

# ENDO-TECH

Since 2017



**Product Catalog**  
**2022~2023**



Factory direct sales



professional after-sales



quality assurance



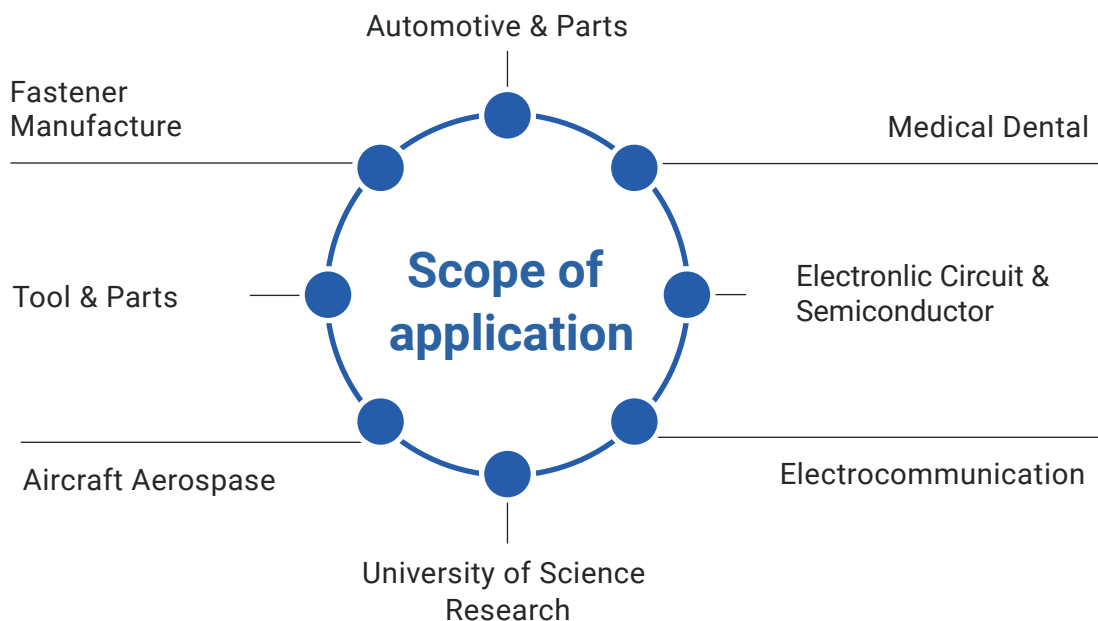
support customization

## COMPANY PROFILE

Endo-Tech Buczma Wiśniewski Spółka Jawna is the supplier of professional solutions for qualitative testing for the industry. Since 2011, the owners of the company have been offering products and solutions from leading global manufacturers only, supplying off-the-shelf and customized items. In 2017, the company converted into an unlimited company.

In 2019, we entered into cooperation with Trojan, a manufacturer of equipment and consumables. Since 2005, Trojan has manufactured and supplied top-tier metallography products.

The current potential of the company consists of 4500m<sup>2</sup> of production and storage space, an in-house laboratory and a R&D department. The company delivers its products and solutions worldwide.



Provide Comprehensive Metallographic Analysis Solutions

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## SECTIONING

Cutting is the first step of material analysis. The selection of cutting machine and cutting wheel must comply with the geometric size and material characteristics of the sample. The perfect metallographic cutting should avoid microstructure thermal damage and deformation, and preserve the necessary accuracy and efficiency.

Hardness and ductility are the two main parameters for selecting the cutting wheel. The best choice of the cutting wheel depends on the size, hardness and ductility of the material and the equipment used. Trojan's cutting products speak with facts and the cutting process is simple, fast and accurate.

Beta 300 Pro  
(page 11~12)

New!



Beta 400MA  
(page 13~14)

New!



TableCUT 200  
(page 08)

New!



CT-250S  
(page 10)



CT-2300  
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Cut Off Wheels  
(page 15~19)



## TableCUT 200 Automatic Saw

**TableCUT 200** is suitable for cutting samples of various metal materials, printed circuit board, Semiconductor, crystal, ceramic, quartz glass and petrography samples.



### Features

- 5 inch touch screen, automatic program control, handy, intuitive and convenient;
- Manual or automatic cutting model;
- Fully closed cutting process, safe and reliable;
- the cutting speed is 0.05-5mm/s;
- With line laser, intuitive prediction of sample cutting route;
- A variety of saw blades are available, Which can adapt to the cutting of different materials;
- Overheat and overcurrent protection;
- Large range of different clamping tools and systems available;
- Three cutting modes are optional, With built-in overload protection to ensure perfect cutting results.

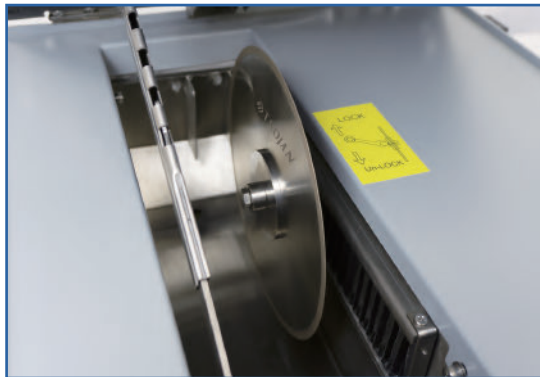


### Technical Specifications

Model		TableCUT 200
Wheel	Speed	100~3000rpm
	Diameter	Φ200mm
	Arbor	Φ22mm
Electrical	Voltage/Frequency	110V/60Hz, or 220V/50Hz
	Rated Power	1.5kw
	Touch Screen	5 inch
	Y-Axis	Manual movement via joystick or automatic feed
	X-Axis	Optional X direction -feed fixture
Cutting Capacity	Diameter	Φ50mm
	Square	50*126mm
Table	Dimension(W*D)	465*270mm
	Travel	240mm
Water Tank	Capacity	5L
Demensions	W*D*H	570*714*407mm(Hood open:570*714*900mm)
Weight		63kg

## CT-2300 Manual Saw

**CT-2300** is suitable for cutting of various metal materials, circuit boards, semiconductors, crystals, ceramics, quartz glass and petrographic samples. It is equipped With a variety of clamps to cut irregularly shaped Workpieces. It is an ideal cutting machine for companies and research institutes.



### Features

- Highly reproducible, easy to use;
- Dry or Wet cutting;
- T-slot clamping vises for mounting versatility;
- Digital feedback speed control, 200-3000rpm;
- Optional angle cutting holder;
- Hard anodized Working table.

### Technical Specifications

	CT-2300
Cutting Capacity	30mm
Blade Size	Φ180mm
Arbor Size	12.7mm
Speed	200~3000rpm
Travel	100mm
Drive Power	900w
Dimensions (W*D*H)	460*500*350mm
Weight	45kg
Voltage	110V/60Hz. 220V/50Hz.

## CT-250S/CT-250V Cutter

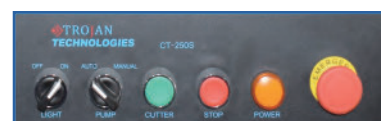
**CT-250S/CT-250V** is a desktop metallographic cutting machine designed and manufactured according to the principle of safety and environmental protection. It is suitable for cutting samples of various metallic and non-metallic materials in order to observe the metallographic and petrographic structure of materials.

The machine has the advantages of stable operation, low noise, simple operation and safe use. It is one of the necessary equipment for making solid material samples in the laboratory.



### Features

- Push button controls for start and stop Emergency stop;
- Large viewing window with high brightness lighting system;
- Coolant automatically activates when cutter started;
- Clean-out gun for cleaning;
- Easy to operate, reliable, low noise;
- 24V Isolated Electronics, Hood Lock and Electrical Brake.



CT-250S(2800rpm)



CT-250V(1000-3500rpm)

### Technical Specifications

	CT-250S	CT-250V
Wheel Diameter	Φ250mm	
Cutting Capacity	Φ76mm	
Operation	Manual chop cutting	
Table Dimensions	210*230mm	
Motor Power	2.2kw	
Voltage	220,380,440,480V,50/60Hz(3 phase)	
Wheel Speed	2800rpm(60Hz)	1000-3500rpm
Weight	100kg	105kg
Size W*D*H	710*740*610mm(Close)	710*890*790mm(Open)
Cooling unit	60L	





## Beta 300 Pro Automatic Cutter

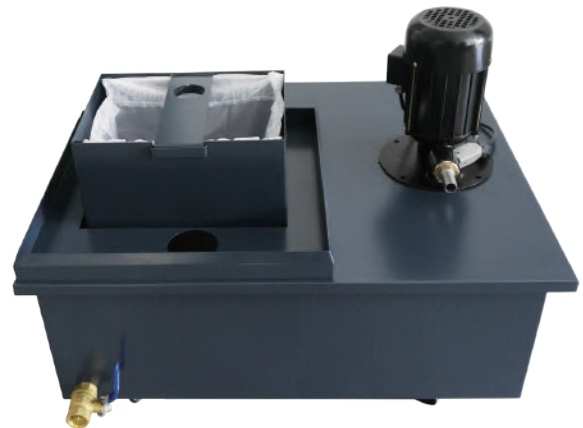
The preparation of metallographic samples begins with high-quality cutting process. Perfect surface cutting can reduce the subsequent grinding and polishing processes and shorten the time of sample preparation.

**Beta 300 Pro** cutting machine integrates various cutting methods and technologies. Even heavy-duty large section cutting can obtain excellent cutting surface. The automatic cutting mode can obtain the highest level of repeatability.



## Features

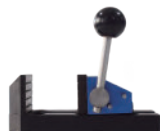
- Programmable With HMI touch screen controls and pre-set 20 optimized cutting parameters;
- X-Y-Z axes cutting capability and joystick position control;
- Multiple cutting modes to meet the variety of requirements for different samples;
- Intelligent feed rate adjustment according to a preset cutting force;
- Push up - sliding door design, With spacious cutting chamber, easy to clamp and handling;
- Robust and reliable With loW noise and emission levels.



## Cutting Accessories:



Large Vertical  
Fixture



Flat Push  
Fixture



Cutting Machine  
Fixture



Heterosexual  
Fixture



Vertical  
Fixture



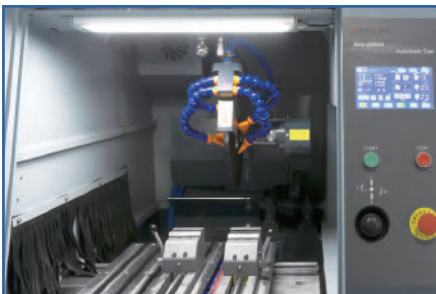
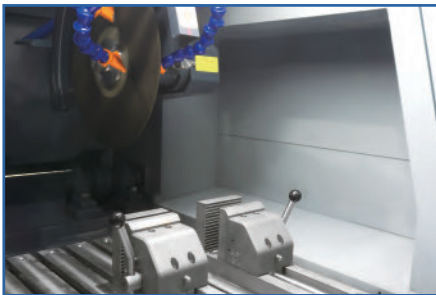
## Technical Specifications

Items		Beta 300 Pro
Safety	Emergency-Stop	Cutting axis and feed quick stop
	Door-Open	
	Current Overload	Automatic adjustment
	Joystick	TWO hand control
Wheel Diameter		Φ300mm
Arbor Size		Φ32mm
Cutting Capacity		110mm
Cutting Capacity. H*D		80*200mm
Z-Axis Travel (Up and doWh)		150mm
Y-Axis Travel (Front and back)		200mm
X-Axis Travel (Right and left)		80mm
Table Dimension		280*536mm
T-Slot Dimension		12mm
Cutting Power		4kw
Voltage		AC 380V, 440/480V, 50/60 Hz, (3Ph+1N+1PE)
Wheel Speed		800-3500rpm
Control Panel		7 inch Touch Screen
Cutting Method	Smart Cutting	Auto
	Chop Cutting, Z-Axis	Auto
	Table Feed Cutting, Y-Axis	Auto
	Pulse Cutting	Chop cutting and Table-feed
	Step Cutting	Yes
Cutting Feed Rate		0.1~5.0mm/s
Laser Alignment		Yes
Weight		367kg
Dimensions W*D*H (Hood open)		940*920*1450 mm(1860)
Cooling unit,lt		80

## Beta 400MA Manual-Automatic Cutter

**Beta 400MA** is a large manual/automatic cutting machine, which is suitable for cutting all kinds of metal materials, ceramics, quartz glass, and Petrographic samples.

