

# Metallographic Sample Preparation Equipment & Analysis Equipment



www.toptech.tw

### Corporate

### **About Top Tech**

Established in 1995, Top Tech Machines Co., Ltd. operates on four management principles: Quality, Speed, Innovation, and Responsibility. Top Tech continues to be devoted to innovation and Research & Development. Our growing staff has many years of experience in design and manufacturing.

Our experience has led to the development of the equipment that combines the highest levels of preparation quality with outstanding user-friendliness. Our machines incorporate a number of revolutionary patented features, and are sold throughout the world. Top Tech was certified with the ISO 9001 International Quality Assurance Operation System in 2003 and CE certificate, leading to further enhancement of our quality management systems. We continue to obtain international and domestic patents for our innovative products.

Our primary focus is the design, manufacture, distribution of metallographic examination & preparation equipment and related consumables. We insist on the best quality and believe in the long-term relationships with our customers. Our customer service team is trained to respond to the needs of our customers rapidly and accurately. We provide our customers with not only the optimal and the most useful equipment, but also the most professional technical support and solutions.

### **Corporate Social Responsibility**

Top Tech Machines Co., Ltd. treats the Corporate Social Responsibility as part of the corporate governance. Top Tech is the sponsor of TFCF (Taiwan Fund for Children and Families) which is the first non-profit organization in Taiwan.

TFCF provides needy children with financial assistance and opportunities to continue their education through sponsorship programs, scholarship, and emergency relief fund. The social workers track the authentic situation of each needy child and his/her family through home visitations, interviews and various activities in a regular term and provide them with services that meet their needs.

We expect that every child can be taken good care, keep away from danger, grow up in a healthy surroundings, receive proper education and develop a happy life through our assistance.





### **Vision and Value**

To create the mutual value and benefit with our customers To build the happy and sustainable team with our partners

### Innovation, Quality, Speed, Responsibility

### **Research & Development (R&D)**

• Professional R&D Team designs new products and collaborates with customers in satisfying their demands.



### Patents

• We have more than 20~30 years of experience in the field of metallography and obtain more than 45 patents worldwide. We are constantly optimizing our products for innovation, humanization, intelligent, and reliability.



## **Quality Control (QC)**

- Quality Control Management is guided by the principles of ISO 9001 and regulations of Conformite Europeenne (CE), which has been adopted to develop, implement and improve the quality control system.
- Systematic archives comprehensively storage the profile of every machine, including the drawings, pictures, customer's demands, and production history, etc.



### **3R Principles**

- Rapid- Reply within 24 hours.
- **Reliable-** Accurately meet customers' demands with good quality.
- **Responsible-** Technical support and after service.



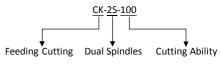
The highest mountain in Taiwan

| -        |                  |  |
|----------|------------------|--|
| TOP TECH | MACHINES CO LTD. |  |
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|          |                  |  |

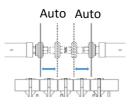


## **Dual Spindles Auto. Precision Cutting Machine**

### **ALTOCUT-CK SERIES**



- 10" HMI touch panel
- Dual spindles can cut simultaneously
- Cutting crankshaft with multiple serial cutting function and hydraulic vise (Optional)
- Dual spindles cutting can greatly lower labor force and reduce time of replacing vises
- Intelligent variable feeding rate will adjust automatically, which depends on material and hardness of specimen



Serial Cutting



Hydraulic Vise (Option)



- Suitable for long specimen (Max. 3500 mm)
- Application range: automotive, aerospace, and manufacturing industry
- Suitable for large sample, automotive parts, long specimen and crankshaft

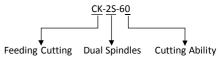
| Model                     | СК-2S-100                                |  |  |  |  |
|---------------------------|--|--|--|--|--|
|                           | Feeding Travel Distance 450 🖉            |  |  |  |  |
| Travel Distance (mm)      | Right Spindle Travel Distance 220 ↔      |  |  |  |  |
|                           | Left Spindle Travel Distance 220 ↔       |  |  |  |  |
| Motor Power               | 10HP x 2 (7500W x 2)                     |  |  |  |  |
| Cutting Ability Max. (mm) | Max. Ø100                                |  |  |  |  |
| Cut-Off Blade (mm)        | Max. Ø406 x Ø31.75 (Ø32 )                |  |  |  |  |
| Feeding Rate (mm/s)       | 0.001~50                                 |  |  |  |  |
| Rotational Speed (rpm)    | 2500 rpm (60Hz)±50% (1250~3750 rpm)      |  |  |  |  |
| Rotational Speed (Ipin)   | 2100 rpm (50Hz)±50% (1050~3150 rpm)      |  |  |  |  |
|                           | 6 modes, including multiple serial       |  |  |  |  |
| Feeding Method            | cutting modes and pulse cutting function |  |  |  |  |
|                           | Manual: Electric hand wheel              |  |  |  |  |
| Size of T-Slot Table (mm) | 500 x 438                                |  |  |  |  |
| Machine Dimension         | 2180-1720-2000                           |  |  |  |  |
| WxDxH (mm)                | 3180x1730x2000                           |  |  |  |  |
| Machine Weight (kg)       | 3000                                     |  |  |  |  |
| Power Supply (V)          | AC 220V/380V/415V/440V 3Ø                |  |  |  |  |
|                           | (special voltage can be customized)      |  |  |  |  |



