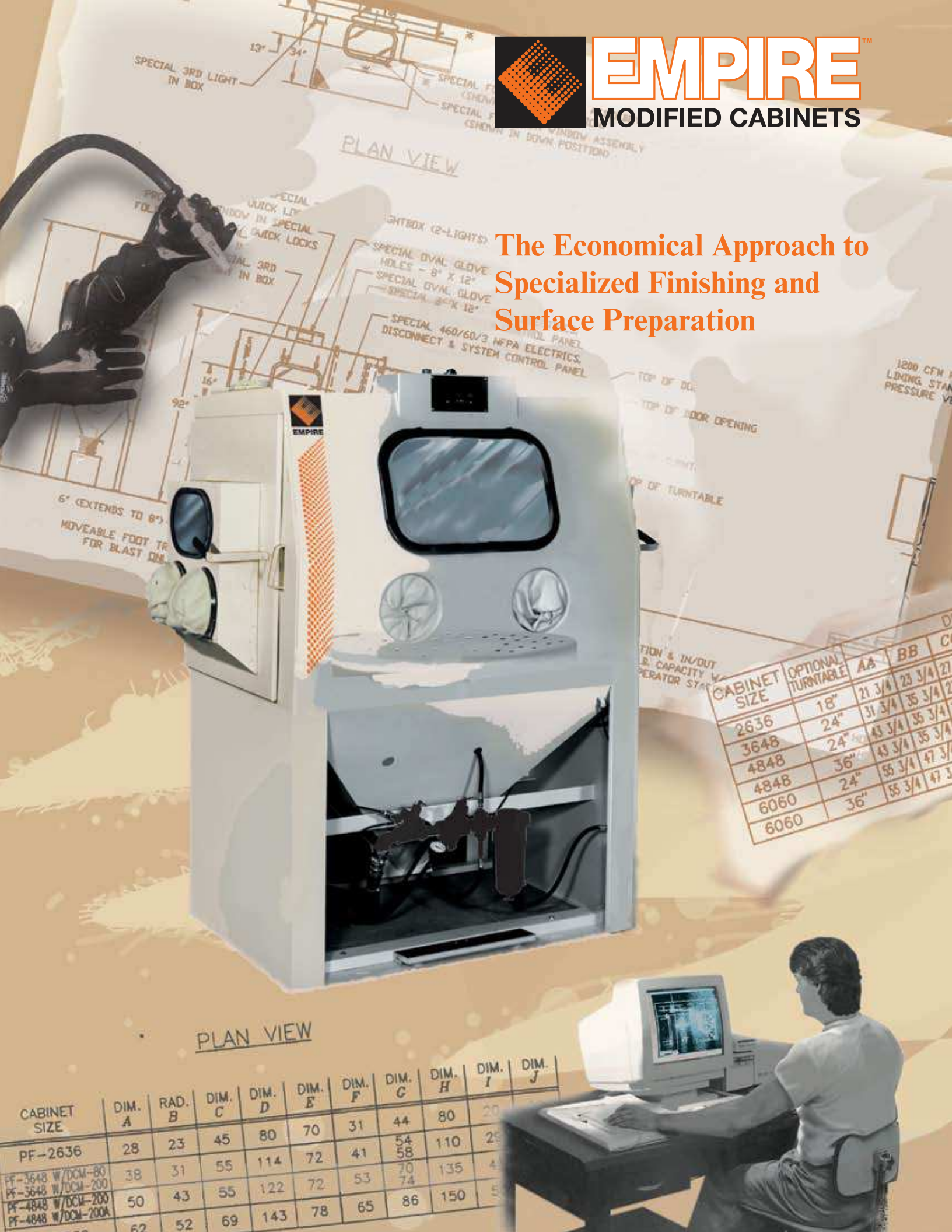




EMPIRE™
MODIFIED CABINETS

**The Economical Approach to
 Specialized Finishing and
 Surface Preparation**



CABINET SIZE	OPTIONAL TURNTABLE	AA	BB	C
2636	18"	21 3/4	23 3/4	27
3648	24"	31 3/4	35 3/4	42
4848	24"	43 3/4	35 3/4	42
4848	36"	43 3/4	35 3/4	42
6060	24"	55 3/4	47 3/4	57
6060	36"	55 3/4	47 3/4	57

