed and mirror finished, then individually fitted to each quill housing. This close matching process offers extremely high spindle accuracy and machining stability.

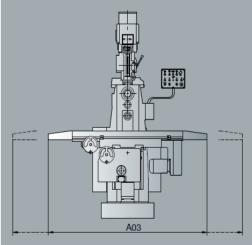
| FIRST                             |     | LC-205VSD  | LC-205VHD                |
|-----------------------------------|-----|--|--------------------------|
| TRAVEL                            |     |  |                          |
| X-Axis                            |     | 835mm (32.8")  |                          |
| Y-Axis                            |     | 420mm (16.53")                                       |                          |
| Z-Axis                            |     | 460mm (18.11")                                       | 435mm (17.12")           |
| Guideway type X / Y / Z           |     | dovetail / box / box                                 |                          |
| Bedway type X / Y / Z             |     | hardened & gr  | ound Turcite-B           |
| TABLE                             |     |  |                          |
| Work surface                      |     | 1300 x 300mm   | n (51.1 x 11.8")         |
| Work surface to ground            | A01 | 935-1395mm (36.8-54.9")                              | 935-1370mm (36.8-53.9"   |
| T-slot number (width x pitch)     |     | 3 (15.87 x 63.5mm                                    | n) / 3 (0.625 x 2.5")    |
| Max table load                    |     | 550 kg (1213 lb)                                     |                          |
| VERTICAL SPINDLE                  |     |  |                          |
| Taper                             |     | ISA40  |                          |
| Spindle drive motor               |     | 5hp  |                          |
| Spindle speed (variable)          |     | 25- <b>3600rpm</b>                                   |                          |
| Quill travel                      |     | 135mm (5.31")  |                          |
| Quill diameter                    |     | 110mm (4.33")  |                          |
| Quill feeds                       |     | 0.035, 0.07, 0.14mm/rev (0.0014, 0.0028, 0.0055"/rev |                          |
| Head swivel R & L                 | B01 | 90°  |                          |
| Overarm travel                    | B05 | 470mm (18.5")  |                          |
| Overarm swivel                    |     | 360°   |                          |
| Spindle nose to table             | B03 | 40-500mm (1.5-19.6")                                 | 75-510mm (2.9-20")       |
| Spindle nose to column face       | B04 | 355-825mm (14-32.5")                                 |                          |
| HORIZONTAL SPINDLE                |     |  |                          |
| Taper                             |     | -  | ISA40                    |
| Horizontal spindle drive motor    |     | -  | 5hp                      |
| Spindle speed (6 steps)           |     | -  | 55-1180rpm               |
| Spindle center to table surface   |     | -  | -25 - 410mm (-1 - 16.1") |
| Spindle center to overarm surface |     | -  | 146mm (5.7")             |
| Spindle face to column surface    |     | -  | 28mm (1.1")              |
| FEED SYSTEM                       |     |  |                          |
| Longitudinal rapid feed           |     | 2100mm/min (82.7"/min)                               |                          |
| Vertical rapid feed               |     | 800mm/min (31.5"/min)                                |                          |
| Longitudinal feed motor           |     | AC Servo / 1kW                                       |                          |
| Cross feed motor                  |     | AC Servo / 1kW                                       |                          |
| Vertical feed motor               |     | 1 1/2hp 6P   |                          |
| GENERAL                           |     |  |                          |
| Electrical rating                 |     | 230V 30Amp 3Ph 60Hz                                  |                          |
| Depth                             | A02 | 1900-2300mm (74.8-90.55")                            |                          |
| Width                             | A03 | 2160-3000mm (85-118")                                |                          |
| Height                            | A04 | 2450mm (96.45")                                      |                          |
| Weight                            |     | 1800 kg (3970 lb)                                    | 2010 kg (4430 lb)        |

#### ACCESSORIES

#### STANDARD:

- X & Y-Axis ball screws
- Rubber chip covers F & R
- Automatic lubrication system
- Coolant system
- Splash tray & rear guarding
- Horizontal milling arbor & support (205VHD) INCLUDED:
- X, Y & Z-Axis digital read control touch panel
- Align air power drawbar
- LED Machine lamp
- 14KVA Transformer 600V-220V





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