Automatically cutting and simultaneously cutting for dual spindles

## **Dual Spindles Precision Cutting Machine**

### **ALTOCUT-CK SERIES**



- 7" HMI touch panel
- Dual spindles cutting simultaneously
- Automatic hydraulic vise (Optional)
- Greatly lower labor force and time
- Intelligent operation for cutting which is convenient and fast
- Left and right spindle movement can be adjusted electrically



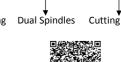


- Suitable for long specimen (Max. 480mm)
- Application range: automotive, aerospace, and manufacturing industry
- Suitable for large sample, automotive parts, long specimen and crankshaft

| Model                     | CK-2S-60                                |                              |           |  |  |  |
|---------------------------|---|------------------------------|-----------|--|--|--|
|                           | Feeding Travel Distance                 |                              | 260 🖉     |  |  |  |
| Travel Distance (mm)      | <b>Right Spind</b>                      | e Travel Distance            | 200 ↔     |  |  |  |
|                           | Left Spindle                            | Travel Distance              | 200 ↔     |  |  |  |
| Motor Power               |   | 3HP x 2 (2250)               | W x 2)    |  |  |  |
| Cutting Ability Max. (mm) |   | Max. Ø60                     | )         |  |  |  |
| Cut-Off Blade (mm)        |   | Max. Ø305 x Ø31.             | 75 (Ø32 ) |  |  |  |
| Feeding Rate (mm/s)       |   | 0.01~5                       |           |  |  |  |
| Rotational Speed (rpm)    | 3000rpm (60Hz) or 2500rpm (50Hz)        |                              |           |  |  |  |
|                           | Control by touch panel                  |                              |           |  |  |  |
| Feeding Method            | Auto: Automatic home point return after |                              |           |  |  |  |
|                           |   | cutting                      |           |  |  |  |
|                           | Manual:                                 | nual: Control by touch panel |           |  |  |  |
| Size of T-Slot Table (mm) |   | 480x305                      |           |  |  |  |
| Machine Dimension         | 2450, 1200, 1700                        |                              |           |  |  |  |
| WxDxH (mm)                | 2450x1300x1700                          |                              |           |  |  |  |
| Machine Weight (kg)       | 1500                                    |                              |           |  |  |  |
| Power Supply (V)          | AC 220V/380V/415V/440V 3Ø               |                              |           |  |  |  |
|                           | (special voltage can be customized)     |                              |           |  |  |  |



Sample after cutting

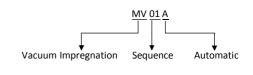






## **Intelligent Vacuum Impregnation**

### **PRESIDON-MV SERIES**



- Intelligent Automatic Machine with intuitive HMI touch panel
- Up to ninety-nine degassing circles and adjustable time as well as pressure
- 8 memory modes for application
- Flexible and convenient epoxy inhalation design and maximizing the chamber utilization
- Suitable for IC, electronic component, PCB and other samples, which are SENSITIVE to high temperature, high pressure and fragile



| Model                        | MV01A                      | MV02A                    |  |  |
|------------------------------|----------------------------|--------------------------|--|--|
|                              | -600 mm-Hg                 | -500 mm-Hg               |  |  |
| Max Vacuum Proceuro          | (-0.799 bar/-79.993 kpa/ - | (-0.666 bar/-66.661 kpa/ |  |  |
| Max. Vacuum Pressure         | 11.602 psi)                | -9.668 psi)              |  |  |
|                              | Can be customized b        | oetween -350~-600        |  |  |
| Vacuum Pump Motor Power (W)  | 180                        |                          |  |  |
| Pump Flow (L/min)            | 50                         |                          |  |  |
| Vacuum Chamber Size (mm)     | 300x330x300                | Ø180x160                 |  |  |
| Pressure Relief Method       | Program                    | nmable                   |  |  |
| Machine Dimension WxDxH (mm) | 540x550x560                | 390x400x410              |  |  |
| Machine Weight (kg)          | 45                         | 20                       |  |  |
| Pump Dimension WxDxH (mm)    | 155x235x210                |                          |  |  |
| Pump Weight (kg)             | 7                          |                          |  |  |
| Power Supply (V)             | AC 110/2                   | 20V 1Ø                   |  |  |



Sample after cold mounting

## **Hydraulic Automatic Mounting Press**

### **PRESIDON-ML SERIES**

• Silent type – 52dB for up and down of the hydraulic cylinder

W

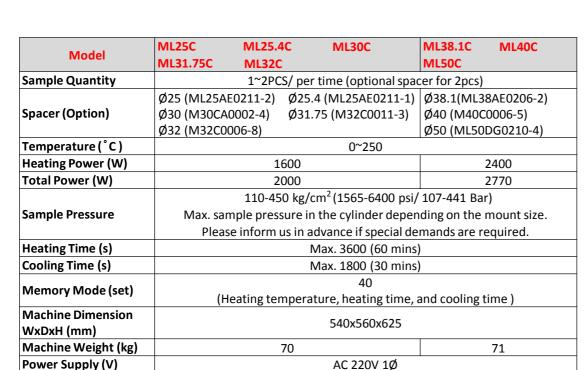
• High-strength top cover

ML25C

- 40 memory modes for application
- 'One touch' finishes the whole procedures of pressure adding, heating, and cooling

Patent

• Suitable for metal, ceramic and other samples, which are NOT sensitive to high temperature, high pressure and non-fragile





ML 25 C



Easy for maintenance



The screw thread fixture

Top Tech reserves all the rights to change design without notice.



