



Hoffman
BLAST ROOM EQUIPMENT

Hoffman Blast Room Equipment
made exclusively by:



**EMPIRE ABRASIVE
EQUIPMENT COMPANY**

RODECO COMPANY

Metal Finishing Equipment and Supplies
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**Innovative Solutions For
Blast Rooms And Related Equipment
WORLDWIDE**



Introducing a *clean* way to **BLAST!**

Blast room enclosure with bright lighting and room ventilation, providing safety for the operator and the environment.

Hoffman Blast Room Equipment, Inc. was established in 1984 to provide industry a source for high quality, dependable blast room equipment.

Blast room equipment is used in a wide variety of industries that require surface preparation prior to the application of a protective coating. The surface of the work piece is cleaned by a mixture of abrasive and high pressure compressed air being directed at the work piece by a blast operator. The operator holds a venturi nozzle tipped hose in his hands and controls the abrasive/air mixture generated at the blast machine with an "on the hose" operator switch.

The blast room contains the abrasive being shot at the work piece, as well as providing lighting and ventilation for the operator's safety. The abrasive and surface particle mix (i.e., paint chips, surface rust, mill scale, etc.) are collected by the floor reclamation system and brought back to the classifier to separate reusable abrasive from waste. The reusable abrasive is stored in a bin above the blast machine and is ready for the cycle to start again.

Industries that require this process include:

- Steel Fabricators
- Trailers
- Construction Equipment
- Oil Field Equipment
- Railcars
- Ship Building
- Steel Tanks

(Before) Traditional sandblast area with poor worker safety and environmental pollution.



Hoffman Blast Room Equipment offers a variety of reclaim floor designs and room configurations which allow us to design a blast room facility uniquely tailored to meet the economic, production, safety and environmental concerns of each customer.

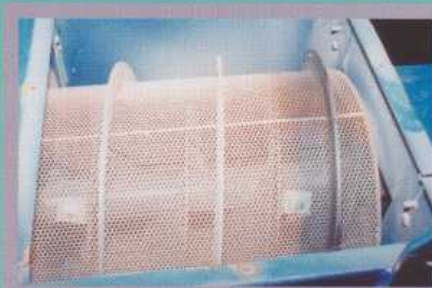
We are dedicated to the highest standards of production and service. In that regard, we have established a worldwide network of distributors, supported by a direct sales staff, strategically located throughout the United States, and backed by the experienced, professional personnel at our corporate headquarters.

Please take time to check us out. When you do, we are sure you will want to join the Hoffman family of satisfied customers.

Reclaim Components

Air-Wash Separator/Classifier (right)

The heart of the abrasive reclaim system is Hoffman Blast Room's air-wash separator with rotary drum separator. The separator removes contaminants from the abrasive mix, and the air-wash classifies the abrasive to maintain a constant size. This separator can classify all types of dry ferrous and non-ferrous abrasives.



Abrasive Storage Hopper with a Caged Ladder (above)

The storage hopper is a free-standing hopper, which is reinforced with structural steel. The hopper positions above the blast tank assemblies to provide easy access to the blast tanks for maintenance. A caged ladder and handrail assembly is standard on all storage hoppers to allow access to the air-wash separator, which is positioned on top of the storage hopper.

Elevator (left)

The elevator assembly is constructed of mild steel with angle iron reinforcements. Malleable iron buckets bolted to a heavy-duty (1/2" thick) belt convey the abrasive material to the air-wash separator. A one-piece cast iron pulley, which has been crowned for tracking and rubber lagged to prevent slippage, is located in the boot and head section of the elevator to drive the belt. The belt is easily adjusted from the head section to provide exact tracking.



Screws (below)

The reclaim floors utilize a heavy-duty screw to return the abrasive to the separator/classification system. The standard screw is 9" in diameter, which consists of a 5" diameter schedule-40 pipe wrapped with 1/4" thick flighting on a 2/3 pitch.



Blast Tank Assemblies (right)

Blast tanks are positioned directly under the abrasive storage hopper and are gravity fed. A covered riser assembly filters the abrasive through a perforated plate screen and contains the abrasive when the tanks exhaust, preventing abrasive leakage that may collect in the area.



Metering Shed Plates (below)

Shed plates are added to all partial reclaim floor designs to meter the amount of abrasive being fed into the screw reclaim system. The metering shed plates eliminate overloading of the reclaim floor. The shed plates are easily adjusted for various types of abrasives.



Reclaim Floor Designs

Single Screw Partial Reclaim System

A single screw partial reclaim system is the most economical floor design available. The system contains the major components found in all Hoffman Blast Room Equipment reclaim systems, including metering shed plates, heavy-duty screw, belt and bucket elevator, 20" air-wash separator, perforated plate rotary drum separator and oversized abrasive storage hopper with a caged man ladder and handrail. This is a basic "automatic" reclaim package that can be expanded to an "H", "U", or full floor reclaim system. It is best suited for low to medium production levels.

