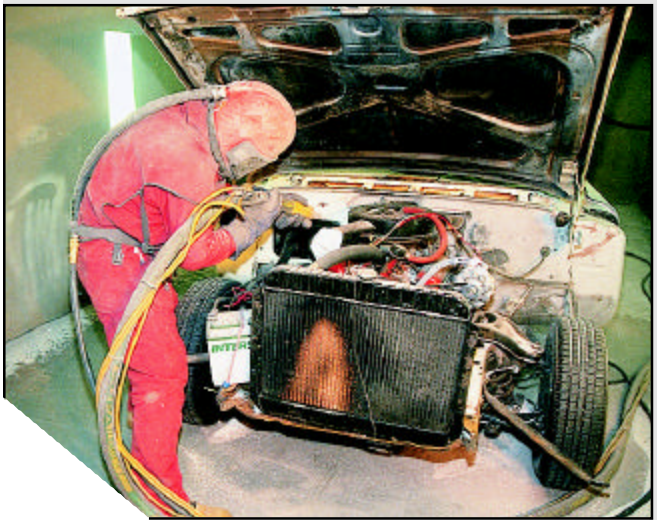
MEC

ISO 9001:2000

AUXILIARY EQUIPMENTS

ACOUSTIC CHAMBER, DUST COLLECTOR, SPRAY BOOTH, ABRASIVE BLASTING MACHINES

FOR WIND MILLS, RAIL ENGINE, WAGONS / COACHES, TRUCK, BUS, CAR, HELICOPTER, OIL TANK, WATER TANKER, STEEL STRUCTURES & BIG COMPONENTS/JOB



