EQUIPTOP

EQUIPTOP®

EQUIPTOP HITECH CORP.

HIGH PRECISION SURFACE GRINDERS

IT'S VERY WELL MADE IN TAIWAN

DNV

AMTRI VERITAS

CE

ISO-9001

UKAS

www.equiptop.com.tw

COMPANY HISTORY

EQUIPTOP HITECH CORP. HISTORY

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 μm 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^2.
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.

· The EQUIPTOP management team

· Factory Area 1

The president of EQUITOP HITECH CORP.

Mr. Paul Tsai, has focused on the grinder industry for more than 20 years. Through careful research and developement, has produced excellent, highly competitive machines for end users.

· President Mr. Paul Tsai

EQUITOP Patents

Obtained national patents in 1990:

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

Obtained national patents in 1992:

* Timing belt straight drive system for the table of surface grinder.
* Roughing and micro table speed control constrction.

Obtained national patents in 1995:

* Surface grinding table reverse constrction.
* Belt drive construction for surface grinding table.

Obtained Germany patents in 1998:

* Safety handwheel system.

Obtained national patents in 2002:

* Multiple formed grinder.
* Dust collector.
* Coolant and dust unit.
* NC & CNC multiple formed molds.

· Factory Area 2

· Factory Area 3

· Factory Area 4

MANUAL SERIES

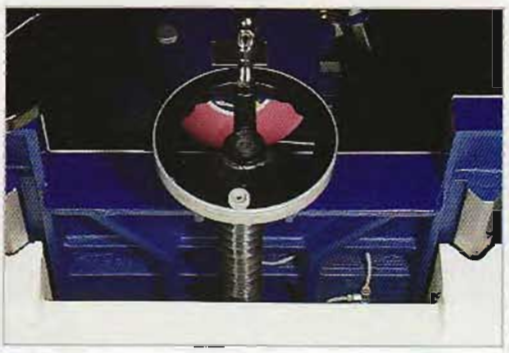
ESG-614

● Indexible table handwheel

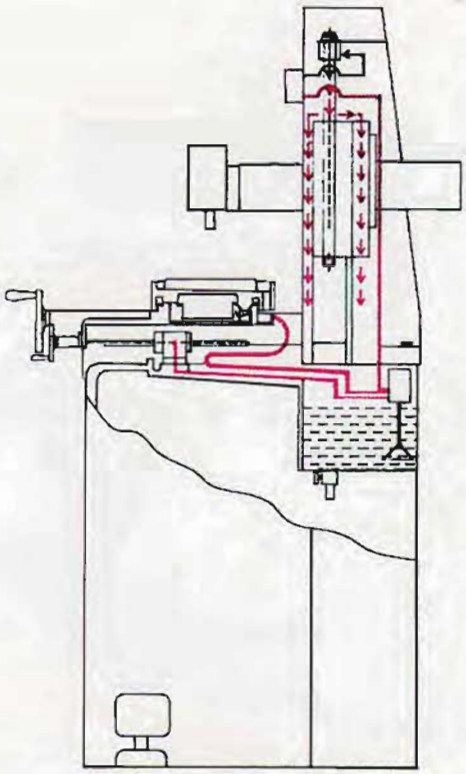
● Patent steel wire timing belt transmission system

The saddle rests on precision hand-scraped double V ways, and the table rests on precision hand-scraped V and flat ways which coated with "TURCITE-B". These guide ways are equipped with auto lubrication to resist wear of guide ways, plus lasting accuracy and damping.

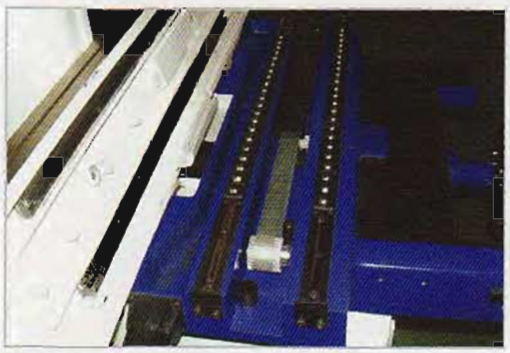
ESG-618 / ESG-818



Cross double V ways



Auto lubrication system



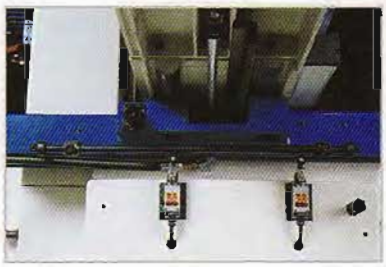
Patent steel wire timing belt transmission system

High precision slides way & steel balls assemble that allow lasting accuracy and move smooth.

