

BUEHLER®

Alpha, Beta & Vector™

GRINDER-POLISHERS AND POWERHEAD

- Affordable Manual Grinder-Polishers
- Upgrade to Semi-Automatic System with Vector™ Power Head
- Single and Multiple Sample Capability
- Heavy Duty Construction
- Vibration and Corrosion Resistant Mineral Cast Base
- CE Approved



Designed to Expand as Your Needs Grow



Available with Single or Dual Platens

The Phoenix® Alpha and Beta are members of the Buehler family of manual grinder-polishers. These machines are offered in both single and twin wheel versions and are designed for use with 8" (203mm) and 10" (254mm) platens. (Platens not included, order separately.)

Affordable and Durable

While the Alpha offers the convenience of a basic two speed grinder-polisher, the Beta offers the versatility of variable wheel speed allowing the tailoring of operating parameters to individual needs. All Alpha and Beta Grinder-Polishers bring the same rugged, quiet operation of the Buehler Phoenix family of machines to a line of smaller,

affordable grinder-polishers. Alpha and Beta Grinder-Polishers feature heavy duty mineral cast bases for long-lasting service, even under harsh working conditions.

Upgradable

The Alpha and Beta can be upgraded to semi-automatic operation with the addition of the Vector Power Head. The Vector Power Head enables the grinderpolishers to prepare samples using either singly or centrally applied pneumatic loading. For multiple sample preparation, the power head can be interfaced with the PriMet® 3000 Modular Dispensing System or PriMet® Modular Dispensing Satellite, bringing yet another level of automation to the Alpha and Beta family of machines.

Productive

Phoenix Alpha and Beta Grinder-Polishers are ideal for the laboratory or quality assurance departments with manual sample preparation requirements. In addition, as the requirements for sample preparation increase, the productive capacity of the Phoenix Alpha and Beta machines can be extended with the simple addition of a Vector Power Head and choice of PriMet dispenser, creates an integrated system suitable for higher sample throughput.

The Phoenix Alpha and Beta Family of Grinder-Polishers: rugged and versatile... a sound equipment investment for now and the future.

Specifications

Alpha, Single Wheel Grinder-Polisher for 115 VAC operation	49-5500-115
Alpha, Single Wheel Grinder-Polisher for 230 VAC operation	49-5500-230
Alpha, Twin Wheel Grinder-Polisher for 115 VAC operation	49-5502-115
Alpha, Twin Wheel Grinder-Polisher for 230 VAC operation	49-5502-230
Beta, Single Wheel Grinder-Polisher for 115 VAC operation	49-5100-115
Beta, Single Wheel Grinder-Polisher for 230 VAC operation	49-5100-230
Beta, Twin Wheel Grinder-Polisher for 115 VAC operation	49-5102-115
Beta, Twin Wheel Grinder-Polisher for 230 VAC operation	49-5102-230

Note: Platens and specimen holders are supplied separately

Accessories

Aluminum Platen, 8" (203mm)	40-4061
Paper Holding Band for 8" (203mm) Platen	30-2008
Cloth Clamp for 8" (203mm) Platen	40-2058
Splash Ring	81-4020
Aluminum Platen, 10" (254mm)	40-0500
Paper Holding Band for 10" (254mm) Platen	95-2825
Cloth Clamp for 10" (254mm) Platen	95-2826
Dust Cover for Alpha and Beta Grinder/Polisher	60-3011
Vector Power Head	60-1990

Single Force Specimen Holders with Retaining Rings:

4 x 1" samples	60-3001
4 x 1¼" (32mm) samples	60-3002
4 x 1½" (38mm) samples	60-3003
4 x 25mm samples	60-3004
4 x 30mm samples	60-3005
4 x 40mm samples	60-3006
Retaining Rings (set of 12 in assorted sizes)	60-3007

Central Force Specimen Holders:

6 x 1" (25mm) samples	60-2482
6 x 1¼" (32mm) samples	60-2483
3 x 1½" (38mm) samples	60-2485
6 x 30mm samples	60-2486
3 x 40mm samples	60-2487
Blank Holder	60-2408
Lift lock Drive Adaptor for Central Force Specimen Holders	60-2499

