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2 Axis Grinder with 2 Grinding Stations

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2 Axis Grinder with 2 Grinding Stations



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2 Axis Grinder with 2 Grinding Stations

Weijing 2 Axis Grinder with 2 Grinding Stations is designed for grinding riser butts or parting lines on the round surface of circular castings.

- Grinding sparks are covered for better safety.
- Diamond wheel saves time cost of grinding wheel changing.
- Repeatable grinding accuracy is controlled by 4 position sensors.
- Safer, faster, more repeatable and controllable than manual grinding.



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Technical Specification

- Grinding Accuracy: 1 mm
 - Control System: PLC + 11 sensors
 - Grinding wheel rotating speed: 2803 rpm
 - Grinding wheel linear velocity: 58.7 m/s
 - Grinding sparks: covered
 - Casting holding: air cylinder
 - Movement Drive: hydraulic driving by vane pump
 - Grinding Wheel: Diamond wheel with 400 mm Diameter
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- Machine power: 18 KW
 - Machine weight: 2500 KG
 - Machine Dimension: 2000*1850*1750 mm

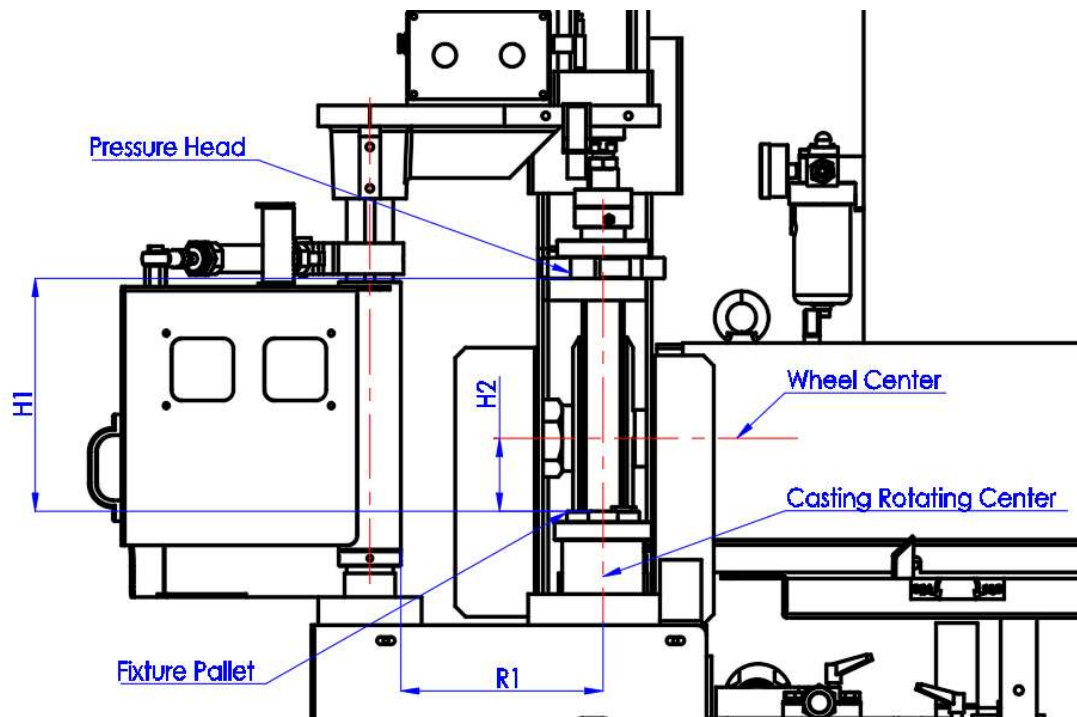
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Casting Requirements

- Casting material: Iron Castings or steel casting
- Casting Shape: circular castings
- Casting Diameter: 107-340 mm
- Casting Height: < 170 mm
- Casting Weight: < 30 Kg
- Examples: brake disc castings, auto flywheel castings



A picture is worth a thousand words



Pressure Head is for holding the casting.
Fixture Pallet is for casting to be placed.
H1 determines casting height. R1 determines casting diameter.
H2 is the height of parting line or riser butts required.





