

PRECISION CNC DOUBLE DISC SURFACE GRINDER



SUZHOU GOODWILL MACHINERY EQUIPMENT CO.,LTD

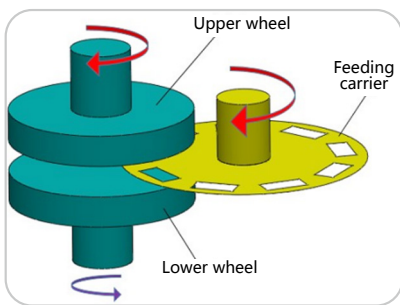
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DOUBLE DISC SURFACE GRINDER is designed for high precision grinding of the two parallel surfaces of flat metallic parts such as bearing, valve plate, carbide chip, seal, oil pump vane, piston ring, etc. It can also grind the flat surfaces of non-metallic parts of hard & brittle materials like glass and ceramics. The uniquely sophisticated & compact design of the machine ensures high precision & efficiency, and Double Disc Grinding has been recognized by the market as one of the most practical grinding solution for mass production of flat parts.

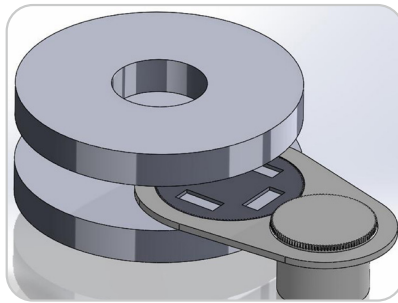
MODEL OVERVIEW

Model	Grinding method	Tool Φ	Workpiece Φ
DM580CNC/CBN	C type/Oscillation/Planetary	585 mm	120/280mm
DM580B	C type/Oscillation/Planetary	585 mm	120/280mm
DM750A	C type/Oscillation/Planetary	750 mm	180/320mm
MM7758	C type/Oscillation/Planetary	585 mm	120/280mm

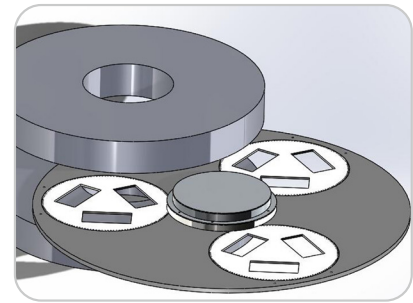
GRINDING METHOD



C type grinding

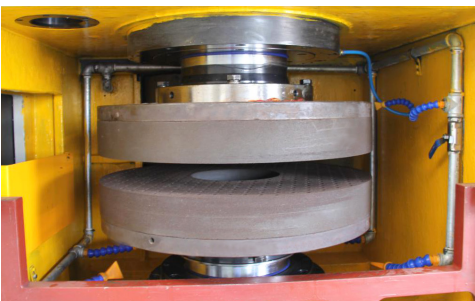


Oscillation grinding



Planetary grinding

TOOL SYSTEMS



CASE REFERENCES

High precision in seconds, widely applied in metal and ceramic parts for automotive, bearing, stamped applications, etc.



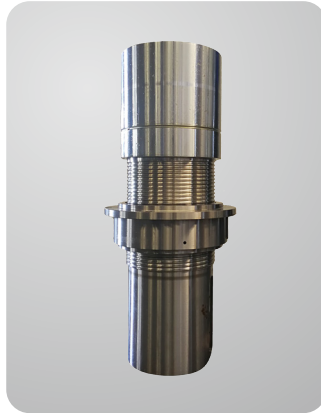
Model	DM 580B	DM 750A	MM 7758
Workpiece	Piston ring	Valve plate	Bearing outer ring
Material	Cast alloy iron	Cast alloy iron	High-carbon chromium bearing steel
Workpiece size(mm)	Φ50-60	Φ100-120	Φ60-70
Removal amount(mm)	0.1-0.15 (Rough ring grinding) ; 0.01-0.03(Fine grinding)	0.1-0.16 (Rough ring grinding) ; 0.01-0.02(Fine grinding)	0.1-0.15 (Rough ring grinding) ; 0.03-0.05(Fine grinding)
Cycle time (sec.)	1	1	3
No. of runs	1	1	1
Flatness & parallelism(mm)	0.003	0.005	0.003
Surface roughness(mm)	Ra0.32	Ra0.32	Ra0.32

LIST OF SPECIFICATIONS

Item/Model	Unit	DM580CNC	DM580B	DM750A	MM7758
Workpiece size	mm	Φ12-Φ120	Φ12-Φ120	Φ50-Φ180	Φ12-Φ120
Workpiece thickness	mm	0.8-40	0.8-40	1.2-60	0.8-50
Grinding wheel size	mm	Φ585×Φ50×70	Φ585×Φ195×75	Φ750×Φ195×75	Φ585×Φ195×75
Grinding motor power	kw	22 ×2	22 ×2	30 ×2	22 ×2
Grinding motor speed	rpm	150-950	150-950	150-890	150-950
Feeding carrier motor power	kw	1.5	1.5	2.2	0.75
Feeding carrier motor speed	rpm	1-10	1-10	1-10	1-10
Flatness & parallelism	mm	≤ 0.003	≤ 0.003	≤ 0.005	≤ 0.003
Surface roughness	μm	≤ Ra0.32	≤ Ra0.32	≤ Ra0.32	≤ Ra0.32
Weight	kg	10000	10000	12000	15000
Overall dimension (L×W×H)	mm	2700×2620×2650	2700×2620×2650	2840×3140×2880	3200×2600×3000

MACHINERY PRECISION & STABILITY

1 The machine adopts box structure with vertical spindle for upper & lower grinding heads, ensuring reliable rigidity and thermal stability.