The equipment is equipped with a variety of fixtures, which can cut irregularly shaped workpieces, and realize the automatic/manual feed cutting (Y-direction) of the worktable and the automatic chopping cutting (Z-direction) of the cutting wheel. The automatic cutting mode greatly avoids the burning damage from the sample.



### Features

- Cast aluminum base, 304 stainless steel cover, strong overall rigidity, more durable and corrosion-resistant;
- Using hand wheel to control cutting, more labor-saving;
- Large worktable and operating space;
- Cutting blade speed 2000 rpm;
- A variety of saw blades can be selected to adapt to the cutting of different materials;
- Push and pull the sliding door up and down to save space;
- Floor independent water tank, large volume, easy to remove and clean.



## Technical Specifications

Items		Beta 400MA
Wheel Diameter		Φ400-Φ450mm
Arbor Size		32mm
Cutting Capacity. Φ400		Φ130mm
Cutting Capacity.Φ450		Φ150mm
Cutting capacity,H*D (Φ400 )		130*400mm
Cutting capacity,H*D (Φ450 )		150*300mm
Z-Axis Travel (Vertical Movement),Φ400		220mm
Z-Axis Travel,Φ450		190mm
Y-Axis Travel (Horizontal Movement)		270
X-Axis Travel (Cross Feed)		220
Table Dimensions (W*D)		438*488mm
T-Slot Dimension		12mm
Cutting Power		7.5kw
Wheel Speed		2000rpm
Control Panel		7``touch screen
Cutting Method	Smart Cutting	Yes
	Chop Cutting, Z-Axis	Auto
	Table Feed Cutting, Y-Axis	Manual/Auto
	Pulse Cutting	Z-and Y-Axis
	Auto-Feed Cutting	Z-and Y-Axis
Weight		550kg (machine) + 40 kg(water tank)
Recirculation Coolant		100L

### Cutting Consumables:



Cut Off Wheels



Diamond Wafering Blades



CBN Wafering Blades



Cutting Coolant



## Cut Off Wheels

Cutting is the first step in a complete material analysis, the selection of cutting machine and blades must match geometry and material properties of sample. TROJAN cutting products make the cutting process simple, fast and accurate.

TROJAN cutting blades and consumables have a unique formula and process, it can be fully cooled and reduce thermal damage. TROJAN Cut off Wheel adopts unique manufacturing technology. It can be fully cooling up and reduce thermal damage of the samples. Furthermore, the surface of the product can also eliminate the accumulation of debris during the cutting process and the convenient cleaning method can keep the Worktable and the cutting chamber also clean.



**A60**  
(Extremely Hard)



**A50**  
(Medium Hard)



**A30**  
(Soft)



**S20**  
(Soft Non-Ferrous)

### A60 Cut Off Wheels (Extremely Hard)

**Description:** Aluminum Oxide Material, Resin Bond.

**Application:** For cutting extremely hard ferrous metals (HRC > 55).

Order No:	Code	Spec.(mm)	Package
01.01.111	A601505	150*12.7*0.5	10pcs
01.01.114-1	A601808	180*12.7*0.8	10pcs
01.01.118	A602008	200*22.0*0.8	10pcs
01.01.150	A602515	250*32.0*1.5	10pcs
01.01.160	A603020	300*32.0*2.0	10pcs
01.01.170	A603525	350*32.0*2.5	10pcs
01.01.180	A604030	400*32.0*3.0	10pcs
01.01.185	A604530	450*32.0*3.2	10pcs
01.01.190	A605040	508*50.8*4.0	10pcs

## A50 Cut Off Wheels (Medium Hard)

**Description:** Aluminum Oxide Material,Resin Bond.

**Application:** For cutting medium hard ferrous metals(HRC40-55).

Order No:	Code	Spec.(mm)	Package
01.01.213-1	A501505	150*12.7*0.5	10pcs
01.01.214	A501808	180*12.7*0.8	10pcs
01.01.224	A502008	200*22.0*0.8	10pcs
01.01.250	A502515	250*32.0*1.5	10pcs
01.01.260	A503020	300*32.0*2.0	10pcs
01.01.270	A503525	350*32.0*2.5	10pcs
01.01.280	A504030	400*32.0*3.0	10pcs
01.01.285	A504530	450*32.0*3.2	10pcs
01.01.290	A505040	508*50.8*4.0	10pcs

## A30 Cut Off Wheels (Soft)

**Description:** Aluminum Oxide Material,Resin Bond.

**Application:** For cutting soft ferrous metals(HRC20-40).

Order No:	Code	Spec.(mm)	Package
01.01.313	A301505	150*12.7*0.5	10pcs
01.01.314	A301808	180*12.7*0.8	10pcs
01.01.315	A302008	200*22.0*0.8	10pcs
01.01.350	A302515	250*32.0*1.5	10pcs
01.01.360	A303020	300*32.0*2.0	10pcs
01.01.370	A303525	350*32.0*2.5	10pcs
01.01.380	A304030	400*32.0*3.0	10pcs
01.01.385	A304530	450*32.0*3.2	10pcs
01.01.390	A305040	508*50.8*4.0	10pcs

## S20 Cut Off Wheels (Soft Non-Ferrous)

**Description:** Silicon Carbide Material,Resin Bond.

**Application:** For cutting soft Non-Ferrous,Al,Cu Alloys.

Order No:	Code	Spec.(mm)	Package
01.02.413	S201505	150*25.4*0.5	10pcs
01.02.422	S202008	200*22.0*0.8	10pcs
01.02.450	S202515	250*32.0*1.5	10pcs
01.02.460	S203020	300*32.0*2.0	10pcs
01.02.470	S203525	350*32.0*2.5	10pcs
01.02.480	S204030	400*32.0*3.0	10pcs
01.02.485	S204530	450*32.0*3.2	10pcs
01.02.490	S205040	508*50.8*4.0	10pcs



## Diamond/CBN Wafering Blades

Wafering blades have very thin cut Width, are recommended for precision cutting/sectioning or When cut Width loss needs to be minimized. There are plating, resin and metal bond 3 types configurations With Diamond or CBN.



**DP Series**  
(Diamond Plating)



**DR Series**  
(Diamond Resin)



**DM Series**  
(Diamond Metal)

### DP Diamond Plating Wafering Blade

**Material:** A metal core With diamonds nickel plated to the rim.

**Application:** For cutting PCB, plastic, fiber composites resin or soft non-ferrous metals.

Order No:	Code	Spec.(mm)	Package
01.03.520	DP101304	100*12.7*0.4	1pc
01.03.525	DP131304	125*12.7*0.4	1pc
01.03.530	DP151305	150*12.7*0.5	1pc
01.03.541	DP181308	180*12.7*0.8	1pc
01.03.551	DP202210	200*22.0*1.0	1pc
01.03.560	DP253215	250*32.0*1.5	1pc
01.03.570	DP303220	300*32.0*2.0	1pc

### DR Diamond Resin Bond Wafering Blade

**Application:** For cutting hard, brittle or delicate materials including ceramics, composites, carbides and exotic metals.

Order No:	Code	Spec.(mm)	Package
01.04.620	DR101304	100*12.7*0.4	1pc
01.04.625	DR131304	125*12.7*0.4	1pc
01.04.630	DR151305	150*12.7*0.5	1pc
01.04.640	DR181608	180*16.0*0.8	1pc
01.04.656	DR201310	200*22.0*1.0	1pc
01.04.660	DR253215	250*32.0*1.5	1pc
01.04.670	DR303220	300*32.0*2.0	1pc

## DM Diamond Metal Bond Wafering Blade

**Application:** For very hard or brittle materials, glass ceramics, stone.

Order No:	Code	Spec.(mm)	Package
01.05.720	DM101304	100*12.7*0.4	1pc
01.05.725	DM131304	125*12.7*0.4	1pc
01.05.730	DM151305	150*12.7*0.5	1pc
01.05.741	DM181308	180*12.7*0.8	1pc
01.05.748	DM202210	200*22.0*1.0	1pc
01.05.760	DM253215	250*32.0*1.5	1pc
01.05.770	DM303220	300*32.0*2.0	1pc



CBN-M Series



CBN-R Series

## CBN-R CBN Resin Bond Wafering Blades

**Application:** For hard steel above HRC 60; Mostly used at higher speeds.

Order No:	Code	Spec.(mm)	Package
01.06.920	CBN-R101304	100*12.7*0.4	1pc
01.06.925	CBN-R131304	125*12.7*0.4	1pc
01.06.930	CBN-R151305	150*12.7*0.5	1pc
01.06.941	CBN-R181210	180*12.7*1.0	1pc
01.06.950	CBN-R202210	200*22.0*1.0	1pc
01.06.960	CBN-R253215	250*32.0*1.5	1pc
01.06.970	CBN-R303220	300*32.0*2.0	1pc

## CBN-M CBN Metal Bond Wafering Blades

**Application:** Used for hard steel, iron, cobalt nickel and lead based alloys, most commonly used at lower speeds.

Order No:	Code	Spec.(mm)	Package
01.10.920	CBN-M101304	100*12.7*0.4	1pc
01.10.925	CBN-M131304	125*12.7*0.4	1pc
01.10.930	CBN-M151305	150*12.7*0.5	1pc
01.10.935	CBN-M181308	180*12.7*0.8	1pc
01.10.950	CBN-M202210	200*22.0*1.0	1pc
01.10.960	CBN-M253215	250*32.0*1.5	1pc
01.10.970	CBN-M303220	300*32.0*2.0	1pc





## Cutting Coolant

In order to get better cutting effect and reduce burns of samples, metallographic cutting coolant is usually added in the cutting process of metallographic test. The product solution is clear and transparent, without any minerals and nitrite, and has the dual effect of cooling and lubrication.

