the sPINner®

Holding®

Magnetic De-burring & Polishing Machine

De-burring, Polishing, Cleaning

Special PIN Media Deburrs

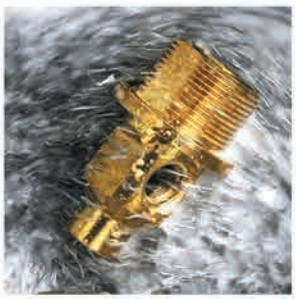
CE

Magnetic De-burring Machine Inventor

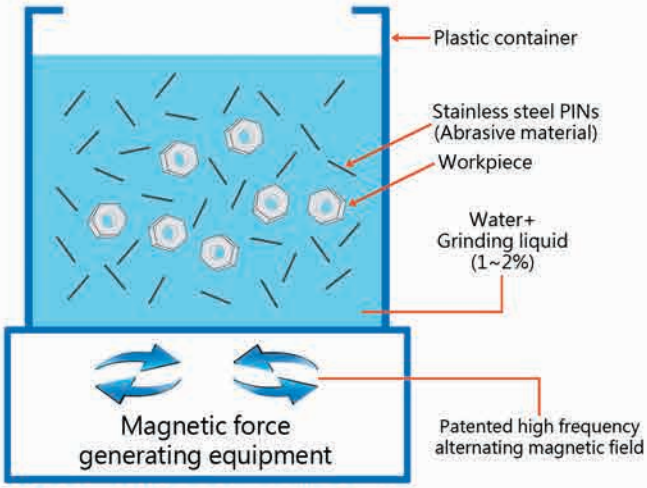
Holding®

About the sPINner®

- ✓ The sPINner is a special magneic 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



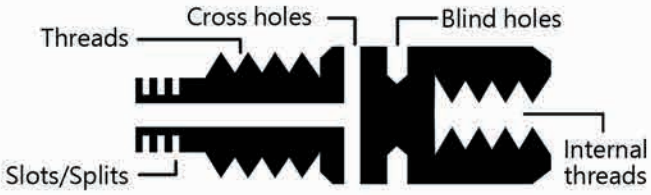
Working Principle



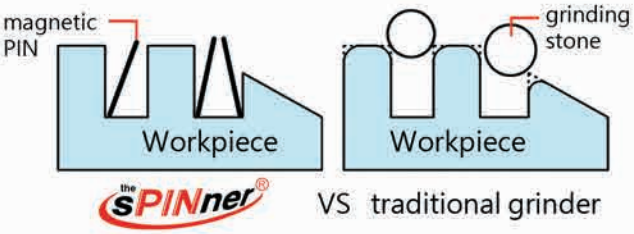
Made by Holding company in Taiwan
Obtained patents from many countries

