



Holding®

Magnetic De-burring & Polishing Machine

De-burring, Polishing, Cleaning

Special PIN Media Deburrs



HD-790



Magnetic De-burring Machine Inventor

www.holding.com.tw

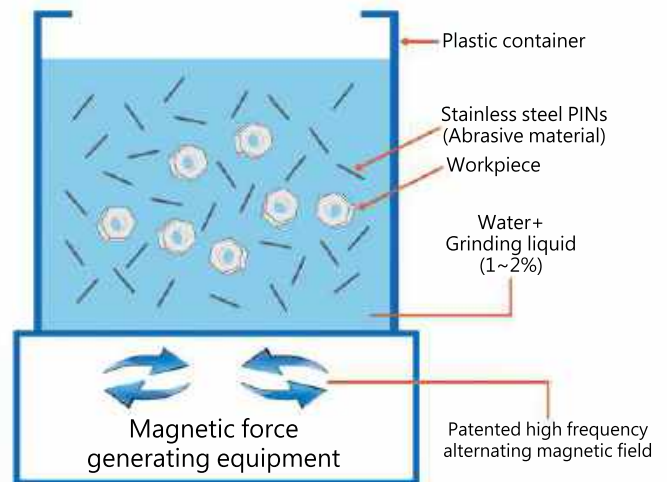
Made in Taiwan

About the SPINner®

- ✓ The sPINner is a special magnetic force generating equipment motivating magnetized SUS PINs to bounce and rotate rapidly to grind workpieces uniformly
- ✓ Deburring, polishing and cleaning at the same time
- ✓ Patented in many countries



Working Principle

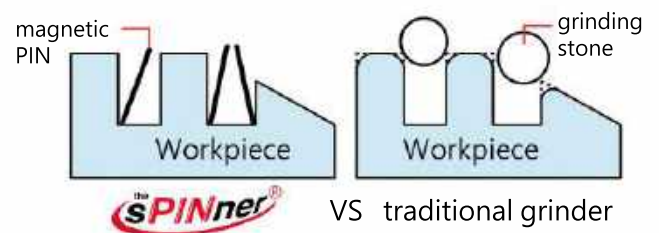
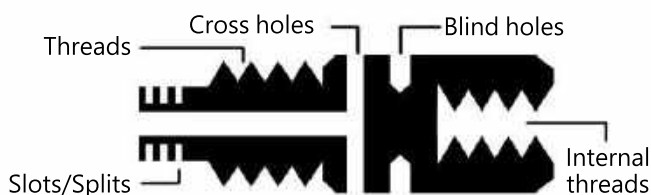


Made by Holding company in Taiwan
Obtained patents from many countries

Grind Every Corner

- ✓ The magnetic PINs are thin. They can penetrate into every corner of the workpiece
- ✓ Able to grind the inside of tubes, holes and grooves without any dead corners
- ✓ Effectively remove burrs and round sharp edges
- ✓ Suitable for grinding various shapes and irregular workpieces

Suitable for all kinds of workpieces with grooves or holes

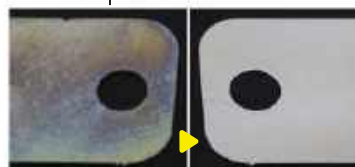


Grind for High-precision Parts

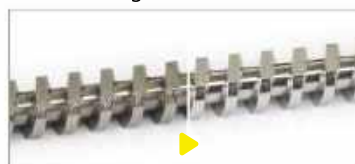
- ✓ The force of the magnetic PINs is gentle, suitable for grinding high-precision workpieces with precision requirements
- ✓ Never deform parts
- ✓ Never affects accuracy
- ✓ Never damage surfaces

*Able to process threads, screw holes, screws, gears, thin stamping parts, long fragile workpieces, springs, shrapnel, etc.

Thin workpieces



Screws and gears



Workpieces with threads/screw holes



High-precision workpieces



Suitable Processes

*Beyond traditional
Deburring/polishing/cleaning*

Milling



Lathing



Wire EDM



Laser cutting



Powder metallurgy



Thermal treatment



Hobbing



Wire forming



MIM



Metal 3D printing



Stamping



Die casting



Suitable Industries

Suitable for high-precision industries such as aerospace, semiconductor, biomedical and bicycle industries

- ✓ Bicycle industry
- ✓ Aerospace industry
- ✓ Biomedical stainless steel and titanium parts
- ✓ CNC turning and milling parts
- ✓ Laser sheet metal
- ✓ Accessories, handicrafts
- ✓ Heat sinks, heat spreaders, and lead of frames
- ✓ High-precision stamping parts and springs
- ✓ Nozzles, joints, and valve parts
- ✓ Cleaning of semiconductor process devices

Suitable Materials

Copper, brass, aluminum alloy, stainless steel, zinc alloy, titanium alloy, hard plastic, glass fiber, carbon fiber, ceramics