### TJ 1220 Cutting Coolant

**HoWto use:** Mix With 20-30 times Water When using;

**Application:** Protect the sample overheating, good rust prevention,

Order No:	Description	Package
01.07.810	TJ 1220 Cutting Coolant	1L
01.07.820	TJ 1220 Cutting Coolant	5L

### TJ 1410 Cutting Coolant

**HoWto use:** Mix With 20-30 times Water When using;

**Application:** Protect the sample overheating, good lubrication.

Order No:	Description	Package
01.07.857	TJ 1410 Cutting Coolant	1L
01.07.860	TJ 1410 Cutting Coolant	5L



Cut Off Wheels



Diamond Wafering Blades



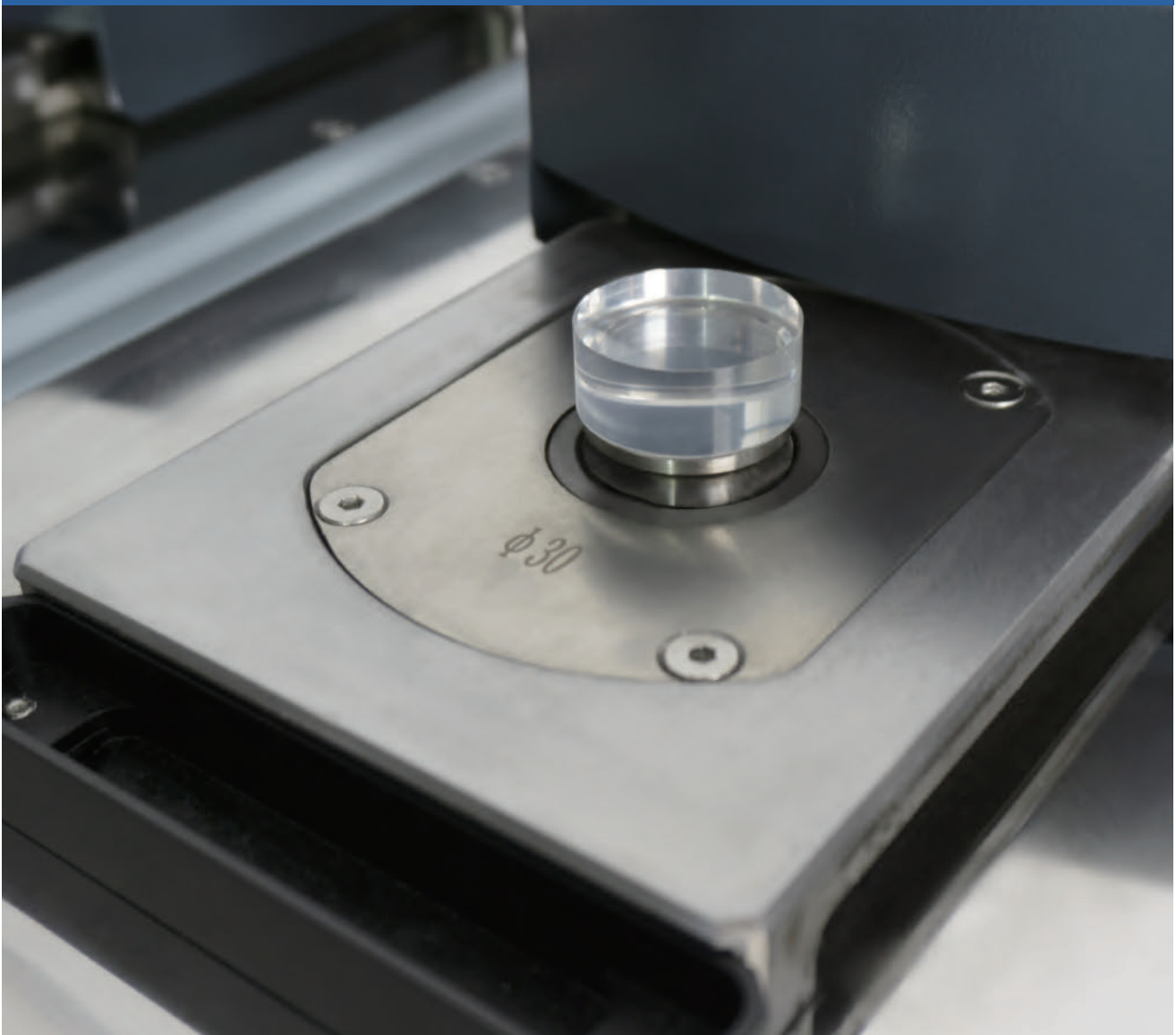
# MOUNTING

## Hot Mounting

Hot mounting is ideal solution to get high quality, uniform size sample, as well as short process time. It is to use mounting compounds with certain pressure, temperature to make a sample.

## Cold Mounting

TROJAN cold mounting resin system avoids sample from high temperature and pressure, making sample preparation results stable and reliable, efficient.



## UV Mount

(page 25)

New!



## ThetaVAC-2

(page 24)

New!



## MT-1H

(page 23)



## ThetaMount

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## FLEXPRESS-600

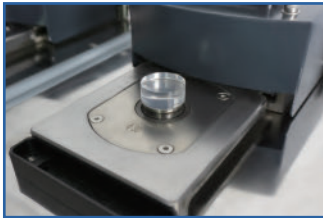
(page 22)

New!



## FLEXPRESS-600 Mounting Press

**FlexPRESS-600** is a flexible mounting press, With modular mounting unit design, and is combined With one base unit and 1 - 5 mounting units. Meet the different customer's specific needs.



### Features

- Modular design of mounting unit to meet customer's specific needs;
- Sliding closure with automatic open/close;
- 7-inch touch screen with max. 20 commonly procedures;
- Pre-heating and per-press function to meet the specific mounting requirement of different material;
- Real-time display the temperature and pressure curve during curing;
- Individual control of heating/pressing/cooling for every unit.

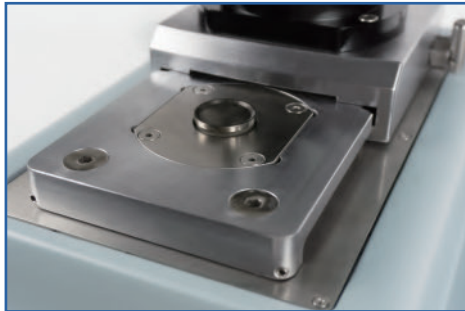


### Technical Specifications

	FlexPRESS-600M Base unit	FlexPRESS-600S Mounting unit
Voltage	110/220V	
Heating Power	1.6kw	
Mold Size	Φ30mm(standard),Φ25.4mm,Φ32mm,Φ40mm,Φ50mm(Customized)	
Heating Range	60~250°C	
Holding Time	1~60min	
Max,pressure	570 Bar (Depending on mold size)	
Pressure Mode	Hydraulic	
Control Panel	7-inch touch screen	Push buttons
Cooling Mode	Auto:by temperature or time	
Cooling rate	Manual/High/Middle/Low	
Depth*With*Height	570*280*450mm	570*260*450mm
Weight	60kg	56kg

## MT-1H Mounting Press

**MT-1H** is an automatic hot mounting press machine, Which is suitable for curing different material, such as epoxy resin, phenolic poWder, acrylic poWder, etc.



### Features

- 7-inch HMI, Friendly and simple user interface design;
- Automatic water cooling, with three modes of cooling rate;
- Sliding closure design for easy opening and closing mould assembly easy to change;
- Fully hydraulic pressure.

### Technical Specifications

MT-1H	
Voltage	110V/220V
Heating Power	1.6KW
Mold Size	Φ30mm(standard), Φ25.4mm, Φ32mm, Φ40mm, Φ50mm(Customized)
Heating Range	room temperature~200°C
Holding Time	1~60min
Max.Pressure	0~300Bar (Depending on mold size)
Cooling Mode	Automatic by time/manual
Cooling Rate	High, Medium and Low
Control Panel	7-inch touch screen
Dimension (W*D*H)	470*432*535mm
Weight	48kg

# ThetaVAC-2

# Vacuum Cold Mounting Machine

Trojan's new LCD touch screen programmable vacuum system for epoxy cold mounting, offers excellent pore impregnation in a compact format. This equipment can make epoxy resin penetrate into any porous samples quickly and effectively, resulting in ensured the edge protection of the sample. This equipment is light and compact, external connecting the compressed air source can quickly and effectively pulls a vacuum, and can also be connected to vacuum air pump.

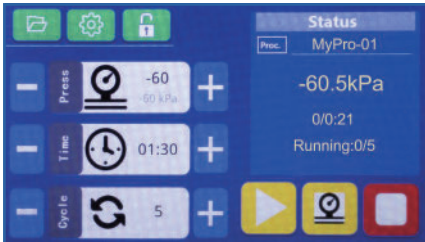
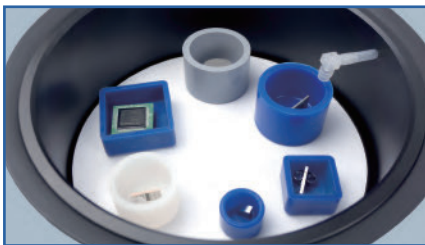


Mounting



## Features

- Ability to set vacuum level, time, number of cycles under vacuum;
- Large Chamber, also provide sample tray for larger samples;
- Easily place samples when pouring under vacuum With electric turn table;
- Teflon coated. for the chamber and the sample tray, Even if the epoxy resin sticks to the inner wall, it is very easy to clean.



## Technical Specifications

		ThetaVAC-2
Electrical	PoWer Supply	100~240V
	Vacuum Level	0 ~ -80kPa, vacuum pump 0 ~ -90kpa
Vacuum	Maximum Vacuum Flow	75L/min
	Air Consumption	28-42L/min
	Noise	55-60dBA
Chamber	Diameter	Φ250mm(Φ40mm*12)
	Height	80/100
Supply Air	Pressure	Required 0.6~0.7MPa
Vacuum Pump (Optional)	Voltage	Same with the power input
	Power	Max:1000W
Dimensions	W*D*H	497*461*293mm(Cover open:497*461*655)
Weight		18kg

## UVmount Mounting Device

The **UVmount** curing device has a very short process time. It opens up the possibility of producing transparent, materialographic standard mountings of various materials very quickly and cost-effectively.

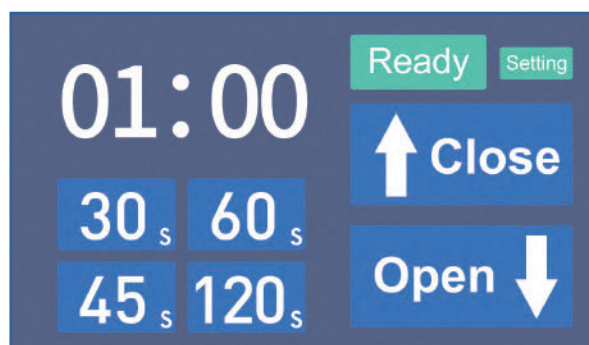
The UVmount curing technology is an energy-saving, clean and environment-friendly technology. It does not contain solvents, has a protective effect on the ecological environment, and will not emit toxic gas and carbon dioxide to the atmosphere. Therefore, it is known as "green technology".

The UVmount curing technology is a light processing technology that polymerizes liquid epoxy acrylic resin into the solid-state at high speed through UV irradiation with a certain wavelength.



### Features

- Automatic open/close the curing chamber;
- 4.3 inch touch screen, with 4 pre-set timer buttons;
- Easy operation;
- Low polymerization temperature.



### Technical Specifications

		UVmount Mounting Device
Sample support table	Dimension	260*200mm
Max.Sample	Hight	50mm
Adjustabre	Curing time	0~100min
Dimensions	W*D*H	400*400*185mm
Wavelength	Type	UV light (365nm)
Electrical	Voltage/Frequency	85~240V,50/60Hz
Weight		15kg

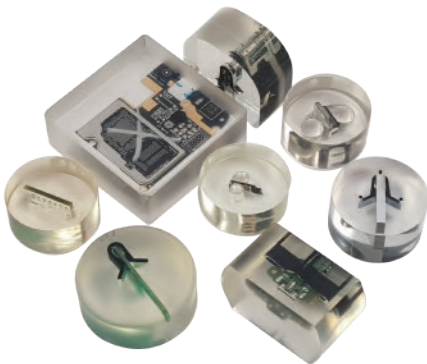
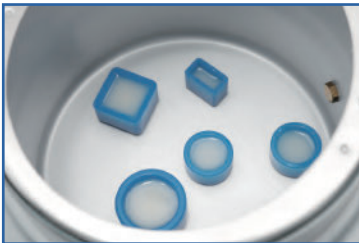
## ThetaMount Pressure Chamber

**ThetaMount** is suitable for the sample preparation of metallographic cold mounting, especially for epoxy or acrylic cold mounting.