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



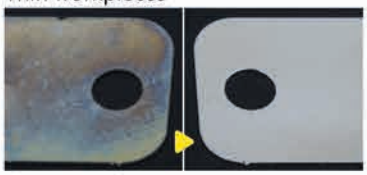
the sPINner® VS traditional grinder

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



Workpieces with threads/screw holes

Screws and gears

High-precision workpieces

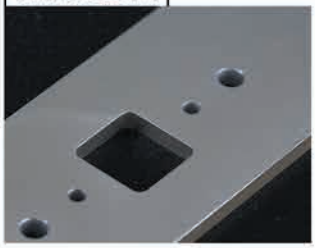
Suitable Processes

Beyond traditional
Deburring/polishing/cleaning

Milling

Lathing

Wire EDM



Laser cutting

Powder metallurgy

Thermal treatment

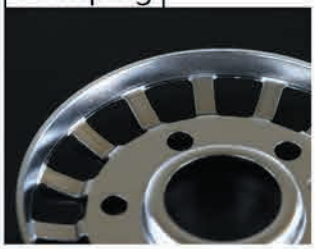
Hobbing

Wire forming

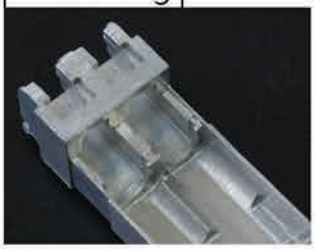
MIM

Metal 3D printing

Stamping



Die casting



Suitable Industries

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

- ✓ Bicycle indutry
- ✓ 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

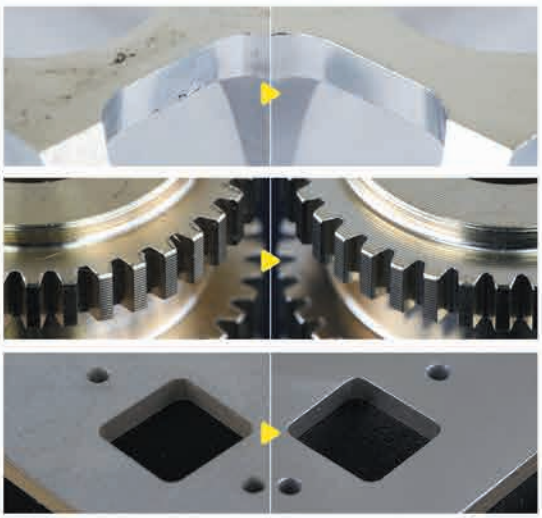
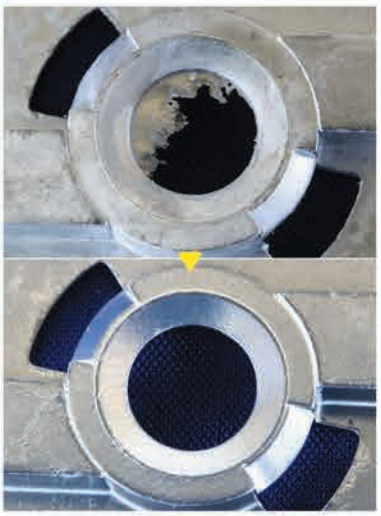
Aluminum alloy

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
- ✓ Laser cutting
- ✓ Wire EDM
- ✓ Stamping
- ✓ Cutting
- ✓ Hobbing
- ✓ Die casting
- ✓ Powder metallurgy
- ✓ Plastic, glass fiber, carbon fiber machining

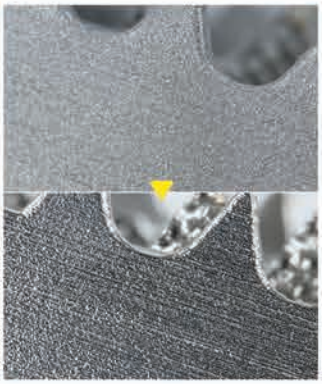
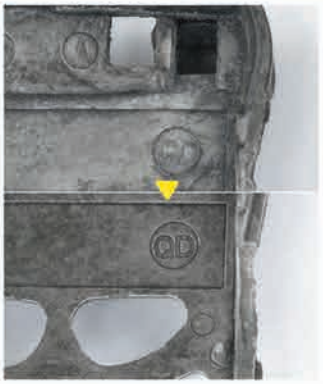
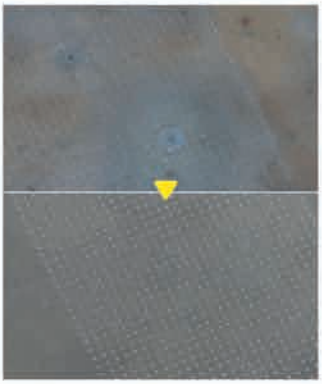
Surface Treatment