Stainless steel



Copper/brass



Aluminum alloy



Zinc alloy



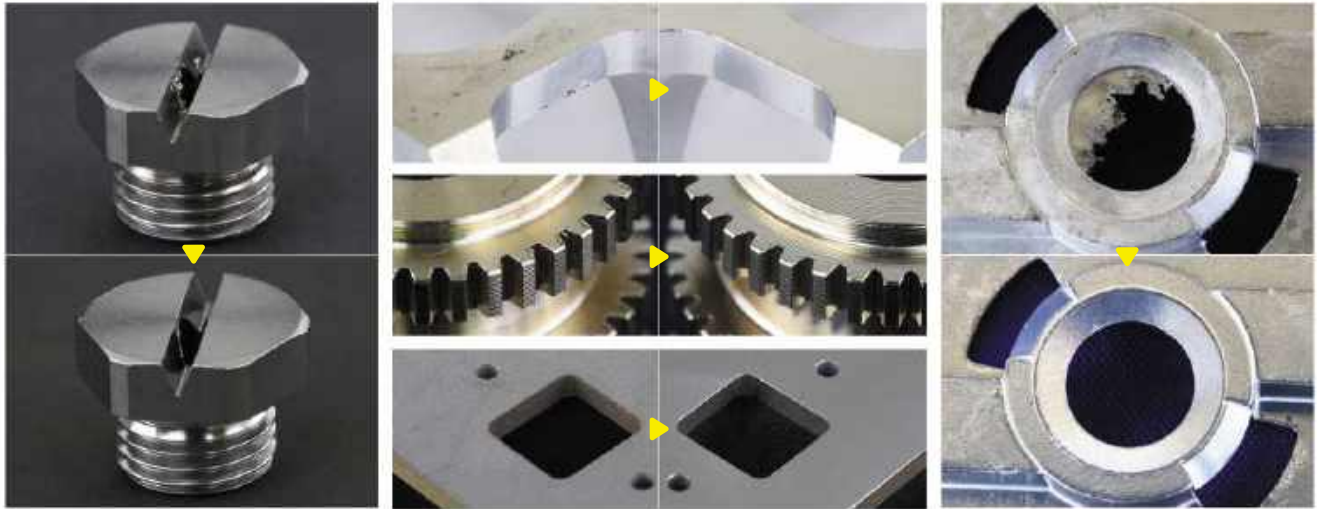
Deburring & Round Sharp Edges

The sPINner can effectively remove small burrs caused by machining and cutting, and slightly round the sharp edges to make the workpiece smooth.

It can uniformly remove the burrs in holes, tubes, and slots.

It is also useful for removing mold burrs of die-casting parts.

- | | | |
|-----------------------|------------|--|
| ✓ CNC lathing/milling | ✓ Stamping | ✓ Die casting |
| ✓ Laser cutting | ✓ Cutting | ✓ Powder metallurgy |
| ✓ Wire EDM | ✓ Hobbing | ✓ Plastic, glass fiber, carbon fiber machining |

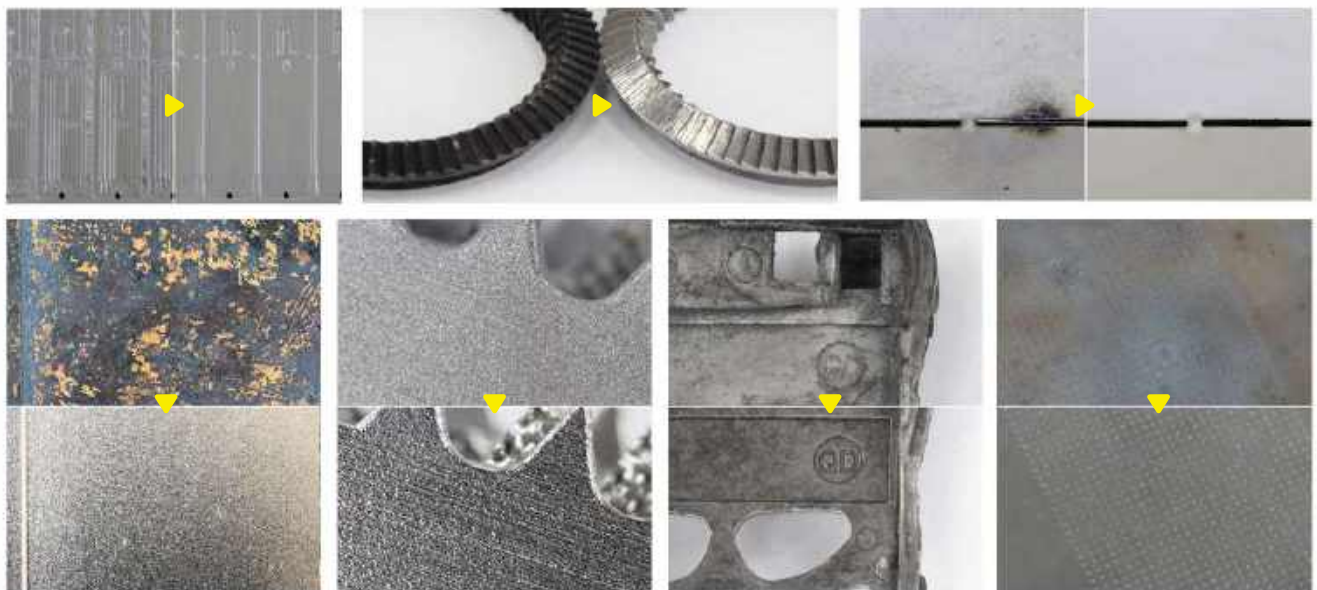


Surface Treatment

The sPINner can quickly remove tool marks and scratches, rusty layers of steel/iron and oxide layers of copper/aluminum.

It can also recover laser scorch marks and oxidative discoloration caused by heat treatment as well as restore brightness and reduce color difference.