ESG-618M / ESG-818M

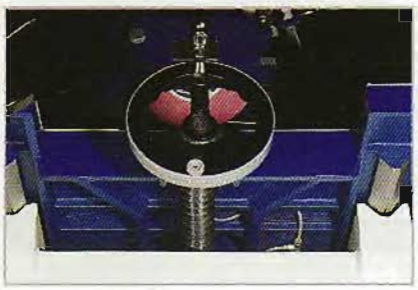
HYDRAULIC SERIES

Table travel adjustment, provide built-in-type (hidden) proximity switch, features safe and easy operation.



● 2A. 3A. ASD type cross traverse system

ESG-1A618 · longitudinal hydraulic grinder
ESG-2A618 · longitudinal hydraulic & cross motorized grinder

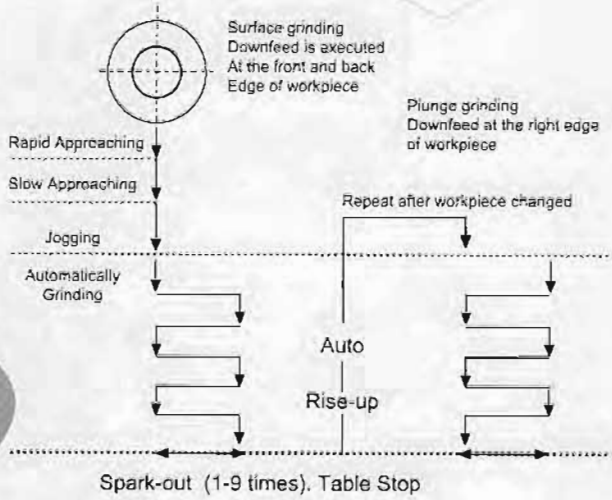


● Cross double V ways

ESG-3A618

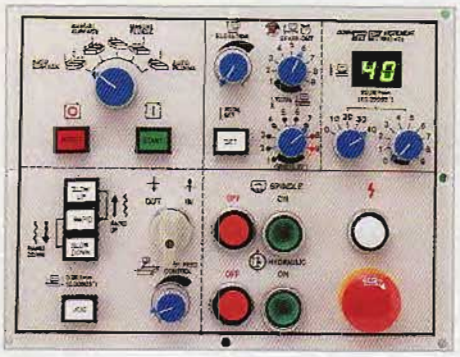
3A: longitudinal hydraulic & cross motorized and repid up / down.

AUTOMATIC SERIES

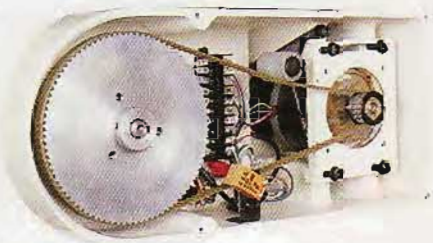


- Grinding Procedures

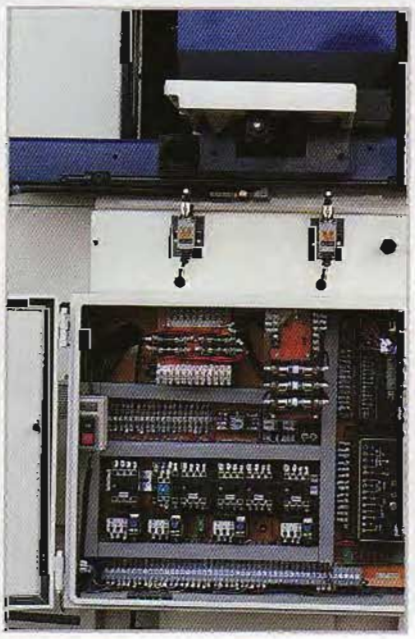
ESG-618ASD



ESG-618ASD / 818ASD Control Panel



- Patent dual motor system for vertical up / down. Ac motor(rapid) / Stepping motor (slow auto downfeed)



- Electrical box

- Plunge & surface modes as standard
- Vertical feed driven by stepping motor &AC motor
- Vertical jog feed :0.001mm(0.00005")
- Auto-downfeed increment:0.001-0.04mm(0.00005"-0.002")
- Max. Auto-downfeed amount:9mm(0.45")
- Pre-set spark-out:1-9 times
- The wheelhead is raised and the table parks upon completion of the spark-out passes