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



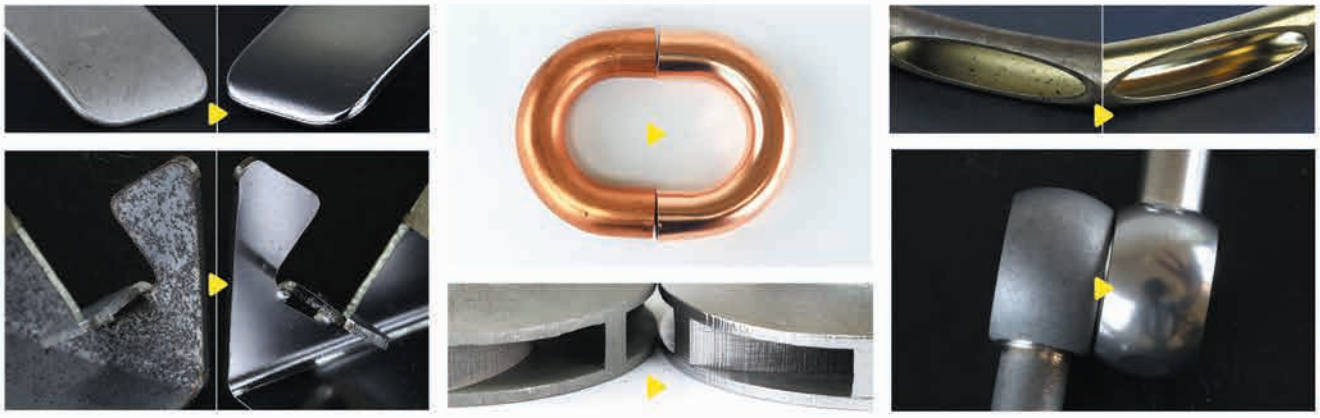


Polishing

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



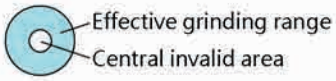
Cleaning

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.

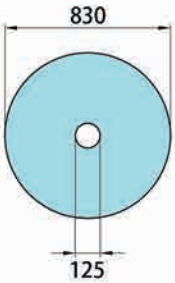
- ✓ Remove process depositions
- ✓ Semiconductor device cleaning
- ✓ Pump and turbine blade cleaning
- ✓ Cleaning of water /oil pipelines, heating and pipe components
- ✓ Remove machining scarps

Standard Model

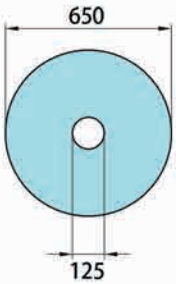
The sPINner uses a patented magnetic field to drive the PINs to bounce and rotate rapidly to evenly grind all parts of the workpiece.
The standard series include grinding areas ranging from Φ280mm to Φ830mm.
The user can choose according to the workpiece output, material, and size.



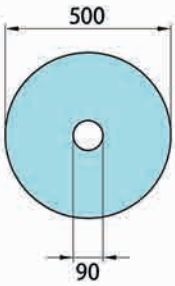
HD-790 Max grinding capacity 18KG



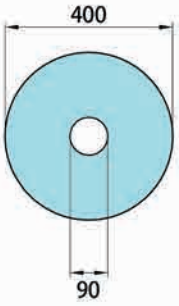
HD-765 Max grinding capacity 12KG



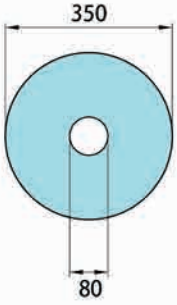
HD-750 Max grinding capacity 8KG



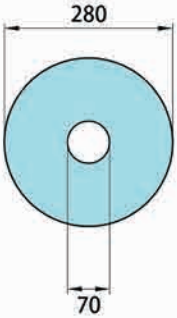
HD-745 Max grinding capacity 5KG



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 Φ830mm
- 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
Φ830x250mm	5. Grinding liquid (20,000c.c.)
	6. Operation manual
Max grinding capicity (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

Holding®

HD-765

Features: :

- Max grinding capacity : 12kg
- Max grinding area Φ650mm
- 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 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 1set 5. Grinding liquid (12,000c.c.) 6. Operation manual
Weight	
234KG	
Container size (LxW)	
Φ650x250mm	

Max grinding capicity (reference)	
Stainless steel (Non-Magnetic), Copper	12KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	5KG
Machine size (LxWxH)	960x1000x1100mm

Grinding container (examples) :

Parameter settings running display

Speed indicator

Program T1

Program T2

Program T3

grinding preset time, speed, direction

HD-750

Features :

- Max grinding capacity : 8kg
- Max grinding area Φ500mm
- 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 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 1set 5. Grinding liquid (6,000c.c.) 6. Operation manual
Weight	
150KG	
Container size (LxW)	
Φ500x245mm	
Max grinding capicity (reference)	
Stainless steel (Non-Magnetic), Copper	8KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	3KG
Machine size (LxWxH)	810x790x1070mm

Grinding container (examples) :

