Company profile

AIRBLAST EQUIPMENTS

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Robotic blast rooms DECOBLAST

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Suitable for the decontamination of the removed materials during dismantling of systems and components installed in a nuclear power station.

The robotic blast rooms DECOBLAST have as aim the quantity's maximization of the releasing materials without radiological restrictions and the quantity's minimization of the primary and secondary waste materials produced by decontamination.

The sandblasting operation is done by a robot moved from an external control room.
The operator through a joystick can direct as he likes, the robot arm inside the blasting room, to work with the most appropriate way, on the piece to be decontaminated.

The sandblasting machine will remove completely the oxide layer on the surface assuring the remove of the contaminated surface till the white metal, with a Sa3 grade.

The abrasive suction system and the air filtration is conceived to guarantee the absolute hermetic closure of the installation to avoid the emission of radioactive dusts.

Through appropriate conduits, the air is aspirated from the top to the bottom from the room suction floor with a speed of about 25m/sec and 140 air change every hour.

That allows both the duty depression in room and an air current able to recover the abrasive and keep always a very good visibility during decontamination.

The air intakes, inserted on the top of the chamber, to create the internal depression include panel filters at high efficiency (Hepa) and modular shutters that avoid the filters' obstruction.

The ventilation system of the decontamination room is provided with centrifugal fans, self-cleaning cartridges filters and absolute filters, with an efficiency of 99,99% to eliminate the dusts avoiding that any radioactive dust trace could accidentally enter in the central ventilation.

Blasting rooms
RTSF and RP

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Designed and built to satisfy specific needs of every customer.

From the basic blasting room with manual abrasive recovery, to installations with an automatic full recovery of the abrasive both mechanical (with scrapers) and/or pneumatic (with collecting hoppers).

Steel frame and modular panels “sandwich type”, with high density insulation and soundproofing high capacity.
Lining with anti-abrasive rubber, applied with an easy replacement system, to guarantee a total protection from abrasive.

The inside lighting of the chamber has done by lamps in metal iodide installed on the top and protected by transparent lexan panels.
The blasting starts pushing the control handle put on the blasting lance.

The abrasive which falls down on the floor is recovered manually or automatically, then send to the entry of the bucket elevator and lifted to the separator.
Inside of the separator the abrasive will be cleaned and reconditioned, so impurities, slag, dusts, oxides, calamine and abrasive fragments will be removed.

At the bottom of the separator comes only clean and selected abrasive to be used in the abrasive cycles.
The abrasive regenerations is made by a cartridges' filtration group that provide also the dust cleaning inside the blasting room.

Manual recovery

The abrasive is recovered manually by the operator and sent in a charging hopper positioned in a corner of the blasting room The hopper can be in the basement or above ground as per the customer's need.
From the hopper the abrasive is lifted by a bucket elevator and charged in the pneumatic separator to be regenerated.
The clean abrasive is entered again in the blast machine for the next operative cycles.

Automatic recovery – Mechanical type – Scrapers

The system allows to work in continuous without worry of the abrasive spread on the ground during blasting operation.

The system provides to recover the abrasive, to regenerate it and send it back to the operative cycle.
It's composed by rows of swinging blades scrapers in a proportional number to the room's dimensions.

The steel blades are mounted on a sliding frame controlled by a pneumatic cylinder.
The abrasive is conveyed in a transversal scrapers row that send it to the entry of the bucket elevator.
The elevator conveys the abrasive to the separator to be regenerated.
The clean abrasive is send again in the sandblast machine to be used in the operative cycles.

Automatic recovery – Pneumatic type – Hoppers
The basement of the room is composed by many small hoppers in a proportional number to the floor surface.

The air is aspirated by the openings on the roof and sent to the bottom of the chamber, then goes through the hoppers carrying the abrasive and sending it to the cyclone separator
The cyclone is composed by two concentric cylinders.
The aspired mix of air/dust/abrasive has a spiral movement downward in the interspace between the two cylinders.

Due to the centrifugal force the abrasive, that is the heaviest material, is thrown to the cyclone's sides and then falls down on the bottom where is collected.
Air and dust go out from the internal of the cylinder and are filtered by the cartridges filter positioned down the system.
The selected abrasive goes again in the basting machine to be used in the next operative cycles.

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Equipments of the blasting room

The blasting rooms can be equipped with the follows parts:

- Magnetic separator
- Vibro-sieve
- Opening door positioned on both sides
- Upper trapdoor activated by pneumatic cylinders for a charging through a crane
- Top slit for the passage of the overhead conveyor
- Bogie for the pieces transport
- Blasting rooms with or without foundations
- Chamber for the use of different types of abrasive in the same blasting room
- Chamber for the blasting of stainless steel
- Chamber to blast with glass beads

Automatic
blast machine

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The automatic blast machine LAMEF are studied, projected and realized on specific customer demand that want to automate the air compressed blasting.