- | | | |
|---|--|---|
| ✓ Remove turning and milling tool marks | ✓ Remove oxide layer from copper parts | ✓ Reduce surface color difference |
| ✓ Improve surface roughness | ✓ Rust removal of steel and iron parts | ✓ Remove heat treatment oxidized layer |
| ✓ Remove surface scratches | ✓ Surface matte treatment | ✓ Reduce layer texture from 3D printing |
| ✓ Improve electroplating, anode surface uniformity & image and text clarity | | ✓ Remove laser scorch marks & spatter marks |



Polishing

The sPINner can slightly remove the metal surface layer, resulting in a matte/sub-mirror finishing and greatly increasing the metallic luster.

Dead corners such as holes and pipes can also be polished.

- ✓ Matte/sub-mirror polishing
- ✓ MIM parts polishing
- ✓ Increase metallic luster
- ✓ Brass, copper polishing
- ✓ Aluminum/zinc die casting polishing
- ✓ Polishing of casting and forged parts
- ✓ Irregular surface polishing
- ✓ Metal 3D printing polishing
- ✓ Stainless steel 2B/No.1 surface polishing



Cleaning

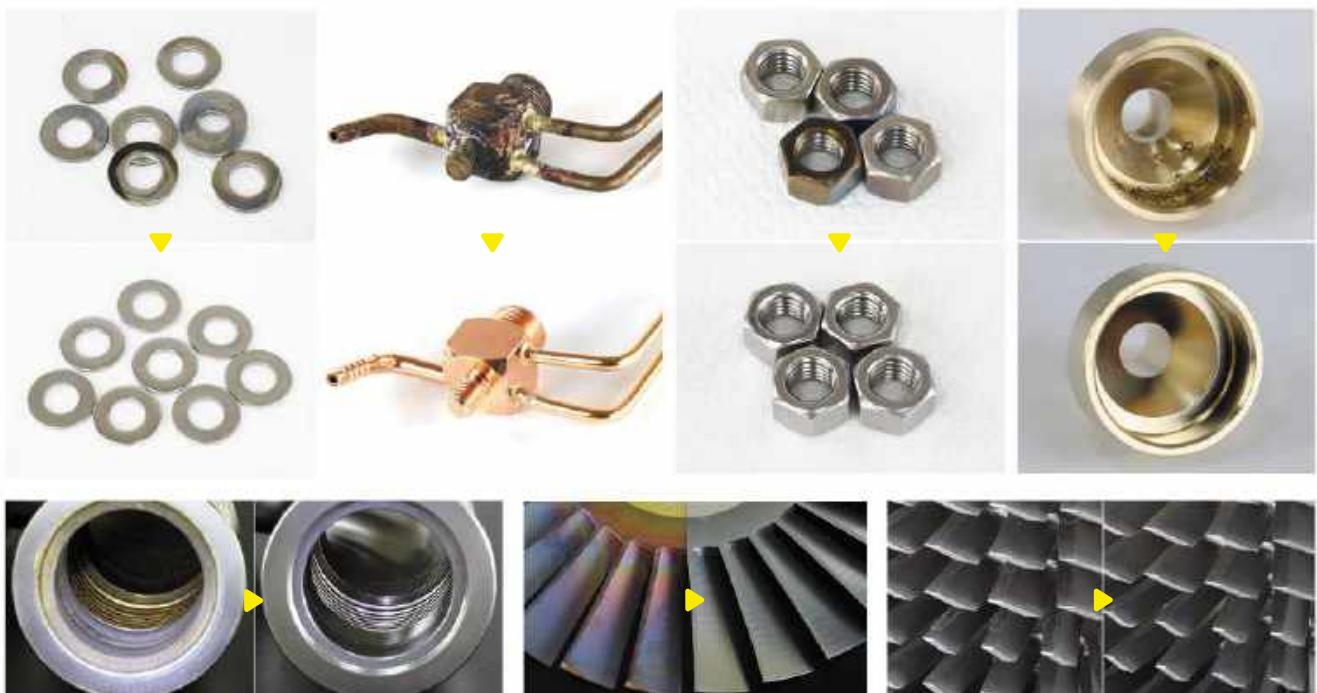
The patented magnetic technology motivates the PINs, like a fluid steel brushes, to clean every corner of the workpieces without any dead corners.

Never damage and never deform the base material.

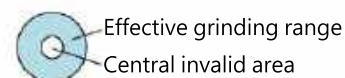
Compared with traditional methods, the sPINner can batch cleaning the process deposition on the semiconductor device.

The grinding liquid used is non-corrosive, environmentally friendly, non-toxic, and without recycling problem.

- ✓ Remove process depositions
- ✓ Pump and turbine blade cleaning
- ✓ Remove machining scarps
- ✓ Semiconductor device cleaning
- ✓ Cleaning of water /oil pipelines, heating and pipe components



The sPINner uses a patented magnetic field to drive the PINs to bounce and rotate rapidly to evenly grind all parts of the workpiece.
The standard series include grinding areas ranging from $\Phi 280\text{mm}$ to $\Phi 830\text{mm}$.
The user can choose according to the workpiece output, material, and size.



HD-790 Max grinding capacity 18KG



HD-765 Max grinding capacity 12KG



HD-750 Max grinding capacity 8KG



HD-745 Max grinding capacity 5KG



HD-735 Max grinding capacity 3KG



HD-728 Max grinding capacity 1KG



(unit : mm)

(The maximum grinding capacity is estimated for solid, small, non-magnetic stainless steel or copper workpieces. The actual grinding capacity depends on the material, shape and conditions of the workpiece.)

