

MULTI-SPINDLE ENGRAVING MACHINE

JS-A1255-4

Technical Specification

Version 2025

SHENZHEN JOJOY SEIKO CO., LTD. HUIZHOU JOJOY SEIKO CO., LTD.

General Description



Under the background of increasingly fierce competition in the modern manufacturing and machining industry, JOJOY SEIKO has creatively introduced the **Multi-spindle Engraving Machine Series** with **an innovative and unique structural design** to help our customers significantly **reduce costs** and **increase efficiency**. It can not only effectively control the costs of purchasing, labor and land etc., but also the efficiency is even **several times higher** than that of universal machining centers of the world's top brands.

Features

- + The main structure of machine tools consisted of only granite with high stability and rigidity.
- + 4-spindle design means which can achieve 4-purpose simultaneous machining to improve the efficiency heavily with relatively independent 4 spindles, 1 worktable and 4 servo ATCs.
- + All the servo motors are equipped with absolute value bus encoders for accuracy compensation independently.
- + 4-axis rotary table and probe optional for customized requirements.

Technical Data

| Travel & Range X/Y Travel mm 380/550 Z-axis Travel mm 200°4 Distance from spindle nose to countertop mm 60-260 Worktable | TECHNICAL DATA | UNITS | JS-A1255-4 |
|---|--|---------------------|----------------|
| Distance from spindle nose to countertop | Travel & Range | | |
| Distance from spindle nose to countertop mm 60-260 Worktable 2 1 Quantity - 1 Worktable size mm 1200°550 Max. loading capacity kg 500 T-slot (width/quantity/distance) mm/pcs/mm 12/7/80 Spindle Quantity - 5 Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System - Water cooling Controller & Servo System - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75°4 Servo ATC Quantity - 4 Capacity T 20T°4 Max. tool diameter mm 12 <td>X/Y Travel</td> <td>mm</td> <td>380/550</td> | X/Y Travel | mm | 380/550 |
| Worktable Quantity - 1 Worktable size mm 1200*550 Max. loading capacity kg 500 T-slot (width/quantity/distance) mm/pcs/mm 12/7/80 Spindle Quantity - 5 Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min | Z-axis Travel | mm | 200*4 |
| Quantity - 1 Worktable size mm 1200*550 Max. loading capacity kg 500 T-slot (width/quantity/distance) mm/pcs/mm 12/7/80 Spindle Quantity - 5 Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System - Water cooling Controller & Servo System - Water cooling Controller & Servo System - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC - 4 Quantity - 4 Capacity T 201*4 Max. tool diameter mm 12 Max. tool len | Distance from spindle nose to countertop | mm | 60-260 |
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| Max. loading capacity kg 500 T-slot (width/quantity/distance) mm/pcs/mm 12/7/80 Spindle Quantity - 5 Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75°4 Servo ATC Quantity - 4 Capacity T 20T°4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatab | Quantity | - | 1 |
| T-slot (width/quantity/distance) mm/pcs/mm 12/7/80 Spindle Quantity - 5 Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System - SYNTEC CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC - 4 Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 9000 X/Y/Z Repeatability mm ±0.005/300 X/Y/Z Repeatability mm ±0.005/300 X/Y | Worktable size | mm | 1200*550 |
| Spindle Quantity - 5 Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² <td>Max. loading capacity</td> <td>kg</td> <td>500</td> | Max. loading capacity | kg | 500 |
| Quantity - 5 Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 | T-slot (width/quantity/distance) | mm/pcs/mm | 12/7/80 |
| Distance between spindles mm 300 Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy x/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data | Spindle | | |
| Max. spindle speed rpm 40000 Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System - Water cooling CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight | Quantity | - | 5 |
| Spindle taper - ISO 20 Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Rapid traverse mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V | Distance between spindles | mm | 300 |
| Spindle power kw 6 Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Rapid traverse mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Max. spindle speed | rpm | 40000 |
| Drive type - Electric Spindle cooling system - Water cooling Controller & Servo System SYNTEC CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Cuantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Spindle taper | - | ISO 20 |
| Spindle cooling system - Water cooling Controller & Servo System - SYNTEC CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Rapid traverse mm/min 9000 Accuracy mm ±0.005/300 X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Spindle power | kw | 6 |
| Controller & Servo System CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Repid traverse mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Drive type | - | Electric |
| CNC controller - SYNTEC X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Positioning speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Spindle cooling system | - | Water cooling |
| X/Y servo motor power kw 1.8/1.8 Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy mm ±0.005/300 X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Controller & Servo System | | |
| Z-axis servo motor power kw 0.75*4 Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | CNC controller | - | SYNTEC |
| Servo ATC Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | X/Y servo motor power | kw | 1.8/1.8 |
| Quantity - 4 Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Z-axis servo motor power | kw | 0.75*4 |
| Capacity T 20T*4 Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Servo ATC | | |
| Max. tool diameter mm 12 Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy x/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Quantity | - | 4 |
| Max. tool length mm 70 Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy wm ±0.005/300 X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Capacity | Т | 20T*4 |
| Feed Rate X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Max. tool diameter | mm | 12 |
| X/Y/Z Rapid traverse mm/min 15000 X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Max. tool length | mm | 70 |
| X/Y/Z Cutting speed mm/min 9000 Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Feed Rate | | |
| Accuracy X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | X/Y/Z Rapid traverse | mm/min | 15000 |
| X/Y/Z Positioning accuracy mm ±0.005/300 X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | X/Y/Z Cutting speed | mm/min | 9000 |
| X/Y/Z Repeatability mm ±0.003/300 Other Data Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Accuracy | | |
| Other DataAir source requiredKgf/cm²6.5Gross weightkg5500Overall dimension (L*W*H)mm2440*2880*2200Rated voltageVAC 380 | X/Y/Z Positioning accuracy | mm | ±0.005/300 |
| Air source required Kgf/cm² 6.5 Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | X/Y/Z Repeatability | mm | ±0.003/300 |
| Gross weight kg 5500 Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Other Data | | |
| Overall dimension (L*W*H) mm 2440*2880*2200 Rated voltage V AC 380 | Air source required | Kgf/cm ² | 6.5 |
| Rated voltage V AC 380 | Gross weight | kg | 5500 |
| | Overall dimension (L*W*H) | mm | 2440*2880*2200 |
| Rated power kw 11.5 | Rated voltage | V | AC 380 |
| | Rated power | kw | 11.5 |