PLAN VIEW

CABINET SIZE	DIM. A	RAD. B	DIM. C	DIM. D	DIM. E	DIM. F	DIM. G	DIM. H	DIM. I	DIM. J
PF-2636	28	23	45	80	70	31	44	80	20	
PF-3648 W/DCM-80	38	31	55	114	72	41	54	110	29	
PF-3648 W/DCM-200	38	31	55	114	72	41	58	110	29	
PF-4848 W/DCM-200	50	43	55	122	72	53	70	135	4	
PF-4848 W/DCM-200A	50	43	55	122	72	53	74	135	4	
PF-6060	62	52	69	143	78	65	86	150	5	

EMPIRE: A LEADER IN AIR-BLAST TECHNOLOGY FOR OVER 60 YEARS

Empire has specialized in designing and manufacturing abrasive-blasting products for over sixty years. Today, we produce the most extensive line of air-blast equipment in the industry including, portable blasters, blast rooms, blast cabinets and automated blast systems in addition to centrifugal-disc finishers.

We've earned our reputation as a leader in air-blast technology by developing products that meet both specific and general customer needs.

Our standard Pro-Finish® cabinets, for example, offer more choices than any other cabinet line on the market. Even if your application is specialized, you can often enjoy the benefits of a Pro-Finish system. That's because we offer a long list of standard factory options as well as the ability to modify Pro-Finish cabinets economically. As a result, we can tailor a cabinet to your workplace and process with a minimum of design work and, at the same time, assure you of proven Pro-Finish dependability and performance.

Shown on the following pages are just a few examples of the many modified cabinets we've produced to meet unique customer needs in a wide range of industries.



Empire Abrasive Equipment Company, headquartered in Langhorne, Pennsylvania, specializes in the development of air-blast systems and equipment.

BEST-EQUIPPED TEST LAB AND DEMONSTRATION CENTER IN THE WORLD



Our test lab and demonstration center in Langhorne, PA, is the world's largest. It enables us to simulate many production conditions in order to determine the best mix of media and machinery for your application.

The variables we can adjust include media type, blast systems (suction or pressure), operating pressures, dwell times, impact angles and other factors related to fixturing and parts handling. We can simulate the blast parameters you prescribe or we can develop recommendations on the best combination of media and equipment when you supply "before and after" sample parts.

A TRACK RECORD OF "FINISHING FIRST"