HD-790



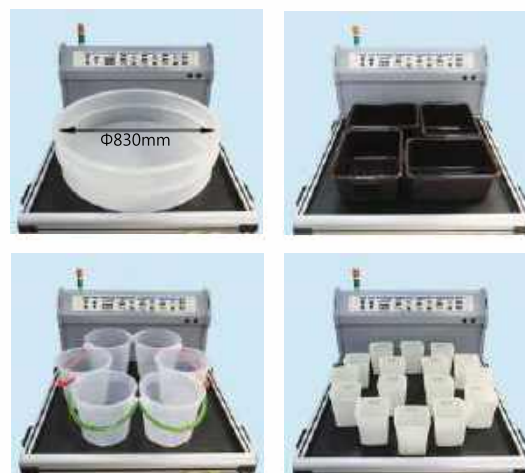
Features:

- The largest sPINner in the standard series
- Max grinding capacity : 18kg
- Max grinding area $\Phi 830\text{mm}$
- According to the size and quantity of workpieces, users can choose different sizes and shapes of flat-bottomed plastic containers
- 3-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction

Powerful version HD-790F (P.12)

Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 24KG
Weight	2. Plastic container : 2sets
340KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 2sets
$\Phi 830 \times 250\text{mm}$	5. Grinding liquid (20,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	18KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	7.5KG
Machine size (LxWxH)	1050x1140x1220mm

Grinding container (examples) :



Parameter settings
running display

Speed
indicator

Program T1

Program T2

Program T3

grinding preset time, speed, direction

HD-765



Features: :

- Max grinding capacity : 12kg
- Max grinding area $\Phi 650\text{mm}$
- According to the size and quantity of workpieces users can choose different sizes and shapes of flat-bottomed plastic containers
- 3-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction

Powerful version HD-765F (P.12)

Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 12KG
Weight	2. Plastic container : 2sets
234KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 1set
$\Phi 650 \times 250\text{mm}$	5. Grinding liquid (12,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	12KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	5KG
Machine size (LxWxH)	960x1000x1100mm

Grinding container (examples) :



HD-750



Features :

- Max grinding capacity : 8kg
- Max grinding area $\Phi 500\text{mm}$
- According to the size and quantity of workpieces users can choose different sizes and shapes of flat-bottomed plastic containers
- 2-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction

Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 6KG
Weight	2. Plastic container : 2sets
150KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 1set
$\Phi 500 \times 245\text{mm}$	5. Grinding liquid (6,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	8KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	3KG
Machine size (LxWxH)	810x790x1070mm

Grinding container (examples) :



HD-745



Features :

- Max grinding capacity : 5kg
- Max grinding area $\Phi 400\text{mm}$
- According to the size and quantity of workpieces users can choose different sizes and shapes of flat-bottomed plastic containers
- 2-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction

Grinding container :



Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 5KG
Weight	2. Plastic container : 2sets
135KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 1set
$\Phi 400 \times 235\text{mm}$	5. Grinding liquid (5,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	5KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	2KG
Machine size (LxWxH)	610x700x1120mm



Parameter settings running display

Speed indicator

Program T1

Program T2

grinding preset time, speed, direction

HD-735

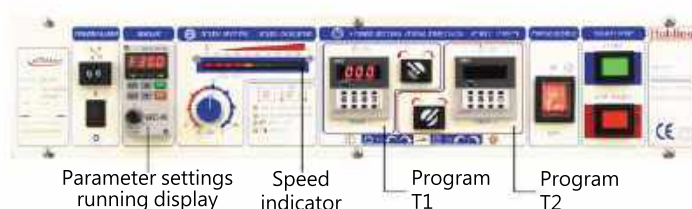


Grinding container :



Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 4KG
Weight	2. Plastic container : 2sets
100KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 1set
Φ350x200mm	5. Grinding liquid (4,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	3KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	1.5KG
Machine size (LxWxH)	560x630x1020mm

- Max grinding capacity : 3kg
- Max grinding area Φ350mm
- 2-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction



HD-728



Grinding container :

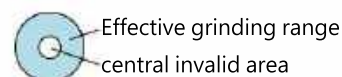


Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 2KG
Weight	2. Plastic container : 2sets
65KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 1set
Φ260x270mm	5. Grinding liquid (2,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	1KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	0.5KG
Machine size (LxWxH)	410x530x970mm

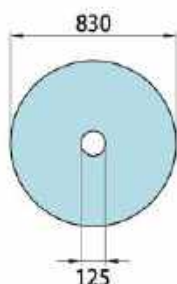
- Max grinding capacity : 1kg
- Max grinding area Φ280mm
- 2-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction



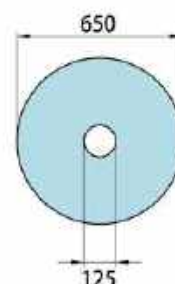
Powerfully upgraded version of the sPINner, with high-density magnetic field, increasing the grinding force & height, also shortens the grinding time.