HYDRAULIC SERIES

ESG-1A818/ESG-2A818

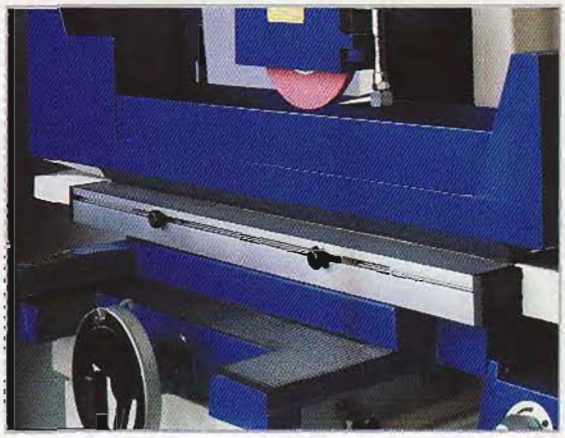


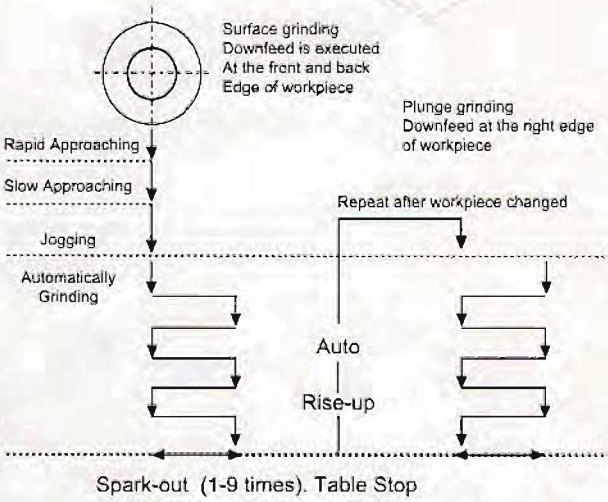
Table travel adjustment, provide built-in-type (hidden) proximity switch, features safe and easy operation.

ESG-3A818

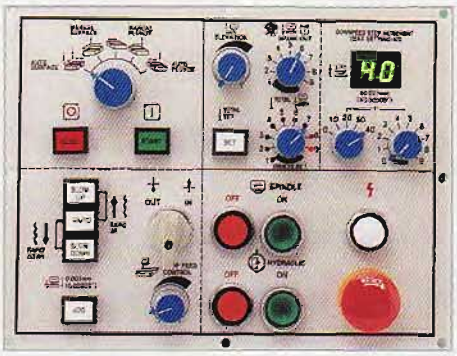
- Chuck control with demagnetizer (optional)

AUTOMATIC SERIES

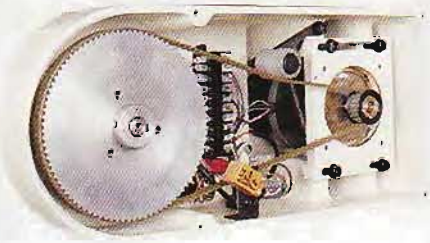
ESG-818ASD



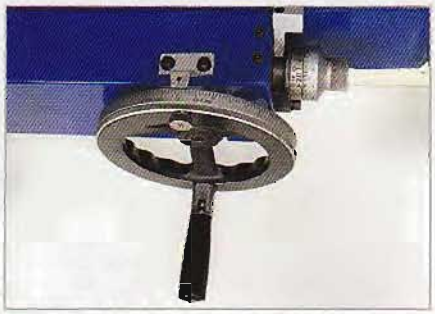
- Grinding Procedures



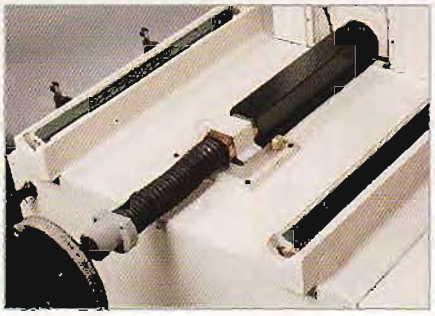
ESG-818ASD Control Panel



- Patent dual motor system for vertical up / down. Ac motor(rapid) / Stepping motor (slow auto downfeed)



- Micro cross feed(optional)



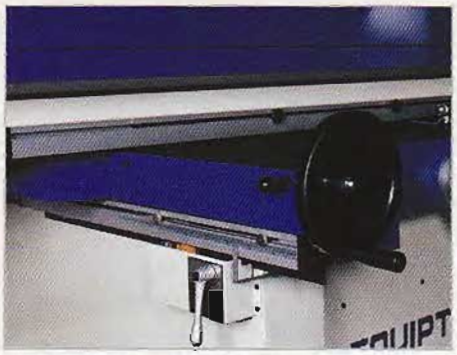
- Base double V ways

- Plunge & surface modes as standard
- Vertical feed driven by stepping motor &AC motor
- Vertical jog feed :0.001mm(0.00005")
- Auto-downfeed increment:0.001-0.04mm(0.00005"-0.002")
- Max. Auto-downfeed amount:9mm(0.45")
- Pre-set spark-out:1-9 times
- The wheelhead is raised and the table parks upon completion of the spark-out passes