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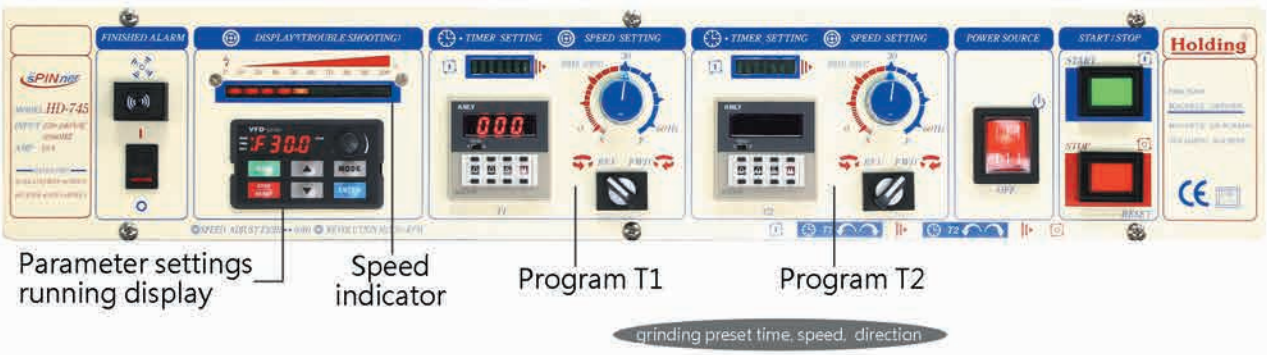
HD-745

Features :

- Max grinding capacity : 5kg
- Max grinding area Φ400mm
- 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 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 1set 5. Grinding liquid (5,000c.c.) 6. Operation manual
Weight	
135KG	
Container size (LxW)	
Φ400x235mm	
Max grinding capicity (reference)	
Stainless steel (Non-Magnetic), Copper	5KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	2KG
Machine size (LxWxH)	610x700x1120mm

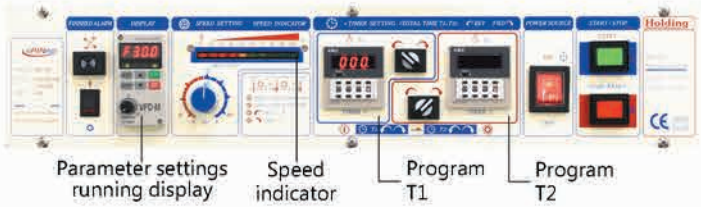


HD-735

Grinding container :

Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 4KG 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 1set 5. Grinding liquid (4,000c.c.) 6. Operation manual
Weight	
100KG	
Container size (LxW)	
Φ350x200mm	
Max grinding capicity (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

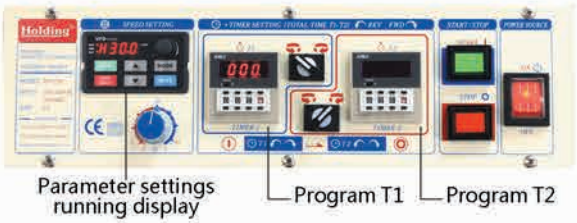


HD-728

Grinding container :

Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 2KG 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 1set 5. Grinding liquid (2,000c.c.) 6. Operation manual
Weight	
65KG	
Container size (LxW)	
Φ260x270mm	
Max grinding capicity (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



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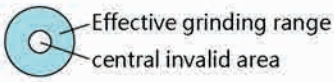
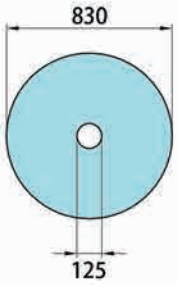
Powerful Model

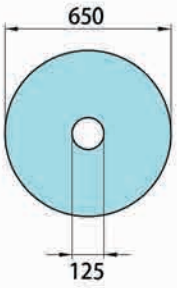
Powerfully upgraded version of the sPINner, with high-density magnetic field, increasing the grinding force & height, also shortens the grinding time.



