



**Blast Rooms with
Full Recovery Floor**

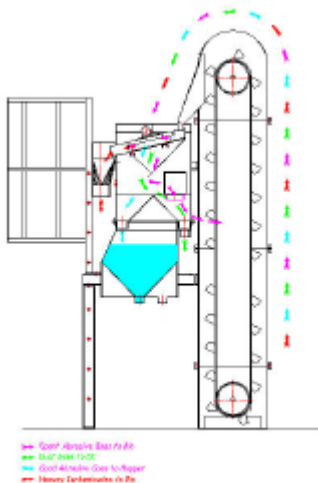
Product Introduction

General Mode of Operation



Beginning at the blast machine the pressure and abrasive content is set to the required limits. Once the operator has closed the dead-mans handle, abrasive is propelled under pressure through a high quality 12 bar blast hose of 1.25” bore and in-turn the blast nozzle. This is only possible provided all safety interlocks are closed on doors, etc.

At this point the abrasive and substrate coating break down into four constituents; i.e. good abrasive, spent abrasive, large contaminants and dust. Good abrasive, spent abrasive and any large contaminants fall to the recovery floor. Airborne dust particles are carried on the flow of air through the room generated by the dust collector.



The constituents now in the floor are conveyed to the elevator and in turn the Dynamic Separator. This unit comprises of a primary vibrator sieve and air wash. In this section any remaining dust is taken to the dust collector, spent abrasive and large contaminants to a collection bin. This method of separating spent abrasive, in a way that they are not taken to the dust collector, means that the collector elements are prevented from suffering premature wear. The operator, by adjusting the power of the vacuum placed on the abrasive, decides what minimum size of particle he wishes to remain in the system; i.e. the higher the vacuum the larger the particle taken out of the abrasive.

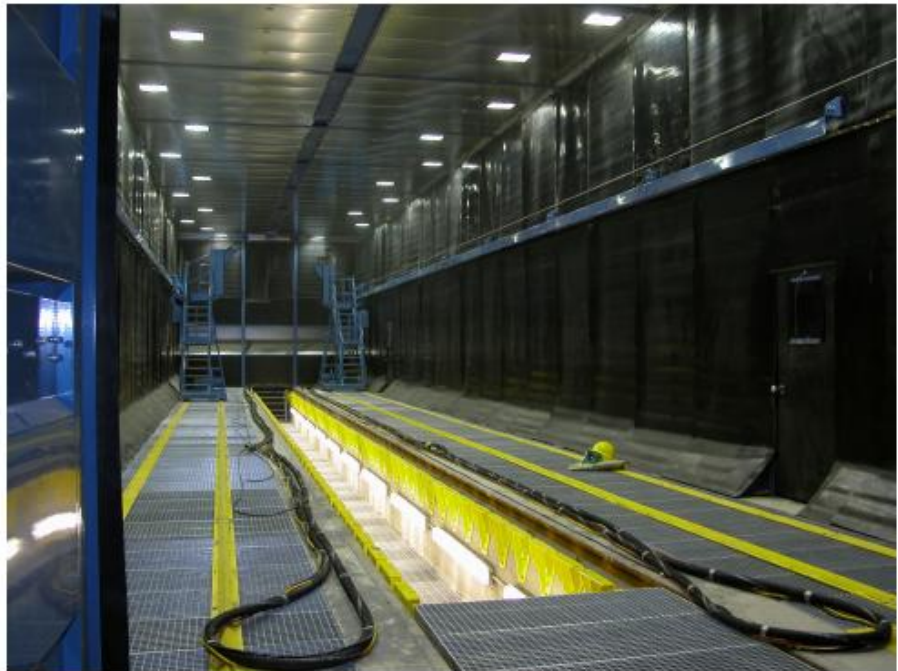
Clean abrasive is now all that remains and is deposited in a silo equal in capacity to the volume of the blast machine or machines. Once all the abrasive in the blast machine has been delivered (or at any other time the operator releases the dead-mans handle), the blast machine is automatically charged with fresh abrasive from the silo above.

Airflex Recovery Floor

In this energy saving option two longitudinal corridors are driven by a bell crank driven by the transversal corridor at the end of the blast room. Our flexible “no mechanical” blades glide over foreign objects dropped into the floor mechanism, which usually stall a metal scraper. Also, as we have no mechanical hinge, the danger of dust causing the hinge to seize is eliminated.



Several corridors run the length of the facility deploying abrasive into a transversal corridor running at right angles to the longitudinal corridors. In this case a pit, with recovery floor, is facilitated by dropping the transversal below it by 130mm.





The RSI - Airblast AFC Recovery Floor automatically recovers abrasive material from beneath the operators' feet. A full recovery floor effectively renders the blaster with an endless supply of media, thus eliminating the need to stop production to recover media. The Airflex floor is made of modular corridors of various standard widths that can be produced to any length. Six widths are available, and with this flexibility it is possible to recover from virtually any floor area.

Each corridor has a series of flexible rubber blades set at regular intervals. The blades rest against galvanized steel combs thus allowing it to push or pull the abrasive when the comb is behind the rubber. On the alternate stroke the comb passes through the abrasive and the rubber blade passes over it. This back and forth motion, when repeated, causes the abrasive to be shunted along with each alternate stroke.

Eventually, each individual accumulation of abrasive, in the linear corridors, is deposited into a transversal corridor running at right angles to the rest of the floor. This transversal corridor transfers the abrasive to the elevator and grit wash prior to being deposited into the silo over the blasting vessel.

Benefits Over Competition

- ✓ Little or no civil works. With a step of only 5.125” it is possible to put the system on your existing floor level.
- ✓ Virtually silent working operation.
- ✓ Flexible scraper blades provide for long life compared to other fixed steel blade systems. Scraper blades provide much less long- term maintenance issues as compared to a screw-type auger system.
- ✓ No moving metal components in operation in the abrasive circuit or hinges, which are prone to grit ingress. One stalled or stuck scraper blade renders the recovery floor area behind it unable to recover media.
- ✓ No compressed air consumption. Typically we drive our floor sections with a 1.5kW motor. Other systems incorporate pneumatic drives which can be prone to wear in a dusty environment.
- ✓ Bucket Elevator and grit wash provide three filter / cleaning devices. This design results in efficient separation of constituents (good abrasive, spent abrasive, large contaminants and dust) and longer life expectancy of cartridge filters.
- ✓ A standard feature of all our dust extractors is our bin balance system. This system offers protection to the operator when disposing of the dust collected in the machine. By linking the outside of a bag, placed in the collection bin, to the dirty side of the dust collector we can prevent the bag from being pulled into the hopper of the extractor. This allows the operator to seal the bag and its contents before disposal. Systems that do not employ this method often leave the operator engulfed in dust, which he is supposed to be protected from, when emptying the contents of the collection bin.