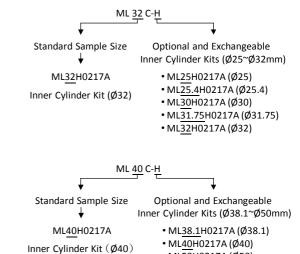
# **Hydraulic Automatic Mounting Press**

**PRESIDON-ML SERIES** 

Patent

- Rapidly replacing mounting size design
- A range of selectable sizes for inner cylinder kits
- Silent type 52dB for up and down of the hydraulic cylinder
- High-strength top cover
- 40 memory modes for application
- 'One touch' finishes the whole procedures of pressure adding, heating, and cooling
- Suitable for metal, ceramic and other samples, which are NOT sensitive to high temperature, high pressure and non-fragile





• ML50H0217A (Ø50)

| Mardal               | ML25C-H   | ML25.4C-H         | ML30C-H                      | ML38.1C-H       | ML40C-H    |  |
|----------------------|---|-------------------|------------------------------|-----------------|------------|--|
| Model                | ML31.75C-H  | ML32C-H           |                              | ML50C-H         |            |  |
| Option: cylinder kit | ML25H0217A  | ML25.4H02174      | ML30H0217A                   | ML38.1H0217A    | ML40H0217A |  |
| set (inner cylinder, | ML31.75H0217A   | ML32H0217A        |                              | ML50H0217A      |            |  |
| upper & lower ram)   |   | Special spec      | ification can be o           | customized      |            |  |
| Sample Quantity      |   | 1~2PCS/ per t     | ime (optional spa            | acer for 2pcs)  |            |  |
|                      | Ø25 (ML25AE021  | .1-2) Ø25.4 (I    | VL25AE0211-1)                | Ø38.1(ML38A     | E0206-2)   |  |
| Spacer (Option)      | Ø30 (M30CA0002  | 2-4) Ø31.75       | (M32C0011-3)                 | Ø40 (M40C000    |            |  |
|                      | Ø32 (M32C0006-  | 8)                |                              | Ø50 (ML50DG     | 0210-4)    |  |
| Temperature (°C )    |   |                   | 0~250                        |                 |            |  |
| Heating Power (W)    |   | 1600              | 2400                         |                 |            |  |
| Total Power (W)      |   | 2000              |                              | 2770            |            |  |
|                      |   | 110-450 kg/cm     | <sup>2</sup> (1565-6400 psi, | / 107-441 Bar)  |            |  |
| Sample Pressure      | Max. samp   | ole pressure in t | he cylinder depe             | nding on the mo | unt size.  |  |
|                      | Please  | inform us in ad   | vance if special d           | emands are requ | ired.      |  |
| Heating Time (s)     |   | М                 | ax. 3600 (60 min             | s)              |            |  |
| Cooling Time (s)     |   | М                 | ax. 1800 (30 min             | s)              |            |  |
| Memory Mode (set)    | 40  |                   |                              |                 |            |  |
| welliory would (set) | (Heating temperature, heating time and cooling time ) |                   |                              |                 |            |  |
| Machine Dimension    | 540x560x625   |                   |                              |                 |            |  |
| WxDxH (mm)           |   |                   | 34083008023                  |                 |            |  |
| Machine Weight (kg)  |   | 70                |                              | 7               | 1          |  |
| Power Supply (V)     |   |                   | AC 220V 1Ø                   |                 |            |  |





Sample after mounting

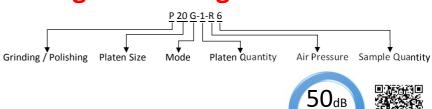


ML 25 C-H

# **Precision Air-Pressure Grinding & Polishing**

### **PLATO-R SERIES**







- 7" HMI touch panel
- Individual force (Standard)
- Individual micro force (Optional)
- Central force (Optional)
- Variable rotational speed and adjustable rotational direction for platens and head
- 10 memory modes for recording of application parameters

Silent Type

 Automatic and programmable dispenser (Optional)