HD-790F Max grinding capacity 18KG



HD-765F Max grinding capacity 12KG

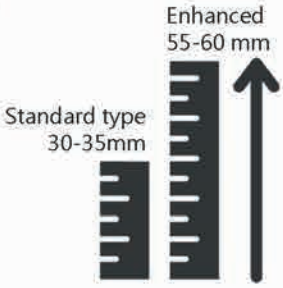


(unit : mm)

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%

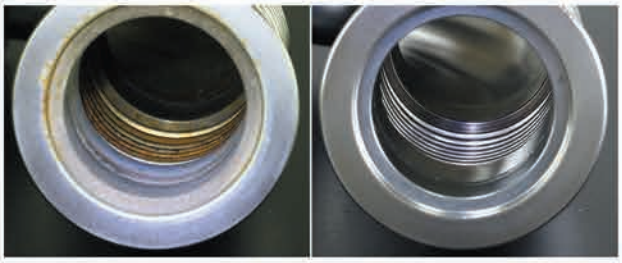
Application Examples

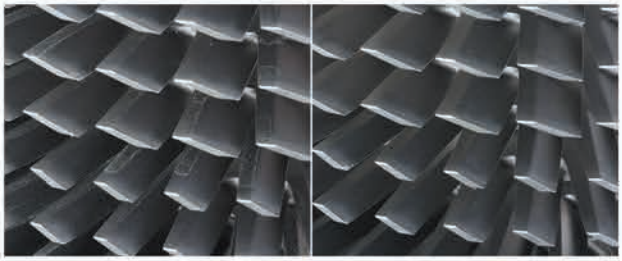
- CNC aluminum molds and aluminum shells

✓ 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 Φ830, 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 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 2sets 5. Grinding liquid (20,000c.c.) 6. Operation manual
Weight	
345KG	
Container size (LxW)	
Φ830x250mm	

Max grinding capicity (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 Φ650, 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

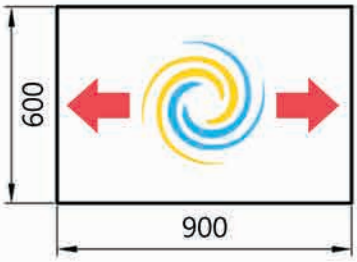
Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 12KG 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 1set 5. Grinding liquid (12,000c.c.) 6. Operation manual
Weight	
250KG	
Container size (LxW)	
Φ650x250mm	

Max grinding capicity (reference)	
Stainless steel (Non-Magnetic), Copper	12KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	5KG
Machine size (LxWxH)	960x1000x1100mm

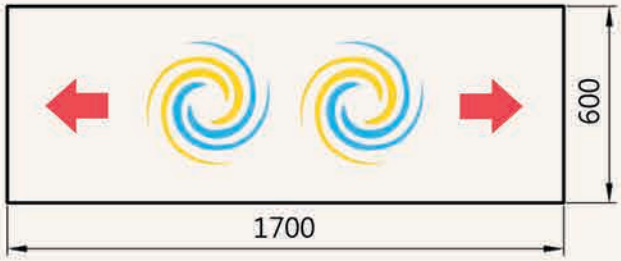
Parallel Model

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.