"H"-Shaped Partial Reclaim System

The "H"-shaped partial reclaim system adds two longitudinal metered screw assemblies along each side wall of the blast room. The position of the screw assemblies allows the abrasive delivered from the blasting nozzle, which is either blown or rebounded off the work piece, to strike the side walls and fall into the screws, automatically reclaiming approximately 60-90 percent of the blast media. The remaining abrasive on the floor is pushed into the metered shed plate screw assemblies at the end of the work shift. The "H"-shaped floor design is typically utilized in a "flow-through" room configuration where heavy work pieces and/or material handling devices can drive into the room and position the work piece on the steel covered concrete floor located between the longitudinal screws. This system is best suited for medium to high production.

"U"-Shaped Partial Reclaim System

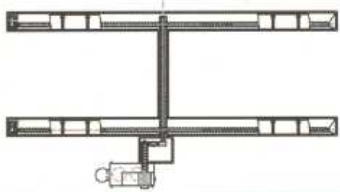
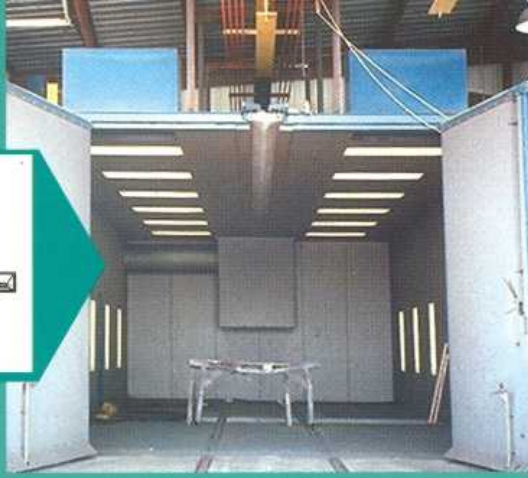
The "U"-shaped partial reclaim system adds two longitudinal metered screw assemblies along each side wall of the blast room and positions the cross screw along the back wall of the blast room. The position of the screw assemblies allows the abrasive delivered from the blasting nozzle, which is either blown or rebounded off the work piece, to strike the side walls and back wall of the blast room and fall into the reclaim system. A "U"-shaped floor design will automatically reclaim 60 to 90 percent of the blast media. The remaining abrasive on the floor is pushed into the metered shed plate screw assemblies at the end of the work shift. The "U"-shaped floor design is typically utilized in an "in-out" room configuration where heavy work pieces and/or material handling devices can drive into the room and position the work piece on the steel covered concrete floor located between the longitudinal and cross screw assemblies. This system is best suited for medium to high production.

Full Floor Reclaim System

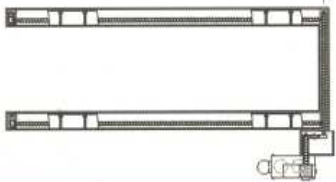
The full floor reclaim system utilizes multiple screw assemblies to create a fully automatic abrasive reclaim system, where 100% of the blast media is returned to the separator system during the blasting operation. The full floor reclaim design requires that the material handling of the work piece be intricately designed into the configuration of the room. Material handling of the work piece includes a work car/track system, an overhead monorail crane, an overhead bridge crane, or heavy-duty floor grating and support steel sized to allow a forklift to drive onto the reclaim floor. The full floor reclaim design can be used with any room configuration. This system is best suited for high production requirements.

Floor Configurations

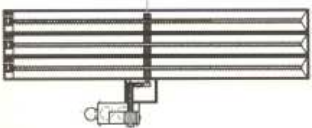
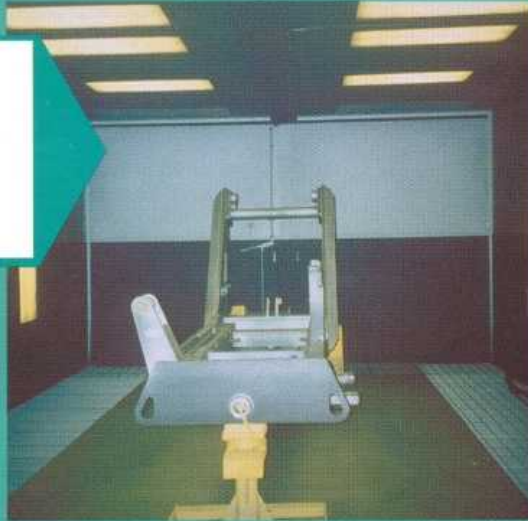
Single Screw



