## Sainko

Sainko's goals:
Let customers make the best products at the lowest cost.



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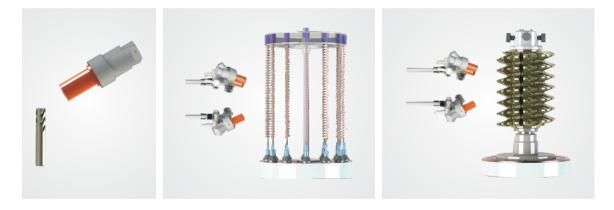
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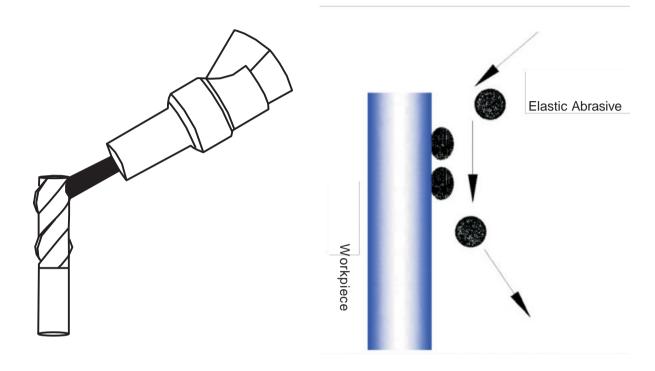
# Sainko



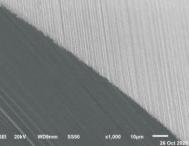
Jet Polishing Concept

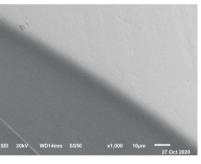
Sainko Mechanical technology Co., Ltd.

#### Principles of Jet Polishing Technology









Before processing

After processing

Before processing

After processing

The soft particles are coated with a layer of diamond powder to make an elastic polishing abrasive. The elastic abrasive is sprayed to the workpiece surface at an accelerated speed by compressed air. After the abrasive is affected by the impact force, it stretches and slides on the workpiece surface to produce polishing effect. This polishing method has good uniformity and minimal removal of single particles, and is very suitable for the surface of various special-shaped workpiece ultra-fine polishing.

#### Application area

- Used for all kinds of carbide cutting tools, drills, blade edge passivation and polishing treatment, polishing after coating to remove droplets, Mold polishing, a variety of complex structure surface finish requirements of high precision parts polishing.
- Function: Remove the micro-crack of the cutting edge of the tool, improve the strength of the cutting edge, reduce the surface roughness of the tool, facilitate chip removal, improve the sticky chip, improve the coating strength, improve the service life of the tool, and improve the finish of the processed product.











Hobbing cutter

Forming tool

Milling cutter

Screw tap









Drill bit

Blade

Mould & Die

Saw blade



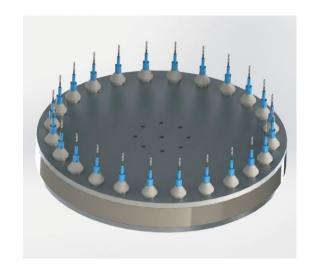


#### PLE-24AX Jet polishing machine



On the basis of PL-24A model, the machine adds a loading and unloading manipulator, which can realize high-speed automatic processing for mass processing rod cutting tools, and also retains the function of manual feeding, which is more convenient in proofing or small batch processing.

Suitable for all kinds of standard end milling cutter, round nose cutter, ball cutter, drill tap and other rod cutter.









Drill bit

Milling cutter

Screw tap

Maximum machining diameter (mm): 40 Maximum stroke of spray gun (mm): 220 Rotation rate of work  $(rpm) : 0^{\sim}100$ Abrasive production rate (kg/min): 8~16 Air consumption  $(m^3/min)$ : 3.8 Intake pressure (MP): 0.5 Automatic feeding maximum diameter (mm): 12 Maximum length of automatic feeding (mm): 100 Fastest feeding rate (seconds/piece): 5 Power requirements: Monophase 220V 4.5kw

Dimensions (approx.:  $L \times w \times h$ )  $1800 \times 1400 \times 2400$  (mm)

Equipment weight (approx..): 700kg

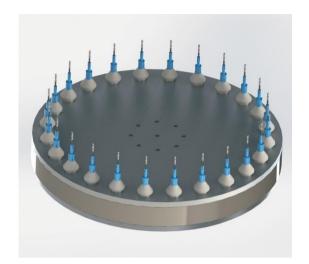




#### PL-24A Jet polishing machine



The machine is equipped with 24 stations, 4 spray guns, each time can process two stations at the same time, can achieve continuous and efficient processing. When polishing, the workpiece can be rotated, and the nozzle can move up and down to achieve uniform processing of the workpiece. The processing process can be divided into 4 stages. The injection pressure, rotation speed, processing times and spray gun position of each stage can be set according to the different processing requirements of the product, and 100 groups of processing parameters can be saved.



Scope of application: all kinds of standard end milling cutter, round nose cutter, ball cutter, drill, tap and other rod cutter.