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Operating Process

Step 1

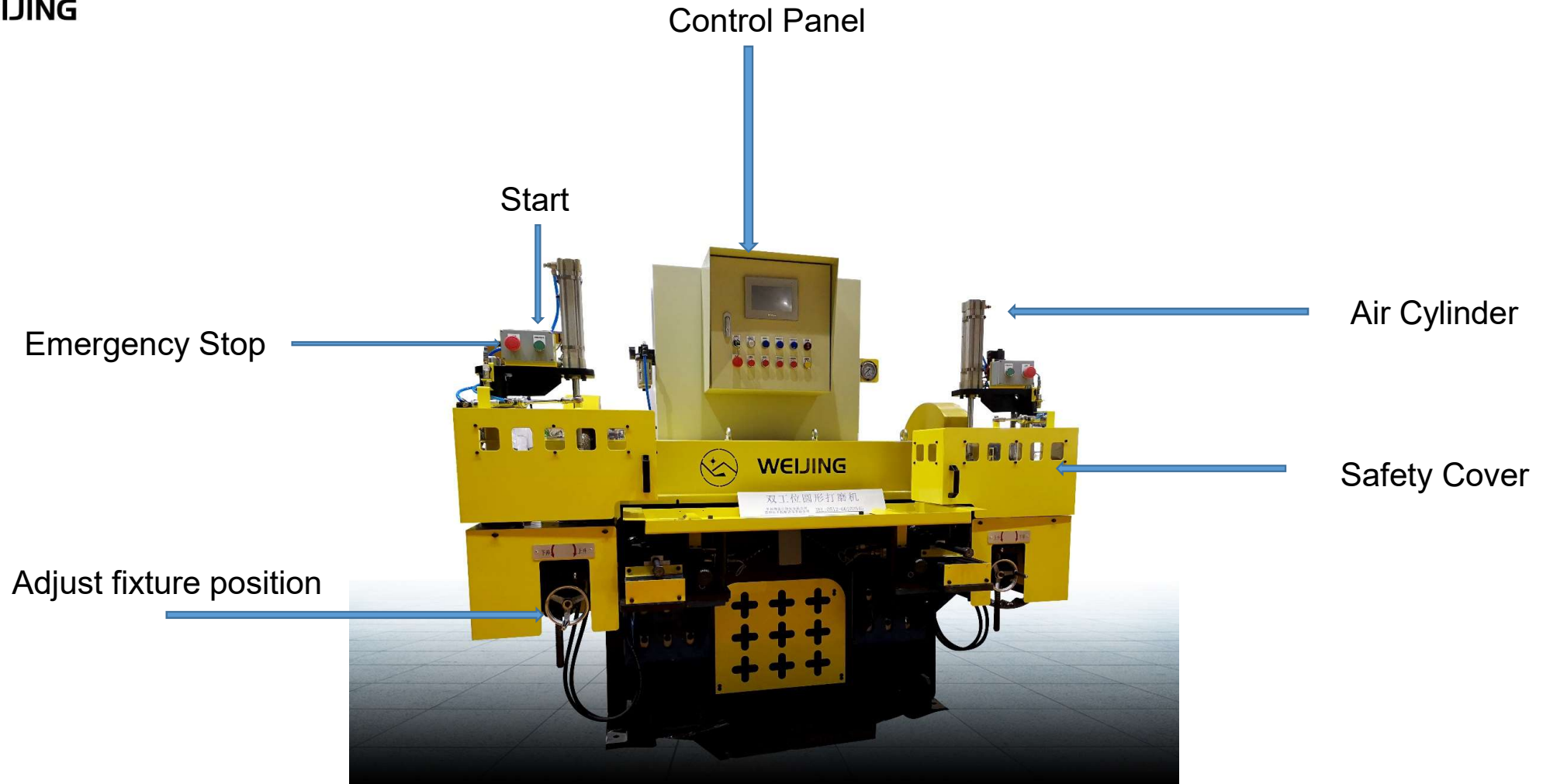
- Put the first casting on the fixture pallet.
- Use pressure head to hold the casting.

Step 2

- Grind the first casting by manual grinding model
- Install the two sensors to limit the moving forward & moving backward of casting according to the data of first casting processed by manual grinding model.

Step 3

- Switch to automatic grinding model, put the casting on one station, close the cover, press START button, start to grind automatically.
- Open the cover, take out the casting, check the quality if it is acceptable.



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Key components – Control Buttons



Control Buttons

First Line:

Power, Machine Start, Oil Pump Start,
Left Grinder Start, Right Grinder Start,
Alarm

Second Line:

Emergency Stop, Machine Stop, Oil
Pump Stop, Left Grinder Stop, Right
Grinder Stop, Reset

Key components for better safety



Cover Sensor (left image)

If the cover is opened by mistake, the grinder will stop automatically for better safety.