Without bubbles and pores samples can be made by putting them into the chamber and curing under pressure, physical and chemical properties of the resin Will not change.



Mounting



### Features

- No electricity, pressurized by a pneumatic system;
- With water-separator and fast-insert connectors;
- Quick lock and release cover design;
- High performance in sealing, and overflow valve in safety;
- More spacious mounting chamber, and stainless steel container;
- Equipped with a timer to remind curing time.

### Technical Specifications

	ThetaMount
Operating Pressure	2.0bar
Safety Valve OverfloW Pressure	2.8~3.3bar
Chamber Diameter	Φ235*170mm
Dimension W*D*H	340*400*270mm(Closed) 340*400*370mm(Open)
Weight	8.5kg





# Hot Mounting Compounds

Products	PT 2231	BB 2232	TM 2235	TM 2261	EP 2237	DC 2239	MA 2275
Description	Phenolic Resin	Glass fiber filled Phenolic	Transparent	Transparent	Glass fiber filled Epoxy	Conductive	Mineral filled melamine resin
Components	black/red/green grit	black grit	white powder	White powder	black grit	Black-Brown Grit with powder	light yellow to White powder
Heat time	4-6min	4-6min	6-8min	6-8min	5-7min	4-6min	4-7min
Cooling time	2-3min	2-3min	7-10min	7-10min	4-6min	4-6min	5-8min
Cooling speed	High/Medium	High/Medium	Low	Low	Medium	High	Medium
Pressure	100-300bar	100-150bar	100-150bar	100-150bar	100-300bar	100-300bar	100-300bar
Heat temperature	150-180°C	140-180°C	160-180°C	160-180°C	150-180°C	150-180°C	150-180°C
Hardness (Shore D)	85-90	90-93	85-87	85-87	90-93	90-92	88-90

\*The above parameters is base on  $\Phi$ 30mm mold.

## PT 2231



**Features:** LoW price, black, green and red phenolic grit.

**Application:** For routine applications suit for most products.

Order No:			Package
Black	Green	Red	
02.01.310	02.01.311	02.01.312	1kg
02.01.320	02.01.321	02.01.322	4kg
02.01.325	02.01.326	02.01.327	20kg

## BB 2232



**Features:** Extreme hardness, very good grinding and polishing properties, does not stick on embedding instruments, non adherent.

**Application:** All hard materials, e.g. hardened gears, hard metals and ceramics.

Order No:	Package
02.01.210	1kg
02.01.220	4kg
02.01.225	20kg

## TM 2235



**Features:** Very thin melts rapidly.

**Application:** Complete embedding solution for thin layers, top layer for specimen labeling.

Order No:	Package
02.01.110	1kg
02.01.120	4kg
02.01.125	20kg

## TM 2261



**Features:** Transparent and very clear. allows easy sample observation.

**Application:** Same as TM 2235 and can be dissolved by Trojan special solvent.

Order No:	Package
02.01.140	1kg
02.01.144	4kg
02.01.145	20kg

### EP 2237



**Features:** Thin, extreme hardness, optimal edge connection, good adhesion to the specimen surface, very good grinding and polishing properties.

**Application:** All hard materials, e.g. hard gears, metals and ceramics.

Order No:	Package
02.01.710	1kg
02.01.720	4kg
02.01.751	20kg

### DC 2239



**Features:** Excellent conductive, voltage loss almost eliminated completely.

**Application:** SEM analysis.

Order No:	Package
02.01.910	1kg
02.01.940	4kg
02.01.945	20kg

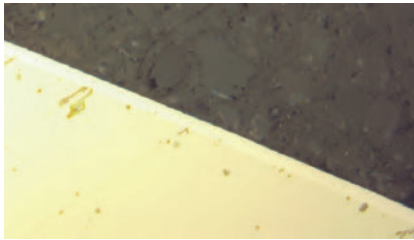


### MA 2275

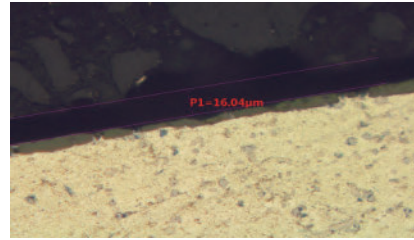
**Features:** High hardness, optimum edge connection, good adhesion to the sample surface, very good grinding and polishing properties, suitable for black surface specimen.

**Application:** Medium hard materials like normal hard metals, steel in general, aluminum, copper materials, etc.

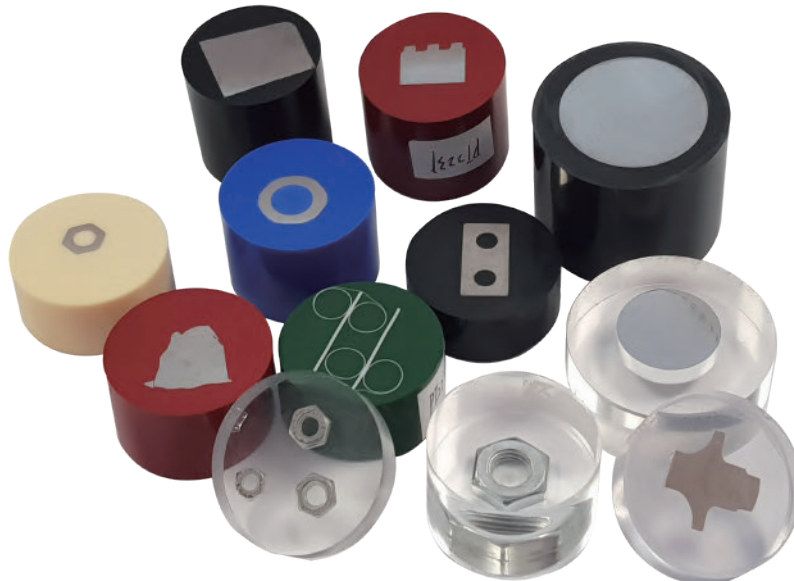
Order No:	Package
02.01.960	1kg
02.01.965	4kg
02.01.970	20kg



Good edge connection



Gap





# Cold Mounting System

System	Acrylic System		Epoxy System				
	Used for rapid cure times, or need large volume sample preparation.		Used for excellent flow and penetration, or when better adhesion chemical resistance, less shrinkage and clarity are required.				
Products	TJ 2210	TJ 2800	TJ 2220	TJ 2568	TJ 2221	TJ 2226	TJ 2562
Part A	Powder	Powder	Liquid	Liquid	Liquid	Liquid	Liquid
Part B	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid
A:B (W/W)	10:8	10:5	2:1	4.5:1	2:1	4.5:1	3:1
Pot life	2-4min	2-4min	4-8min	5-10min	5-10min	10-20min	30-60min
Cure time 25°C	8-12min	8-10min	30-60min	45-90min	1-2hour	4-6hour	10-12hour
Peak temperature	80°C	85°C	144°C	125°C	112°C	90°C	<32°C
Hardness (Shore D)	80	82-83	82	82	78	82	80
Edge protection	Good	Better	Better	Excellent	Good	Excellent	Better

\*The above parameters is in 30mm mold. 25°C

\*The Trojan Dissolver is a blend of solvents that when heated removes cured resin from a specimen.

Acrylic Curing System is typically used for rapid cure times, or When large volume sample throughput is needed.



## TJ 2210 Acrylic Resin

**Features:** High transparent, good flow and penetration. especially for PCB and other electronic components.

Order No:	Description	Package
02.03.411	White, Resin, Powder	1kg
02.03.412	Hardener, Liquid	800ml
02.03.421	White, Resin, Powder	2.5kg
02.03.423	Hardener, Liquid	2000ml



## TJ 2800 Acrylic Resin

**Features:** Translucent, good edge protection, low shrinkage. Cure With the mounting pressure pot.

Order No:	Description	Package
02.03.511	White, Resin, Powder	1kg
02.03.512	Hardener, Liquid	1000ml

Epoxy Curing System is typically used for excellent flow and penetration, or when better adhesion, chemical resistance, less shrinkage and clarity are required.



### TJ 2220 Epoxy Fast (2:1)

Features: Transparent yellowish fast cure epoxy system, good adhesion.

Order No:	Description	Package
02.04.660	Epoxy Resin, Liquid	2kg
02.04.661	Hardener, Liquid	1kg



### TJ 2568 Epoxy Quick (4.5:1)

Features: Clear, fast curing epoxy system, low shrinkage, excellent adhesion.

Order No:	Description	Package
02.04.857	Epoxy Resin, Liquid	1kg
02.04.858	Hardener, Liquid	230g



### TJ 2221 Epoxy King (2:1)

Features: Clear, general purpose fast cure epoxy system.

Order No:	Description	Package
02.04.721	Epoxy Resin, Liquid	2kg
02.04.722	Hardener, Liquid	1kg



### TJ 2226 Epoxy Resin (4.5:1)

Features: Clear, transparent, general purpose slow cure epoxy resin.

Order No:	Description	Package
02.04.773	Epoxy Resin, Liquid	1kg
02.04.774	Epoxy Curing agent, Liquid	230g



### TJ 2562 Epoxy Thin (3:1)

Features: Clear, low viscosity and very low peak temperature, good adhesion.

Order No:	Description	Package
02.04.853	Epoxy Resin, Liquid	1.5kg
02.04.854	Hardener, Liquid	0.5kg



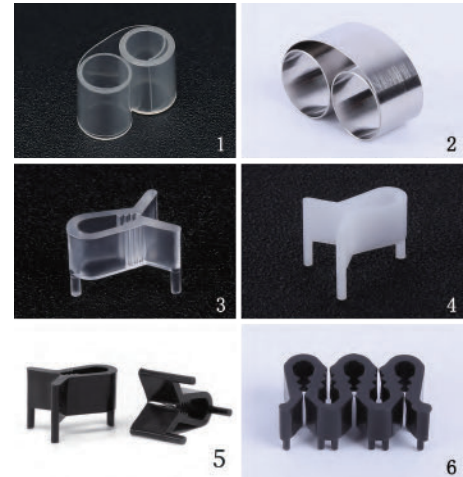


# Mounting Accessories

## Sample Support Clip

Series of clips hold thin samples on edge for encapsulation. Use metal for compression mounting, and plastic for cold mounting.

Order No:	Description	Package	
①	07.01.010	Plastic Coil Clip, 6*100mm	100pcs
	07.01.012	Plastic Coil Clip, 6*100mm	1000pcs
②	07.01.016	Stainless Steel Clip, 7*120mm	100pcs
	07.01.017	Stainless Steel Clip, 7*120mm	1000pcs
③	07.02.010	T Transparent Plastic Clip, 10*9*13mm	100pcs
④	07.03.010	T White Plastic Clip, 10*9*13mm	100pcs
⑤	07.04.010	T Black Plastic Clip, 10*9*13mm	100pcs
	07.04.012	T Black Plastic Clip, 10*9*13mm	500pcs
⑥	07.05.001	S Black Plastic Clip, 20*10*8mm	100pcs



## 2-Part Mounting Cups

Reusable cup has a separable bottom, which is easy to remove mounting sample after curing.

Order No:	Description	Package
08.02.002	Separate Firm Molds, $\Phi 25 \times 20$ mm	10pcs
08.02.004	Separate Firm Molds, $\Phi 30 \times 23$ mm	10pcs
08.02.006	Separate Firm Molds, $\Phi 32 \times 25$ mm	10pcs
08.02.008	Separate Firm Molds, $\Phi 40 \times 27$ mm	10pcs



## Silicone Mold Cups

Durable, reusable silicone mold cups are widely used for acrylic and epoxy mounting system.

