



## ECG CNC Cylindrical Grinder Series



2017 The 16th  
excellent hand Award



2017 The 14th  
National brand  
Award



2017 The 18th  
Top 10 innovative research  
and development



2017 The 18th  
Top 10 business  
pioneer model



ISO 9001: 2015



Machinery  
Directive  
Number 1674



IT'S VERY WELL  
MADE IN TAIWAN



[www.equiptop.com.tw](http://www.equiptop.com.tw)

EXCELLENT · FEATURES · PROVIDE · VALUE



#### **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 processor.
- 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.



## EXCELLENT · FEATURES · PROVIDE · VALUE

- 1988 Established "EQUIPTOP MACHINERY CO., LTD.". As a professional producer of 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  $\mu\text{m}$  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 13,000m<sup>2</sup>.  
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 II 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 man-machine controller. The operation and application showed in an Industrial 4.0 demonstration line.  
Winning 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.



***Fixed center /  
Rotary center head stock***

*Stable head stock equipped with high precision bearing, upgrade spindle rigidity and precision. Superior water-proof ability and machine durability.*



***Manual / Hydraulic tailstock***

*Oil filled type lubrication system for tailstock, to consolidate anti-water and dustproof protection, and ensure the high precision of the tailstock.*



***High precision grinding head***

*Spindle made of high class alloy steel (SNM220). By multi heat treatment, grinding, and polish machining for its durability. Spindle is supported by unique fluid dynamic bearing, to reach high rigidity and vibration resistant. (Touch probe is optional)*

***ECG-2740 CNC  
CYLINDRICAL GRINDING MACHINE***

## ***ECG-2760 CNC*** **CYLINDRICAL GRINDING MACHINE**

### ***ECG-CNC · Best Choice***

*EQUIPTOP CNC cylindrical grinder – ECG-series is your best choice for high precision grinding work. The X axis and Z axis are driven by NC servo motor with precision ball screw. The CNC controller equipped with high performance control system for variable grinding jobs to create a user friendly operation environment to the operator.*



*CNC Control  
Full Guarded (option)*

# ECG-2780 CNC CYLINDRICAL GRINDING MACHINE



Internal Grinding Attachment  
(Optional)



Swivel Over Table:  $\Phi$  270mm  
Distance Between Centers: 800 mm  
Max. Grinding Dia.:  $\Phi$ 250mm  
CNC Control  
Full Guarded (option)

## User Friendly Operation

- High performances CNC control system with GUI. The operator could input the grinding & dressing value follow the graphical description step by step for a complicated workpiece. The work process could turn to steps into the controller. Do not need to edit complex program as G CODE, M CODE as usual, provided the most convenient operation environment.
- GUI operation system equipped with variable work modes such as OD, ID, END-FACE and PROFILE for grinding & dressing applied for different work jobs. It could input the grinding & dressing value by numeralization way.
- Not only GUI mode but also CNC mode for operation could be chosen by operator.
- Install several shortcuts for practical function and emergency stop button on operation panel. Increase operational safety and convenience.
- Variable automatically measuring device could be chosen. Increase work quality and efficiency



CNC Control  
Full Guarded (option)

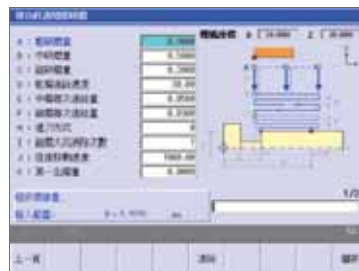
## 27 / 35 Series CNC

Advanced CNC controller with filling type interface, contains editable standard grinding cycle program, and adjustable dressing shape for special grinding request.