HYDRAULIC SERIES

High precision ball screw for cross feed movement

ESG-1A1020 / ESG-2A1020 / ESG-3A1020

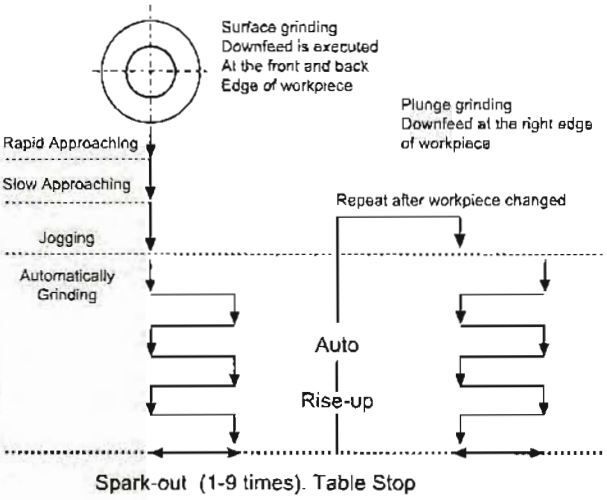


Easily-adjustable hidden proximity switch (long & cross)

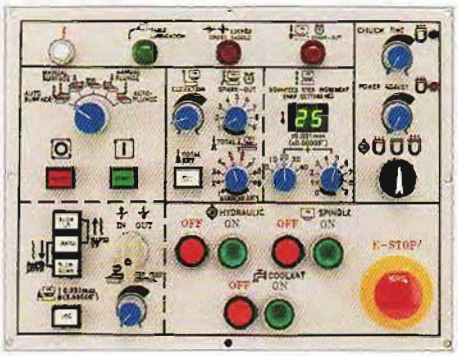
ESG-1A1224 / ESG-2A1224 / ESG-3A1224

AUTOMATIC SERIES

ESG-1020ASD / ESG-1224ASD



- Grinding Procedures



ESG-1020ASD / ESG-1224ASD Control Panel

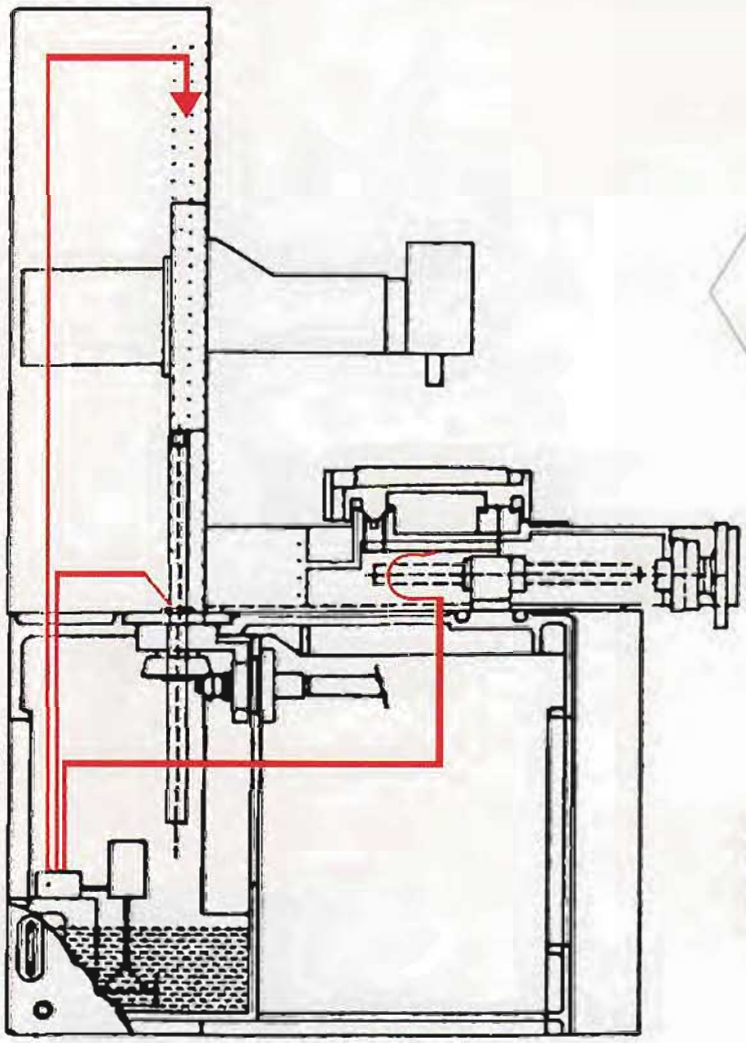
- Honeycomb-ribbed column

- Rotary magnetic chuck suitable high precision grinding (optional)

- Plunge & surface modes as standard
- Vertical feed driven by stepping motor & AC motor
- Vertical jog feed :0.001mm(0.00005")
- Auto-downfeed increment:0.001-0.04mm(0.00005"-0.002")
- Max. Auto-downfeed amount:9mm(0.45")
- Pre-set spark-out:1-9 times
- The wheelhead is raised and the table parks upon completion of the spark-out passes