Shifter forks etched with ALOX

Cylinder surface profiled with ALOX



Parts BEFORE and AFTER air-blasting with EMPIRE machines



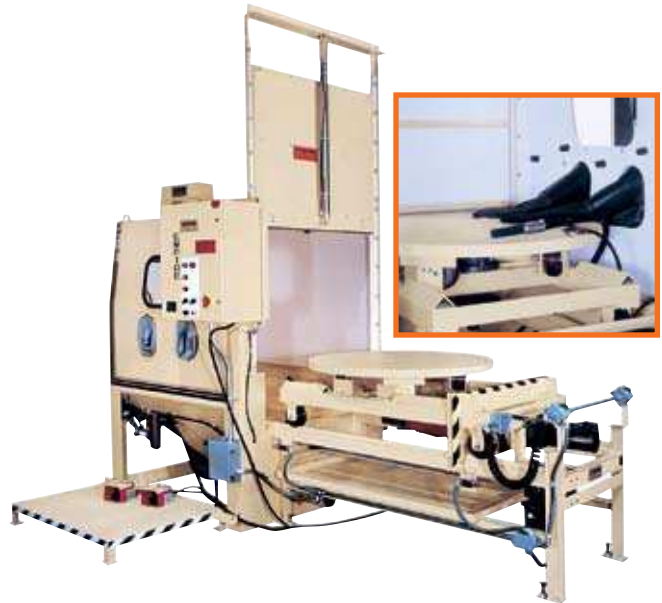
Copier tube etched with silicon

Collar deburred with glass beads

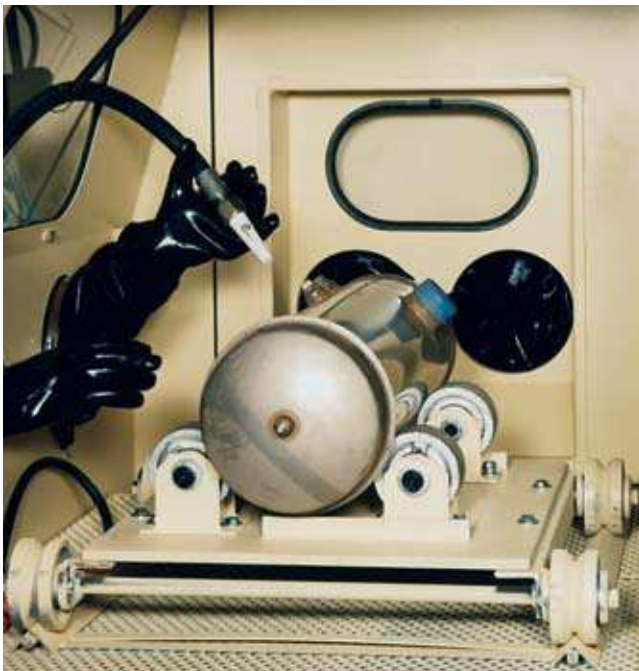


MANUAL CABINETS

Designed to clean wheel molds, this pressure blast cabinet incorporates a tilted 48-inch powered turntable and a 12-inch filler at the base of the enclosure to provide the operator with an optimum angle of attack relative to the workpiece. Other features include special fixturing to handle molds with different hub sizes and a pneumatically powered vertical door that saves floor space.



This rugged 6060 pressure system has a 2,500-pound load capacity and offers multiple labor-saving features, such as powered work-cart movement and foot-treadle control of the system's variable speed rotating turntable. In addition, low profile design, expanded oval glove inlets and a raised work station all contribute to easier part access.



As shown by the interior view above, this 4848 pressure cabinet is equipped with some unique time-saving features—all of which are manual. The operator rolls the part into the enclosure, rotates it forward or backward while blasting and then finishes the end of the part through a side work station. The whole process is manual, but a lot faster and easier than wrestling with an awkward workpiece.



This 4848 cabinet was modified specifically for blasting tall, flat parts. It's equipped with tight-locking turntable fixtures, which can be adjusted to hold parts of different widths. With a scissor platform, the operator is able to access both work stations. As a result, finishing an entire side of the part involves only one loading operation.

MANUAL CABINETS (continued)



Modified cabinets with openings on both sides provide a space-saving alternative to larger cabinets. Designed for finishing pipe, the unit shown above has dual-baffle plates in the entrance and exit vestibules to contain dust and media. A powered system can be added to feed and roll parts automatically.

This 6060 cabinet was modified with ease of operation in mind. The glove inlets have been expanded to ovals for greater freedom of hand movement within the enclosure and a filler piece has been inserted to position the work station above parts being blasted. An incremental locking assembly has been added to the system's turntable to hold parts in fixed positions during the blasting process.



The 6060 cabinet upgrade shown above has a 2,000-pound load capacity. The operator platform and work station have both been raised 18 inches for improved access to workpieces.



This pass-through cabinet simplifies the handling and finishing of metal or glass plates. Special features include a gasketed entrance/exit slot between the cabinet's double doors in addition to interior part guides that facilitate material handling.