## ECG-3540 CNC

### HIGH PRECISION CYLINDRICAL GRINDER



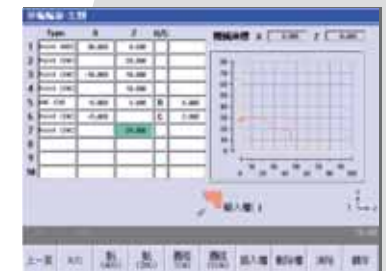
Grinding cycle diagram



Grinding wheel profile



Graphic selection for grinding and compound grinding



Grinding wheel profile overview

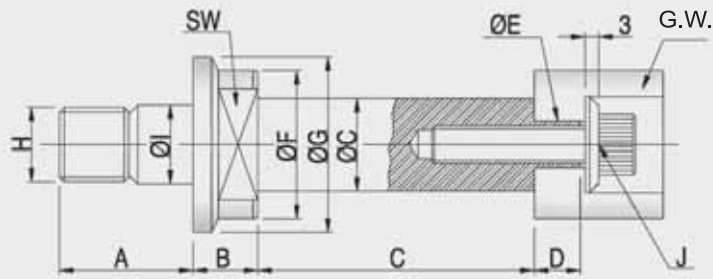
The image features a large industrial cylindrical grinding machine, the ECG-3580 CNC. On the left, a close-up shows a large, polished cylindrical workpiece being ground by a rotating wheel. On the right, a full view of the machine is shown, including its control panel with a digital display and various buttons, a worktable, and a grinding head assembly. The machine is white and black, with the brand name 'EQUIPTOP. ECG-3580 CNC' printed in red on the side of the grinding head.

## ***ECG-3580 CNC***

***CYLINDRICAL GRINDING MACHINE***

Swivel Over Table:  $\Phi$  350mm  
Distance Between Centers: 800mm  
Max. Grinding Dia.:  $\Phi$  330mm  
Internal Grinding Attachment (option)





## INTERNAL GRINDING SPINDLE

The ratio of grinding hole diameter to length is 1:3  
The max. grinding length is 150mm

| Grinding Dia. | Grease type | A  | B  | C                              | D  | E   | F   | G   | H          | I     | J          | SW |
|---------------|-------------|----|----|--------------------------------|----|-----|-----|-----|------------|-------|------------|----|
| Ø65~Ø150      | 8,000rpm    | 42 | 16 | Ø40xØ100<br>Ø40xØ85<br>Ø40xØ55 | 12 | Ø12 | Ø50 | Ø58 | M26 x 2P   | Ø28   | M8 x 1.25P | 41 |
| Ø40~Ø80       | 10,000rpm   | 29 | 14 | Ø30xØ90<br>Ø25xØ70<br>Ø20xØ60  | 10 | Ø10 | Ø32 | Ø38 | M16 x 1.5P | Ø17   | M8 x 1.25P | 24 |
| Ø35~Ø70       | 15,000rpm   | 29 | 14 | Ø30xØ90<br>Ø25xØ70<br>Ø20xØ60  | 10 | Ø10 | Ø32 | Ø38 | M16 x 1.5P | Ø17   | M8 x 1.25P | 24 |
| Ø24~Ø40       | 20,000rpm   | 28 | 11 | Ø24xØ80<br>Ø20xØ60<br>Ø16xØ40  | 8  | Ø8  | Ø26 | Ø32 | M14 x 1.5P | Ø15   | M6 x 1.0P  | 19 |
| Ø15~Ø25       | 30,000rpm   | 21 | 9  | Ø16xØ40<br>Ø13xØ30<br>Ø10xØ25  | 6  | Ø6  | Ø21 | Ø26 | M10 x 1.5P | Ø10.5 | M4 x 0.7P  | 17 |
| Ø12~Ø16       | 40,000rpm   | 20 | 8  | Ø12xØ35<br>Ø10xØ30<br>Ø8xØ25   | x  | x   | Ø18 | Ø23 | M8 x 1.25P | Ø8.5  | M4 x 0.7P  | 14 |
| Ø9~Ø13        | 50,000rpm   | 18 | 7  | Ø8xØ30<br>Ø7xØ25<br>Ø6xØ20     | x  | x   | Ø15 | Ø20 | M7 x 1P    | Ø7.5  | M4 x 0.7P  | 11 |



**ECG-CNC · Best Choice**



Auto sizing (Optional)



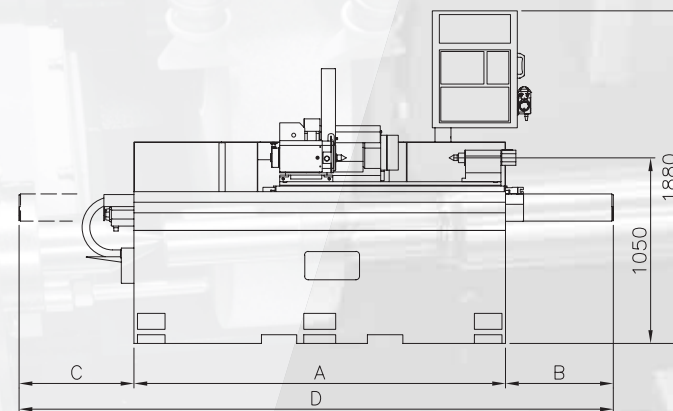
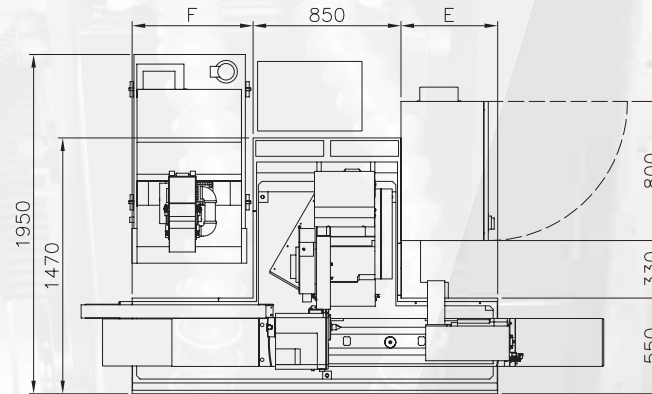
Touch Probe (Optional)

