







Directive Number 1674











▶ Innovation · Perfection · Technology · Value

HUMANIZED SERVO CONTROL SYSTEM PRECISION CNC GRINDERS

EQUIPTOP

Experienced Managing Team / Brilliant Quality Policy / Marketing Management Complete Product Series / Fast Service / Innovative R & D Idea.



| Patent Items

Obtained national patents for grinder:

- Longitudinal straight movement construction of surface grinder.
- Timing belt straight drive system.
- Dual motors, positioning and feeding structure.

More national patents:

- Timing belt drive system for the table of surface grinders.
- Roughing and micro table speed control construction.
- New travel direction change for surface grinding.

Obtained US patents:

- Surface grinding table reverse construction.
- Belt drive construction for surface grinding table.

Obtain German patent:

■ Safety handwheel system.

Honored with national patents:

- Multi-formed grinder.
- Dust collect / coolant and dust unit.

- NC & CNC multiple formed molds.
- One wire of table multiple transmission.
- Motor fan cooling structure.
- Simultaneous processer.
- Vacuum wind turbine structure for dust coolant.
- Improvement to dust coolant structure.
- Rotary square structure.
- Equal speed.
- New type double column complex spindle head.
- Milling grinding complex spindle head.

EQUIPTOP Grinder Create New Generation

EXCELLENT / FEATURES · PROVIDE · VALUE

- 1988 Established " EQUIPTOP MACHINERY CO., LTD" Made a speciality of developing high precision surface grinders.
- 1990 Developed ESG-618 & 818 ASD series, 3 axis fully automatic surface grinders.

 Used PC-CAD to upgrade mechanical design and development.
- 1992 Developed ESG-1228 & 1236 ASD series, 3 axis fully automatic surface grinders.
- 1993 Developed ESG-1632 & 1640 ASD series, 3 axis fully automatic surface grinders.
- 1995 Developed ESG-1020 & 1224 ASD series, 3 axis fully automatic surface grinders. Obtained CE-Mark certificate from AMTRI CE in England.
- 1997 Developed ESG-2448 to 2480, 3axis fully automatic, digital positioning ADX series, with a downfeed jog movement providing just 0.5

 µ m super microfeed for finer production finish. Column type surface grinder, using high anti-wear, heavy duty preloaded, H class linear guideway.
- 1998 Awarded ISO 9002 Certification by DNV company of Netherlands.
- 1999 Invested in "NANJING EQUIPTOP PRECISION MACHINERY CO., LTD." as branch in China.
- 2000 Developed ESG-3260 to 32120, 3axis fully automatic, smart digital positioning ADX series Reveived certified CE-MARK by DNV company.
- 2001 Awarded Certified ISO 9000 by Bell company.
 - Developed NC series, 3 axis fully automatic smart digital positioning grinders.
- 2002 Grand Opening of a new factory. The new facility is over 13,000m². Invested 1.6 hundred million dollars in this new headquarters. Successfully developed new complex grinders, moving EQUIPTOP into the high technology area.
 - Renamed the company as "EQUIPTOP HITECH CORP."

- 2003 Awarded publication 2000 ISO 9001 certification. Developed " ASD II " series, 3 axis, fully automatic digital positioning grinders. Developed " ACUMEM " super microfeed servo control and auto-wheel dressing & compensation system grinders.
- 2004 Established the branch in Wu Hsi-Shuai Hung Precision Machinery LTD. to expand China market.

 Developed cantilever type ESG-6120~8300 ASD*series, 3 axis, fully automatic surface grinders.
- 2005 Obtained the prize of Taiwan Precision Product in manufacturing NC surface profile grinder.
- 2006 Developed ETM510APC tapping machine with auto pallet changer system & Double column grinding machine, table size 1500x3000~1500x5000 are available.
- 2008 Double column grinding machine, table size 1500x3000~1500x5000 are available.
- 2010 Upgrade ASD II series to TD type. PLC control & touch color screen.
- 2012 Double column type grinding machine, table size 1200x3000~1200x5000 are available.

 Developed ESG-2448 to 24120, 3axis fully automatic TD type with touch color screen.
- 2013 Execute rotary & square constitute, hydrostatic spindle and guide rail program. Presented EMV-600APC auto pallet change, and 800 x2000~5000mm, 1000x2000~5000 mm double column grinders.
- 2016 Developed and officially listed ECG-CNC Cylindrical Grinder series.

Innovation patented invention:

- 1. Innovation surface grinding machine controller: Patent No.:1546161
- 2. Innovation equal feeding speed control: Patent No.:M454893
- 3. Innovation rotary & square constitute design: Patent No.:1508818 & M454892
- 4. Innovation multi-sound alarm light structure: Patent No.: M486838

2016 Create 1224-TD Plus Man-machine PLC controller.

Publish ECG-27 / ECG-36 CNC Cylindrical grinding machine with man-machine controller. Develop ERG-600 ERG-800 ERG-1000 CNC/PLC controller application.



2017 Presented at TIMTOS, March 2017, 1224-TD Plus, EG-36 CNC and ERG-600CNC, with manmachine controller. The operation and application showed In an Industrial 4.0 demonstration line.