ABRASIVE / SHOT BLAST ROOM

For Surface Preparation & Industrial Cleaning

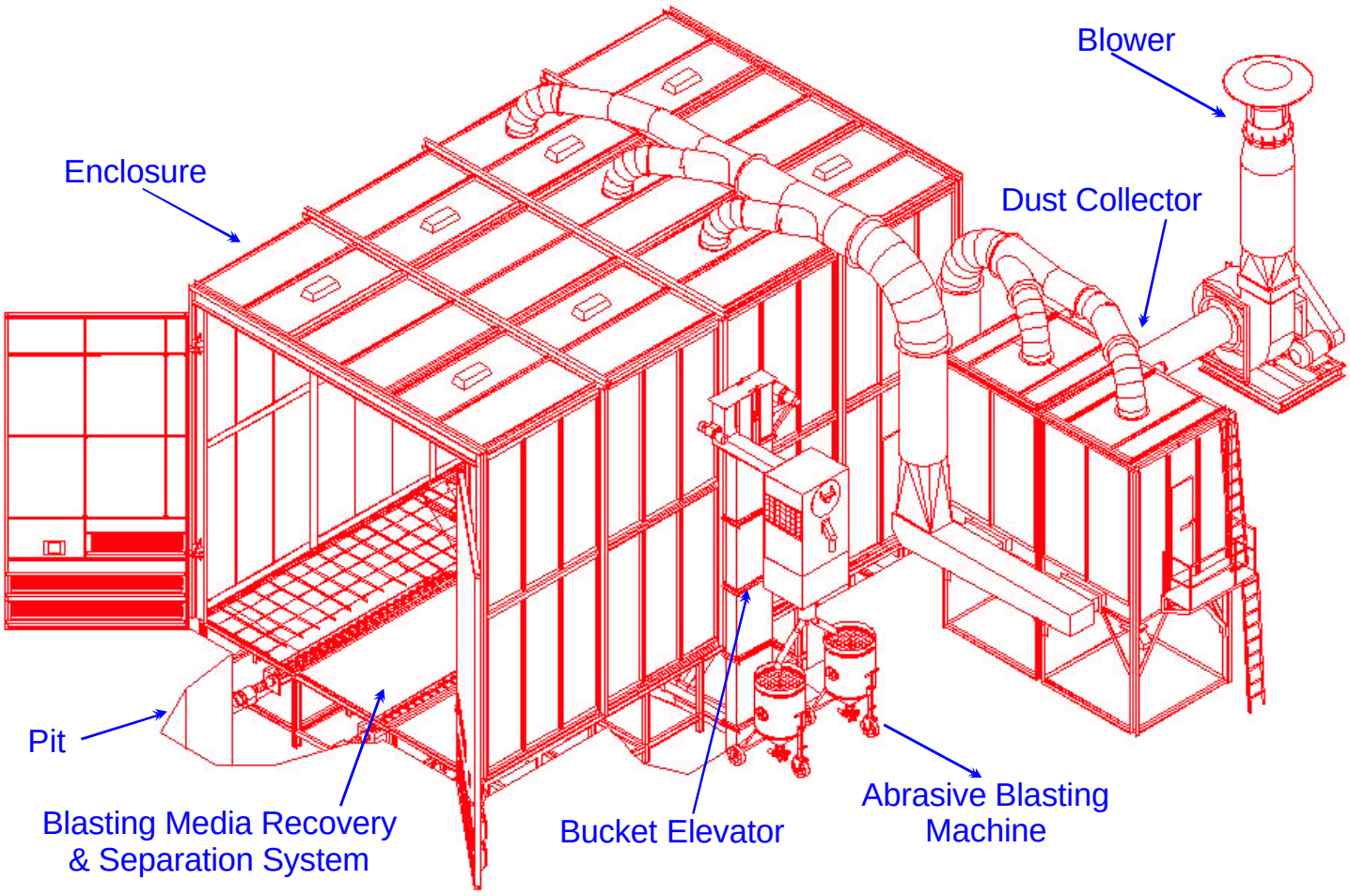
BLAST ROOM SYSTEM

Blastroomequipmentisusedinawidevarietyofindustriesthatrequiresurfacepreparationpriortotheapplication ofaprotectivecoating.Thesurfaceofthe workpieceiscleanedbyamixtureofabrasiveandhighpressurecompressedairbeingdirectedontotheworkpiecebyblastnozzle.Theblastroomcontainsthe abrasive being shot at the work piece, as well providing lighting and ventilation for the operator'ssafety.

IndustriesthatrequirethisprocessbeforeThermalSprayCoatinginclude:

- **–STEELFABRICATIONS**
- **–CONSTRUCTIONEQUIPMENT**
- **–OILFIELDEQUIPMENT**
- **–WINDMILLSTRUCTURE**
- **–TRAILERS**
- **–RAILCARS**
- **–SHIPBUILDING**
- **–STEELTANKS**

MEC INTERNATIONAL offers a variety of blast room designs and room configurations which allow us to design a blast room facility uniquely tailored to meet the economic production,safetyandenvironmentalconcernsofeachcustomers.



AsystematicBlastRoomessentiallyconsistsof:

- **–ENCLOSURE**
- **–ABRASIVEBLASTINGMACHINE**
- **–DUSTCOLLECTOR(FABRIC/PLEATED/CARTRIDGE)**
- **–BLASTINGMEDIARECOVERY&SEPARATIONSYSTEM**
- **–OPERATORSAFETYWEARS**
- **–OPTIONALEQUIPMENT/ACCESSORIES**