## ECG External and Specification

### Standard accessories

### Optional accessories

|                                             |                                    |
|---------------------------------------------|------------------------------------|
| Wheel & flange x 1 set                      | Digital readout for Z axis         |
| Wheel extracting screw & net x 1 set        | Diameter measurement               |
| Diamond dresser x 1 set                     | Auto grinding wheel balancer       |
| Tool box x 1 set                            | Hydraulic tailstock                |
| Work-piece drive ring x 1 set               | Manual 3-jaw chuck                 |
| Balancing stand and arbor x1 set            | Hydraulic 3-jaw chuck              |
| MT4 center x 2 PC                           | Oil mist collector                 |
| Heat exchanger in electric box              | Magnetic separator                 |
| Coolant tank & pump                         | Paper filter                       |
| Grinding wheel inverter                     | Air conditioner in electric box    |
| Gap eliminate anti-crash mechanism(current) | 2-point center rack                |
| Work lamp                                   | 3-point center rack                |
| Digital readout for X axis                  | Work-piece support rack            |
|                                             | Grinding wheel suspending rack     |
|                                             | Grinding wheel hanger              |
|                                             | Gap eliminate anti-crash mechanism |
|                                             | Internal grinding attachment       |



|   | 400 Series | 600 Series | 800 Series | 1000 Series |
|---|------------|------------|------------|-------------|
| A | 1700       | 2100       | 2500       | 2900        |
| B | 590        | 610        | 630        | 650         |
| C | 630        | 650        | 670        | 690         |
| D | 2920       | 3360       | 3800       | 4240        |
| E | 355        | 555        | 755        | 955         |
| F | 495        | 695        | 895        | 1095        |

### Wheel dressing cycle

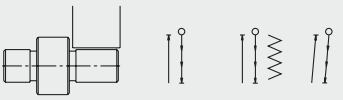
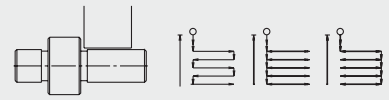
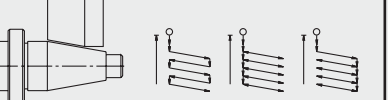
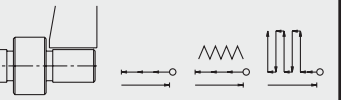
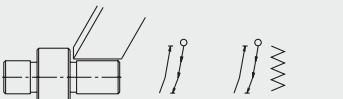
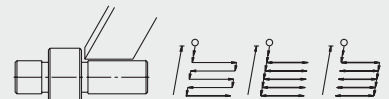
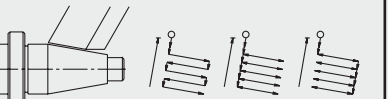
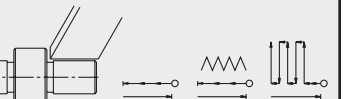
#### Remark

1. Maximum setting is 5 sets for diamond dressing.
2. Five profile selections for wheel dressing. Both sides dressing is available.
3. Support custom profile function with drawing display. Max. 40-point settings.