Standard Accessories

| ITEMS | BRAND | ORIGIN | REMARKS |
|---------------------------|-----------------|---------------|-------------------------|
| CNC controller | SYNTEC | Taiwan | - |
| X/Y/Z servo motor | SYNTEC/INOVANCE | Taiwan/China | - |
| Spindle | XWD/HAOZHI | China | - |
| Ball screw | THK/IF | Japan/Germany | Grade C3 |
| Rolling guide | THK/REXROTH | Japan/Germany | PMI/HIWIN/HTPM optional |
| Bearing | NACHI/NSK | Japan | - |
| Coupling | NBK | Japan | - |
| Servo ATC | - | China | 20T*4 |
| Electrical components | SCHNEIDER | France | - |
| Pneumatic system | SMC | Japan | - |
| Lubricating system | BAOTN | China | - |
| Spindle cooling system | - | China | Water cooling |
| Cutting coolant system | - | China | - |
| AC for electrical cabinet | - | China | |
| Tool setter | - | China | Contact measurement |
| Air though spindle | - | China | - |
| Electronic handwheel | - | China | - |
| Bottom chip flushing | - | China | - |

Optional Accessories

| NO. | OPTIONS | |
|-----|---|--|
| 1 | WEIHONG / HNC CNC controller | |
| 2 | Variable spindle power/speed/torque | |
| 3 | Variable ATC capacity | |
| 4 | 4-axis rotary table | |
| 5 | Probe for workpiece set-up & inspection | |
| 6 | Oil mist collector | |
| 7 | Oil-water separator | |
| 8 | Tapping | |

Inspection and Acceptance

In case this is the part of the contract, the Seller shall notify the Buyer of the specified time for inspection at least 30 days in advance, and the Buyer shall send a representative to the Seller's factory, before packaging the equipment, to execute it in accordance with the requirements stipulated in the contract as following:

- Standard 3-axis simultaneous cutting test and measurement.
- Positioning accuracy test and measurement.
- Other specific and reasonable tests and measurements.

If the Buyer's representative fails to arrive at the Seller's factory for inspection as scheduled, the contractual equipment will not be delayed in packaging and delivery. Therefore, the Buyer's representative could only complete the procedure on other equipment of the same model or be regarded as a waiver of it.

The Seller shall provide the Buyer with the inspection report obtained according to the requirements stipulated in the contract, and if the inspection results meet the requirements, it shall be deemed that the contractual equipment has passed the inspection. The Buyer and the Seller shall then sign the acceptance confirmation.

Technical Documents

- Operation Manual * 1 Copy
- Programming Manual * 1 Copy
- Mechanical Manual * 1 Copy
- Electrical Manual * 1 Copy

Seal and Signature

The Seller

The Buyer