Order No:	Description	Package
08.02.018	Silicone, $\Phi 20 \times 18$ mm(depth)	10pcs
08.02.020	Silicone, $\Phi 25 \times 18$ mm(depth)	10pcs
08.02.022	Silicone, $\Phi 30 \times 18$ mm(depth)	10pcs
08.02.030-1	Silicone, $\Phi 40 \times 25$ mm(depth)	10pcs
08.02.050	Silicone, 50*70*20mm(rectangle)	10pcs
08.02.058	Silicone, 180*106*30mm(rectangle)	10pcs



## Teflon Mold Cups

Durable, reusable Teflon mold cups are very easy to remove mounting samples after curing.

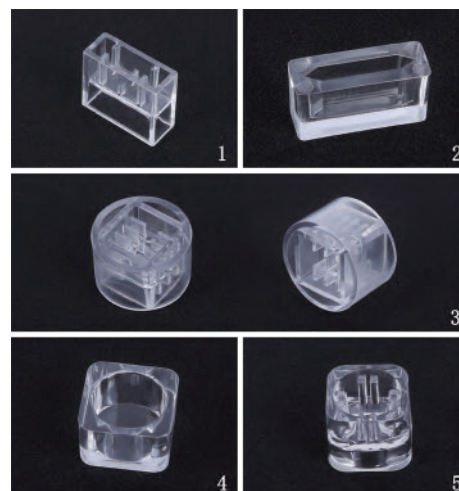
Order No:	Description	Package
08.02.110	Teflon, easy release, $\Phi$ 25mm	1pc
08.02.120	Teflon, easy release, $\Phi$ 30mm	1pc
08.02.132	Teflon, easy release, $\Phi$ 40mm	1pc



## Disposable Mounting Cups

Economical choice for high volume mounting requirements.

Order No:	Description	Package
① 08.01.013	24*20*10mm, Single lattice	500pcs
08.01.015	22*11*8mm, Single lattice	500pcs
② 08.01.016	22*11*8mm, Single lattice	1000pcs
08.01.030	$\Phi$ 30mm, externally circular and internally square	100pcs
③ 08.01.032	$\Phi$ 30mm, externally circular and internally square	200pcs
08.01.035	$\Phi$ 30mm, externally circular and internally square	500pcs
④ 08.01.038	20*20*12.3 mm, externally square and internally circular	500pcs
⑤ 08.01.039	20*20*12.3 mm, externally square and internally circular	1000pcs



## EtaKit Mounting Splitter

EtaKit Splitter is used to release oval mounting cups, easy, efficient.

Order No:	Description	Package
13.20.003	Apply to 2-part mounting cups	1pc/pkg





# GRINDING AND POLISHING

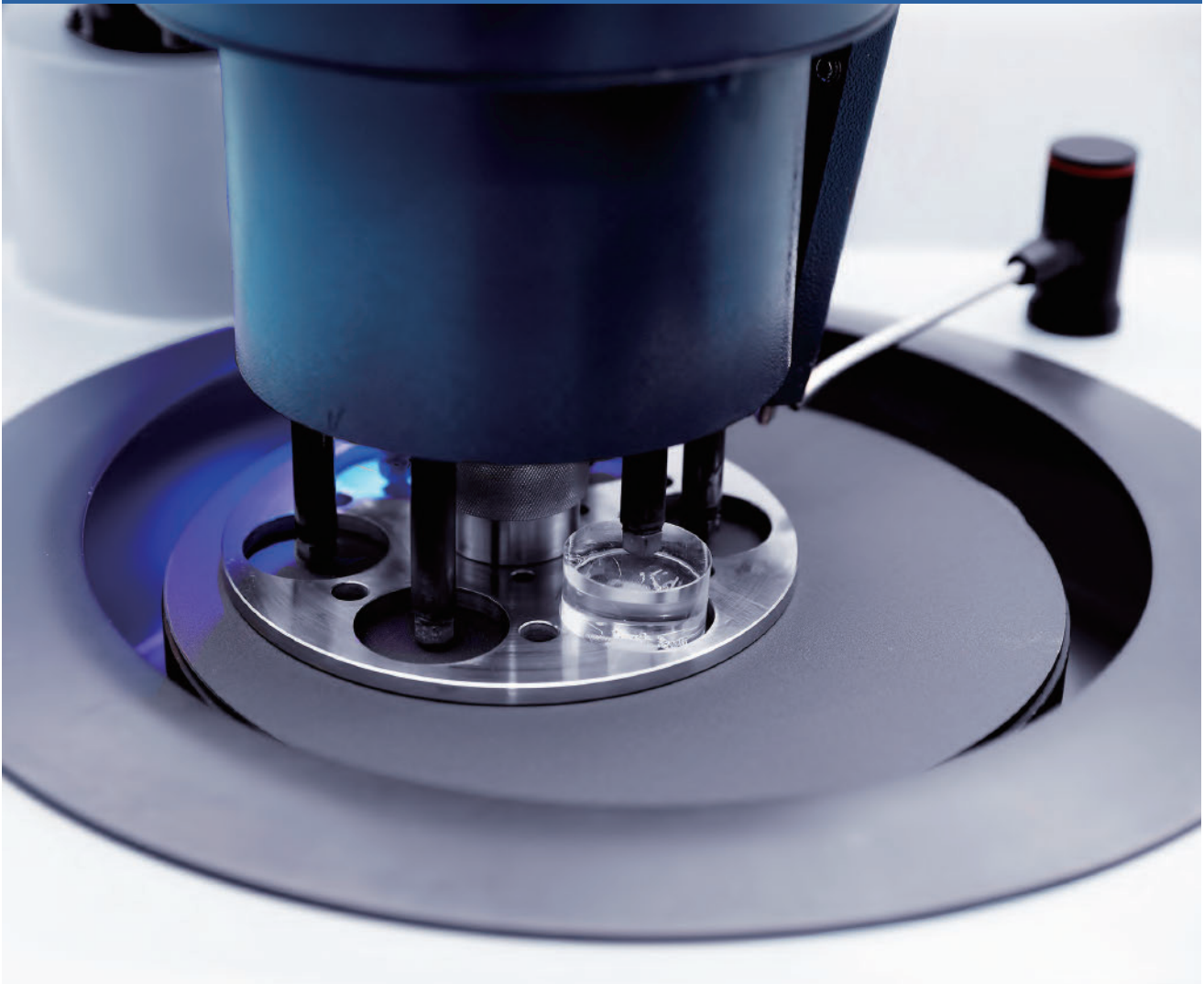
## Grinding

The surface of mounting sample is not smooth. Grinding is to remove excess part of the sample with abrasive materials.

## Polishing

Polishing is to use a small amount of polishing powder or polishing liquid to place on polishing cloth, later the sample is polished. Purpose of polishing is to remove the deformation and scratches during the grinding process, resulting in a scratched mirror surface for microscopic analysis of the microstructure.

GRINDING  
POLISHING





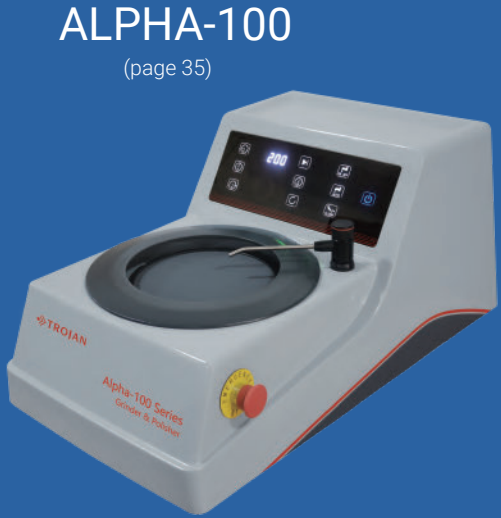
**Alpha 600**  
(page 36)

New!



**ALPHA-202**  
(page 35)

New!



**ALPHA-100**  
(page 35)



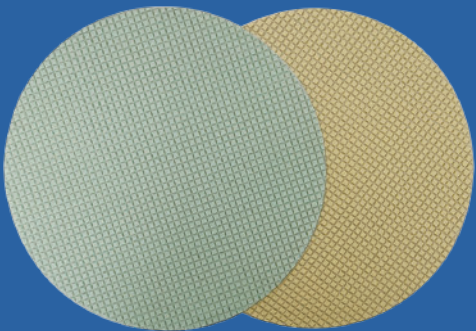
**VP-430**  
(page 40)

New!



**GP-2000A**  
(page 39)

**DiaRe Diamond Grinding Disk**  
(page 43)



Grinding/Polishing



## Alpha Series Manual Grinder and Polisher Machine

**Alpha-series** is suitable for rough grinding, fine grinding and polishing of metallographic/petrographic specimens. It is widely used in material analysis/theory analysis laboratories of large and small enterprises and scientific research institutions.



Alpha-100



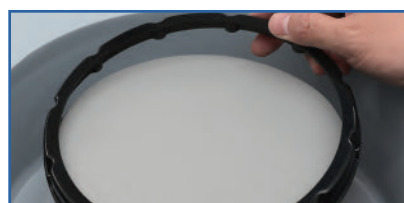
Alpha-200



Alpha-202

### Features

- One-button flushing and cleaning, effectively prevent the obstruction caused by grinding debris;
- Faucet can be switched to automatic mode, less operations for manual grinding and polishing;
- Large diameter drain hose, not easy to block and drainage quickly;
- Retractable water hose for easy cleaning and remaining;
- Optional glass operation panel, easy to clean and good at sealing;
- Optional buttons operation panel, simple and practical for using.



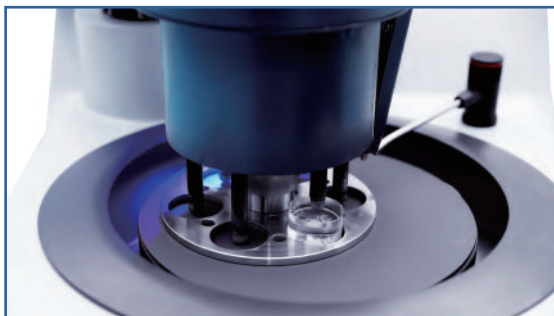
### Technical Specifications

		Alpha-100	Alpha-200	Alpha-202
Working Wheel	Wheel	Single wheel	Double wheel with one panel	Double wheels With Individual Control Panel
	Speed	50-1000rpm		
	Diameter	8"-10"(200/250mm)		
	Direction	ClockWise/Counter clockwise		
Electronic	Voltage/Frequency	110V/60Hz.220V/50Hz		
	Rated Power	750W	750W	1500W
Operation Panel	Glass Touch Panel	Standard		
	Button Press Panel	Optional		
Dimensions	Depth*With*Height	740*455*340mm	740*820*340mm	
Weight		45kg	65kg	85kg

## Alpha 600 Automatic Grinder Polisher

**Alpha-600** is a compact, automatic grinding and polishing system designed for high end grinding and polishing surfaces. Provide central force and individual force for the specimens.

Optional peristaltic pump dosing system support max. 4 kinds of suspensions/lubricants. High repeatability results can be obtained conveniently and quickly.



### Features

- 5.6-inch programmable HMI with simple and humanize interface;
- Central load and individual load applications;
- Max. 4 peristaltic pumps are available for the dosing system;
- Built-in 20 commonly used procedures
- Large diameter drain hose, not easy to blocking and drainage quickly;
- Retractable water hose for easy cleaning and remaining;
- Built-in smart cooling fan to prevent motor getting hot at low speed.