- Presettable table speed control

HYDRAULIC SERIES



Auto lubrication system

Honeycomb-ribbed column

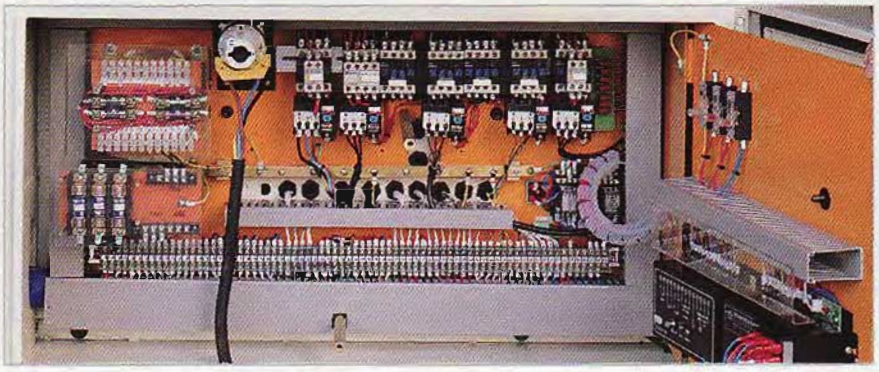
1228-1648 type high precision spindle

Patent elevating transmission system

10 / 12 / 16 Micro downfeed, per graduation 0.001mm (optional)

1228-1648 type patent persettable table speed control

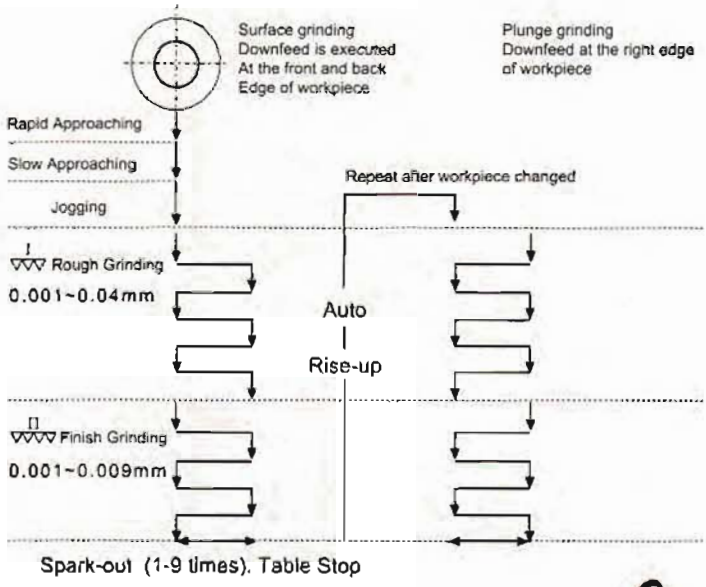
ESG-3A1228 / ESG-3A1236



● ASD 系列機型電器箱

● 10 / 12 / 16 前後微調機構
（選配）

AUTOMATIC SERIES



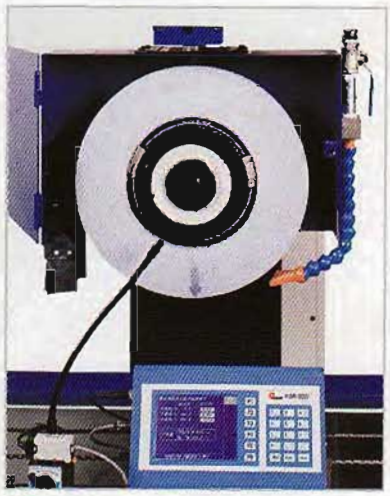
- Grinding Procedures

ASD Control Panel

- Plunge & surface modes.
- Vertical feed powered by double motors; Stepping motor for Auto-downfeed (Min. increment: 0.001mm)
- Maxinum cycle downfeed: 9mm(0.45"), can extend to whole vertical (optional accessory-Digital readout set with feedback function) to meet special requirements
- 2-step grinding procedure control: Rough grinding 0.001-0.04mm (0.00005"-0.002") ; finish grinding 0.001-0.009mm (0.0005"-0.00045")
- Max. Auto-downfeed amount:9mm(0.45")
- Pre-set spark-out:1-9 times
- Automatically table movement stops & wheel head rises from surface of workpiece, after cycle grinding completed

ESG-1228ASD

Enlarge base double V



Dynamic balaning machine (optional)