| Model                                 | P20G-1-R6  | P20G-1-R3       | P25G-1-R6       | P25G-1-R3       | P25G-1-R4     |  |
|---------------------------------------|--|-----------------|-----------------|-----------------|---------------|--|
| Platen Size (mm)                      | Ø203.2   | 2 (8")          | Ø254 (10")      |                 |               |  |
| Platen Quantity                       |  |                 | 1               |                 |               |  |
|                                       | Ø25mm, Ø25.  | .4mm,           | Ø25mm, Ø25      | 5.4mm, Ø31.7    | 5mm,          |  |
|                                       | Ø31.75mm, Ø  | 32mm/6pcs       | Ø32mm/6pc       | S               |               |  |
| Sample Size / Quantity                | Ø38.1mm,Ø4   | 0mm/3pcs        | Ø38.1mm, Ø      | 40mm/3 or 4     | ocs           |  |
|                                       |  |                 | Ø50mm/4pc       | S               |               |  |
| Individual Force                      | 0.5~2kg 6  | pcs, O          | .5~4kg 3 pcs,   | 0.5~6           | okg 2 pcs,    |  |
| Max. Grinding Quantity                |  | Ma              | ax. 12kg in tot |                 |               |  |
| Precision Individual Micro Force (kg) |  | 0.              | 2~1 (Optional   | )               |               |  |
| Central Force (kg)                    |  | 3'              | ~12 (Optional   | )               |               |  |
| Platen Motor Power (W)                | 400  |                 |                 |                 |               |  |
| Platen Rotational Speed (rpm)         |  |                 | 1~600           |                 |               |  |
| Head Motor Power (W)                  | 50   |                 |                 |                 |               |  |
| Head Rotational Speed (rpm)           |  |                 | 10~170          |                 |               |  |
| Timer                                 |  | 1~3600          | 00s (Max. 600   | 0mins)          |               |  |
| Machine Dimension WxDxH (mm)          |  |                 | 635x698x670     |                 |               |  |
| Machine Weight (kg) AC110V 1Ø         | 73   | 3               |                 | 74              |               |  |
| Machine Weight (kg) AC220V 1Ø         | 63   | 3               |                 | 64              |               |  |
|                                       | Polishing Plate  | en 1pc, Anti-S  | plash Cover 2   | pcs, Silicon Ca | rbide Paper   |  |
| Standard Accessories                  | 8 pcs, Polishin  | g Cloth 2pcs, J | Aluminum Ox     | ide Powder 10   | 00g, Filter 1 |  |
|                                       | set, PU Pipes 6m, Dispenser 1 pc, Air Pressure Gun 1set        |                 |                 |                 |               |  |
|                                       | P20F0030 Disp  | oenser Set, PA  | 0108-1 8" An    | ti-Splash Cove  | er (Manual),  |  |
| Option                                | PA0108 10" Anti-Splash Cover (Manual), PA0108-3 8" Anti-Splash |                 |                 |                 |               |  |
|                                       | Cover (Auto), I  |                 |                 | Cover (Auto), P | A0108-2       |  |
|                                       | Anti-Splash Co   | ver (Full-Cove  | er)             |                 |               |  |



Sample after grinding & polishing

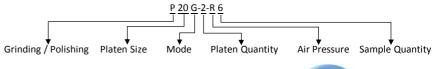


Anti-Splash Cover (Full-Cover)



# **Precision Air-Pressure Grinding & Polishing**

### **PLATO-R SERIES**



### Patent





- 7" HMI touch panel
- Individual force (Standard)
- Dual platens for flexible operation
- Individual micro force (Optional)
- Central force (Optional)
- Variable rotational speed and adjustable rotational direction for platens and head
- 10 memory modes for recording of application parameters
- Automatic and programmable dispenser (Optional)

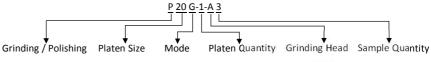
| Model                                 | P20G-2-R6                   | P20G-2-R3       | P25G-2-R6        | P25G-2-R3      | P25G-2-R4    |  |
|---------------------------------------|-----------------------------|-----------------|------------------|----------------|--------------|--|
| Platen Size (mm)                      | Ø203                        | .2 (8")         |                  | Ø254 (10")     |              |  |
| Platen Quantity                       |                             |                 | 2                |                |              |  |
|                                       | Ø25mm, Ø25                  | .4mm,           | Ø25mm, Ø25       | 5.4mm, Ø31.7   | 75mm,        |  |
|                                       | Ø31.75mm, Ø                 | ð32mm/6pcs      | Ø32mm/6pc        | S              |              |  |
| Sample Size / Quantity                | Ø38.1mm, Ø4                 | 40mm/3pcs       | Ø38.1mm, Ø       | 40mm/3 or 4    | pcs          |  |
|                                       |                             |                 | Ø50mm/4pc        | S              |              |  |
| Individual Force                      | 0.5~2kg 6                   | pcs, 0.         | .5~4kg 3 pcs,    | 0.5~6          | ikg 2 pcs,   |  |
| Max. Grinding Quantity                |                             | Ma              | x. 12kg in tota  | al             |              |  |
| Precision Individual Micro Force (kg) |                             | 0.2             | 2~1 (Optional    | )              |              |  |
| Central Force (kg)                    |                             | 3^              | 12 (Optional)    | )              |              |  |
| Platen Motor Power (W)                |                             |                 | 400              |                |              |  |
| Platen Rotational Speed (rpm)         |                             |                 | 1~600            |                |              |  |
| Head Motor Power (W)                  |                             |                 | 50               |                |              |  |
| Head Rotational Speed (rpm)           |                             |                 | 10~170           |                |              |  |
| Timer                                 |                             | 1~36000         | 00s (Max. 600    | Omins)         |              |  |
| Machine Dimension WxDxH (mm)          |                             | ç               | 955x698x670      |                |              |  |
| Machine Weight (kg) AC110V 1Ø         | 9                           | 99              |                  | 101            |              |  |
| Machine Weight (kg) AC220V 1Ø         | 8                           | 39              |                  | 91             |              |  |
|                                       | <b>Grinding</b> Plate       | en 1pc, O-Ring  | 1pc, Polishing   | Platen 1pc, A  | nti-Splash   |  |
| Standard Accessories                  | Cover 4pcs, Si              | licon Carbide P | aper 8 pcs, Po   | olishing Cloth | 2pcs,        |  |
| Stanuaru Accessories                  | Aluminum Ox                 | ide Powder 100  | Og, Filter 1 set | ., PU Pipes 6r | n, Dispenser |  |
|                                       | 1 pc, Air Pressure Gun 1set |                 |                  |                |              |  |
|                                       |                             | penser Set, PA  |                  |                |              |  |
| Option                                |                             | nti-Splash Cove |                  |                | •            |  |
|                                       |                             | PA0108-4 10"    |                  | over (Auto), P | A0108-2      |  |
|                                       | Anti-Splash Co              | over (Full-Cove | r)               |                |              |  |