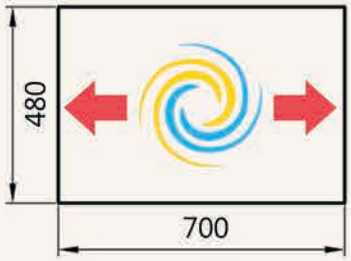
HD-7165 Max grinding capicity 12KG



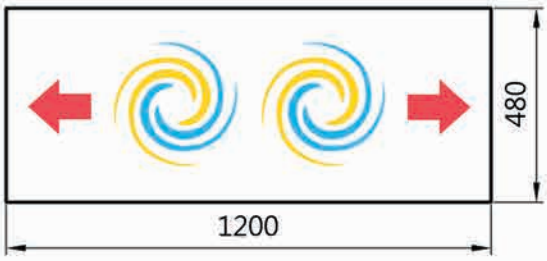
HD-7265 Max grinding capicity 24KG



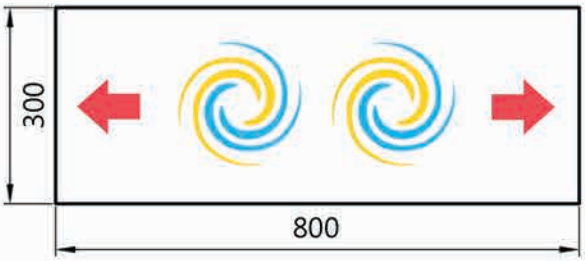
HD-7150 Max grinding capicity 8KG



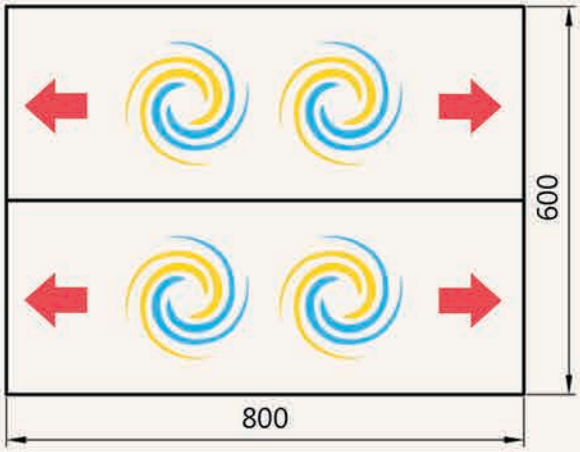
HD-7250 Max grinding capicity 16KG

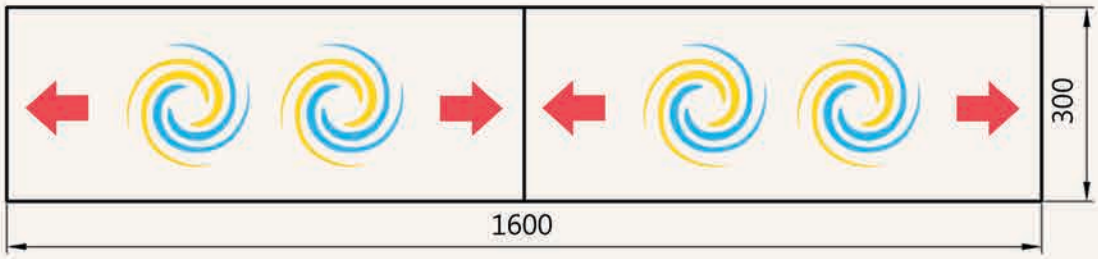


HD-7200 Max grinding capicity 6KG



HD-7400 Max grinding capicity 12KG





(unit : mm)

HD-7165

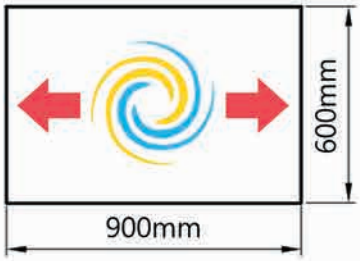
Slider-I

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

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

Grinding area :



Grinding container (examples) :

Parameter settings running display

Speed indicator

Program T1

Program T2

Program T3

grinding preset time, speed, direction

Holding®

HD-7150

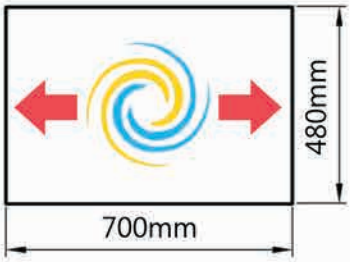
Slider-I

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

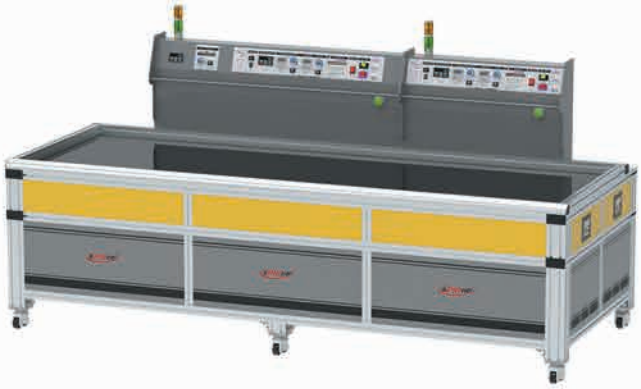
Power	Accessories
Single phase AC220/380V(50/60HZ)	1. Stainless pins : 8KG 2. Customized PP rectangular container : 1set 3. HD-750 round PP grinding container : 2sets 4. Separating container : 1set 5. PIN collector : 2sets 6. Grinding liquid (8,000c.c) 7. Operation manual
Weight	
200KG	
Container size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