Grinding/Polishing

### Technical Specifications

		Alpha-600
Head	Force Application	Central and Individual
	Central Force	20-500N
	Individual Force	5-100N
	Power	400W
	Speed	20~150rpm
	Direction	Counter clockwise
Grinder	Speed	50-750rpm
	Wheel Diameter	8"-10"-12"(200/250/300mm)
	Direction	CW/CCW
Dosing System	Pump	Peristaltic pump
	Pump numbers	1~4
Dimensions	Depth*With*Height	730*660*630mm
Weight		80kg

## OPT-380 Automatic Grinder and Polisher

**Opt-380** automatic precision grinding and polishing machine has strong comprehensive performance in the metallographic industry, mainly used for grinding and polishing samples of metal, ceramics, glass, PCB, optical materials (such as zinc sulfide, silicon and other crystals), refractory materials, composite materials and other materials. It is one of the ideal grinding and polishing equipment for scientific research and production.



### Features

- Swing arm can be disassembled quickly, which is convenient to replace the grinding plate;
- Motor driven swinging arm can meet different requirements;
- Stepless speed control mode, and is equipped with a digital display meter to display the number of revolutions in real time;
- Time setting between 0-999h;
- Cooling fan, long-term low-speed operation is not easy to heat;
- 2.4-inch LCD screen control panel, simple interface, easy to operate;
- Cooling water is electrically controlled by solenoid valve, which can realize the automatic control of cooling Water;
- Synchronous belt, convenient for maintenance and replacement.

### Technical Specifications

		OPT-380
Working Wheel	Speed	10-200rpm
	Diameter	Φ381mm
	Station	Three station
Grinding Capacity	Specimen Size	Dia < Ø155mm
	Planeness	less-than 0.002mm per 20*20mm
Electric	Voltage/Frequency	220V/50Hz
	Rated Power	800W
	Standby Power	15W
	Regular Time	0-999H 59M 59S
Dimensions	Long*Wide*High	771*653*338mm
Weight		150kg

## GP-1A/GP-2A Grinder & Polisher

**GP-1A/GP-2A** is a multi-functional single/double disc continuously variable grinding and polishing machine. The speed range of the Working disc is 50-1000 rpm. This machine is suitable for the whole sample preparation process of rough grinding, fine grinding, rough polishing and fine polishing.



GP-1A



GP-2A



### Features

- With international advanced design, its appearance, performance, ease of operation;
- Stepless speed control & three fixed speed mode, work disc can be arbitrarily selected;
- Manual or automatic control of clockwise and counter-clockwise rotation;
- Set three speed mode to grind and polish;
- FRP shell, all stainless steel standard parts.

Grinding/Polishing



### Technical Specifications

		GP-1A	GP-2A
Working Wheel	Wheel	Single wheel	Double wheel with one panel
	Speed	50-1000rpm	
	Diameter	8"-10"(200/250mm)	
	Direction	Clockwise/Counter clockwise	
Electronic	Voltage/Frequency	110V/60Hz.220V/50Hz	
	Rated Power	750W	
Operation Panel	Keyboards Press Panel	Standard	
Dimensions	Depth*With*Height	650*370*310mm	710*760*330
Weight		34kg	57kg

# GP-1000A/GP-2000A

# Automatic Grinder & Polisher

**GP-1000A/GP-2000A** grinder & polisher is automatic grinding and polishing machine, for single/double disc stepless speed grinding, and polishing multipurpose machine. It achieve the sample from the rough grinding to fine grinding, rough polishing to fine polishing. The unit has a cooling device to cool the sample during grinding process to prevent overheating from destroying the micro-structure.



GP-1000A



GP-2000A

## Features

- Digital display disc rotation speed;
- Load pressure, sample preparation time adjustable;
- Working disc With three fixed speed and stepless speed function;
- Grinding head can be stepless control speed;
- Quick replacement grinding and polishing, multi-sample holder;
- Aerodynamic multi-point loading;
- Large volume abrasive automatic dispensing system;
- 6 samples can be processed at the same time.



Grinding/Polishing

## Technical Specifications

		GP-1000A	GP-2000A
Base	Wheel	Single Wheel	Double Wheel
	Speed	15~150rpm	
	Direction	CW/CCW	
	Speed	50-1000rpm	
	Wheel Diameter	8"-10"(200/250mm)	
Head	Force Application	Individual	
	Individual Force	0.1~0.4mpa	
	Power	250W	
Dosing System	Auto-dosing	1bottle	
	Power	750W	
	Voltage	110V 60Hz, 220V 50HZ	
	Minimum Pressure Required	0.4mpa	
Dimensions	Depth*With*Height	650*370*640mm	710*760*640mm
	Weight	65kg	85kg

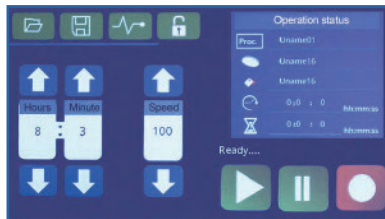
## VP-430

## Vibration polishing machine

**VP-430** vibration polishing machine is designed for the preparation of specimen surfaces practically without deformation. This preparation method is especially suited for further characterizations like EBSD (electron backscatter diffraction), SEM Scanning Electron Microscope, nano indentation using AFM (atomic force microscopy) or micro hardness testing. Due to the very gentle removal of material it is applicable especially for soft and ductile materials, like titanium-aluminum, pure copper and copper alloys, aluminum alloys, soft steel, and nickel-based alloys.



### Features



- Piez motor, low power consumption, low noise and smooth operation;
- The disc can be locked and released by one key, making the operation more convenient and quick;
- 7-inch touch screen, can save 20 programs;
- It can be adjusted automatically according to the increased sample weight, and the "revolution" speed of the sample can be automatically maintained;
- A pulse mode can be set to avoid solidification of the liquid in the tray.

Grinding/Polishing



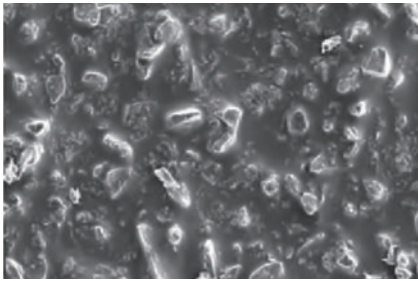
### Technical Specifications

		VP-430
Working Plate	Diameter	12" (300mm)
	Sample Holder	1inch, 1.25inch, 1.5inch, 2inch (customized according to customer needs)
Electrical	Voltage/Frequency	100~240V / 50 / 60 Hz
	Rated Power	50W
	Time Setting	9999hours
	Speed	1-20rpm
	Vibration Frequency	40~400Hz
Dimensions	L*W*H	516*503*379mm (cover opening: 607*503*669)
Weight		53kg

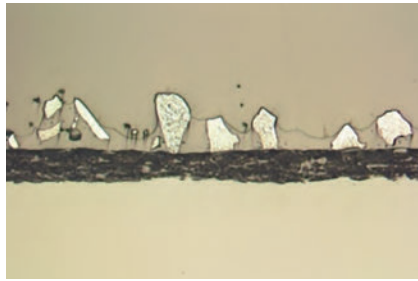


# Abrasive Paper

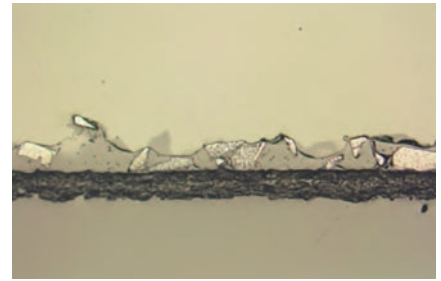
There are silicon carbide and alumina for choice, Which has good Waterproof, durable long lasting life With uniform cutting characteristics that minimizes sample distortion and deformation.



SEM 50X



Before use 50X



After use 50X

## Commonly Abrasive Grade Comparison Chart

Particle Size(um)	260	200	125	80	68	52	40	35	26	22	15	10	5
USA Grit	#60	#80	#120	#180	#220	#240	#280	#320	#360	#400	#600	#800	#1200
FEPA	P60	P80	P120	P180	P240	P280	P360	P400	P600	P800	P1200	P2400	P4000



Plain Back



PSA

## Silicon Carbide Disc ( Plain Back )

FEPA(Grit)	8 inch(200mm)	10 inch(250mm)	12 inch(300mm)	Package
120	03.03.103	03.03.403	03.03.703	50pcs
180	03.03.104	03.03.404	03.03.704	100pcs
400	03.03.107	03.03.407	03.03.707	100pcs
800	03.03.109	03.03.409	03.03.709	100pcs
1200	03.03.111	03.03.411	03.03.711	100pcs
2000	03.03.113	03.03.413	03.03.713	100pcs
2500	03.03.114	03.03.414	03.03.714	100pcs
2400	03.03.115	03.03.415	03.03.715	100pcs
4000	03.03.116	03.03.416	03.03.716	100pcs

## Silicon Carbide Disc ( PSA )

FEPA(Grit)	8 inch(200mm)	10 inch(250mm)	12 inch(300mm)	Package
120	03.04.203	03.04.503	03.04.803	50pcs
180	03.04.204	03.04.504	03.04.804	100pcs
400	03.04.207	03.04.507	03.04.807	100pcs
800	03.04.209	03.04.509	03.04.809	100pcs
1200	03.04.211	03.04.511	03.04.811	100pcs
2000	03.04.213	03.04.513	03.04.813	100pcs
2500	03.04.214	03.04.514	03.04.814	100pcs
2400	03.04.215	03.04.515	03.04.815	100pcs
4000	03.04.216	03.04.516	03.04.816	100pcs



Plain Back



PSA

## Alumina Disc ( Plain Back )

FEPA(Grit)	8 inch(200mm)	10 inch(250mm)	12 inch(300mm)	Package
120	03.01.103	03.01.403	03.01.703	50pcs
180	03.01.104	03.01.404	03.01.704	100pcs
320	03.01.105	03.01.405	03.01.705	100pcs
600	03.01.107	03.01.407	03.01.707	100pcs
800	03.01.108	03.01.408	03.01.708	100pcs
1200	03.01.110	03.01.410	03.01.710	100pcs

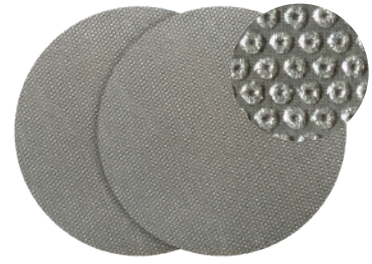
## Alumina Disc (PSA)

FEPA(Grit)	8 inch(200mm)	10 inch(250mm)	12 inch(300mm)	Package
120	03.02.403	03.02.503	03.02.803	50pcs
180	03.02.404	03.02.504	03.02.804	100pcs
320	03.02.405	03.02.505	03.02.805	100pcs
600	03.02.407	03.02.507	03.02.807	100pcs
800	03.02.408	03.02.508	03.02.808	100pcs
1200	03.02.410	03.02.510	03.02.810	100pcs





# Diamond Grinding Disc



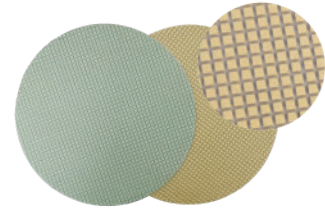
## DiaNi Diamond Disc

Diamond discs are nickel plated bond, extremely durable and very fast grinding speed. Recommended for steel, hard metals, glass and minerals.