ENCLOSURE

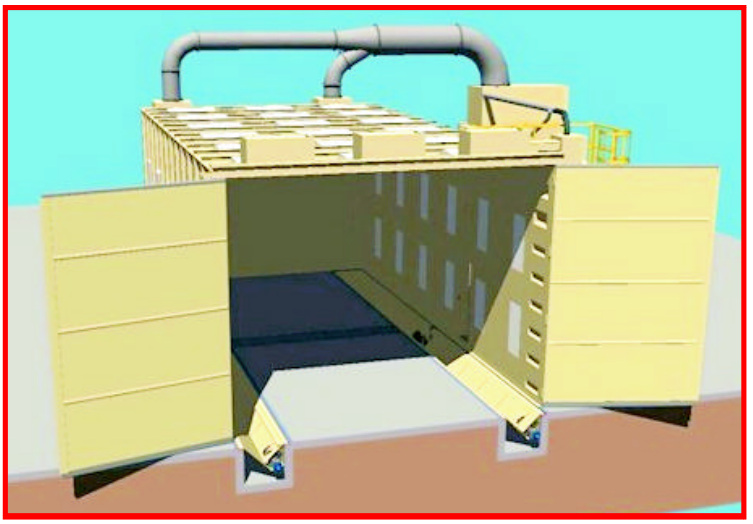
Themodularblastroomisspeciallyventilatedandilluminatedforenclosed abrasive blasting, and is a full sealed, dust tight, all steel structure. The componentsareprefabricated for simplebolt-together erection, with little ornositeweldingrequired.The ENCLOSURE standsbyit'sownstructural support without connections to the surrounding facilities. The size of the enclosuredependson

a) Thesizeofthejob

b) Numberofoperators

c) Adequateworkingspacearoundthejob.

Italsoinfluencessizeofthedustcollectorandreclaimerinstallationcosts.



OPTIONAL EQUIPMENTS

Severaladditionalequipmentsareavailabletoincreaseefficiencyof BlastRoomSystem.Afeware:

A)	**WORKCARORTROLLEYFORLOADINGOFJOB.**
B)	**OVERHEADBEAMORCRANE.**
C)	**MORE NUMBER OF BLAST NOZZLES TO INCREASE PRODUCTIONOUTPUT.**
D)	**AUTOMATIC MOVEMENT OF BLAST NOZZLE OR JOBORBOTH(FORSMALLBLASTROOM).**
E)	**VACUUM RECOVERY UNIT FOR COLLECTION OF ABRASIVE FROM INTRICATE PARTS / PORTION OF**

ABRASIVE BLASTING MACHINE

Blast Rooms are generally provided with PT-501R and PT-1001R models. During the blasting process, the mushroom valveandexhaustvalveareclosed,thevesselispressurizedand the mediaisforcedoutthroughthefeedvalvetothenozzle.When the blasting ceases, the vessel is depressurized by opening the exhaust valve. The vessel remains depressurized except when blastingisinprocess.

The remote control valve provided in the system releases the pressure, stopping the blasting process thereby ensuring safe working conditionsforthe operatorincasethehose/nozzledrops accidentally.

BLASTING MEDIA RECOVERY & SEPARATION SYSTEM

Allabrasiverecoverysystemincludethreebasicfunctions:

01 Deliveringtheabrasivewhichreboundsofftheworkpiecetoacentralrecoverypoint.

02 Transportingtheabrasivefromthatcentralpointtoanabrasivecleaner.

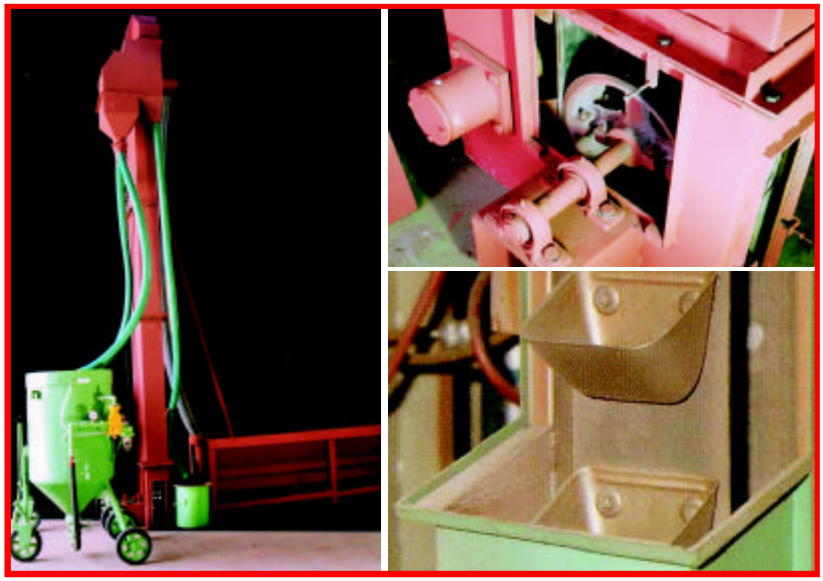
03 Removingdust,finesandotherunwantedmaterialfromtheabrasivebeforeitenterstheblastmachinetore-use.

