



南京二机齿轮机床有限公司  
NANJING NO.2 MACHINE TOOL WORKS

# YS5150CNC型 数控插齿机

## CNC Gear shaping machine model YS5150CNC



### 主要特点:

#### Main features

YS5150CNC型数控插齿机系四轴三联动数控插齿机，四轴分别是：径向进给运动X轴、刀具旋转B轴、工作台旋转C轴和主轴冲程数变频调速。

The model YS5150CNC is a 4-axis CNC gear shaping machine with 3 of the 4 axes working under gang control. The 4 axes are: Radial feed motion (X axis), cutter rotation motion (B axis), Worktable rotation motion (C axis), and Cutter spindle stroke controlled by frequency motor.

机床刚性好，结构新，功能齐全，安全可靠，适用于大批量，高效率加工内外啮合的圆柱齿轮，带台肩的多联齿轮、齿扇、结合子齿等。

The machine is high rigidity, new structure, perfect function, and easy adjustment. The machine is suitable to cut the batch internal and external gears, stepped gears, quadrant gears, coupling gears, etc.

本机床采用FANUC Oi-MD数控系统。

The machine has equipped the CNC system model FANUC Oi-MD.

本机床实现参数化编程，操作简单方便

The machine has a macro-interface for easy operation and adjusting.

本机床主运动形式采用传统的曲柄连杆机构，刀架采用静压导轨和静压轴承，

The machine main moving adopted the traditional crank link mechanism, and the hydraulic spindle guide and the hydraulic bearing.

机床采用单滚子让刀凸轮机构，调整方便，稳定可靠。

Machine adopt single roll back-off cam construction, it is easy adjusting and reliability.

### 标准配置: Standard equipment:

|                        |                                       |
|------------------------|---------------------------------------|
| 主机                     | machine                               |
| 液压系统、润滑系统              | hydraulic system, lubrication system  |
| FANUC Oi-MD数控系统        | CNC system model FANUC Oi-MD          |
| 恒温控制电箱                 | electrical box with the A/C           |
| 冷却排屑系统                 | cooling system with the chip conveyor |
| 半封闭机床防护罩               | semi-closed safety guard              |
| 刀具芯轴 ( $\phi 31.743$ ) | arbor ( $\phi 31.743\text{mm}$ )      |
| 机床垫铁                   | shim plate                            |

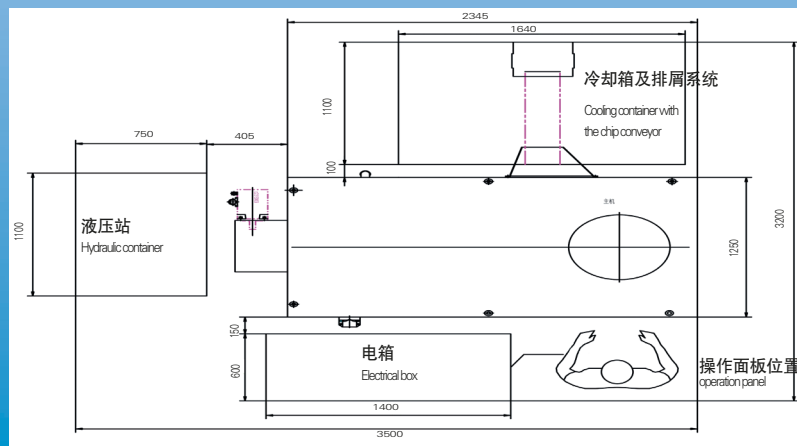
### 特殊配置: Option equipment:

|        |   |
|--------|---|
| 夹具     | fixtures                                  |
| 立柱加高垫块 | between parts for raise the work position |
| 后立柱    | back column with the center               |
| 特殊刀具芯轴 | special size arbor                        |

机床主要参数: Main specification:

| 序号 No. | 项 目 内 容 Description   | 单位 Unit                    | 技术参数 Specification |
|--------|---|----------------------------|--------------------|
| 1      | 最大工件直径 Max. workpiece dia.  | mm                         | 500                |
| 2      | 最大模数 Max. module  | mm                         | 8                  |
| 3      | 最大行程长度 Max. stroke length   | mm                         | 200                |
| 4      | 最大加工齿宽 Max. width of workpiece  | mm                         | 180                |
| 5      | 主轴冲程数(无级) Stroke speed (Variable)                                     | mm                         | 60-600             |
| 6      | 主轴直径 Dia. Of spindle  | mm                         | 100                |
| 7      | 刀具安装面至工作台面的距离 Dist. From the nose of spindle to the face of worktable | mm                         | 155-380            |
| 8      | 刀具中心线至工作台中心线的距离 Center dist. Of cutter and worktable                  | mm                         | 0-360              |
| 9      | 工作台直径 Dia. Of worktable   | mm                         | 580                |
| 10     | 工作台主轴孔径 Bore of worktable   | mm                         | 160                |
| 11     | 刀具主轴最高位置的径向让刀量 Cutter spindle back-off at its upmost position         | mm                         | 0.4                |
| 12     | 立柱的径向进给量(无级调速) Radial feeding (variable)                              | mm                         | 0.001              |
| 13     | 立柱径向快速 Rapid radial feeding   | mm/str                     | 2000               |
| 14     | 工作台快速运转时的最高转速 Max. rotation speed of worktable                        | str /min                   | 6                  |
| 15     | 主轴电机 Main motor   | 功率<br>power<br>转速<br>speed | 15<br>1000         |
| 16     | 刀具圆周伺服电机 Servo motor of cutter rotation                               | 功率<br>power<br>转速<br>speed | 6.9<br>3000        |
| 17     | 工件圆周伺服电机 Servo motor of worktable rotation                            | 功率<br>power<br>转速<br>speed | 6.9<br>3000        |
| 18     | 径向伺服电机 Servo motor of radial feeding (α22)                            | 功率<br>power<br>转速<br>speed | 6.9<br>3000        |
| 19     | 静压电机 Hydraulic motor  | 功率<br>power<br>转速<br>Speed | 3<br>1430          |
| 20     | 润滑电机 Lubrication motor  | 功率<br>power<br>转速<br>Speed | 1.1<br>1500        |
| 21     | 冷却泵电机 Cooling motor   | 功率<br>power                | 1.1 × 2            |
| 22     | 排屑器电机 Motor of chip conveyor  | 功率<br>power<br>转速<br>speed | 0.55<br>1500       |
| 23     | 机床总 Total   | 功率<br>power                | 43                 |
| 24     | 主机外形尺寸(长 × 宽 × 高) Size (L × W × H)                                    |                            | 3500 × 3200 × 2750 |
| 25     | 机床净重  |                            | 8500kg             |

机床安装基础图  
Foundation Plan



规格、参数若有改变，恕不另行通知，客户如有特殊要求，敬请垂询。

All the specifications are subject to revision without notice in advance .Please contact the manufacturer for special request on the machine.

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