FEPA(Grit)	8 inch(200mm)	10 inch(250mm)	12 inch(300mm)	Package
80	04.01.110S	04.01.210S	04.01.310S	1pc
120	04.01.120S	04.01.220S	04.01.320S	1pc
200	04.01.125S	04.01.225S	04.01.325S	1pc
400	04.01.130S	04.01.230S	04.01.330S	1pc
800	04.01.140S	04.01.240S	04.01.340S	1pc
1200	04.01.150S	04.01.250S	04.01.350S	1pc

## DiaRe Diamond Disc

Diamond discs are resin bond, recommended for most of the materials. Very long service life, no need dressing.



FEPA(Grit)	8 inch(200mm)	10 inch(250mm)	12 inch(300mm)	Package
80	04.02.110S	04.02.210S	04.02.310S	1pc
120	04.02.120S	04.02.220S	04.02.320S	1pc
200	04.02.125S	04.02.225S	04.02.325S	1pc
400	04.02.130S	04.02.230S	04.02.330S	1pc
800	04.02.140S	04.02.240S	04.02.340S	1pc
1500	04.02.150S	04.02.250S	04.02.350S	1pc
3000	04.02.160S	04.02.260S	04.02.360S	1pc
5000	04.02.170S	04.02.270S	04.02.370S	1pc

## PF Diamond Polishing Film

Trojan PF precision diamond polishing film series are mainly used for polishing optical fiber inserts, chips and other materials and metallographic samples. Among them, 0-30 microns are suitable for rough grinding, 3 microns and 1 micron are suitable for obtaining fine surfaces.

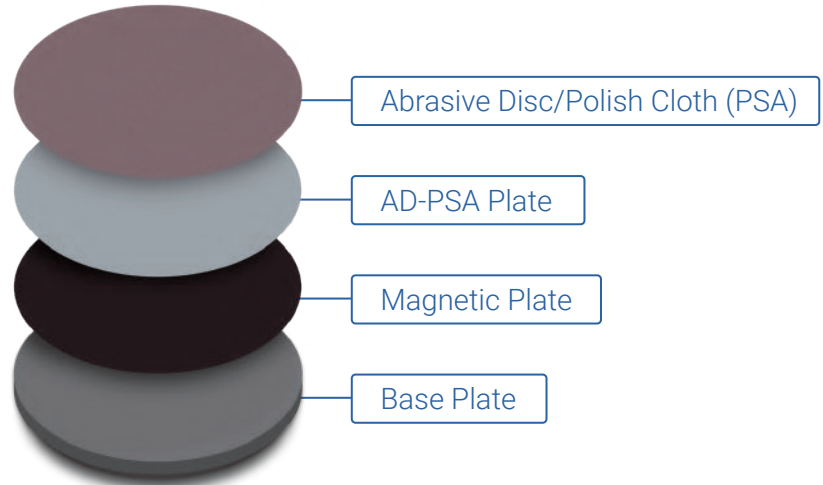


Order No:	Description	Micron	Package
14.01.461	200mm	1um	1pc
14.01.462	200mm	3um	1pc
14.01.463	200mm	6um	1pc
14.01.464	200mm	9um	1pc
14.01.465	200mm	15um	1pc
14.01.466	200mm	30um	1pc



# Adapter Plate System

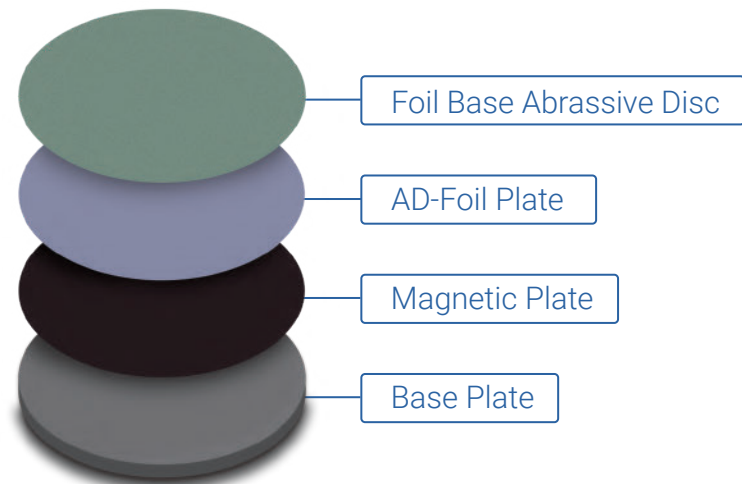
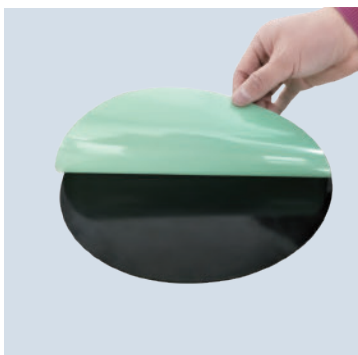
## AD-PSA Plate



The **AD-PSA** system allows adhesive backed abrasive discs/polishing cloths to be easily removed and no residual left.

Order No:	Description	Package
04.08.410	200mm	1pc
04.08.413	250mm	1pc
04.08.420	300mm	1pc

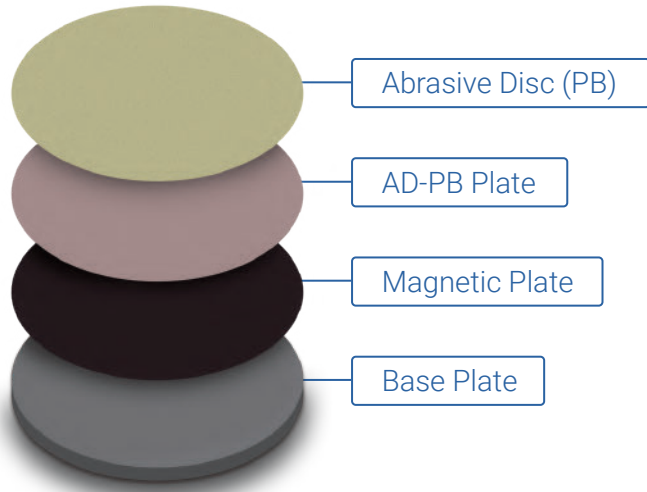
## AD-Foil Plate



The **AD-Foil** system is for Foil base abrasive SIC disc or diamond disc. If the AD-Foil transfer plate is dirty, just washing with water.

Order No:	Description	Package
04.08.422	200mm	1pc
04.08.430	250mm	1pc
04.08.432	300mm	1pc

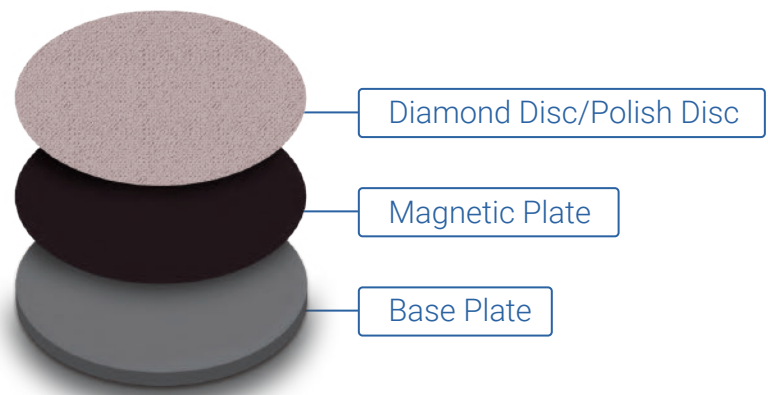
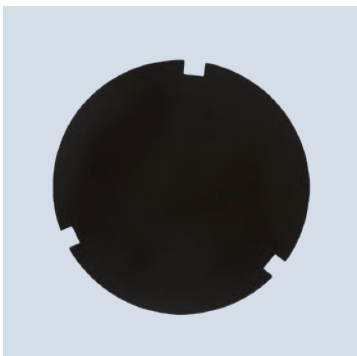
## AD-PB Plate



The **AD-PB** system is for Plainback abrasive SiC disc or diamond disc. If the AD-PB transfer plate is dirty, just washing with water.

Order No:	Description	Package
04.08.310	200mm	1pc
04.08.320	250mm	1pc
04.08.330	300mm	1pc

## Magnetic Plate



The **Magnetic** floppy plate is attached to the chassis of the grinder and can firmly adsorb various conversion plates (AD-PSA, AD-PB, AD-Foil Plate).

Order No:	Description	Package
04.08.010	200mm	1pc
04.08.020	250mm	1pc
04.08.030	300mm	1pc



# Polishing Cloth

## **ZN-ZP Black Polyurethane Polishing Cloth(PSA)**

It is low-napped,used for chemical/mechanical polishing.Recommend to use with Trojan 0.02-1um silica or alumina polishing suspension.



Order No:	Description	Package
05.01.110	8 inch, Black, Polyurethane	10pcs
05.01.120	10inch, Black, Polyurethane	10pcs
05.01.130	12inch, Black, Polyurethane	10pcs

## **SR-ZP Red Synthetic Fabric Polishing Cloth(PSA)**

Used for most materials fine or final polishing.Recommend to use with Trojan 0.3 - 3.0 um alumina or diamond suspension.



Order No:	Description	Package
05.02.150	8 inch, Red, Synthetic Fabric	10pcs
05.02.160	10 inch, Red, Synthetic Fabric	10pcs
05.02.170	12 inch, Red, Synthetic Fabric	10pcs

## **ET-JP White Synthetic Velvet Polishing Cloth(PSA)**

Used for soft materials such as copper,tin,resin,PCB,SMT,semiconductor final polishing.Recommend to use with Trojan 0.05-3.0um,alumina suspension or alumina powder.



Order No:	Description	Package
05.03.210	8 inch, White, Synthetic Velvet	10pcs
05.03.220	10 inch, White, Synthetic Velvet	10pcs
05.03.230	12 inch, White, Synthetic Velvet	10pcs

## **YR-JP Brown Synthetic Rayon Polishing Cloth(PSA)**

Used for ferrous and non-ferrous metals such as composites, polymers, cast irons, ceramics, carbides and PCB intermediate or fine polishing. Recommend to use with Trojan 0.05-3.0 um diamond suspension, alumina suspension or alumina powder.



Order No:	Description	Package
05.04.310	8 inch, Grey, Synthetic Rayon Fibers	10pcs
05.04.320	10 inch, Grey, Synthetic Rayon Fibers	10pcs
05.04.330	12 inch, Grey, Synthetic Rayon Fibers	10pcs

### YS-JP White Fiber Polishing Cloth(PSA)

Used for copper,aluminum,tin and softer ferrous metals fine polishing.  
Recommend to use with TROJAN 1-6um diamond suspension or spray.



Order No:	Description	Package
05.07.710	8 inch, White	10pcs
05.07.720	10 inch, White	10pcs
05.07.730	12 inch, White	10pcs

### GF-JP White Synthetin Silk Polishing Cloth(PSA)

Suitable for ferrous metals intermediate polishing.Recommend to use with TROJAN 3-9 um diamond suspension or spray.



Order No:	Description	Package
05.10.010	8 inch, White	10pcs
05.10.020	10 inch, White	10pcs
05.10.030	12 inch, White	10pcs

### SC-JP White Natural Silk Polishing Cloth(PSA)

Suitable for ferrous metals intermediate or fine polishing. Recommend to use with Trojan 0.5-6.0 um diamond suspension.



Order No:	Description	Package
05.05.510	8 inch, White	10pcs
05.05.520	10 inch, White	10pcs
05.05.530	12 inch, White	10pcs

### CS-JP Blue Synthetin Silk Polishing Cloth(PSA)

Suitable for ferrous and non-ferrous metal,plating and and plastic,fine polishing.Recommend to use with TROJAN 0.5-6 um diamond suspension or spray.