| SPECIFICATION Item      |                              | Unit  | ECG-2740 CNC                                  | ECG-2760 CNC       | ECG-2780 CNC       | ECG-3540 CNC       | ECG-3560 CNC       | ECG-3580 CNC       | ECG-35100 CNC      |
|-------------------------|------------------------------|-------|-----------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Work<br>Capa-<br>bility | Max. Grinding Dia.           | mm    | 270                                           |                    |                    | 350                |                    |                    |                    |
|                         | Distance between centers     | mm    | 400                                           | 600                | 800                | 400                | 600                | 800                | 1000               |
|                         | Center height                | mm    | 136                                           |                    |                    | 176                |                    |                    |                    |
|                         | Max. workpiece Weight        | kgs   | 120                                           |                    |                    | 150                |                    |                    |                    |
| Grinding<br>Wheel       | Grinding wheel size          | mm    | φ405x32~50xφ152.4(opt.φ455x50~80xφ152.4)      |                    |                    |                    |                    |                    |                    |
|                         | Grinding wheel speed         | rpm   | 1650 (1890)                                   |                    |                    |                    |                    |                    |                    |
|                         | Rapid travel speed           | m/sec | 35(45)m/sec                                   |                    |                    |                    |                    |                    |                    |
| Wheel<br>head           | Feed angle                   | deg   | 90                                            |                    |                    |                    |                    |                    |                    |
|                         | Rapid travel speed           | mm    | 6m / min                                      |                    |                    |                    |                    |                    |                    |
|                         | Min. Setting unit            | mm    | 0.001                                         |                    |                    |                    |                    |                    |                    |
|                         | Max. Travel                  | mm    | 250                                           |                    |                    |                    |                    |                    |                    |
| Work<br>head            | Spindle speed                | rpm   | 10~600                                        |                    |                    |                    |                    |                    |                    |
|                         | Center taper                 | MT    | MT4                                           |                    |                    |                    |                    |                    |                    |
|                         | Spindle through hole Dia.    | mm    | 25                                            |                    |                    |                    |                    |                    |                    |
| Tailstock               | Travel sleeve                | mm    | 30                                            |                    |                    |                    |                    |                    |                    |
|                         | Center taper                 | MT    | MT4                                           |                    |                    |                    |                    |                    |                    |
| Work<br>-table          | Swivel angle                 | deg   | -8 ~ +11                                      | -6 ~ +9            | -4 ~ +7            | -8 ~ +11           | -6 ~ +9            | -4 ~ +7            | -4 ~ +7            |
|                         | Rapid traverse speed         | mm    | 6m / min                                      |                    |                    |                    |                    |                    |                    |
|                         | Min. Setting unit            | mm    | 0.001                                         |                    |                    |                    |                    |                    |                    |
| Motor                   | Grinding wheel spindle motor | hp    | 5 (option 7.5)                                |                    |                    |                    |                    |                    |                    |
|                         | Work head motor              | kw    | 1.0 (option1.5)                               |                    |                    |                    |                    |                    |                    |
|                         | Wheel Spindle / Lubricarion  | hp    | spindle cooling : 1/4 / coolant cooling : 1/4 |                    |                    |                    |                    |                    |                    |
|                         | Feeding (X axis)             | kw    | 1.0 (1.2)                                     |                    |                    |                    |                    |                    |                    |
|                         | Feeding (Z axis)             | kw    | 1.5 (1.8)                                     |                    |                    |                    |                    |                    |                    |
| N.W. (Approx.)          |                              | kgs   | 2600                                          | 3000               | 3400               | 2700               | 3100               | 3500               | 3900               |
| GW. (Approx.)           |                              | kgs   | 2800                                          | 3200               | 3600               | 2900               | 3300               | 3700               | 4100               |
| Packing size (LxWxH)    |                              | mm    | 2400 x 1970 x 2000                            | 2800 x 1900 x 2000 | 3200 x 1900 x 2000 | 2400 x 1970 x 2000 | 2800 x 1900 x 2000 | 3200 x 1900 x 2000 | 3600 x 1900 x 2000 |

Remark: 1) All pictures and drawings are only for reference 2) We reserve the right to modify any machine specification without prior notice.

|                  |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Plunge grinding  |  |  |  |  |  |
| Angular grinding |  |  |  |  |  |

## Remark

1. Separate setting for grinding cycle. Grinding cycle could be divided into rough grinding, medium grinding, and fine grinding, and spark-out grinding.

2. With diameter measurement device (option), grinding volume could be set for plunge or angular grinding.



# EQUIPTOP®



FAIR FRIEND GROUP



*"EQUIPTOP" means "TOP EQUIPMENT" A Wise Choice-Equiptop.*



**EQUIPTOP HITECH CORP.**

NO. 88, SAN FENG E. RD., HOULI DISTRICT,  
TAICHUNG CITY, TAIWAN 42156

■ TEL: +886-4-25576060

■ FAX: +886-4-25569677.25575866

■ e-mail: [equiptop@hibox.hinet.net](mailto:equiptop@hibox.hinet.net)

■ <http://www.equiptop.com.tw>

*[www.equiptop.com.tw](http://www.equiptop.com.tw)*