Dispenser (Optional)

## **Precision Automatic Grinding & Polishing**

### **PLATO-HA SERIES**



### Patent

- Exchangeable grinding head of A, B, and C type
- Adjustable rotational speed of both head and platen
- Multiple choices of platen application, and able to employ diamond discs (Optional) ensuring the flatness
- Compatible with dispenser (Optional)







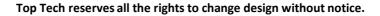


A Type Individual force

B Type Individual force Ce with calibration with

**C Type** Central force with calibration

|                               | P20G-1-A3   | P20G-1-B3  | P20G-1-C3                            | P25G-1-A3           | P25G-1-B3                               | P25G-1-C3                            |  |
|-------------------------------|---|--|--------------------------------------|---------------------|---|--------------------------------------|--|
| Model                         | P20G-1-A5   | P20G-1-B5  | P20G-1-C4                            | P25G-1-A5           | P25G-1-B5                               | P25G-1-C4                            |  |
| Platen Size (mm)              |   | Ø203.2 (8")  |                                      | Ø254 (10")          |   |                                      |  |
| Platen Quantity               |   | , , ,  | 1                                    | L                   | , , ,                                   |                                      |  |
| Grinding Method               | Individual<br>force   | Individual<br>force with<br>calibration                              | Central<br>force with<br>calibration | Individual<br>force | Individual<br>force with<br>calibration | Central<br>force with<br>calibration |  |
| Grinding Quantity (pcs)       | 3 (   | or 5   | 3 or 4                               | 3 (                 | or 5                                    | 3 or 4                               |  |
| Sample Size (mm)              | Ø25/Ø32/Ø40<br>(Special sample size can<br>be customized)   |  | Ø15~Ø32<br>Ø20~Ø40                   | (Special san        | 32/Ø40<br>nple size can<br>omized)      | Ø15~Ø32<br>Ø20~Ø40                   |  |
| Force (kg)                    | 1.4~5   |  | 3~5                                  | 1.4~5               |   | 3~5                                  |  |
| Platen Motor Power (W)        | 400   |  |                                      |                     |   |                                      |  |
| Platen Rotational Speed (rpm) |   | 1~600 (  | Effective Rota                       | tional Speed        | 10~600)                                 |                                      |  |
| Head Motor Power (W)          |   |  | 5                                    | 0                   |   |                                      |  |
| Head Rotational Speed (rpm)   |   |  | 10~                                  | 170                 |   |                                      |  |
| Timer (min: s)                |   |  | 99:                                  | :59                 |   |                                      |  |
| Machine Dimension WxDxH (mm)  |   |  | 552x69                               | 98x670              |   |                                      |  |
| Machine Weight (kg) AC110V 1Ø |   | 69   |                                      |                     | 70                                      |                                      |  |
| Machine Weight (kg) AC220V 1Ø |   | 59   |                                      |                     | 60                                      |                                      |  |
| Standard Accessories          | Polishing Platen 1pc, Anti-Splash Cover 2 pcs, Silicon Carbide Paper 8 pcs,<br>Polishing Cloth 2pcs, Aluminum Oxide Powder 100g, Filter 1 set, 500g Dispenser<br>1 pc, Leveler (C type) |  |                                      |                     |   |                                      |  |
| Option                        | PA0108-1 8"<br>PA0108-3 8"  | spenser Set fo<br>Anti-Splash Co<br>Anti-Splash Co<br>ti-Splash Cove | over (Manual),<br>over (Auto), PA    | , PA0108 10" /      | Anti-Splash Co                          | ver (Manual),                        |  |





## **Precision Automatic Grinding & Polishing**

### **PLATO-HA SERIES**

• Dual platens for flexible operation

• Compatible with dispenser (Optional)

Patent

Grinding / Polishing Platen Size Mode Pla

<u>P 20 G-2-A 3</u>

Platen Quantity Grinding Head Sample Quantity







• Exchangeable grinding head of A, B, and C type

diamond discs (Optional) ensuring the flatness

• Adjustable rotational speed of both head and platens

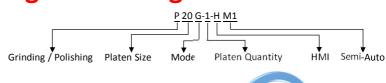
• Multiple choices of platen application, and able to employ