Grinding area :



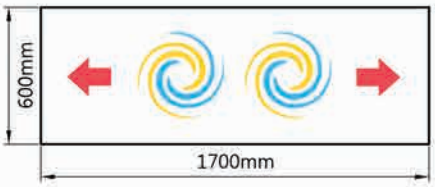
Grinding container (examples) :

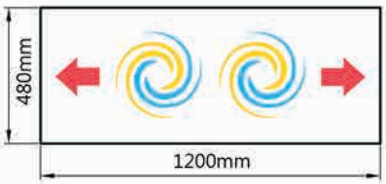
HD-7265



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 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 3sets 5. Grinding liquid (27,000c.c) 6. Operation manual
Weight	
330KG	
Effective grinding area	
1700x600mm	

Max grinding capicity (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 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 3sets 5. Grinding liquid (14,000c.c) 6. Operation manual
Weight	
230KG	
Effective grinding area	
1200x480mm	

Max grinding capicity (reference)	
Stainless steel (Non-Magnetic), Copper	16KG
Stainless steel (Magnetic), Aluminum, Zinc, Iron, Steel	8KG
Machine size (LxWxH)	2022x830x1370mm

Holding®

HD-7200

Slider-II

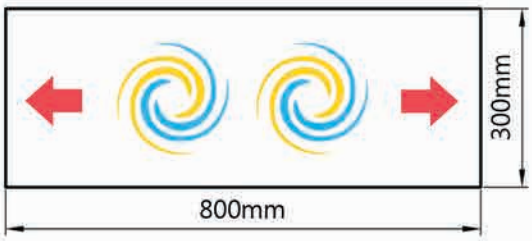
Features:

- 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

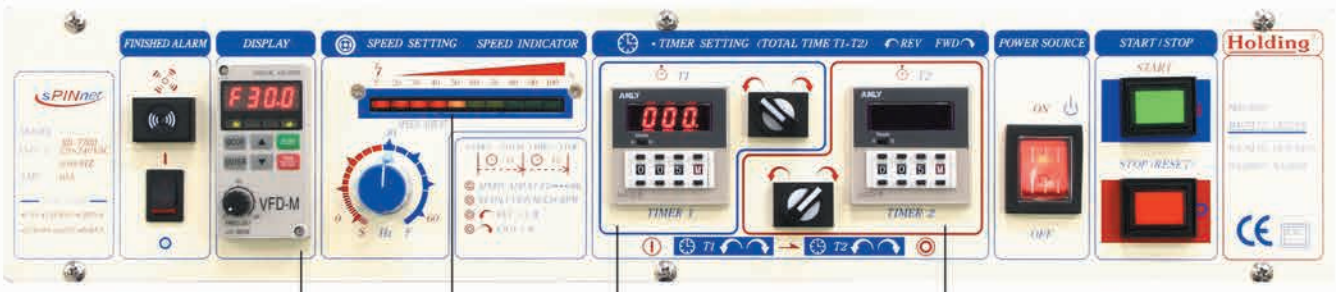
Power	Accessories
3 phase AC220/380V (50/60HZ)	1. Stainless pins : 12KG 2. Plastic container : 2sets 3. Separating container : 1set 4. PIN collector : 3sets 5. Grinding liquid (12,000c.c) 6. Operation manual
Weight	
500KG	
Effective grinding area	
800x300mm	