MECHANICAL RECOVERY SYSTEM

Consists of Bucket Elevator, Abrasive Cleaner & Screw Conveyor System

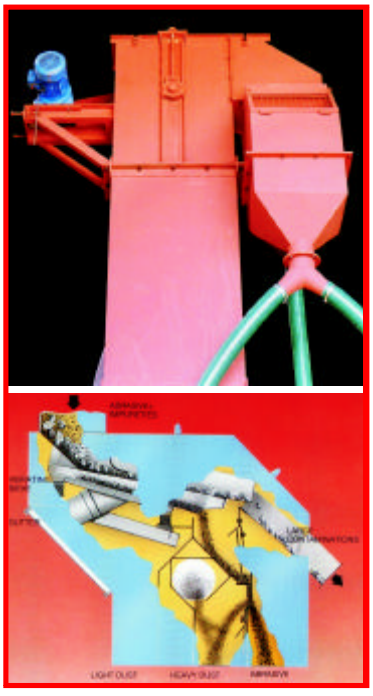
PNEUMATIC RECOVERY SYSTEM

Consists of Mini Hopper, Plenum, Reclaimer & Dust Collector



BUCKET ELEVATOR

The buckets are of seamless type made of 3.15 mm thick steel sheet.BucketElevatorisfabricatedfromMSmaterialof5mmthick atbootsection,3.15mmthickattrunkandtopsection,respectively. A one piece cast ironpulley;whichhasbeencrownedfortracking and rubber lagged topreventslippage,arelocatedinthebootand headsectionoftheelevatortodrivethebelt.

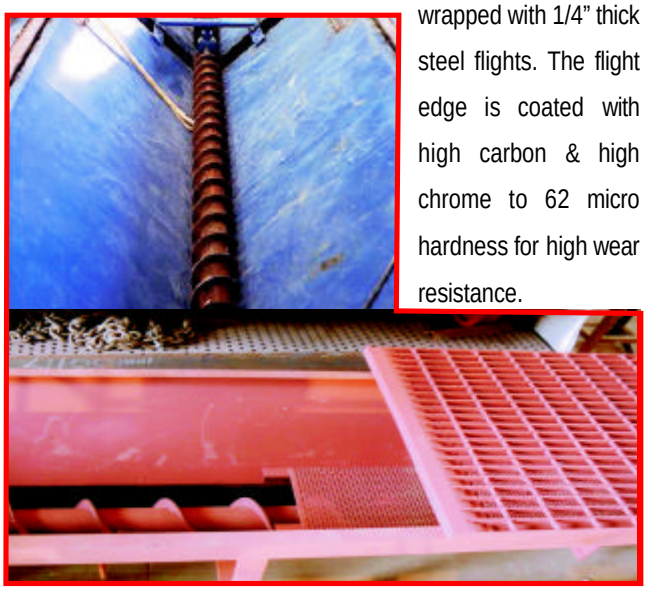


ABRASIVE CLEANER

The media separation unit is an air wash rotary screen separator which receives all mediaanddebrisfromblastedwork piece by the bucket elevator. Contaminants are removed by rotary screen and are discharged through a chute. The finer contaminants and abrasive that passes through the screen then cascade over the air wash where fine contaminants and small abrasive particles are removed. Reusableabrasivefallsinthemachine.