Sample after grinding & polishing

|                               | P20G-2-A3   | P20G-2-B3                               | P20G-2-C3                            | P25G-2-A3                        | P25G-2-B3   | P25G-2-C3                            |
|-------------------------------|---|---|--------------------------------------|----------------------------------|---|--------------------------------------|
| Model                         | P20G-2-A5   | P20G-2-B5                               | P20G-2-C4                            | P25G-2-A5                        | P25G-2-B5   | P25G-2-C4                            |
| Platen Size (mm)              |   | Ø203.2 (8")                             |                                      | Ø254 (10")                       |   |                                      |
| Platen Quantity               |   |   | 2                                    | 2                                |   |                                      |
| Grinding Method               | Individual<br>force   | Individual<br>force with<br>calibration | Central<br>force with<br>calibration | Individual<br>force              | Individual<br>force with<br>calibration                   | Central<br>force with<br>calibration |
| Grinding Quantity (pcs)       | 3 (   | or 5                                    | 3 or 4                               | 3 (                              | or 5  | 3 or 4                               |
| Sample Size (mm)              | (Special san  | 32/Ø40<br>nple size can<br>omized)      | Ø15~Ø32<br>Ø20~Ø40                   | (Special san                     | Ø25/Ø32/Ø40<br>(Special sample size can<br>be customized) |                                      |
| Force (kg)                    | 1.4   | l~5                                     | 3~5                                  | 1.4                              | l~5   | 3~5                                  |
| Platen Motor Power (W)        |   |   | 4(                                   | 00                               |   |                                      |
| Platen Rotational Speed (rpm) |   | (Effe                                   |                                      | 500<br>hal Speed 10~             | 600)  |                                      |
| Head Motor Power (W)          |   |   | 5                                    | 0                                |   |                                      |
| Head Rotational Speed (rpm)   |   |   | 10~                                  | 170                              |   |                                      |
| Timer (min: s)                |   |   | 99:                                  | :59                              |   |                                      |
| Machine Dimension WxDxH (mm)  |   |   | 872x69                               | 98x670                           |   |                                      |
| Machine Weight (kg) AC110V 1Ø |   | 96                                      |                                      |                                  | 98  |                                      |
| Machine Weight (kg) AC220V 1Ø |   | 86                                      |                                      |                                  | 88  |                                      |
| Standard Accessories          | Grinding Platen 1pc, O-Ring 1pc, Polishing Platen 1pc, Anti-Splash Cover 4pcs,<br>Silicon Carbide Paper 8 pcs, Polishing Cloth 2pcs, Aluminum Oxide Powder 100g,<br>Filter 1 set, 500g Dispenser 1 pc, Leveler (C type) |   |                                      |                                  |   |                                      |
| Option                        | PA0108-1 8"<br>(Manual), PA   | Anti-Splash Co                          | over (Manual)<br>i-Splash Cover      | , PA0108 10" /<br>r (Auto), PA01 | penser Set for<br>Anti-Splash Co<br>08-4 10" Anti-        | ver                                  |

## **Precision HMI Manual Grinding & Polishing**

### **PLATO-E SERIES**



45<sub>dB</sub>

### Patent

- 7" HMI touch panel
- Flexible and modularized control box maximizing the space utilization
- Retractable water hose, rinse and spin, and CW/ CCW control
- Employing diamond discs (Optional) ensuring the flatness
- Automatic and programmable dispenser (Optional)
- Safe and convenient grinding arm suitable for various samples



### P20G-1-HM1

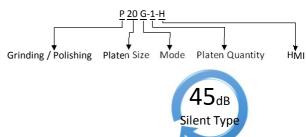
### P20G-2-HM1

| Model                         | P20G-1-HM1   | P25G-1-HM1      | P20G-2-HM1        | P25G-2-HM1   |  |  |
|-------------------------------|--|-----------------|-------------------|--|--|--|
| Platen Size (mm)              | Ø203.2 (8")  | Ø254 (10")      | Ø203.2 (8")       | Ø254 (10")   |  |  |
| Platen Quantity               | 1 2  |                 |                   |  |  |  |
| Grinding Method               |  | Manual (Auxilia | ry Sample Holder) |  |  |  |
| Grinding Quantity             |  |                 | 1                 |  |  |  |
| Sample Size (mm)              |  | Ø25/Ø32         | /Ø40/Ø50          |  |  |  |
| Platen Motor Power (W)        |  | 4               | 00                |  |  |  |
| Platen Rotational Speed (rpm) |  | 1~              | 600               |  |  |  |
| Machine Dimension WxDxH (mm)  | 552x69   | 98x593          | 872x69            | 872x698x593  |  |  |
| Machine Weight (kg) AC110V 1Ø | 57   | 58              | 86                | 88   |  |  |
| Machine Weight (kg) AC220V 1Ø | 47   | 48              | 76                | 78   |  |  |
| Standard Accessories          | Polishing Platen 1pc, Anti-Splash CoverGrinding Platen 1 pc, O-Ring 12 pcs, Silicon Carbide Paper 8 pcs,Polishing Cloth 2pcs, Aluminum OxidePolishing Platen 1 pc, Anti-SplashPowder 100g, Filter 1 set, 500gPowder 100g, Filter 1 set, 500gPowder 100g, Filter 1 set, 500gDispenser 1 pcPowder 100g, Filter 1 set, 500gDispenser 1 pc |                 |                   | c, Anti-Splash Cover<br>e Paper 8 pcs,<br>, Aluminum Oxide |  |  |
| Option                        | P20F0030 Dispenser Set, PA0108-1 8" Anti-Splash Cover (Manual), PA0108 10"<br>Anti-Splash Cover (Manual), PA0108-3 8" Anti-Splash Cover (Auto), PA0108-4 10"<br>Anti-Splash Cover (Auto), PA0108-2 Anti-Splash Cover (Full-Cover)  |                 |                   |  |  |  |