2 The spindle structure is a combination of double cylindrical roller bearing and double direction angular contact thrust ball bearing, ensuring the stability & rigidity of the grinding heads.

3 The main motor transmits the torque to the spindle through triangular belt-wheel. And unloading structure is adopted between triangular belt-wheel and splines to avoid bending load on the spindle.



4 Grinding head feeding controlled by high-precision ball screw unit, with feeding precision up to 0.001mm, which secures the stability of grinding process.

INSTALLATION OF GRINDING WHEEL

Integrated crane is equipped for unloading/loading of the abrasive wheels. Unique swing-out structure for the feeding carrier provides outstanding space for tool changes. Portable wheel changing aid for rapid & easy transportation of the tools, reducing labor intensity and improving work efficiency.



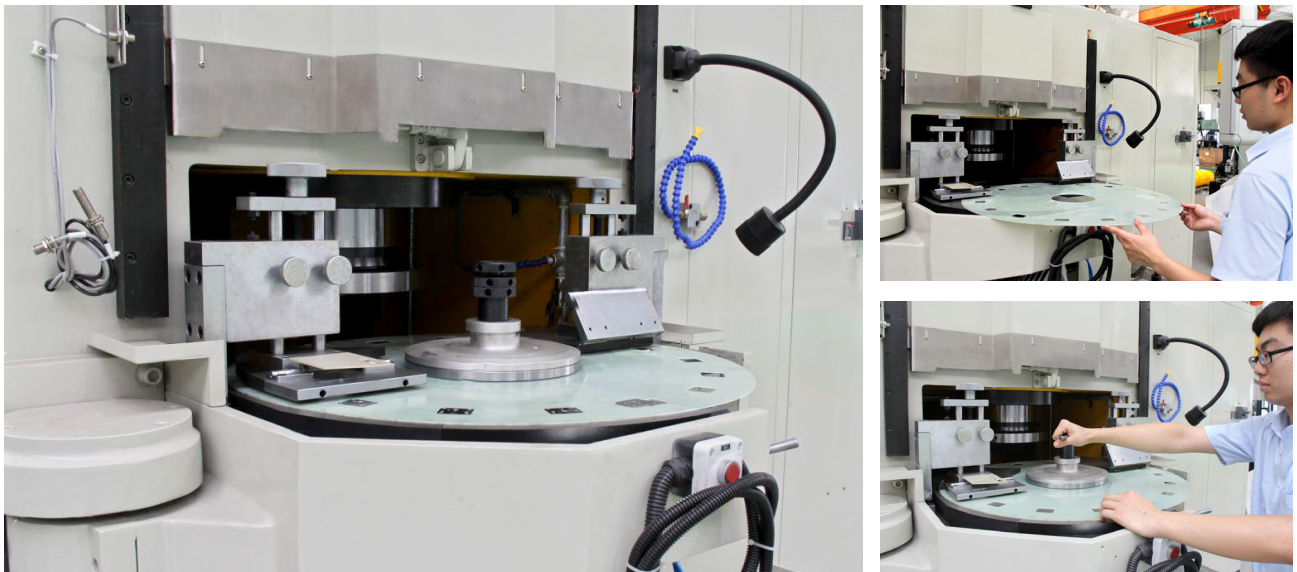
TOOL DRESSING

We adopt oscillating dressing for the dressing unit. The swing arm is fixed by the revolving shaft with stepless speed regulating. The fixture for the sharpening unit can be dismantled easily, and upper & lower grinding wheels can be dressed at the same time. Hydraulic control circuit of the wheel dressing is controlled by hydraulic lock.

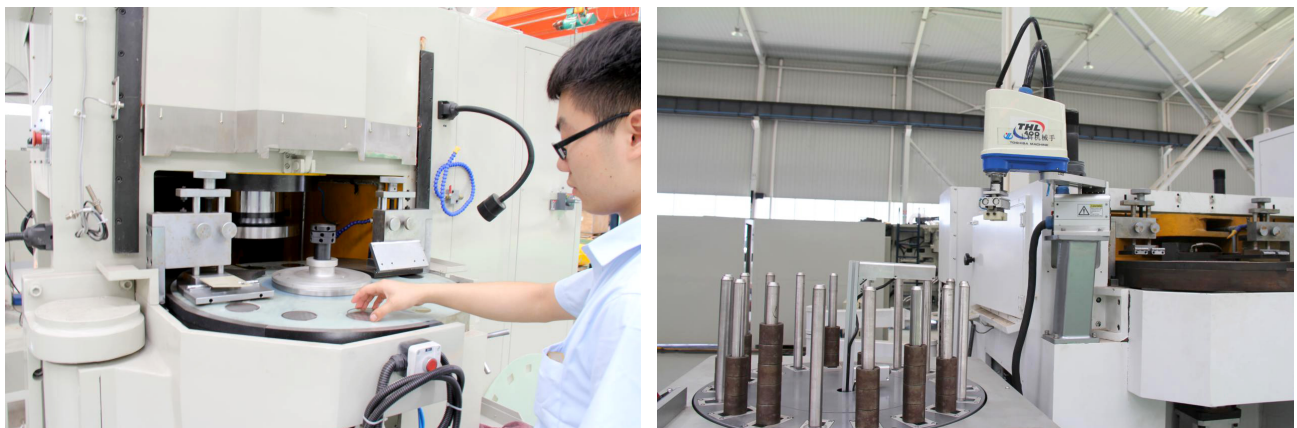


FEEDING CARRIER CHANGE

Customized carriers available for all types of workpieces, exchangeable in 2 min.



WORKPIECE LOADING



Manual

Robot arm