"H"-Shaped



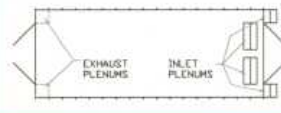
"U"-Shaped



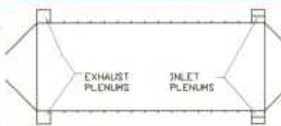
Full Floor



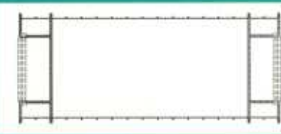
Flow-through



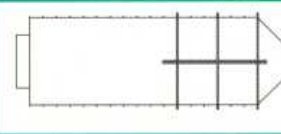
Flow-through



Flow-through with rubber roll-up doors



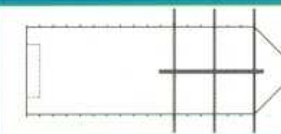
In-out with overhead monorail



In-out



In-out with "A" frame supports for overhead bridge crane



In-out



Optional Equipment

Overhead Material Handling

Monorail cranes and overhead bridge cranes with manual or tractor-driven trolleys can be designed as a material handling device in a blast room.

Brush Seal Assembly

Brush seals provide an abrasive tight seal around chain from the overhead material handling hoist. Assembly includes guide rails to center the hoist chain and adjustment bolts for the brushes.

Paint Filter Bank Assembly

Assembly includes filter housing, filter elements, fan, pressure differential gauge, exhaust stack and weather cap. A combination blast and prime facility includes a 10-gauge steel door to protect the filters during the blast operation.

Work Car Assembly

We offer a wide range of sizes and load capacities in work cars. The cars can be manually or pneumatically driven.

Side-Entry Door Assembly

Side-entry sliding doors can provide a material handling solution in tight work spaces or work flow directional changes.

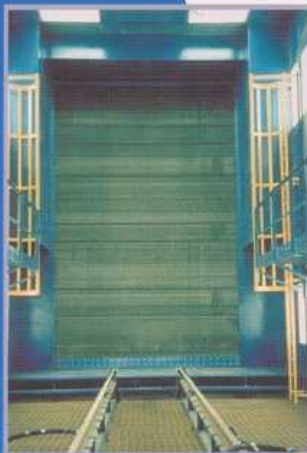
Rubber Roll-Up Door

The powered rubber door is constructed of 3-ply neoprene. The pre-assembled door is ideal for tight work spaces.

Dust Collectors

The Hoffman Blast Room Equipment line of high efficiency cartridge dust collectors provides a cleaning efficiency of 99.999% down to a particle size of .5 micron. These collectors meet the stringent guidelines set on particle emissions. We offer a wide variety of C.F.M. ranges to meet any ventilation requirement.

The pulse jet cleaning system automatically cleans the filter elements while the dust collector is in operation, eliminating any production down-time for a filter cleaning cycle. The cartridge filters are easily accessed from outside the collector by removing a single wing nut per row of two elements.





The ECO Abrasive Reclaim System

- Pitless design requires no special foundation
- Easy to retrofit to existing facility
- One motor powers the reclaim floor
- OSHA approved, safe for people and the environment
- Works with most types of dry abrasive materials
- Designed for easy assembly & disassembly
- Uses both air-wash separator & perforated plate rotary drum

All of the high standards of our larger systems are built into this rugged equipment for smaller applications.



Robotic Blast Systems Tireless Trojan *for Tough Conditions*

Blastman abrasive robots are in use world-wide with spectacular results, giving customers greatly improved efficiency and cost savings resulting in early repayment of the investment. The Blastman is at least ten times more efficient than established manual systems, and instances are on record of the equipment paying off even within one year.

Blastman robots are designed and manufactured to operate under difficult conditions – whenever the environment restricts productivity and the attainment of high and even quality. Use these robots when manual work is possible only for short periods of time. Programs for different jobs can be stored using an external PC.





Blast Room System



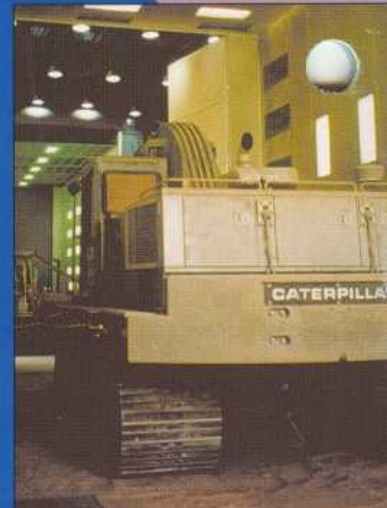
Modified Downdraft Paint Room



**Turnkey Facilities of Any Size
With Blast & Paint Rooms**



**Full Floor
Reclaim Systems**



**"H" Shaped Partial
Reclaim Systems**



**Full Reclaim Blast Room
with Recessed Floor,
Powered Rubber Roll-up
Door and Man Walkways**

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**Single Screw Partial
Reclaim Systems**