

The RAM 31-SP shot peening machine gives you a spacious dust-free direct pressure capability to efficientlypeen small and large workpieces.

Engineered for shot peening media, the RAM 31-SP gives superb shot peening performance with outstanding flexibility. Built for rugged, continuous applications, the self-contained system can easily handle three-shift operations. Designed for cost-effective operation, the reclaiming section yields optimum production life from each pound of peening media by automatically recovering, cleaning, and reclaiming media.

Powerful, fast, efficient peening and finishing

Built for non-stop production, the RAM 31-SP cabinet provides the optimum in heavy duty peening performance.

Reclaim media — reduce costs

Fine tuneable reclaiming of media yields optimum production from each pound of shot. After striking the work surface, media and dust fall through the work deck and are pneumatically conveyed to the reclaiming section for cleaning.

Inside the reclaiming section a controlled cyclonic action spirals the media and debris, throwing good shot particles to the outer walls, where they spiral down through a dual adjustable air wash system offering independent controls for air wash volume and velocity, which enhances the separation of dust and fines from the reusable media.

A vibrating screen below the air wash traps oversized debris, allowing correctly sized, reusable shot to pass through to the storage hopper. Dust and fines are pulled from the center of the cyclone and the airwash and pneumatically conveyed to the dust collector.

Each time blasting stops, the pressure vessel is automatically refilled with clean reclaimed shot.

Direct pressure peening

The RAM 31-SP shot peening machine provides a self-contained, highly productive blast area that does not pose a hazard to the environment. Compared to suction systems, the direct pressure blast generator of the RAM31-SP provides double the productivity with superior intensity control and repeatability. Surface finishing operations including deburring, deflashing, peening, etching, stripping and cleaning can go on around-the-clock without interfering with other operations or personnel.

Optimum working environment improves productivity

We improved your working environment so you can improve productivity. Brilliant lighting allows operators to work more productively on small components as well as large parts. 260 footcandle (280 dekalux) lighting level at the cabinet floor provides exceptional light for exceptional operator performance.

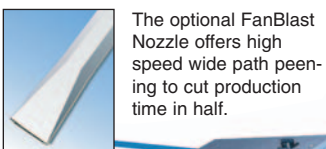
What's more, working in hard to reach areas is easier as a continuous rush of fresh air sweeps through the cabinet providing excellent visibility. Dust laden air is carried to a set of dust collector cartridges for high efficiency filtering. Cleaning is via reverse pulse air jet.

The large 60"W x 48"D x 36"H (152 cm x 122 cm x 91 cm) blast chamber accommodates a wide variety of workpieces. And to increase productivity, many accessories are available.

Operational Durability

Shot peening is a demanding process requiring equipment having the strongest and highest quality engineering design, manufacturing methods and materials. A RAM 31-SP and accompanying parts and accessories will give trouble-free service under high production operation 24 hours per day, every day of the year for decades.

For sustained steel shot peening applications, the RAM 31-SP is an efficient, reliable, very low maintenance, unfailingly trustworthy machine.



Shown with optional counter balanced doors.

RAM 31-SP Shot Peening Machine

- Dust free.
- Complies with latest regulations (as of 1991) from California South Coast Air Quality Management District (SCAQMD), Rule 1401, requiring "T-BACT", Best Available Control Technology for Toxics. (The California SCQAMD is, to our knowledge, the most stringent AQMD in the nation.)
- Significant reduction in cost and time of peening compared to suction machines.
- Designed specifically for shot peening blast media, metallic and non-metallic. Also functions superbly with glass, aluminum oxide, and other abrasives.
- Newly engineered from the ground up for maximum blast and media recycling efficiency.
- The only machine with smooth, non-pulsing media flow for process repeatability.
- External vacuum return, dust free, closed cycle gun option allows peening of parts outside cabinet.
- Many other options and features.

SPECIFICATIONS

In accordance with our program of product improvement, specifications are subject to change at any time without notice.

