PACE TECHNOLOGIES
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NANO-S

8 & 10-INCH MANUAL POLISHERS

MANUAL GRINDING AND POLISHING

Easy To Use | Reliable Performance | Multiple Options Available

SPECIFICATION	NANO-1000S	NANO-2000S
Working wheels	8 and 10-inch diameter	8 and 10-inch diameter
Stations	Single wheel	Double wheel
Speed	Variable: 100-1000 rpm Grinding: 600-1000 rpm Polishing: 100-600 rpm	Variable: 100-1000 rpm Grinding: 600-1000 rpm Polishing: 100-600 rpm
Power supply	110 / 220V	110 / 220V
Motor	1 hp (750 W) dynamic torque servo motor	1 hp (750 W) dynamic torque servo motor
Dimensions (W x D x H)	16 x 15 x 15-inch (420 x 380 x 380 mm)	30 x 22 x 15-inch (750 x 570 x 380 mm)
Weight	63 lbs (29 kg)	80 lbs (36 kg)

2 year warranty
Limited warranty

The NANO-S Manual Grinder Polishers are versatile and high-performance machines designed to meet the demands of precise grinding and polishing applications. Available in single (NANO-1000S) or double wheel (NANO-2000S) options each supporting 8 or 10-inch working wheels. Featuring a variable speed range of 100-1000 rpm in 10 rpm increments, the NANO-S allows users to precisely adjust the grinding and polishing speed to match their specific needs. The CCW and CW direction control enables versatile operation, accommodating various sample requirements.

Equipped with a 1 hp (750W) high torque dynamic servo motor, the NANO-S delivers constant torque across the full range of motor speeds, ensuring consistent and reliable performance. With rapid programmable speed and time selection, users can easily set and adjust the desired parameters for efficient and consistent results. The timer function allows for countdown capability, automatically turning off the machine once the set time is reached, ensuring convenience and safety.

Designed for seamless integration, the NANO-S features electrical connections for the FEMTO-1100S/1500S auto polishing system, allowing for a comprehensive and streamlined metallographic sample preparation workflow.

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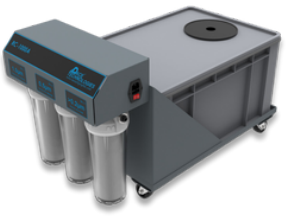
APPLICATIONS

- Metals
- Ceramics
- Polymers
- Composites
- Aerospace
- Electronics
- Biomaterials

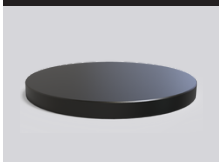
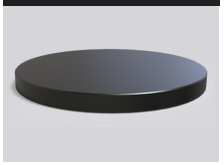
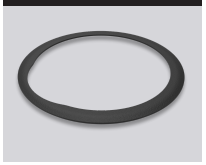
Autopolishing Head
FEMTO-1100S / 1500S
(Optional)

Automatic Dispenser
ZETA-2000S (Optional)



Recirculating Filter
RC-1000A (Optional)

NANO-S ACCESSORIES

8-inch Anodized Working Wheel	10-inch Anodized Working Wheel	8 & 10-inch Splash Guard	8-inch Paper Ring	10-inch Paper Ring	8 & 10-inch Wheel Cover
					
PW-800A	PW-1000A	PTM-125-001	PTM-125-005	PTM-125-006	PTM-125-007

GRINDING PROCESS OVERVIEW

The grinding step in metallography removes cutting damage, planarizes specimens, and eliminates material to reach the area of interest.

Common Abrasives for Grinding:

Silicon Carbide (SiC): A synthetic abrasive with a hardness of ~2500 HV, SiC is ideal for cutting and grinding due to its sharp edges and durability. Available in grit sizes from 60 (coarse) to 1200 (fine).

Alumina: Derived from bauxite, alumina comes in two phases: softer gamma (Mohs 8) and harder alpha (Mohs 9, 2000 HV). Mainly used for final polishing.

Diamond: The hardest material (Mohs 10, 8000 HV), diamond is available in natural or synthetic forms. Polycrystalline diamond is recommended for rough polishing in metallography.

Zirconia: A tough but less common abrasive, zirconia is durable but less sharp, requiring higher pressures. Best for coarse grinding with 60 or 120 grit sizes.

POLISHING	APPLICATION
CERMESH	Ceramics, glass and minerals grinding with 30-45 micron diamond
POLYPAD	Rough polishing with 9-15 micron diamond
TEXPAN	Excellent general purpose pad for diamond, alumina or colloidal silica
BLACKCHEM	Recommended for polishing with colloidal silica
DACRON	Fine diamond polishing
NYPAD	Fine diamond polishing
GOLDPAD	Fine diamond polishing
ATLANTIS	Fine diamond polishing
MICROPAD	Excellent final polishing pad with alumina
TRICOTE	Final polishing
NAPPAD	Final polishing
MOLTEC	Final polishing
FELT PAD	Final polishing of glass and large surface area parts

CE

Machinery directive 2006/42/EC
RoHS Directive 2011/65/EU

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