This modified 7272 pressure cabinet might qualify as a finishing center. The cavernous enclosure is equipped with two work stations. The one on the front has been raised 24 inches with the insertion of filler panels, permitting the operator to blast down on parts. The station on the side of the cabinet is used to finish pipe fed through baffled entrance and exit vestibules on the front and rear of the cabinet. Other types of parts are loaded via a turntable on tracks. The system includes a piston-lift door to assure tight-sealing of the cabinet's enormous loading entrance. For economy, both work stations share the same blast nozzle and operating system.



Designed to handle the heavy hubs supporting helicopter blades, this pressure cabinet features a fully baffled crane slot through which parts can be lowered and processed without being released from the crane. Two side doors facilitate the loading and manipulation of long parts.



To speed finishing of very long workpieces, Empire can supply a dual-cabinet system. The unit shown includes a center expander with its own glove set and foot-treadle control, which operates one of the system's two blast guns. Cabinet controls are independent, enabling two operators to work on a single piece at the same time.



When dust emissions present safety or nuisance problems, Empire has a number of solutions. The cabinet above, for instance, has a self-cleaning tray to catch dust that is jarred loose when the door is opened. Other options include automatic clamps that seal cabinet doors shut until dust settles, a photohelic interlock that shuts down blasting if abnormalities occur in the dust-collection system, and the addition of a highly efficient HEPA filter to the system's dust collector.

MANUAL CABINETS (continued)

This Herculean mold-cleaning cabinet boasts a load capacity of 10,000 pounds. Three viewing windows, two work stations and a DC-powered turntable play important roles in accessing and manipulating very heavy parts.



PARTIALLY AUTOMATED CABINETS



Designed for cleaning tire molds, this heavy-duty machine with a 2,500-pound-load capacity is actually portable. Wheels mounted on the legs permit the entire enclosure to be moved back and forth between two conveyors. Cleaning is provided by oscillating pressure nozzles delivering glass beads. Molds move through the machine over rugged, coated rollers. A manual work station is included for removal of tenacious spot residue.

The pressure cabinet shown to the left (side view) and bottom left (front view) uses plastic media to deflash electrical components. A manual shuttle mounted through the cabinet door permits parts to be loaded without opening the blast enclosure. A tray beneath the door captures particles that may spill out of the cabinet and routes them to the system's reclaimer where dust and debris are separated from reusable media. Blast nozzles are mounted on a ball-screw assembly tied into a controller which permits



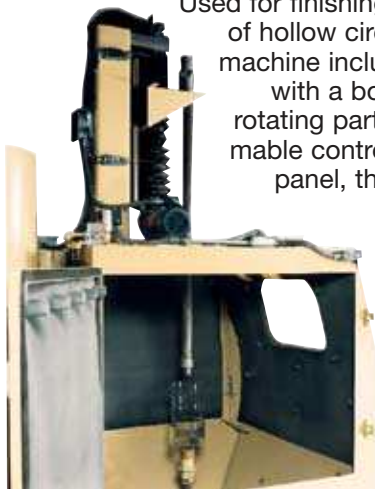
the operator to program the range of nozzle movement as well as desired blast and blow-off sequences.



Equipped with four oscillating blast nozzles, the pressure cabinet shown to the left is used to fatigue the ends of U-shaped glass tubes by removing a thin layer of glass. This arrangement eliminates the need for manual masking. The loading carriage on the side of the cabinet can be adjusted to handle tubes of different lengths.



This plastic-media pressure system combines a powered turntable with four nozzles, mounted on two linear oscillators, to strip wheels. Programmable controls facilitate quick adjustment of part and nozzle movement.



Used for finishing the interior surfaces of hollow circular workpieces, this machine includes a powered lance with a boron-carbide nozzle, a rotating part fixture and programmable controls. Through a control panel, the system can be programmed to blast, blow-off or stop during designated intervals in the lance's stroke.