Stock Number	494-070-31 complete cabinet shot peening system with two hinged doors, 60 Hz
Options	Counterbalanced door(s); 50 Hz; explosion proof electrical specs
Overall Dimensions	Cabinet 65" wide x 49" deep x 76" high (165 cm x 125 cm x 194 cm). Power Pack 63" deep x 40" wide x 91" high
Shipping Data	1500 lbs (682 kg) - two pallets. Cabinet: 71" wide x 55" deep x 81" high (181 cm x 140 cm x 206 cm). Power Pack: 46" wide x 72" deep x 94" high (117 cm x 183 cm x 239 cm)
Work Compartment Door	60" wide x 48" deep x 36" high (152 cm x 122 cm x 91 cm)
Door Opening	Two hinged doors standard. Counterbalanced doors optional
View Window	41" wide x 36" high (104 cm x 78 cm)
Ventilation	10.5" x 22" (27 cm x 56 cm)
Lighting	840 CFM (23.8 CMM) 14 air changes/minute
Compressed Air Requirement	3 each, 150 watt incandescent. 260 footcandles (280 dekalux) at floor
	With 1/4" (6.4 mm) nozzle and vibrating screen: 44-51 CFM @ 100 psi (1.3-1.4 CMM @ 7 bar). With 5/16" (8 mm) nozzle and vibrating screen: 66-77 CFM (1.9-2.2 CMM). With 3/8" (9.5 mm) nozzle and vibrating screen: 80-146 CFM (2.3-4.1 CMM)

RECLAIMER

	Two stage cyclone separator/air wash, vibrating screen and media storage hopper.
Air Volume	840 CFM (23.8 CMM) recovery and reclaim
Storage Hopper	1.5 ft ³ (42 liters)
Vibrating Screen	Consumes 4 CFM @ 100 psi (0.11 CMM @ 7 bar)

BLAST GENERATOR

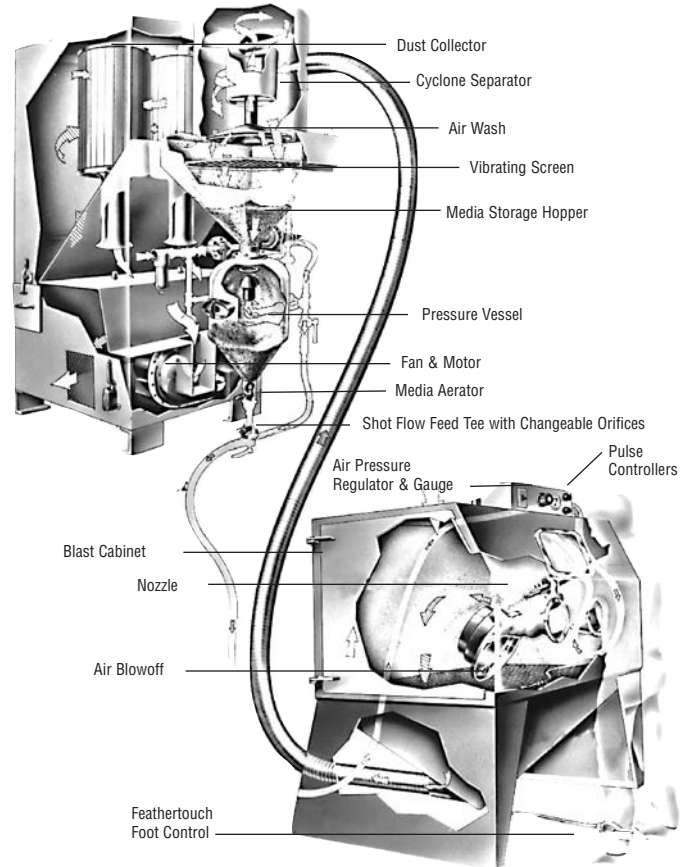
Diameter	14" (36 cm)
Bottom Cone	60 degree included angle with media fluidizing bed
Volume	1 ft ³ (28 liters)
Foot Control	RC100P, Lo-Pro Feathertouch®
Door Interlocks	Included. Prevent blasting start-up with door open
Moisture Separator	3/4" (19 mm) NPT with manual drain
Air Pressure Regulator	3/4" (19 mm) NPS, remote controller and gauge mounted on cabinet control panel
Shot Flow Valve	Shot peening media feed tee with easily changeable orifices
Aeration	Fluidizing bed assures smooth non-pulsing media flow, in conjunction with 60 degree cone and straight media flow