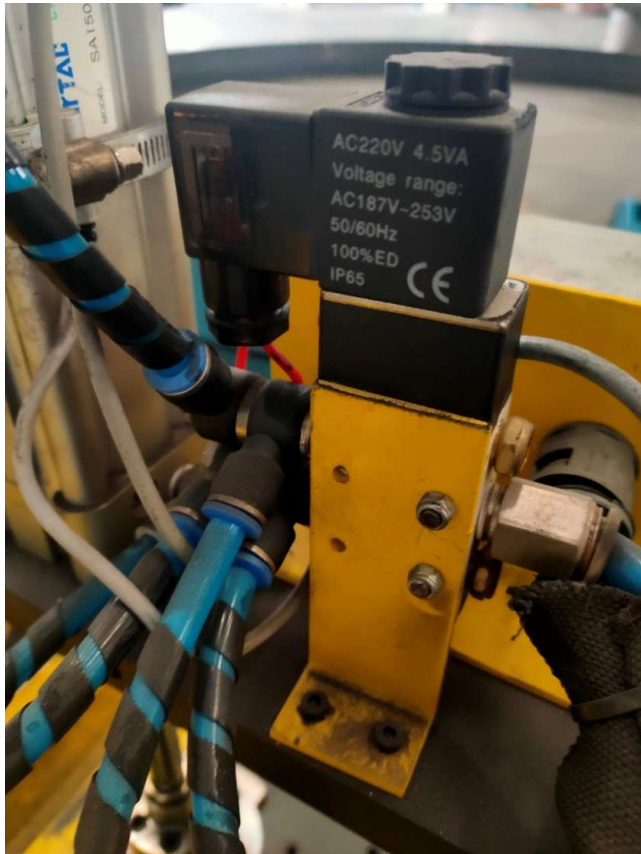
Pressure Head (right image)

To press the casting during grinding for absolute safety



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Key components for better holding



Pneumatic electromagnetic valve (left image)

To control air cylinder up and down

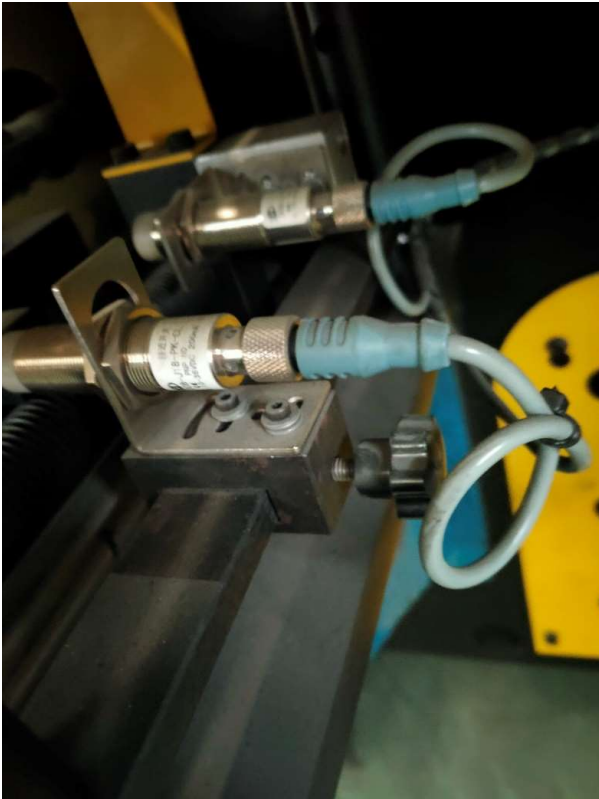
Air Cylinder with 2 sensors (right image)

Air Cylinder is for pressing clamping.
2 Sensors are to check the right position for air cylinder.



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Key components for better moving control