SCREW CONVEYOR

Thereclaimfloorsutilizeaheavydutyscrewtoreturntheabrasive 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 steel flights. The flight edge is coated with high carbon & high chrome to 62 micro hardness for high wear resistance.



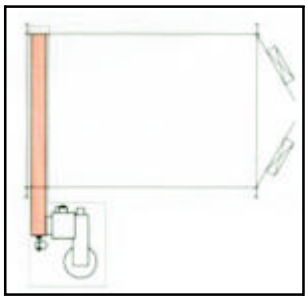
FLOOR DESIGN

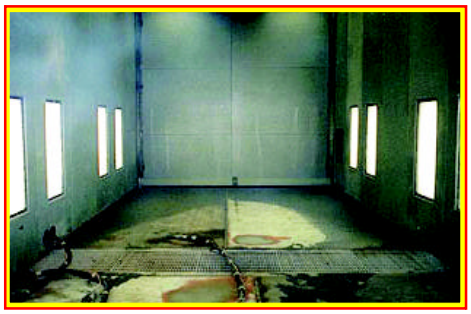
(For Mechanical Recovery)

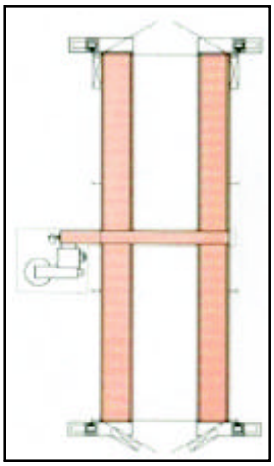
THE FLOOR DESIGNYOUSELECT WILL DETERMINE THE CAPABILITIES OF THE ROOM, DEGREE OF LABOUR INVOLVEMENT, COST OF PURCHASE & INSTALLATION AND RETURN ON YOUR INVESTMENT.

SingleScrewPartialReclaimSystem

A single screw partial reclaim system is the most economical floor design available. The system contains the majorcomponentsheavy-duty screw, belt and bucket elevator, 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 reclaimsystem. Itisbestsuitedforlowtomediumproductivelevels.





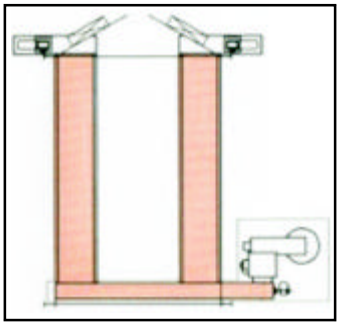


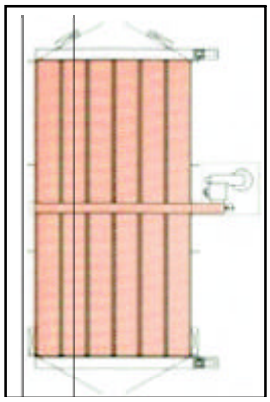
"H"ShapedPartialReclaimSystem

The "H" shaped partial reclaim system adds two longitudinal screw assembliesalongeachsidewall of the blast room.Theposition of the screw assemblies allows the abrasive delivered from the blasting nozzle, which is eitherblownorreboundedofftheworkpiece,tostrike the sidewallsandfallintothescrews,automaticallyreclaimingapprox. 60-90%oftheblastmedia. This system is best suited for medium to highproduction.

"U"ShapedPartialReclaimSystem

The "U" shaped partial reclaim system adds two longitudinal metered screw assemblies along each side wall of the blast room. Theposition ofthescrewassembliesallowsautomatically reclaimingapprox.60-90%oftheblastmedia.This floordesign is typicallyutilizedin a "flow-through" room configuration where heavy work pieces and/or material handling devices can drive into the room & position the work piece on the steel covered concrete floor located between the longitudinal screws. This systemisbestsuitedformediumtohighproduction.