## **Precision HMI Manual Grinding & Polishing**

### **PLATO-E SERIES**



### Patent

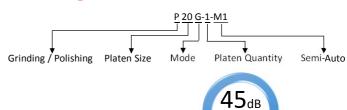
- 7" HMI touch panel
- Flexible and modularized control box maximizing the space utilization
- Superior industrial plastic body
- Retractable water hose, rinse and spin, and CW/ CCW control
- Multiple choices of platen application, and able to employ diamond discs (Optional) ensuring the flatness
- Automatic and programmable dispenser (Optional)



| Model  | P20G-1-H   | P25G-1-H                          | P20G-2-H                            | P25G-2-H                   |  |  |
|--|--|-----------------------------------|-------------------------------------|----------------------------|--|--|
| Platen Size (mm)   | Ø203.2 (8")  | Ø254 (10")                        | Ø203.2 (8")                         | Ø254 (10")                 |  |  |
| Platen Quantity  | 1 2  |                                   |                                     |                            |  |  |
| Grinding Method  |  | Mai                               | nual                                |                            |  |  |
| Platen Motor Power (W)                                     |  | 40                                | 00                                  |                            |  |  |
| Platen Rotational Speed (rpm)                              |  | 1~6                               | 500                                 |                            |  |  |
| Machine Dimension WxDxH (mm)                               | 552x69   | 98x572                            | 872x698x572                         |                            |  |  |
| Machine Weight (kg) AC110V 1Ø                              | 46   | 47                                | 75                                  | 77                         |  |  |
| Machine Weight (kg) AC220V 1Ø                              | 36   | 37                                | 65                                  | 67                         |  |  |
|  | Polishing Platen 1   | pc, Anti-Splash                   | <b>Grinding Platen 1</b>            | pc, O-Ring 1pc,            |  |  |
|  | Cover 1 pc, Silicor  | n Carbide Paper 8                 | Polishing Platen 1pc, Anti-Splash   |                            |  |  |
| Standard Accessories                                       | pcs, Polishing Clo   | th 2pcs,                          | Cover 2pcs, Silicon Carbide Paper 8 |                            |  |  |
| Standard Accessories                                       | Aluminum Oxide   | minum Oxide Powder 100g,          |                                     | pcs, Polishing Cloth 2pcs, |  |  |
|  | Filter 1 set, 500g   | Dispenser 1 pc                    | Aluminum Oxide Powder 100g,         |                            |  |  |
|  |  | Filter 1 set, 500g Dispenser 1 pc |                                     |                            |  |  |
| P20F0030 Dispenser Set, PA0108-1 8" Anti-Splash Cover (Mar |  |                                   |                                     |                            |  |  |
| Option   | PA0108 10" Anti-Splash Cover (Manual), PA0108-3 8" Anti-Splash Cover |                                   |                                     |                            |  |  |
|  | (Auto), PA0108-4 10" Anti-Splash Cover (Auto)                        |                                   |                                     |                            |  |  |

## **Precision Manual Grinding & Polishing**

### **PLATO-E SERIES**



ilent Typ

### Patent

- Flexible and modularized control box maximizing the space utilization
- Retractable water hose, rinse and spin, and CW/ CCW control
- Employing diamond discs (Optional) ensuring the flatness
- Compatible with dispenser (Optional)
- Safe and convenient grinding arm suitable for various samples



### P20G-1-M1

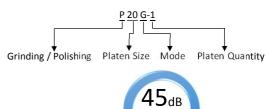
P20G-2-M1

| Model                         | P20G-1-M1   | P25G-1-M1             | P20G-2-M1                            | P25G-2-M1             |  |  |
|-------------------------------|---|-----------------------|--------------------------------------|-----------------------|--|--|
| Platen Size (mm)              | Ø203.2 (8")   | Ø254 (10")            | Ø203.2 (8")                          | Ø254 (10")            |  |  |
| Platen Quantity               |   |                       |                                      |                       |  |  |
| Grinding Method               |   | Manual (Auxilia       | y Sample Holder)                     |                       |  |  |
| Grinding Quantity             |   |                       | 1                                    |                       |  |  |
| Sample Size (mm)              |   | Ø25/Ø32,              | /Ø40/Ø50                             |                       |  |  |
| Platen Motor Power (W)        |   | 40                    | 00                                   |                       |  |  |
| Platen Rotational Speed (rpm) |   |                       | 500                                  |                       |  |  |
|                               |   | (Effective Rotatio    | nal Speed10~600)                     |                       |  |  |
| Machine Dimension WxDxH (mm)  | 552x69  | 98x593                | 872x698x593                          |                       |  |  |
| Machine Weight (kg) AC110V 1Ø | 57  | 58                    | 86                                   | 88                    |  |  |
| Machine Weight (kg) AC220V 1Ø | 47  | 48                    | 76                                   | 78                    |  |  |
|                               | Polishing Platen 1p   |                       | Grinding Platen 1 p                  |                       |  |  |
|                               | Cover 2 pcs, Silicon  | •                     | Polishing Platen 1 p                 | oc, Anti-Splash       |  |  |
| Standard Accessories          | pcs, Polishing Cloth  | • •                   | Cover 4 pcs, Silicon Carbide Paper 8 |                       |  |  |
|                               | Oxide Powder 100g   | g, Filter 1 set, 500g | pcs, Polishing Cloth                 | 2pcs, Aluminum        |  |  |
|                               | Dispenser 1 pc  |                       | Oxide Powder 100g                    | g, Filter 1 set, 500g |  |  |
|                               | Dispenser 1 pc  |                       |                                      |                       |  |  |
|                               | P20F0027 Dispenser Set for One Bottle, P20F0028 Dispenser Set for Four  |                       |                                      |                       |  |  |
| Option                        | Bottles, PA0108-1 8" Anti-Splash Cover (Manual), PA0108 10" Anti-Splash |                       |                                      |                       |  |  |
|                               |   | •                     | sh Cover (Auto), PA                  |                       |  |  |
|                               | Splash Cover (Auto), PA0108-2 Anti-Splash Cover (Full-Cover)            |                       |                                      |                       |  |  |