HD-790F Max grinding capacity 18KG

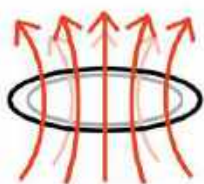


HD-765F Max grinding capacity 12KG



(unit : mm)

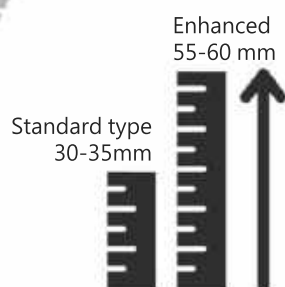
Enhanced Magnetic Field



Magnetic flux density
increase by
150~250%



Grinding force
enhance by
80~120%



Grinding height
increase by
50~80%



Grinding time
shorten by
20~50%

Application Examples

- CNC aluminum molds and aluminum shells
- ✓ Tooling mark removal ✓ Brilliant treatment ✓ Polishing
- ✓ Surface homogenization ✓ Surface refinement
- Semiconductor equipment cleaning
- ✓ Cleaning of oil and water pipelines ✓ Clean the pump blades
- ✓ Remove the surface depositstions of semiconductor process
- ✓ Improve the surface roughness of the inner tube wall



HD-790F



Features :

- Max grinding area $\Phi 830$, grinding height 55~60mm
- According to the size and quantity of workpieces users can choose different sizes and shapes of flat-bottomed plastic containers
- 3-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction

Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 24KG
Weight	2. Plastic container : 2sets
345KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 2sets
$\Phi 830 \times 250 \text{mm}$	5. Grinding liquid (20,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	18KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	7.5KG
Machine size (LxWxH)	1050x1140x1220mm

HD-765F



Features :

- Max grinding area $\Phi 650$, grinding height 55~60mm
- According to the size and quantity of workpieces users can choose different sizes and shapes of flat-bottomed plastic containers
- 3-stage grinding programs with independent adjustment functions for grinding force (speed), grinding time and rotation direction

Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 12KG
Weight	2. Plastic container : 2sets
250KG	3. Separating container : 1set
Container size (LxW)	4. PIN collector : 1set
$\Phi 650 \times 250 \text{mm}$	5. Grinding liquid (12,000c.c.)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	12KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	5KG
Machine size (LxWxH)	960x1000x1100mm

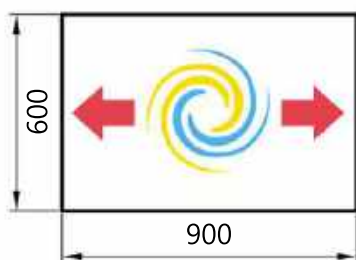
Parallel Model

The parallel model of the sPINner can be equipped with multiple magnetic force generating devices, which move in parallel to increase the grinding area.

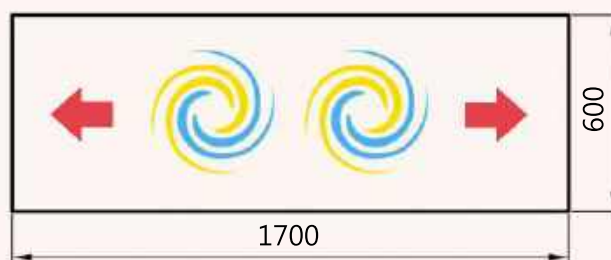
The grinding range can be customized. Suitable for long or tubular workpieces and flat workpieces such as polishing aluminum molds and deburring the interior of biomedical tubes.



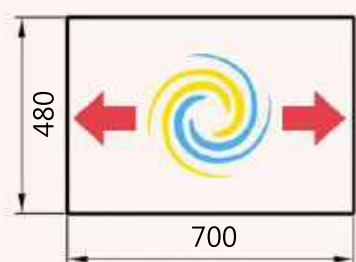
HD-7165 Max grinding capacity 12KG



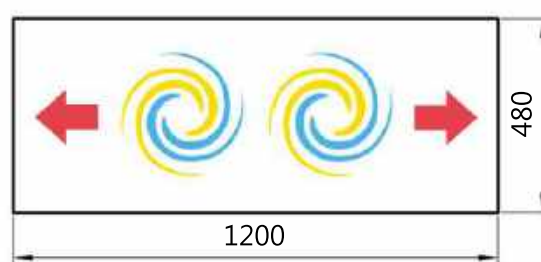
HD-7265 Max grinding capacity 24KG



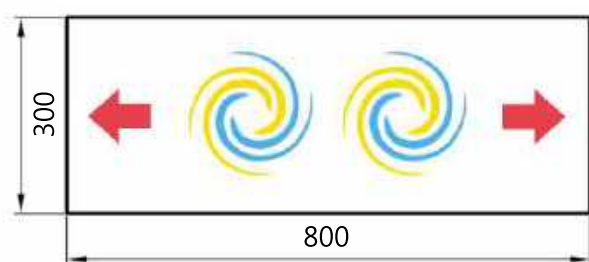
HD-7150 Max grinding capacity 8KG



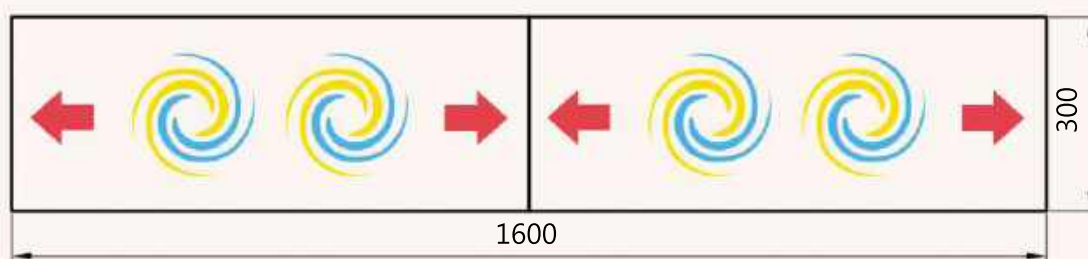
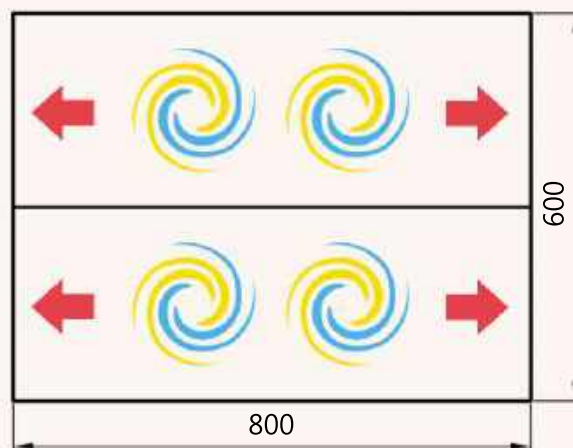
HD-7250 Max grinding capacity 16KG



