

Specifications

Functions and main specifications

● Using condition

- (1) Environment: Setting location; Indoor
Environment temperature; 10 to 40°C
(2) Using frequency: roughly 100 times / day

● Test specimen

- (1) Shape: Cylinder (Chamfer polishing face)
Outer diameter; 20mm or 30mm
Length; 50±10mm
(2) Material; Ductile iron

● Measuring method

- (1) Measuring method; Image analysis
(2) Based on method; JIS G5502-2001
(3) Polish and analysis time; Less than five minutes

Specifications for equipment

● Transfer

- (1) Horizontal (X axis);
Drive method _ Robotic cylinder (Ball screw drive by pulse motor)
Diameter of ball screw _ 10 mm
Transfer velocity _ Max 230 mm/s
Stroke _ 600 mm
Motor _ Pulse motor
(2) Vertical (Y axis);
Drive method _ Guide attached air cylinder
Stroke _ 60 mm
Diameter of cylinder _ 16 mm
(3) Chuck;
Type _ Air chuck with 3 teeth
Stroke of teeth _ 16 mm in diameter
Teeth _ Exchange so as to fit specimen diameter,
20 mm or 30mm
Holding force _ 58 N (5.9 kg), air pressure 0.4 MPa,
grasp point 30 mm

● Polisher

- (1) Polish method; Dry abrasive wheel grind and polish
(2) Specifications for abrasive disk;

	Polish work	Roles of disk
1st step	Rough polish	Rough polish abrasive wheel
2nd step	Rough finish	Rough finish abrasive wheel
3rd step	Medium finish	Medium finish abrasive wheel
4th step	Final finish	Finishing wheel

Diameter of abrasive wheel; 100 mm

Attach and remove method; One touch method with center-cap

- (3) Feed rate in polish; 50 mm/s Max.
(4) Polish pressure; 80 N Max. (8.1 kg, air pressure; 0.4 MPa)
(5) Pressurize method for polish;
Press by vertical cylinder of chuck
(6) Press control; Control by electro-pneumatic regulator
(7) Motor capacity; 0.75 kW
(8) Drive method; Spur gear (m = 1).
In each work stage,
it is drove as slow down

● Cover and safety measures

- (1) Cover type; Tight cover.
Front cover is open upside and right side vinyl chloride cover is able to open as to charge in and out test specimen.
(2) Maintenance; Exchange abrasive wheel:
From front door and polish box door
Charge in and out test specimen:
From right side vinyl chloride door
Discharge of polish dust;
Through opened front cover of control panel
Electricity; Through front cover
(3) Noise level; Less than 85db, as soise source is put away in the equipment
(4) Safety measure; Whole operation stop when upper cover or specimen charge door is open

● Image analysis

- (1) Analyze method; Image analysis through CCD camera
(2) Number of analyze fields; 10 fields
(3) Transfer analyze field; X-Y point control.
X axis (right and left) While holding specimen with chuck, it is moved (input fixed positin)
Y axis (front and rear) By moving camera. (control of move distance is through screw adjusting)
Moving range is 2 mm for φ20mm specimen or 3 mm for φ30mm specimen.
(At the shipment, this is fixed a side)

● Control

- (1) Control panel; Installed in the body
(2) Operation board; Installed on the upper part of control panel
Screen Liquid crystal display
(3) Indicate set up items; (a) Rotation speed of polishing wheel
(b) Polishing time
(c) Polishing speed
(d) Polishing pressure
(4) Controller; Micro computer on circuit board

● Dust collector

- (1) Set location; Set up in the main body
(2) Dust catch method; Filter formed in package type
(3) Capacity; Blow volume: 4.0 m³/min
Static pressure: 125 mmH₂O
(4) Output of motor; 200 W
(5) Suction bore diameter; 70 mm
(6) Catch duct diameter; 75 mm
(7) Volume of dust storage bucket; 2.0 L
(8) Sequence of operation; Sequential operation with polisher

● Others

- (1) Size of equipment; 900 mm (W) x 600 mm (D) x 1408 mm (H)
(2) Weight of equipment; 400 kg

● Incidental facilities

- (1) Power source;
Supply source: AC 3Phase 200/220 V 50/60 Hz
Use power: Power _ AC 3phase 200/220 V 50/60 Hz
AC single phase 100 V 50/60 Hz
Operation circuit - AC single phase 100 V 50/60 Hz
Pneumatic electro-magnetic valve circuit _ DC 24 V
Power capacity _ 6 kVA
(2) Pneumatic pressure; Over 0.4 MPa (4 kg/cm²) dry air
(3) Color; 5Y7/1

Produce and Sell by



NAKAYAMA CO., LTD.

Head Office 3-37-22 Kodama, Nishi-ku, Nagoya City, Japan 451-0066
TEL.052-521-1171 FAX.052-521-1180
E-mail : info@nakayama-meps.co.jp
http : //www.nakayama-meps.co.jp

Overseas division

Central City Trading Co., Ltd.

TEL.8152 793 8731 FAX.8152 791 0521
E-mail : m-koike@centrad.co.jp Mikio Koike