Wining with honor: D&B TOP 1000 SMEs Elite Award

The 14th National brand: Remarkable enterprise Yushan Award.

Taichung city the 16th excellent SMEs Golden hand award.

Republic of China prominent enterprise management association, the 18th golden peak award: Top 10 excellent business pioneer model.

Republic of China prominent enterprise management association, the 18th golden peak award: Top 10 remarkable innovative research and development

2018 Golden torch prize: TD, ADC get Research and Innovation Award.
Golden torch prize: TD, ADC have the honor to win best satisfaction from customer.

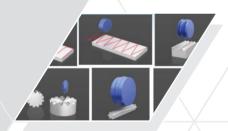
Create New Generation ESG-818 CNC / ESG-818H CNC

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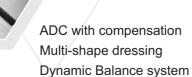


High-precision accuracy Backlash within 2um High strength, rigidity High stability Min. setting 0.001mm

ESG-818CNC



Surface grinding & step grinding
Multi-shape forming grinding
Indexing & slot grinding
Profile grinding
Punch forming grinding

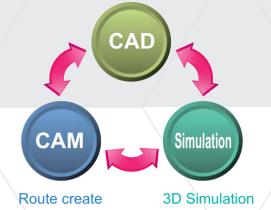




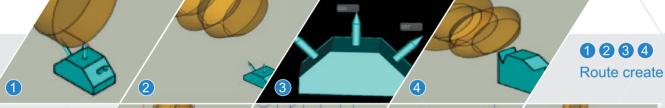
- C2 class ballscrew used for 3 axis & servo motor direct transmission.
- Double V way for crossfeed & longitudinal axis, equipped with auto lubrication system to ensure the accuracy and finish for grinding.
- Hand-scraped & coated with "Turcite-B" for longitudinal & cross-feed guideways, providing fully support for table travel.

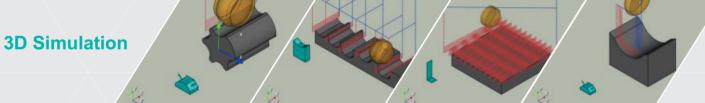
CAD / CAM Software for 3D Shape and Surface Grinding

Work-piece, grinding wheel design













3D Shape Grinding CAD/CAM



- ◆ Very easy to operate, don't have to write a program
- Multi-function grinding mode-Step, Continuous, Slot, Multi-slot, indexing
- ◆ 15" LED color touch screen
- ◆ Use the drawing function to generate grinding wheels and workpieces
- ◆ Automatic dressing with compensation during grinding cycle.
- ◆ The workpiece and the grinding wheel are presented in 3D and the finished product is directly viewed.

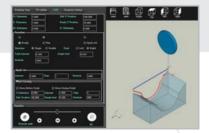
ESG-818CNC CAD / CAM Software

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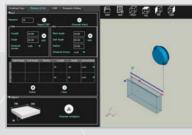




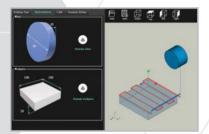
CAM



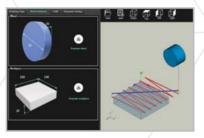
Forming



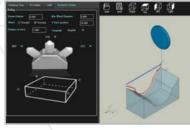
Slot



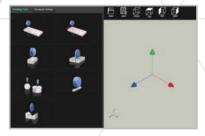
Set 1



Set 2



Setting



Maim



Multi Slot



/YZ

- ◆ Automatic calculation of indexing and grinding amount
- Servo gain adjustment can be performed directly on the controller screen
- ◆ MLC real time monitoring
- It can directly back up the parameters and servo parameters to the computer for easy maintenance or replacement of the servo drive.

Intelligence controller system

Easy operate / Drawing GUI system
Working process viewed



ESG-818CNC SPECFICATION

| Model | item | ESG-818 CNC / ESG-818H CNC |
|--------------------------------|--------------------------------------------|-----------------------------|
| TABLE | Table size | 460x203 mm |
| | Table Max. loading weight | 200 kg |
| | Standard magnetic chuck size | 450x200 mm |
| | Max. distance from spindle center to table | 460 mm |
| | T slot | 12x1 |
| Longitudinal movement of table | X axis movement speed | 0-20 m/min |
| | X axis max. travel | 510 mm |
| Cross transverse travel | Z axis movement speed | 0-3 m/min |
| | Z axis max. travel | 260 mm |
| | Z axis min. input unit | 0.001 mm |
| Wheelhead vertical infeed | Y axis movement speed | 0-3 m/min |
| | Y axis max. travel | 390 mm |
| | Y axis min. input unit | 0.001 mm |
| Spindle | Spindle speed | 3600 rpm |
| | Spindle power | 5HP / 2P |
| Grinding wheel | Wheel size | 203x19x31.75 mm |
| Motor | Hydraulic Motors (for X axis Hydraulic) | 1.5 HP (for ESG-818H CNC) |
| | Longitudinal Movenment Motor | 2.0 KW |
| | Cross Feed Motor | 1.0 KW |
| | Vertical Feed Motor | 1.0 KW |
| | Rated horsepower | 8.0 KW |

EQUIPTOP®





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