HD-7200 Max grinding capacity 6KG



HD-7400 Max grinding capacity 12KG



(unit : mm)

HD-7165

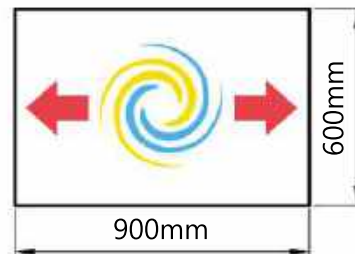
Slider-I



Features :

- Patented magnetic base design for left and right parallel movement, able to grind workpieces uniformly without dead corners
- Grinding area 900(L)x600(W)mm
- Can be equipped with enhanced grinding magnetic field (HD-7165F) Increased magnetic flux density 150-250%, effectively enhance grinding force & increases grinding height
- Suitable for long workpieces and flat workpieces
- Suitable for long biomedical tubes
- Suitable for large aluminum molds and aluminum shells

Grinding area :



Grinding container (examples) :



Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 15KG
Weight	2. Customized PP rectangular container : 1set
281KG	3. HD-765 round PP grinding container : 1set
Max grinding area (LxW)	4. Separating container : 1set
900x600mm	5. PIN collector : 2sets
	6. Grinding liquid (15,000c.c)
	7. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	12KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	6KG
Machine size (LxWxH)	1360x1070x1365mm



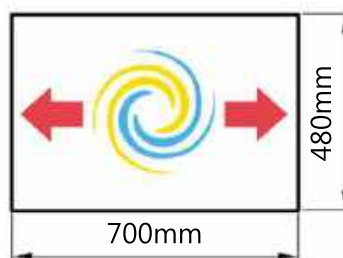
SPINNER



Features :

- Patented magnetic base design for left and right parallel movement, able to grind workpieces uniformly without dead corners
- Grinding area 700(L)x480(W)mm
- Suitable for long workpieces and flat workpieces
- Suitable for long biomedical tubes
- Suitable for large aluminum molds and aluminum shells

Grinding area :



Grinding container (examples) :



Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 8KG 2. Customized PP rectangular container : 1set 3. HD-750 round PP grinding container : 2sets 4. Separating container : 1set 5. PIN collector : 2sets 6. Grinding liquid (8,000c.c) 7. Operation manual
Weight	
200KG	
Container size (LxW)	
700x480mm	
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	8KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	4KG
Machine size (LxWxH)	1270x850x1370mm



Parameter settings running display

Speed indicator

Program T1

Program T2

Program T3

grinding preset time, speed, direction

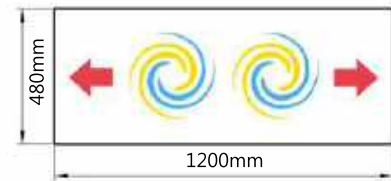
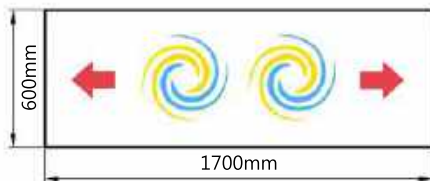
HD-7265



HD-7250



- Patented dual magnetic bases + left and right parallel movement design, able to grind workpieces uniformly without dead corners
- Independent dual spindles, can be operated separately
- Suitable for long biomedical tubes, aluminum molds, and aluminum shells



Power	Accessories
3 phase AC220V/380V(50/60HZ)	1. Stainless pins : 30KG
Weight	2. Plastic container : 2sets
330KG	3. Separating container : 1set
Effective grinding area	4. PIN collector : 3sets
1700x600mm	5. Grinding liquid (27,000c.c)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	24KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	12KG
Machine size (LxWxH)	2500x1100x1300mm

Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 16KG
Weight	2. Plastic container : 2sets
230KG	3. Separating container : 1set
Effective grinding area	4. PIN collector : 3sets
1200x480mm	5. Grinding liquid (14,000c.c)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	16KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	8KG
Machine size (LxWxH)	2022x830x1370mm

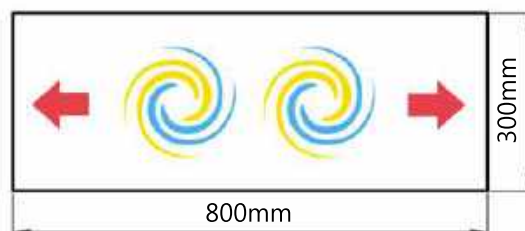


Features:

- Patented dual magnetic bases+ left and right parallel movement design, able to grind workpieces uniformly without dead corners
- Grinding area 800(L)x300(W)mm
- Independent dual spindles, can be operated separately
- Suitable for long biomedical tubes
- Suitable for aluminum molds and aluminum shells