ESG-1236ASD

AUTOMATIC SERIES

ESG-1632ASD

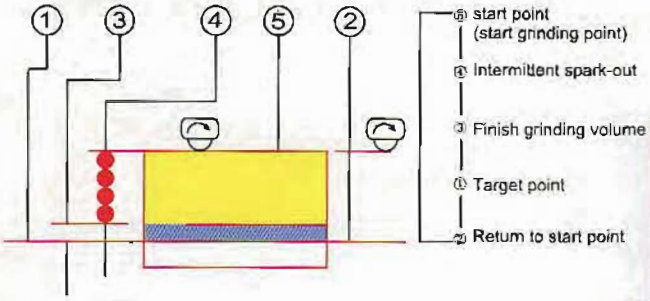
ESG-1640ASD / ESG-1648ASD

DIGITAL SETTING

ESG-818ASD II

ASD II Control Panel

- Vertical feed powered by dual motors; AC motor for rapid up / down. Stepping motor for micro downfeed positioning & slow up / down. Quick digital output feedback by encoder.
- Display for position of Y axis to show present spindle positon. The digital display is for setting start point, rough grinding volume, start point for finish grinding (finish grinding volume), downfeed volume for finish grinding, target point, rise up point, intermittent sparkout, and sparkout.
- Cross transverse travel powered by DC servo motor. Allows step feed & continuous infeed grinding. The speed for wheel dressing can be adjusted on the panel.



- ASD II series:

On ASD II models you can set vertical zero point, start point, finish grinding volume, target point and grinding wheel rise-up point. It has a simple, clear, digital display & touch control panel, for easy learning and operation.

ESG-1020ASD II / ESG-1224ASD II

DIGITAL SETTING

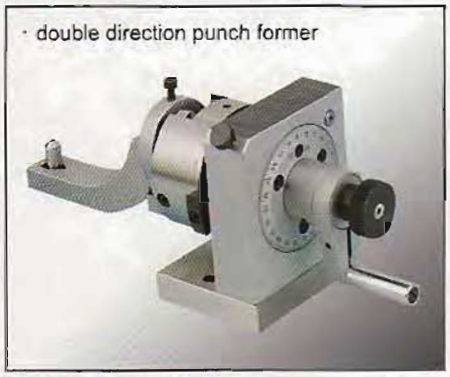
ESG-1228ASDⅡ / ESG-1236ASDⅡ

ESG-1632ASDⅡ

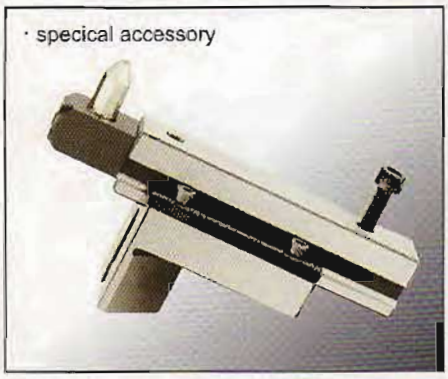
ESG-1640ASDⅡ / ESG-1648ASDⅡ

PRECISION ACCESSORIES

· double direction punch former

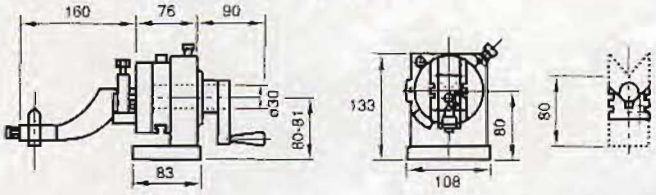


· specical accessory



· single direction punch former

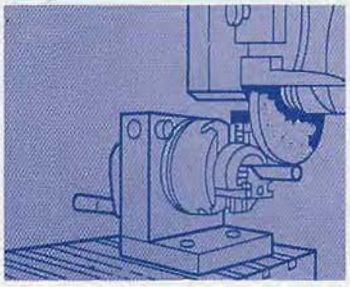
PUNCH FORMER is the fixture to grind the point of standard punches,for precise and fast operation.Including the round,radius and multiangular punches,any special form can be ground precisely. Using,the attachments,the concave convex radius angular dressing of grinding wheel can be performed.In addition to panel grinding to punch former can be used for inspection,light milling,jig boring, indexing,radius dressing and machining EDM electrodes.The max. dia of punch grinding up to 1-1/8".



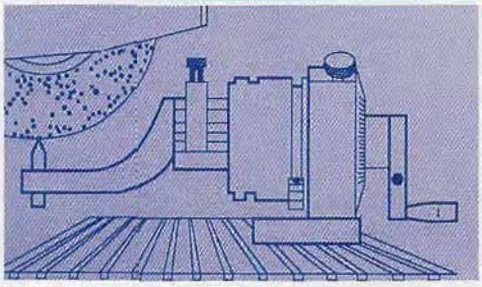
◎ Main Parameters:

Center height	80 mm
Clamping diameter in V-slot	Ø4-Ø30 mm
Travel of V-block	25 mm
Transversal travel of slider	±12.5mm
Quantity of tooth and accuracy of disk	24-15°±5"
Max wheel diameter	Ø200 mm
Max radius when dressing arc	
Convex	R48mm
Concave	R100mm