Order No:	Description	Package
05.12.110	8 inch, Blue	10pcs
05.12.120	10 inch, Blue	10pcs
05.12.130	12 inch, Blue	10pcs

### Final Red Final precision polishing cloth (Adhesive Back)

It is widely used in precision polishing of electronic components, especially for SEM or TEM evaluation materials. It is recommended to use it with Trojan diamond polishing suspension (less than 3um) and colloidal suspensions or alumina suspension.



Order No:	Description	Package
05.13.110	8 inch,Red	10pcs
05.13.120	10 inch,Red	10pcs
05.13.130	12 inch,Red	10pcs

# Application of polishing cloth

Model	Rough Polishing		Fine Polishing				Final Polishing			
	NL-CP	GF-JP	SC-JP	YS-JP	CS-JP	SR-JP	ET-JP	YR-JP	Final-Red	ZN-JP
Recommended Granularity	6~15μm	3~9μm	1~6μm	1~6μm	1~6μm	0.3~3μm	0.05~1μm	0.05~1μm	0.05~1μm	0.05~0.3μm
Alumina Polishing Suspension	-	-	-	★	★	★★	★★	★★	★★	★★
Silica Polishing Suspension	-	-	-	-	-	-	★	★	★★	★★
Diamond Polishing Suspension	★★	★★	★★	★★	★★	★★	★	★	-	-
Ceramics	★★	★	★★	-	★	★	★	★	-	★★
Hard Metal	★★	★★	★★	★	★★	★★	★	-	-	★★
Steel	★★	★★	★★	★★	★★	★★	★	★	★	★★
Compound Material	-	★	★★	★	★	★	★★	★★	★★	★★
Mineral	★★	★	★	★	★★	★	★	★	-	★
Spray Coating	-	★★	★	★	★★	★★	★★	★★	-	★★
Grey Cast iron	★★	★★	★★	★★	★★	★★	★	★	-	★★
Copper Alloy	-	★	★	★★	★★	★★	★★	★★	★★	★★
Aluminium Alloy	-	★	★	★★	★★	★★	★★	★★	★★	★★
Soft Metal	-	★	★	★★	★★	★★	★★	★★	★★	★★
Non iron Based Materials	-	★	★★	★★	★	★	★	★	-	★★
Electronic Materials	-	★★	★	-	★	★★	★★	★★	★★	★★
Plastic	-	-	★	-	★	★★	★★	★★	★	★★

★★ Excellent ★ Good

Grinding/Polishing

# Material application

Material	Picture	Grinding steps	Polishing material	Polishing material 1	Polishing steps 2	Polishing steps 3
PCB and SMT		TROJAN abrasive paper P180-P400-P800-P1200- P2500-P4000	Polishing cloth	SC Polishing cloth	ET Polishing cloth	ZN Polishing cloth
			granularity	1µm MD-W	0.05µm AO-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Alumina polishing suspension	Silica polishing suspension
Semiconductor Material		TROJAN abrasive paper P180-P400-P800-P1200- P2500-P4000	Polishing cloth	SC Polishing cloth	Final Red Polishing cloth	ZN Polishing cloth
			granularity	1µm MD-W	0.05 Super-Alumina	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Alumina polishing suspension	Silica polishing suspension
Microelectronic Materials		TROJAN abrasive paper P180-P400-P800-P2000- P4000	Polishing cloth	SC Polishing cloth	ET Polishing cloth	ZN Polishing cloth
			granularity	1µm MD-W	0.3µm AO-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Alumina polishing suspension	Silica polishing suspension
Ceramics and rocks		Method 1: DiaRe Grinding disc P120-P400-P800 Method 2: DiaNi Grinding disc P120-P400-P800-P1200	Polishing cloth	NL Polishing cloth	CS Polishing cloth	CS Polishing cloth
			granularity	9µm MD-W	3µm MD-W	1µm MD-W
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Diamond polishing suspension
Metal thermal spraying		Method 1: TROJAN abrasive paper P180-P400-P800 Method 2: DiaRe Grinding disc P120-P400-P800-P1200	Polishing cloth	NL Polishing cloth	SC Polishing cloth	ZN Polishing cloth
			granularity	9µm MD-W	3µm MD-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	
Ceramic thermal spray		Method 1: DiaRe Grinding disc P120-P400-P800	Polishing cloth	NL Polishing cloth	SC Polishing cloth	ZN Polishing cloth
			granularity	9µm MD-W	3µm MD-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Silica polishing suspension
Cemented carbide		Method 1: DiaRe Grinding disc P120-P400-P800 Method 2: DiaNi Grinding disc P120-P400-P800-P1200	Polishing cloth	NL Polishing cloth	CS Polishing cloth	ZN Polishing cloth
			granularity	9µm MD-W	3µm MD-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Silica polishing suspension
aluminium alloy		TROJAN abrasive paper P180-P400-P800-P1200- P2500	Polishing cloth	YS Polishing cloth	SR Polishing cloth	ZN Polishing cloth
			granularity	3µm MD-W	1µm MD-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Silica polishing suspension
titanium alloy		TROJAN abrasive paper P180-P400-P800-P1200- P2500	Polishing cloth	GF Polishing cloth	ZN Polishing cloth	
			granularity	3µm MD-W	0.05µm SO-T401	
			Abrasive / cooling	Diamond polishing suspension	Silica polishing suspension	
Copper and copper alloys		TROJAN abrasive paper P180-P400-P800-P2000- P4000	Polishing cloth	GF Polishing cloth	CS Polishing cloth	ZN Polishing cloth
			granularity	3µm MD-W	1µm MD-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Silica polishing suspension
Hard steel		Method 1: DiaRe Grinding disc P120-P400-P800 Method 2: DiaNi Grinding disc P120-P400-P1200	Polishing cloth	SC Polishing cloth	SC Polishing cloth	ET Polishing cloth
			granularity	3µm MD-W	1µm MD-W	0.05µm AO-W
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Alumina polishing suspension
Mild steel		TROJAN abrasive paper P180-P400-P800	Polishing cloth	NL Polishing cloth	CS Polishing cloth	ET Polishing cloth
			granularity	9µm MD-W	1µm MD-W	0.05µm AO-W
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Alumina polishing suspension
cast iron		TROJAN abrasive paper P180-P400-P800-P1200	Polishing cloth	GF Polishing cloth	CS Polishing cloth	ET Polishing cloth
			granularity	3µm MD-W	1µm MD-W	0.05µm AO-W
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Alumina polishing suspension
Heat treated steel		Method 1: DiaRe Grinding disc P120-P400-P800 Method 2: TROJAN abrasive paper P180-P400-P800	Polishing cloth	NL Polishing cloth	SR Polishing cloth	
			granularity	9µm MD-W	1µm MD-W	
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	
Stainless steel and maraging steel		Method 1: DiaRe Grinding disc P120-P400-P800 Method 2: TROJAN abrasive paper P400-P800-P1200	Polishing cloth	GF Polishing cloth	SR Polishing cloth	ZN Polishing cloth
			granularity	3µm MD-W	1µm MD-W	0.05µm SO-A439
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Silica polishing suspension
Polymer matrix composites		TROJAN abrasive paper P180-P400-P800-P2000	Polishing cloth	SC Polishing cloth	CS Polishing cloth	ET Polishing cloth
			granularity	3µm MD-W	1µm MD-W	0.05µm AO-W
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Alumina polishing suspension
General batch sample		Method 1: DiaRe Grinding disc P180-P400-P800-P2000	Polishing cloth	GF Polishing cloth	SR Polishing cloth	ET Polishing cloth
			granularity	3µm MD-W	1µm MD-W	0.05µm AO-W
			Abrasive / cooling	Diamond polishing suspension	Diamond polishing suspension	Alumina polishing suspension



# Polishing Consumables

The diamond suspensions contain heavy concentration of monocrystalline or polycrystalline diamond. The suspension is stable which is excellent for distributing diamond easily and uniformly over the cloth or platen surface.

## MD-W Monocrystalline Diamond Suspension

Water-based diamond suspension, used for polishing most materials.



Order No:	Description	Package
06.01.110	Monocrystalline, 0.25µm	500ml
06.01.120	Monocrystalline, 0.5µm	500ml
06.01.130	Monocrystalline, 1µm	500ml
06.01.140	Monocrystalline, 3µm	500ml
06.01.150	Monocrystalline, 6µm	500ml
06.01.160	Monocrystalline, 9µm	500ml

## PD-W Polycrystalline Diamond Suspension

Water-base diamond suspension, offering better polishing surface and faster polishing rate when using the same grit.



Order No:	Description	Package
06.02.210	Polycrystalline, 0.25µm	500ml
06.02.220	Polycrystalline, 0.5µm	500ml
06.02.230	Polycrystalline, 1µm	500ml
06.02.240	Polycrystalline, 3µm	500ml
06.02.250	Polycrystalline, 6µm	500ml
06.02.260	Polycrystalline, 9µm	500ml

## PL-W Polishing Lubricants

Lubricant is used to enhance polishing performance of diamond suspensions, compounds, sprays and films. It reduces friction and increase the life of polishing clothes. It can be applied manually or used with automatic dispenser.



Order No:	Description	Package
06.09.510	Liquid	500ml
06.09.520	Liquid	1000ml

Grinding/Polishing



## AO-P Alumina Suspension

It is a water based stable suspension.Used for copper,tin and other soft metal or plastic material,such as PCB,SMT, semiconductor.



Order No:	Description	Package
06.04.210	0.05 $\mu$ m	500ml
06.04.220	0.3 $\mu$ m	500ml
06.04.230	1 $\mu$ m	500ml

## Monocrystalline Diamond Paste

Water based monocrystalline diamond paste,high polish speed, good polish surface.



Order No:	Description	Package
06.10.030	1 $\mu$ m/Blue	5g
06.10.040	3 $\mu$ m/Green	5g
06.10.050	6 $\mu$ m/Yellow	5g
06.10.060	9 $\mu$ m/Red	5g

## Polycrystalline Diamond Paste

Water based polycrystalline diamond paste,high polish speed, better polish surface.



Order No:	Description	Package
06.10.110	1 $\mu$ m/Black	10g
06.10.130	3 $\mu$ m/Black	10g
06.10.160	6 $\mu$ m/Black	10g
06.10.190	9 $\mu$ m/Black	10g

## SP-D Monocrystalline Diamond Spray

Simple to use,convenient,with polishing efficiency.



Order No:	Description	Package
06.03.115	0.5 $\mu$ m	350ml
06.03.320	1 $\mu$ m	350ml
06.03.325	2.5 $\mu$ m	350ml
06.03.330	3.5 $\mu$ m	350ml
06.03.335	5 $\mu$ m	350ml
06.03.340	10 $\mu$ m	350ml

## AO-P De-agglomerated Alumina Polishing PoWder

The alumina polishing powder is de-agglomerated,strict particle size distribution. Mix the powder with DI water before use.



Order No:	Description	Package
06.13.011	0.05µm	500g
06.13.021	0.3µm	500g
06.13.031	1µm	500g

## SO T401 Non-Crystallizing Silica

Use for the final polishing.

Non-Crystallizing silica suspension with 10.5 PH,provides a chemical-mechanical polishing action for Titanium, Stainless Steel etc.



Order No:	Description	Package
06.05.310	50nm	500ml
06.05.320	50nm	1000ml
06.05.330	50nm	5000ml

## SO A439 Non-Crystallizing Silica

Use for the final polishing.

Non-Crystallizing silica suspension with 10.2 PH,provides a chemical-mechanical polishing action for a wide variety of materials,such as nonferrous metals,aluminium,PCB and ICS etc.



Order No:	Description	Package
06.07.310	50nm	500ml
06.07.320	50nm	1000ml
06.07.330	50nm	5000ml





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