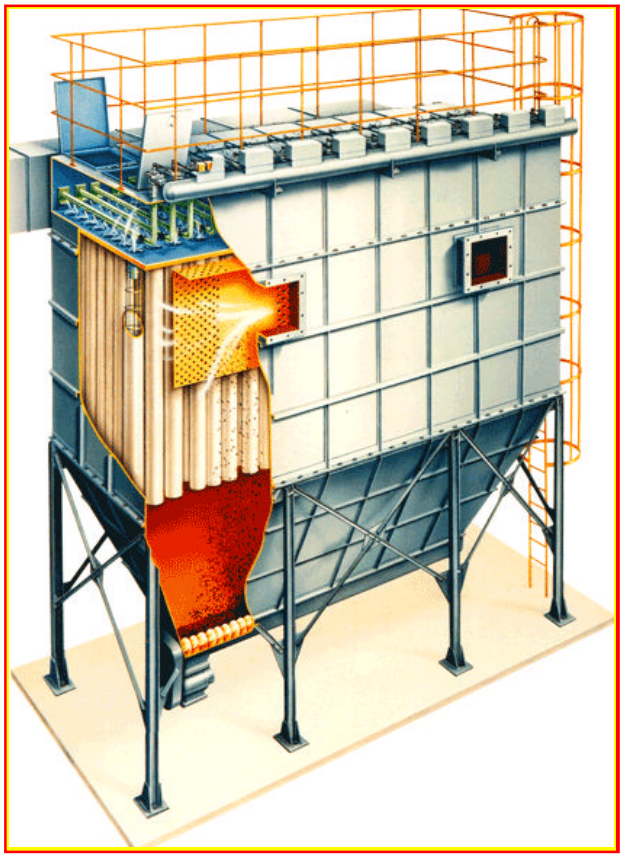




FullFloorReclaimSystem

The full floor reclaim system utilizes multiple screw assemblies to create a fullyautomaticabrasivereclaimsystem,where100% ofthe blast media is returned to the separator system during the blasting operation. **This system is best suited for high production requirements.**

DUST COLLECTOR / EXTRACTOR UNIT



Choice of the correct model of dust collector is integral to any closed environment blasting system. It is very essential to remove dust and find abrasive particles from the environment of the blast chamber to maintain the efficient operation.

The Dust Collectors are broadly classified into three types:

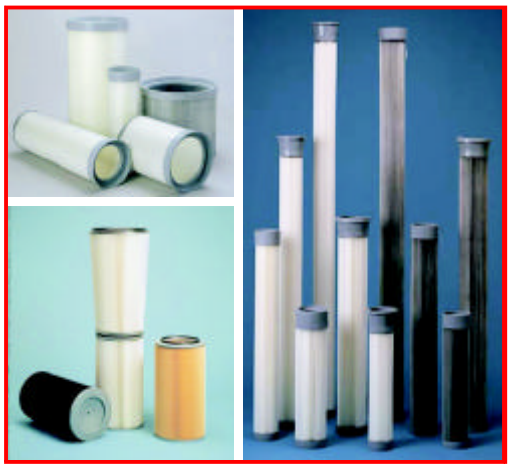
a) Cyclone Type

b) Fabric Bag Type (Plain Bags/Pleated Bags)

c) Cartridge Filter Type

In operation, the exhausted fan on the clean air side of the collector draws dust laden air from the blast room through the tabular filter bags. Dust collects on the inner side of the bags and when the exhaust fan is turned off the bag shaker mechanism cleans the filters by shaking most of the caked dust from inside of the bags into a dust collecting hopper.

PLEATED BAGS (Latest Innovation in Filter Bag Technology)



High efficiencies upto 99.999% of 3 microns, and very easy release characteristics with a high tolerance to moisture and temperature. Latest design, Pleated Bag, has been developed with the following advantages:

a) No steel, top & bottom in polyurethane.

b) Low pressure drop because of large surface filtration.

c) Very easy to install.

d) Very compact, 2-3 time greater filter area than traditional bags.

e) Low consumption of fair (cleaning process).

f) VERY COST EFFICIENT.

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