Power	Accessories
3 phase AC220/380V (50/60HZ)	1. Stainless pins : 12KG
Weight	2. Plastic container : 2sets
500KG	3. Separating container : 1set
Effective grinding area	4. PIN collector : 3sets
800x300mm	5. Grinding liquid (12,000c.c)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	6KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	3KG
Machine size (LxWxH)	1480x670x1100mm

Grinding area :



Grinding container (examples) :



Parameter settings running display

Speed indicator

Program T1

Program T2

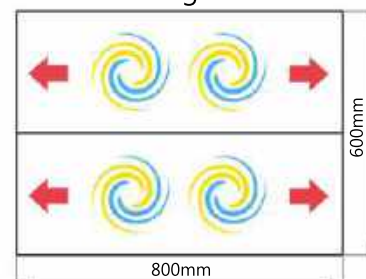
grinding preset time, speed, direction

HD-7400

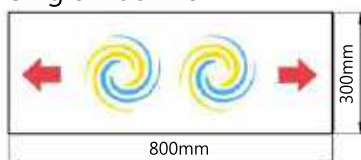


Dual-machine alignment

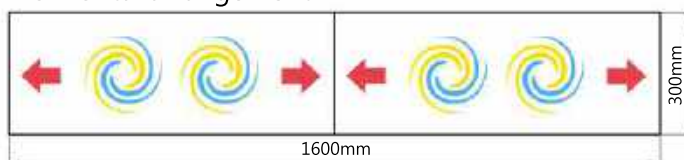
Vertical arrangement



Single machine



Horizontal arrangement



Features :

- Dual-machine design, can be aligned vertically or horizontally.
- Patented dual magnetic bases + left and right parallel movement design, able to grind workpieces uniformly without dead corners
- Independent dual spindles, capable of stand-alone operation
- Suitable for grinding and polishing extra long or extra large workpieces
- Can be flexibly operated alone or combined
- Longest grinding size : 300×1600mm
- Widest grinding size : 600×800mm

Power	Accessories	
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 24KG 2. Plastic container : 4sets 3. Separating container : 1set 4. PIN collector :5 sets 5. Grinding liquid (20,000c.c) 6. Operation manual	
Weight		
1000KG		
Controller size (LxWxH)		
525x325x1050mm	Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper		12KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel		6KG
Standalone size (LxWxH)		1480x680x765mm

Circular Model

High-capacity, Automated, Labor-saving Model

Circular model integrates multiple grinding areas together with a center-rotating worktable. It can grind multiple tanks of workpieces at the same time and reduce operating manpower. It equips a friendly HMI (hum-machine interface) and a PLC controller.

Many operation modes can be selected. It can communicate with external controllers through common protocols and I/O, and it can interact with robot arms to achieve full automation.

It supports many intelligent functions such as: saving and loading parameters as recipes; recording production history; managing accessing permissions; and recording abnormal alarms.



Fully Customized Machine

This model can be customized in many aspects according to the size and output of workpieces, such as the number of grinding areas, the size of the grinding area, and the operation models. The HMI can be integrated into the machine or at an external control box. The user interface and external handshaking can also be customized.



HD-7445



Power	Accessories
3 phase AC220/380V (50/60HZ)	1. Stainless pins : 20KG
Weight	2. Plastic container : 4sets
400KG	3. Separating container : 2sets
Container size	4. PIN collector : 5sets
Ø390x300mm	5. Grinding liquid (20,000c.c)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	1 tank : 5KG 4 tanks : 20KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	1 tank : 2KG 4 tanks : 8KG
Machine size (LxWxH)	1276x1270x1710mm

HD-7450C



Power	Accessories
3 phase AC220/380V (50/60HZ)	1. Stainless pins : 24KG
Weight	2. Plastic container : 4sets
450KG	3. Separating container : 2sets
Container size	4. PIN collector : 5sets
Ø480x300mm	5. Grinding liquid (24,000c.c)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	1tank : 8KG 4tanks : 32KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	1tank : 3KG 4tanks : 12KG
Machine size (LxWxH)	1470x1470x1710mm

HD-7645C



Power	Accessories
3 phase AC220/380V (50/60HZ)	1. Stainless pins : 30KG
Weight	2. Plastic container : 6sets
500KG	3. Separating container : 2sets
Container size	4. PIN collector : 7sets
Ø390x300mm	5. Grinding liquid (30,000c.c)
	6. Operation manual
Max grinding capacity (reference)	
Stainless steel (Non-Magnetic), Copper	1tank : 5KG 6tanks : 30KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	1tank : 2KG 6tanks : 12KG
Machine size (LxWxH)	1480x1470x980mm

HMI Rreference :



Magnetized Stainless Steel PIN

The PINs are semi-permanent abrasive media and can be used for many years. The gentle grinding force will not deform or damage the workpiece, nor affect accuracy.

The PINs come in various sizes and shapes and can be selected according to the material and shape, burr size, and surface roughness requirement of the workpiece.