Drill bit

Milling cutter

Screw tap

 ${\tt Maximum\ machining\ diameter\ (mm):\ 40}$ 

 ${\tt Maximum\ gun\ travel\ (mm):\ 220/320/420}$ 

Rotation rate of work (rpm): 0~100

Sand production rate (kg/min): 8~16

Air consumption  $(m^3/min)$ : 3.8

Intake pressure (MP): 0.5

Power requirements: Monophase 220V 2.5kw

Dimensions (approx..:

 $L \times w \times h) 1700 \times 1200 \times 2400 \text{ (mm)}$  Equipment weight

(approx..): 600kg





#### PL-12C Jet polishing machine



This machine is equipped with a workpiece turntable, there are 12 stations and 4 spray guns on the turntable, each time can process two stations at the same time, the workpiece can be rotated when the equipment is polishing, the nozzle can move up and down to achieve uniform processing of the workpiece, according to the different processing of the product jet pressure, rotation speed, polishing time, spray gun position can be adjusted. There is a cage above the turntable, which can maintain the stability of the string rod when processing the blade, and the workpiece can be installed directly on the turntable when processing the larger workpiece such as the hob, and the workpiece is directly driven by the turntable to automatically turn the processing. Suitable for all kinds of CNC blades, gear tools, rod tools, etc.

Based on the PL-12 model, several different configurations are available: PL-12C, PL-12D, PL-12E, PL-12F, among others. We consider this model to be a customizable base platform. For further information or to discuss your specific needs, please contact our technical and commercial department.





Maximum machining diameter (mm): 300

Maximum stroke of spray gun (mm): 420

Workpiece rotation speed (rpm): 0~100

Maximum speed of turntable (rpm): 40

Abrasive production rate (kg/min): 8~16

Air consumption  $(m^3/min)$ : 3.5

Intake pressure (MP): 0.6

Power requirements: Monophase 220V 2.5kw

Dimensions (approx.:  $L \times w \times h$ )  $1400 \times 1200 \times 2360$  (mm)

Equipment weight (approx.): 500kg





#### PL-4G Tool passivation polishing machine



### Features of this machine

- 1. This machine is equipped with four stations, one for each processing.
- 2. This machine is equipped with four spray guns, each of which can be controlled separately, Pressure parameters can be set on the touch screen to meet the requirements of various processes and efficiency-enhancing processing.
- 3. The processing process can be divided into up to 4 sections for processing, and the processing position, processing times, pressure, linear speed, direction and other parameters of each section can be set separately.
- 4. A manual sandblasting window is set on the left back door of the equipment. At the same time, a small workbench can be added in the left door to place products (in the same direction as the equipment).
- 5. This machine is easy to use. By simply setting the knife diameter, Internal calculation of cutter length and linear speed can realize accurate machining. Internal calculation of cutter length and linear speed can realize accurate machining.
- 6. It is suitable for deburring, edge passivation and polishing of various high-speed steel and Gear Hob



Maximum machining diameter (mm): 200

Maximum stroke of spray gun (mm): 350

Linear velocity of workpiece (rpm): 0~100

Abrasive production rate (kg/min): 8~16

Air consumption  $(m^3/min)$ : 3.9 Intake pressure (MP): 0.5

Power requirements: Monophase 220V 2.5kw Dimensions

 $(approx.: L \times w \times h) 2000 \times 1000 \times 2550 (mm)$  Equipment weight

(approx.): 700kg





#### PL-01SA Manual jet polishing machine



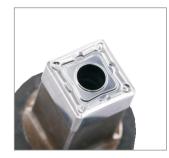
#### Features of this machine

- 1. The equipment has a compact structure and a small footprint.
- 2. Using PLC, touch screen control, processing pressure and processing time can be set
- 3. It is convenient to operate and reduce orders, and the performance is reliable.
- 4. Adopt a variety of anti-static design, which will not cause de-static and hurt people.



#### Application field

Mirror polishing of various metal/non-metal parts for small batches of special-shaped, such as: Molds, medical equipment, impellers, handicrafts, etc.









Dia Maximum machining size (mm): 100x200

Abrasive production rate (kg/min):  $1^2$ 

Air consumption  $(m^3/min)$ : 0.8 Intake pressure (MP): 0.6

Power requirements: Monophase 220V 0.5kw

Dimensions (approx.:  $L \times w \times h$ )  $650 \times 820 \times 1560$  (mm)

Equipment weight (approx..): 300kg





#### PL-03SA Manual jet polishing machine





#### Features of this machine

- 1. The equipment has a compact structure and a small footprint.
- 2. Using PLC, touch screen control, processing pressure and processing time can be set
- 3. It is convenient to operate and reduce orders, and the performance is reliable.
- 4. Adopt a variety of anti-static design, which will not cause de-static and hurt people.



#### Application field

Mirror polishing of various metal/non-metal parts for small batches of special-shaped, such as: Molds, medical equipment, impellers, handicrafts, etc.









Internal dimensions working surface mm): 1000x700

Abrasive production rate (kg/min): 2-4

Air consumption  $(m^3/min)$ : 0.8

Intake pressure (MP): 0.6

Power requirements: Monophase 220V 0.5kw Dimensions

 $(approx..: L \times w \times h) 1300 \times 1100 \times 2050 (mm)$ 

Equipment weight (approx..): 400kg



## Sainko High elastic polishing abrasives









#### Common specifications of elastic abrasives for jet polishing

Model	Matrix hardness	Matrix particle size	Diamond powder size	Application area
TXC-6000	60	0.5-1.2mm	6000#	Hobbing cutter, drill, blade, die passivation rough polishing
TXC-8000	60	0.5-1.2mm	8000#	Hobbing cutter, drill, blade, die passivation rough polishing
TXC-10000	60	0.4-1.0mm	10000#	Steel milling cutter, tap passivation polishing
TXC-15000	60	0.25-0.6mm	15000#	Milling cutter passivation polishing, die polishing, small diameter tap passivation polishing
TXR-10000	50	0.4-1.0mm	10000#	Low hardness material polishing
TXR-12000	5 0	0.25-1.0mm	12000#	Low hardness material polishing