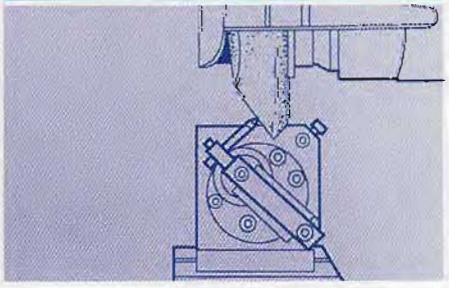
Punch forming



Grinding wheel radius dressing



Grinding wheel angular dressing



Grinding wheel dressing application

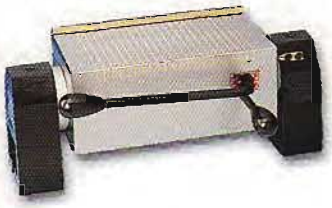
Punch forming application

OPTIONAL ACCESSORIES

1 PERMANENT MAGNETIC CHUCK

2 ELECTRO MAGNETIC CHUCK

3 INCLINABLE PERMANENT MAGNETIC CHUCK



4 CHUCK CONTROL WITH DEMAGNETIZER

5 COOLANT SYSTEM

6 COOLANT SYSTEM WITH MAGNETIC SEPARATOR

7 DUST COLLECTOR

8 COOLANT AND DUST UNIT

9 COOLANT SYSTEM WITH MANUAL PAPER FEEDING

10 AUTO PAPER FEEDING DEVICE WITH MAGNETIC SEPARATOR

11 SPLASH GUARD

12 FULL GUARDED SPLASH GUARD (10/12/16 SERIES)

13 MANUAL PARALLEL DRESSING ATTACHMENT

14 ELECTRIC PARALLEL DRESSING ATTACHMENT

15 ADJUSTABLE SPEED ROTARY MAGNETIC CHUCK

STANDARD ACCESSORIES:

1.Tool box and tools
2.Wheel extracting screw&nut
3.Balancing arbor
4.Levelling screws with blocks
5.Grinding wheel
6.Wheel flange
7.Touch-up paint
8.Auto lubrication system
9.Diamond dresser

16 DYNAMIC BALANCER

17 PUNCH FORMER

18 DIGITAL READOUT

19 SPARE WHEEL FLANGE

20 HALOGEN WORK LIGHT

21 BALANCING STAND (DOUBLE LINE)

22 ROLLER TYPE BALANCING STAND

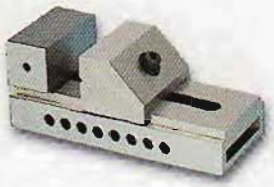
23 MICRO CROSSFEED FOR 618/818 SERIES

24 MICRO CROSSFEED FOR 10/12/16 SERIES

25 MICRO DOWN-FEED FOR 1020 SERIES ABOVE

26 MANUAL PULSE GENERATOR FOR ASD II TYPE

27 PRECISION VICE



28 FREQUENCY CHANGER

29 SWIVEL WHEEL GUARD

30 CONCAVE/CONVEX FORMING DRESSER

SPECIFICATIONS

DESCRIPTIONS \ MODEL		618 / 618M ESG- 1A618 2A618	3A618 ESG-618ASD 618ASD II	818M ESG- 1A818 2A818	3A818 ESG-818ASD 818ASD II	1020M ESG- 1A1020 2A1020	3A1020 ESG-1020ASD 1020ASD II
TABLE SIZE		152x460mm		203x460mm		254x508mm	
Max. grinding length	Longitudinal	480mm				520mm	
Max. grinding width	Crosswise	168mm		228mm		280mm	
Max. Distance from table surface to spindle centerline		460mm				Standard column : 500mm Optional high column : 600mm	
standard magnetic chuck size		150x450mm		200x450mm		250x500mm	
Longitudinal movement of table	Max. Travel, hydraulic	480mm				580mm	
	Max. Travel, manual	510mm				620mm	
	Max. Travel, infinitely variable	60HZ,5-28m/min;50HZ,5-23m/min		60HZ,5-25m/min;50HZ,5-20m/min			
Cross transverse travel	● Auto transverse increment	1-10mm				1-13mm	
	★ Auto constant feeding speed	20-320mm/min					
	● Max.auto transverse travel	180mm		235mm		270mm	
	Max. manual transverse travel	195mm		250mm		300mm	
	Handwheel per revolution	5mm					
	Handwheel per graduation	0.02mm					
wheelhead vertical infeed	★ Automactic infeed	ASD 0.001-0.04mm / ASD II 0.001-0.05mm					
	★ step feed(Jog)	-	0.001mm	-	0.001mm	-	0.001mm
	■ Rapid travel,Approx	-	250mm/min	-	250mm/min	-	150mm/min
	★ Slow travel Approx.	-	6mm/min	-	6mm/min	-	6mm/min
	Handwheel revolution	1mm ★ASD II : Min.display value:0.001mm(no elevating handwheel)					
	Handwheel graduation	0.005mm ★ASD II : Min.display value:0.001mm(no elevating handwheel)					
Grinding spindle drive	Speed	60HZ, 3450 R.P.M; 50HZ, 2850 R.P.M.					
	Power rating	2.0HP				3.0HP	
standard grinding wheel	Diameter	203mm					
	Width	12.7mm,MAX.19mm				19mm,MAX.25mm	
	Bore	31.75mm					
Hydraulic motor	power rating	1HP x 6P				2.0HP x 6P	
Crossfeed motor ●	power rating	40W x 6P				80W x 6P	
Elevating motor ■	power rating	40W x 4P				80W x 6P	
Floor space	Total space required	1810x1133x1660mm		1810x1285x1680mm		2400x1450x1750mm	
Weights	Net weight, Approx.	820KGS	850KGS	1170KGS	1205KGS	1780KGS	1810KGS
	Gross weight Approx.	970KGS	1000KGS	1340KGS	1375KGS	2130KGS	2160KGS
Rated power,Approx		3.0HP				5.0HP	5 1/5HP
Packing dimensions	L x W x H	1940X1400X1930mm	1980X1420X1930mm	1890X1540X1930mm	1890X1630X1930mm	2290X1830X2100mm	2480X2060X2100mm