PIN selection guide :

1. According to the material of the workpiece :
the thicker PIN, the stronger the grinding force
2. According to the size of the hole : to prevent the PINs from jamming
3. According to the burr size and surface roughness requirement



Standard

PIN NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9
Φ×length	Φ0.3×5	Φ0.4×5	Φ0.5×5	Φ0.7×5	Φ0.8×5	Φ1.0×5	Φ1.2×5	Φ1.5×5	Φ2.0×5

Other

PIN diameter : 0.1, 0.15, 0.2 ~ 1.0, 1.2, 1.5, 2.0mm ; PIN length : 1~10mm ; all can be customized

PIN NO.	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Φ×length	Φ0.2×5	Φ0.3×3	Φ0.4×3	Φ0.5×1	Φ0.5×3	Φ0.7×3	Φ0.8×3	Φ1.0×1	Φ1.0×3	Φ1.2×3

Special

A variety of special-shaped grinding magnetic PINs have been designed, including L-shaped, U-shaped, Z-shaped, M-shaped, Ω-shaped, 45° bevel PINs and round-head PINs, etc., to achieve the following effects

1. Reduce the probability of the PIN getting stuck in the hole of the workpiece
2. Enhance the matte effect
3. Achieve a sub-mirror polishing effect



L-shaped

L-shaped	L1	L2	L3	L4	L5
Φ×L×L	Φ0.5×5×5	Φ0.5×7×7	Φ0.7×5×5	Φ0.7×7×7	Φ0.5×5×2
45° Bevel	A1	A2	A3	A4	
Φ×L	Φ1.0×7	Φ1.0×10	Φ1.5×7	Φ1.5×10	



45° Bevel



Round-head R1



U-shaped U1



Z-shaped Z1



M-shaped M1



Ω-shaped Ω1



Ω-shaped Ω2

Ø0.7×3

Ø0.7×3×4×3

Ø0.7×2×4×2

Ø0.7×2×3×3×2

Ø0.7×4×6×4
120°

Ø0.7×3×4×3
180°

(unit : mm)

Machine Specifications

Model	Size(LxWxH)	Grinding area(LxW)	Power	Weight
HD-790	1050x1140x1220mm	Φ830mm	3phase 220/380V (50/60HZ)	340kg
HD-765	960x1000x1100mm	Φ650mm	3phase 220/380V (50/60HZ)	234kg
HD-750	810x790x1070mm	Φ500mm	single phase 220/380V (50/60HZ)	150kg
HD-745	610x700x1120mm	Φ400mm	single phase 220/380V (50/60HZ)	135kg
HD-735	560x630x1020mm	Φ350mm	single phase 220/380V (50/60HZ)	100kg
HD-728	410x530x970mm	Φ280mm	single phase 220/380V (50/60HZ)	65kg
HD-7165	1360x1070x1365mm	900x600mm	3phase 220/380V (50/60HZ)	281kg
HD-7150	1270x850x1370mm	700x480mm	single phase 220/380V (50/60HZ)	200kg

Grinding Liquid

Grinding liquid has the following functions : polishing, cleaning, rust prevention, lubrication, and cooling.
The grinding liquid has passed SGS and RoHS certification and complies with the environmental standards with an ingredient list and safety data sheet (SDS).

Packaging capacity : ①5 gallons (20 liters)/barrel ②1 liter/bottle

HD-233	Stainless steel, copper, aluminum, titanium alloy and other non-magnetic materials	(Dilute with water 50~100 times before use)
HD-903	Iron, carbon steel and other materials that will rust	(Dilute with water 50~100 times before use)
HD-293	Neutral type for die-casting magnesium and aluminum alloy	(Dilute with water 50~100 times before use)
HD-160CB	For copper and brass to prevent oxidation	(Dilute 10 times with water before use, soak after magnetic grinding)
HD-201	Deoxidizer for aluminum alloy to remove oxide layer	(Dilute 10 times with water before use, soak before magnetic grinding)



HD-233(Polish type)



HD-903(Anti-rust type)



HD-293(neutral type)

Containers

Every series of the sPINner model is equipped with a matching grinding container.

The large models are equipped with customized PP containers.

The grinding container can be flexibly selected according to the size, quantity, and shape of the workpieces.

Any plastic container with a flat bottom and high enough walls can be used for grinding.

Customized containers	For 790 Φ830x250	Commercial containers	For 750(I) Φ500x200	For 716 120x120x175	Round sieve Φ220x120
	For 765 Φ650x250		For 745 Φ400x235	Square container (XL) with sieve 556x400x182	PIN collector
For 745 Φ390x300	For 750 Φ500x245	For 750(II) Φ500x250	For 728 Φ260x270	Square container (L) with sieve 468x340x180	Measuring cup
	For 735 Φ350x235	For 735 Φ350x200			

(unit : mm)



Standard sPINner

Revolutionary deburring technology. Uniform grinding for high precision parts.



Parallel sPINner

Parallel moving magnetic field. For long and wide parts.



Powerful sPINner

Magnetic field strength 150~250% UP. For high parts.



Circular sPINner

Circular pipeline mechanism. For automation production.

Rotating and bouncing PINs for deburr and polish



Patented products. Not counterfeiting.

Taiwan Patent M402165、M401504、M387729、M384084、M375579、M332253、
M276638、M348662、1075580、M329498、1086710、771378、773104、
M279444、M276655、690968、1325499、441723、M323633、M323368、
0229666、6270398、20012685.7、432828、6231426、173672、166292、
125169、143283、143109、M381482、M370459、M360109、M4771663

China Patent ZL00238353.5、ZL00254669.8、ZL02241547.5、ZL200420051102.8、ZL200420006476.8、Z200620148198.9、Z200520004529.7、Z200520004530X
US Patent US6231426B1、US6270398B1、US7033329B2 German Patent 20017126.7、20012685.7
Italian Patent 2001A000905 Korean Patent 0229666

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