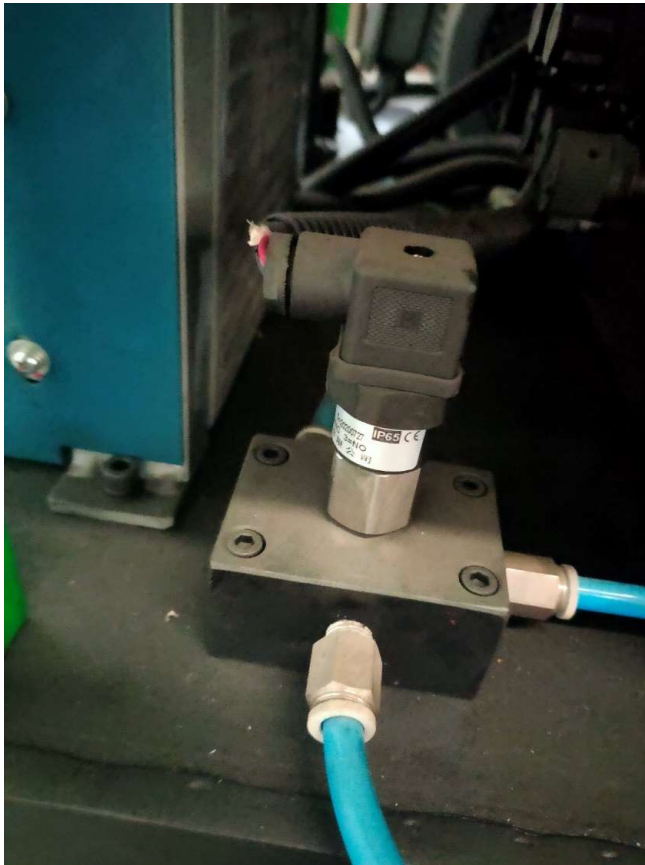


Left Image
2 Sensors for controlling
castings forward &
backward at right position

Right Image
Solenoid valves to control
hydraulic cylinder & vane
motor working.



Key components for durable quality



Pressure sensor (left image)

To check the air pressure if it is right

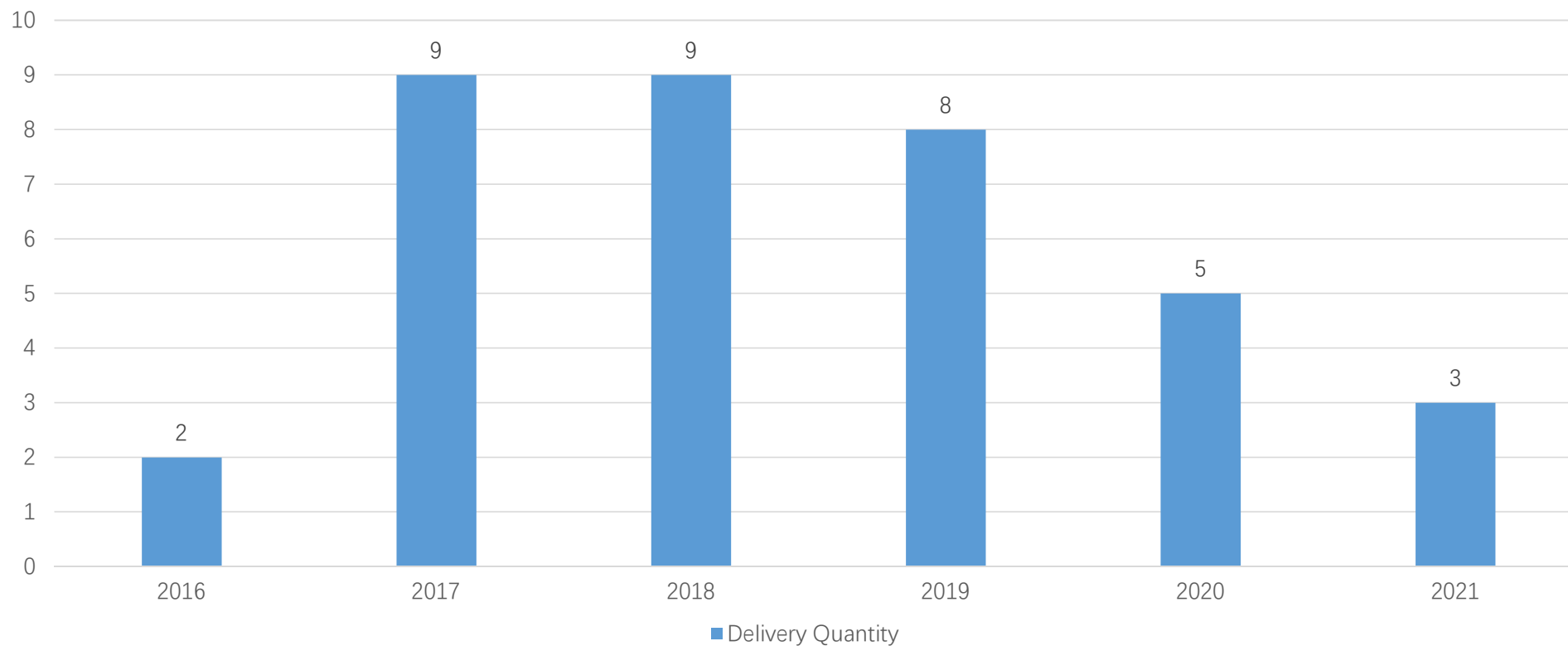
Right image

Durable Diamond wheel with 400 mm Diameter





How Many Sets We Have Delivered



Total delivered: 36 sets, from 2 axis to 5 axis
Calculated on Mar 19, 2021

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Grinding Circular Castings, Should Choose Weijing!



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