# **Precision Manual Grinding & Polishing**

### **PLATO-E SERIES**



ilent Typ

### Patent

- Flexible and modularized control box maximizing the space utilization
- Superior industrial plastic body
- Retractable water hose, rinse and spin, and CW/ CCW control
- Multiple choices of platen application, and able to employ diamond discs (Optional) ensuring the flatness
- Compatible with dispenser (Optional)



| Model                         | P20G-1   | P25G-1     | P20G-2                              | P25G-2     |
|-------------------------------|--|------------|-------------------------------------|------------|
| Platen Size (mm)              | Ø203.2 (8")  | Ø254 (10") | Ø203.2 (8")                         | Ø254 (10") |
| Platen Quantity               | 1 2  |            |                                     |            |
| Grinding Method               | Manual   |            |                                     |            |
| Platen Motor Power (W)        | 400  |            |                                     |            |
| Platen Rotational Speed (rpm) | 1~600  |            |                                     |            |
|                               | (Effective Rotational Speed 10~600)                                |            |                                     |            |
| Machine Dimension WxDxH (mm)  | 552x698x572  |            | 872x698x572                         |            |
| Machine Weight (kg) AC110V 1Ø | 46   | 47         | 75                                  | 77         |
| Machine Weight (kg) AC220V 1Ø | 36   | 37         | 65                                  | 67         |
| Standard Accessories          | Polishing Platen 1pc, Anti-Splash Grinding Platen 1pc, O-Ring 1pc, |            | pc, O-Ring 1pc,                     |            |
|                               | Cover 1 pc, Silicon Carbide Paper 8                                |            | Polishing Platen 1pc, Anti-Splash   |            |
|                               | pcs, Polishing Cloth 2pcs,   |            | Cover 2pcs, Silicon Carbide Paper 8 |            |
|                               | Aluminum Oxide Powder 100g,  |            | pcs, Polishing Cloth 2pcs,          |            |
|                               | Filter 1 set, 500g Dispenser 1 pc                                  |            | Aluminum Oxide Powder 100g,         |            |
|                               | Filter 1 set, 500g Dispenser 1 pc                                  |            | Dispenser 1 pc                      |            |
| Option                        | P20F0027 Dispenser Set for One Bottle, P20F0028 Dispenser Set for  |            |                                     |            |
|                               | Four Bottles, PA0108-1 8" Anti-Splash Cover (Manual), PA0108 10"   |            |                                     |            |
|                               | Anti-Splash Cover (Manual), PA0108-3 8" Anti-Splash Cover (Auto),  |            |                                     |            |
|                               | PA0108-4 10" Anti-Splash Cover (Auto)                              |            |                                     |            |

## **Professional Metallographic Product Lines**

### **Cutting Machines**



| Model             | Туре   |
|-------------------|--|
| PRECISO-CL SERIES | Bench Top Precision Diamond Saw                    |
| ALTOCUT-CK SERIES | Universal Floor Standing Precision Cutting Machine |
| ALTOCUT-CF SERIES | High Capacity Precision Cutting Machine            |

### **Mounting Machines**



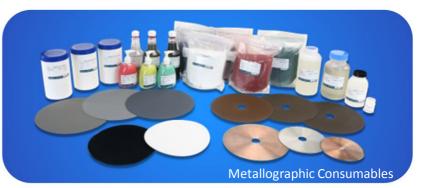
| Model              | Application Range   |  |
|--------------------|---|--|
| PRESIDON-ML SERIES | Thermostable, High Pressure Resistant and Non Fragile (Hot Mounting Press)    |  |
| PRESIDON-MV SERIES | Heat Sensitive, Non High Pressure Resistant and Fragile (Vacuum Impregnation) |  |



### **Grinding and Polishing Machines**



| Model           | Grinding/Polishing Method   |
|-----------------|-----------------------------|
| PLATO-E SERIES  | Manual                      |
| PLATO-HA SERIES | Automatic with Spring Force |
| PLATO-R SERIES  | Automatic with Air-Pressure |



### **Application Range**

| Transportation               | : Airplane, Automobile, Vehicle, Train, Bicycle, etc.  |
|------------------------------|--|
| Hardware                     | : Screws, Nut, Fasteners, Nails, etc.  |
| Hand tool                    | : Saw, Spanner, Hammer, Screwdriver, Gardening tools , etc.  |
| Transportation tool          | : Hanging rings, Chain, etc.   |
| Machine components           | : Bearing, Spindle, Gear, Motor, etc.  |
| Raw materials                | : Wires, Forging, Cast sample, Weldment, Pipe materials, etc.  |
| <b>Electronic industries</b> | : 3C product, PCB panel, Smart phones, Computer, Wafer, Electronic components , etc.                 |
| Compound materials           | : Cermet, Plastic, Specific metals, alloy, and so on: Quench, Normalization, Nitration, Vacuum, etc. |
| Heat-treatment industry      | : Quench, Normalization, Nitration, Vacuum, etc.   |
| Cutting tool                 | : Cutting tool, Drill, Molds, etc.   |
| Research unit                | : Material research and development, Abnormal test and tracing, etc.                                 |
| Medical Equipment            | : Teeth, Dental appliance, Bone, Artificial joints, Catheters, etc.                                  |
| Others                       | : Sports equipment, Racket, Golf head, Surface treatment, Electroplated, etc.                        |

### The components with the concern about quality, lifespan or safety need to be tested.

# **Worldwide Locations**





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EB0-NM01