Designed for processing workpieces in line, the machine on the left is positioned between two conveyors. Dead-air vestibules attached to the entry and exit points prevent media and dust from escaping the blast enclosure. A low-profile manual turntable within the cabinet enables the operator to reach all work areas on parts.

Access to the cabinet interior is gained through a large, rear-mounted door. To automate parts handling, this type of machine can be equipped with a pass-through conveyor.



This modified 6060 cabinet lifts up and rotates refrigeration tanks to assure that the system's twelve blast guns, which oscillate vertically and horizontally, cover the entire surface, including the bottoms. The lifting fixture, shown in the interior view to the right, attaches to a customer-supplied bracket used in many phases of the tank production process. A manual cart on tracks facilitates loading.

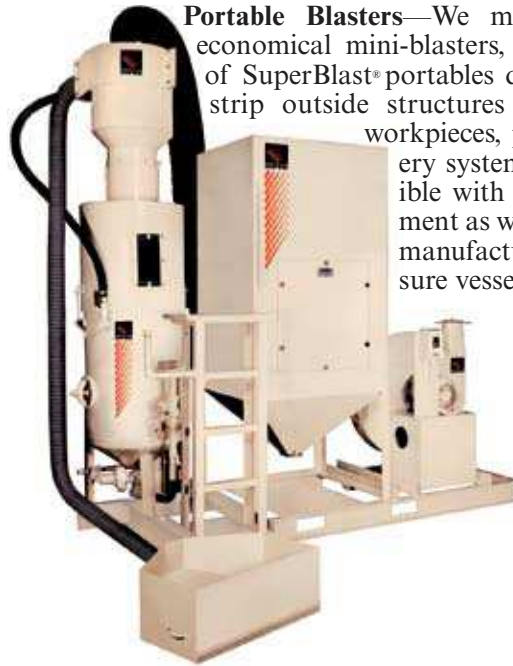


MOST EXTENSIVE PRODUCT LINE IN THE INDUSTRY

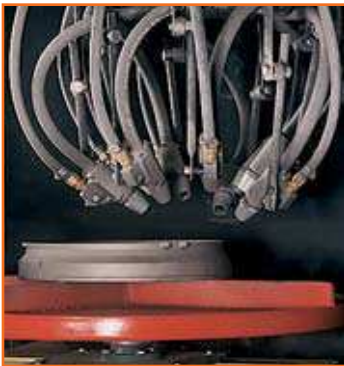
Standard Blast Cabinets—Our standard line of Pro-Finish® cabinets offers many factory options, often enabling finishers to meet production objectives without modifications. To strip and clean workpieces with delicate substrates, we build FaStrip® cabinets and portables designed for use with plastic media, in addition to SafeStrip™ cabinets and portables designed to handle light, fine media. We also produce Econo-Finish® cabinets designed for lighter duty service.



Portable Blasters—We manufacture economical mini-blasters, a full line of SuperBlast® portables designed to strip outside structures and large workpieces, plus recovery systems compatible with our equipment as well as other manufacturer's pressure vessels.



Automated Systems—We have designed and produced hundreds of automated pneumatic-blast systems, ranging in sophistication from continuous and indexing turntable cabinets to machines with computer controls developed specifically for unique production processes. Besides reporting gains in productivity of between 100 and 700 percent, our customers point to enhanced quality control as a major reason for automating with Empire.



Centrifugal-Disc Machines—In addition to air-blast equipment, Empire now offers high-energy, centrifugal-disc systems that slash deburring cycles from hours to minutes. The equipment includes many exclusive features designed to maximum output and minimize maintenance requirements.



Blast Rooms—We build pre-assembled and field-erected blast rooms with recovery options ranging from “sweep and shovel” hoppers to full recovery floors supported by media wash and recycling systems. Pneumatic and screw-type floors are both available. We also design and build custom rooms capable of meeting your most exacting production requirements.

SILICA SAND IS NOT TO BE USED IN ANY EMPIRE BLAST EQUIPMENT.



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