NOTE
1. The manufacturer reseves the right to modify the design,specifications,mechanisms,etc., To improve the performances of the machine without notice.All the specifications showe above are just for reference.
2. ESG-618/618M · ESG-818M · ESG-1020M manual type (M:ballway)
3. Items marked ● are for 2A.3A.ASD.ASD II types only.
4. Items marked ■ are for 3A.ASD.ASD II types only.
5. Items marked ★ are for ASD.ASD II types only.

ESG-618 MANUAL TYPE.
ESG-618M / 818M / 1020M MANUAL TYPE(BALLWAY)

1 A : LONGITUDINAL HYDRAULIC.
2 A : LONGITUDINAL HYDRAULIC AND CROSSFEED MOTORIZED.
3 A : LONGITUDINAL HYDRAULIC, CROSSFEED MOTORIZED AND RAPID UP / DOWN MOTORIZED.
A S D : FULLY AUTOMATIC IN 3 AXIS(X.Y.Z) WITH STEPPING MOTOR FOR DOWNFEED,AND AC MOTOR FOR RAPID UP/ DOWN .
ASD II : FULLY AUTOMATIC IN 3 AXIS(X.Y.Z) WITH STEPPING MOTOR FOR DOWNFEED,AND AC MOTOR FOR RAPID UP/ DOWN &DIGITAL POSITIONING.

ESG-1A1224 2A1224	3A1224 ESG-1224ASD II 1224ASD	3A1228 ESG-1228ASD 1228ASD II	3A1236 ESG-1236ASD 1236ASD II	3A1632 ESG-1632ASD 1632ASD II	3A1640 ESG-1640ASD 1640ASD II	3A1648 ESG-1648ASD 1648ASD II
300x600mm		305x712mm	305x915mm	406x813mm	406x1020mm	406x1220mm
600mm		712mm	915mm	813mm	1020mm	406x1220mm
300mm		330mm		410mm		
585mm		Standard column : 630mm Optional high column : 720mm				
300x600mm		300x700mm	300x800mm	400x800mm	400x1000mm	400x1200mm
650mm		760mm	890mm	890mm	1060mm	1260mm
730mm		830mm	930mm	930mm	1100mm	1300mm
60HZ,5-25m/min;50HZ,5-20m/min						
1-19mm		1-25mm				
20-320mm/min						
310mm		350mm		430mm		
340mm		380mm		460mm		
5mm						
0.02mm						
ASD 0.001-0.04mm / ASD II 0.001-0.05mm						
-	0.001mm					
-	150mm/min					
-	6mm/min					
1mm ★ASD II : Min.display value:0.001mm(no elevating handwheel)						
0.005mm ★ASD II : Min.display value:0.001mm(no elevating handwheel)						
60HZ,1750R.P.M.;50HZ,1450R.P.M.						
5.0HP		Standard:5HP Optional:7 1/2HP				
304MM		355mm				
31.75mm		50mm				
76.2mm		127mm				
2.0HP x 6P		3.0HP x 6P				
80W x 6P						
-	80W x 6P	1/4HP x 6P				
2700x1600x1850mm		2950x1970x2050mm	3550x1970x2050mm	3290x2200x2050mm	4020x2200x2050mm	4100x2200x2050mm
1950KGS	1990KGS	3020KGS	3330KGS	3400KGS	4000KGS	4200KGS
2250KGS	2290KGS	3520KGS	3700KGS	4000KGS	4500KGS	4600KGS
7.5HP	81/4HP	81/2HP(Spindle motor:5HP),11HP(Spindle motor:7.5HP)				
2340X2130X2100mm	2480X2140X2100mm	2500X2290X2220mm	3000X2290X2220mm	2800X2290X2220mm	3250X2290X2220mm	3350x2290x2220mm