DUST COLLECTOR

Volume Rating	840 CFM (23.8 CMM)
Filtration	2 cartridges, each 225 ft ² (21 m ²) - total 450 ft ² (42 m ²) of filter area
Filter Cleaning	Reverse pulse air jet cleaning activated via pulse controllers on cabinet control panel

MOTOR/BLOWER

Motor	2 hp, 3450 RPM, TEFC
Electrical	Standard 208-230/460 volt, 3 phase, 60 Hz
	Optional: other voltages, phases, 50 Hz
Motor Starter	Manual in NEMA 1 enclosure
Motor Current	6.0-5.6/2.8 amps, 60 Hz



OPTIONS

- Highly recommended for all machines for ease of part handling during blasting is a 28" (71 cm), 500 lb (227 kg) base mounted turntable
- For heavy parts counterbalanced doors recommended with these options
- Work car and inside track: provides a mobile base for turntable, 1000 lb (455 kg) capacity
 - Turntable: 40" (102 cm) diameter, 1000 lb (455 kg) capacity, base mounted
 - Track extension: 6 ft (2 m) of outside track to ease loading of parts
- Options - other**
- Rubber lined HD cyclone. Rubber lined cabinet (recommended with aluminum oxide)
 - HEPA filter system
 - Electronic automatic pulse controller for dust collector
 - Explosion proof electronic automatic pulse DC, lights, motor, starter
 - Adjustable position nozzle holder
 - Tumble basket: 6 RPM, 1/20 hp, 120 v motor
 - External gun kit for vacuum return dust free blasting outside the enclosure
 - View window(s) in hinged door(s), for ease of demonstration or supervision of process
 - Magnahelic pressure differential gauge, to monitor dust collector filter condition
 - Manual media control at cabinet operator station, for time saving "at hand" operator control
 - Electronic media control with screw feeder
 - Electronic air pressure controller
 - Vestibules on doors to permit "pass through" of long parts
 - 6' wide cabinet and two operator stations
 - "Stealth" cabinet option - 76 dba (at 6' (2 m)) while blasting. Quieter than most machines
 - FanBlast Cabinet Nozzle: 6" (15 cm), 1-1/4" NPS, part number 427-205-66

WARNING: NEVER USE WITH SAND ABRASIVE
 WARNING: ALL ABRASIVE BLASTING CREATES BREATHABLE PARTICLES OF DUST WHICH MAY INCLUDE SILICA AND WHICH MAY LEAD TO VARIOUS DISEASES INCLUDING SILICOSIS, A LUNG DISEASE THAT CAN BE FATAL. ABRASIVE REBOUND OR DIRECT BLAST MAY ALSO INJURE AN UNPROTECTED OPERATOR. THEREFORE, SAFETY REQUIRES THAT THOSE PERSONS IN THE AREA OF ABRASIVE BLASTING ALWAYS WEAR PROPERLY SELECTED AND MAINTAINED GOVERNMENT APPROVED RESPIRATORY EQUIPMENT AND FULL PROTECTIVE CLOTHING, FROM HEAD TO FOOT. IF YOUR PROCESS DUST IS HAZARDOUS, AN OPTIONAL HEPA FILTER MAY BE REQUIRED. BEFORE USING MACHINE GET APPROVAL FROM YOUR SAFETY DEPARTMENT.

In accordance with our program of continued product improvement, specifications are subject to change at any time without notice.



1820 Walters Court
 Fairfield, California 94533 USA
 TEL (707) 429-2434
 FAX (707) 429-2424
 E-MAIL info@paulisystems.com
 WEB www.paulisystems.com