Max grinding capicity (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

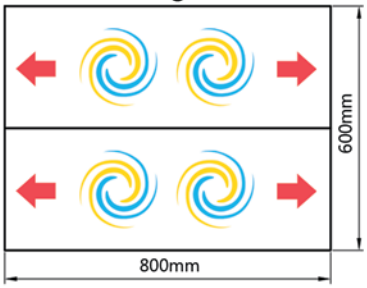
grinding preset time, speed, direction

HD-7400

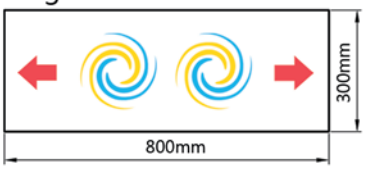
Slider-II

Dual-machine alignment

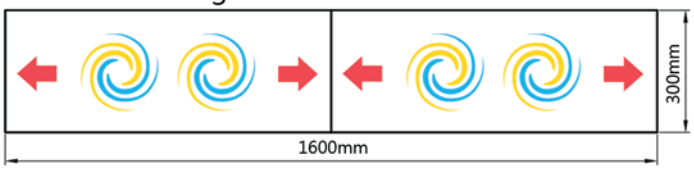
Vertical arrangement



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

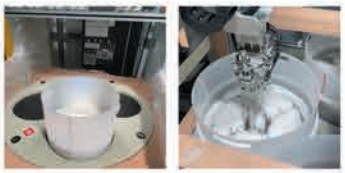
Power	Accessories
3 phase AC220/380V(50/60HZ)	1. Stainless pins : 24KG 2. Plastic container : 4sets 3. Separating container : 1set 4. PIN collector :5 sets 5. Grinding liquid (20,000c.c) 6. Operation manual
Weight	
1000KG	
Controller size (LxWxH)	
525x325x1050mm	

Max grinding capicity (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 2. Plastic container : 4sets 3. Separating container : 2sets 4. PIN collector : 5sets 5. Grinding liquid (20,000c.c) 6. Operation manual
Weight	
400KG	
Container size	
Ø390x300mm	

Max grinding capicity (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

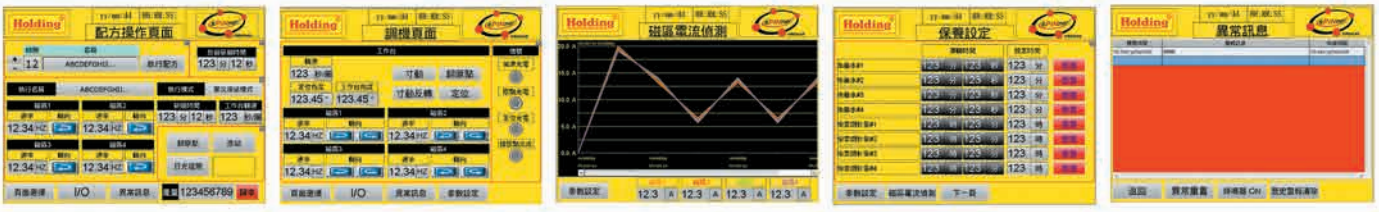
HD-7450C

Power	Accessories
3 phase AC220/380V (50/60HZ)	1. Stainless pins : 24KG 2. Plastic container : 4sets 3. Separating container : 2sets 4. PIN collector : 5sets 5. Grinding liquid (24,000c.c) 6. Operation manual
Weight	
450KG	
Container size	
Ø480x300mm	
Max grinding capicity (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 2. Plastic container : 6sets 3. Separating container : 2sets 4. PIN collector : 7sets 5. Grinding liquid (30,000c.c) 6. Operation manual
Weight	
500KG	
Container size	
Ø390x300mm	
Max grinding capicity (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

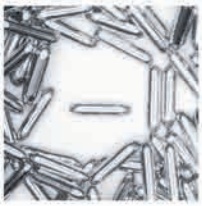
A variety of special-shaped grinding magnetic PINs have been designed, including L-shaped, U-shaped, Z-shaped, M-shaped, Ω-shaped, 45° bevel PINs and round-head PINs, etc.,to achieve the following effects
1. Reduce the probability of the PIN getting stuck in the hole of the workpiece
2. Enhance the matte 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

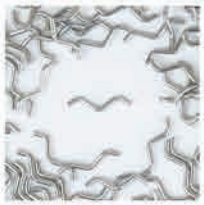
45° Bevel



Round-head R1

U-shaped U1

Z-shaped Z1



M-shaped M1

Ω-shaped Ω1

Ω-shaped Ω2

Round-head R1	U-shaped U1	Z-shaped Z1	M-shaped M1	Ω-shaped Ω1	Ω-shaped Ω2
Φ0.7×3	Φ0.7×3×4×3	Φ0.7×2×4×2	Φ0.7×2×3×3×2	Φ0.7×4×6×4 120°	Φ0.7×3×4×3 180°

(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

Commercial containers

(unit : mm)