Note: One drive adaptor and loading plate required for each central force specimen holder

Gravity Feed Lubricator for Vector LC and Vector Power Heads	60-3024
Lubricator Stand, holds three Gravity Feed Lubricators for all models of Vector Power Heads	60-3025
Loading Plate for Central Force Specimen Holders	60-2425
PriMet® 3000 Modular Dispensing System	40-2800
PriMet® Modular Dispensing System	40-2810
PriMet® Modular Dispensing System, without Accessories	40-2811
Cable to connect PriMet to Vector	40-2704

Technical Data

No. of Platens	Platen Speeds	Platen Diameters	Voltage	Power Consumption	Frequency	Water Connection	Dimensions	Weight	Catalog No.
Alpha Series, Dual Speed									
Single	180/360 r.p.m	8/10" (203/254mm)	115 VAC	690 W	50/60Hz, 1φ	½" NPT, Male 15-87 psi (1-6 bar)	19" W x 10" H x 20" D (475 x 250 x 500mm)	84 lbs. (38 kg)	49-5500-115
			230 VAC	660 W					49-5500-230
Twin			115 VAC	690 W					49-5502-115
			230 VAC	660 W					49-5502-230
Beta Series, Variable Speed									
Single	30-600 r.p.m	8/10" (203/254mm)	115 VAC	690 W	50/60Hz, 1φ	½" NPT, Male 15-87 psi (1-6 bar)	19" W x 10" H x 20" D (475 x 250 x 500mm)	84 lbs. (38 kg)	49-5100-115
			230 VAC	575 W					49-5100-230
Twin			115 VAC	690 W					49-5102-115
			230 VAC	575 W					49-5102-230

Vector Power Head:

Configuration:

Electrically-driven head mounted to grinder-polisher base via rigid post

Operation:

Single and central specimen loading, pneumatically applied

Sample Capacity:

Single: 1 to 4
Central: Up to 6 depending on holder

Sample Sizes:

25mm, 1", 30mm, 1¼", 32mm, 1½", 38mm and 40mm

Controls: Touch-pads with LED displays for:

On/Off; Head Direction (Comp/Contra); Run/Stop; Dispenser On/Off; Time; Force (lb/N); Water On/Off

Time:

From 30 seconds to 9 minutes 50 seconds in 10 second increments, and from 10 minutes to 99 minutes in 1 minute increments

Sample Force:

- Single: 0 to 15 lbs. in 1 lb. increments (0 to 75 N in 5 N increments)
- Central: 4 to 60 lbs. in 4 lb. increments (20 to 300 N in 20 N increments)
- Soft start and stop

Head Speed: 60 rpm

Power:

Operation on 85 VAC to 265 VAC, 50-60Hz, 1 phase

Motor:

½ HP (32 watt)

Compressed Air: 85 psi (6 bar)

filtered, regulated air; mini-barb push-in coupling to fit 0.25" (6mm) diameter hose

Control Voltage:

12 VDC

Other Features:

- Integrated drip-lubricator
- Interface to PriMet 3000 and PriMet Satellite dispenser
- Soft start and stop function
- "Zero" sample force operation for sensitive samples

Weight:

28 lbs. (13kg)

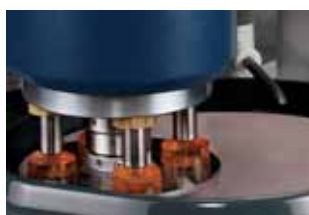
Dimensions:

Width	Height	Depth
8½"	16"	13½"
(216mm)	(406mm)	(343mm)

For a complete listing of consumables, please refer to our Consumables Buyer's Guide. Buehler continuously makes product improvements; therefore, technical specifications are subject to change without notice.



All Phoenix Alpha and Beta Grinder-Polishers are available in both single and twin wheel models with a choice of variable or dual fixed platen speeds.



The Vector Power Head gives the operator the choice of preparing samples using single or central force application.



Easy to read icons guide you quickly through the programming process.



All Alpha and Beta Grinder/Polishers can be upgraded to high-productivity semi-automatic systems with addition of the Vector Power Head and choice of PriMet 3000 or PriMet Satellite dispensing systems.



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