The type of processing to be done and the production which they need to satisfy determine the choice of the installation and the automation to integrate.

The blasting nozzles could be fix or manually oriented, through automatic devices or robotic arms.
The movement of the pieces can be done by a steel belt, a roller, a conveyor wagon or an overhead conveyor.

A simple rotary table or with satellites can be used.
It's possible to provide one or many blasting and cleaning stations.

The blasting processing could be dry or wet and it's possible use different type of abrasives.
To guarantee and satisfy the customer's need, Lamef has a "test center" in his factory which permits to do tests of blasting and shot peening using different types of machines and different types of abrasives, so the customers can find the most suitable solution to obtain the result requested.

In the Test center LAMEF there are manual and automatic installations, pressure and depression machines, dry and wet machines, and every measurement devices useful to verify the blast results obtained.

Portable airblast machine with abrasive recovery

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Portable airblast machine with abrasive recovery

The airblast machine Lamef with a recovery system are suitable for jobs in which any dispersion of abrasive and dust in the environment is allowed.

They work with a special brush head that blasts and recovers instantaneously the abrasive.
The abrasive is sucked by a high prevalence fan, selected by a cyclone complete of screen and dust exhausted by a self-cleaning cartridges filter.

The abrasive selected is ready to be used again in the blasting cycle.
The brush must adhere perfectly to the surface, in this way the abrasive can be effectively aspirated.

We suggest to use small granulometry abrasives and regarding the finishing result to be obtained, it's possible to choose blasting machine with launch system in pressure or suction.

Every machines type are provided with a chariot for an easy transportation.

Glass blasting machines

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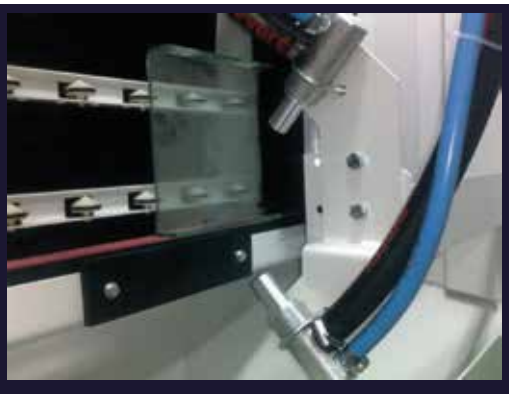
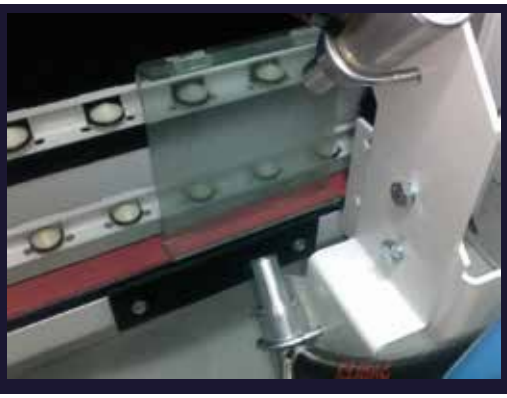
Glass blast machines

Machines designed to blast glass sheets in a vertical position.
Suitable for small or great production and for series production.
It's possible to work both in manual and in automatic

The blast cabin is provided of two lateral opening, protected by anti-dust brushes of great thickness, to introduce sheets.
It's opened on the top to allow the processing of sheets bigger than the dimensions of the cabin's entry.

The sheet is supported by fences equipped with sliding rollers and an automatic transport belt to allow the movement and introduction in the cabin.





A filtration system with self-cleaning cartridges guarantees the recovery, the automatic recycle of the abrasive and the separation of the waste dusts. It's possible to work with one or two blast guns mounted on a motorized reciprocator that moves them from bottom to top and vice-versa in the blasting area.
The working area is previously programmed by the operator from the control panel.

Modello SV 6

Measurements and weight	: 5200 x 1350 x 3100 mm – 1200 kg Inlet and outlet fences 2000 mm each
Internal useful surface	: 950 x 650 x 1800 mm
Working speed	: 1 sq/2 mi. – 2 blast guns
Glass thickness	: 3/100 mm
Required air quantity	: 2000 lts/min. – two blast guns

SV 3000 Model

Measurements and weight	: 3200/5200 x 800 x 2500 mm – 800 kg Inlet and outlet fences 1000/2000 mm each
Internal useful surface	: 950 x 650 x 1200 mm
Working speed	: 1 sq/2 mi. – 2 blast guns
Glass thickness	: 3/100 mm
Required air quantity	: 2000 lts/min. – two blast guns

Manual airblast cabinets
PAL and blast machines

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Airblast cabinets

The airblast cabinet are used in the industry to clean, to polish, to glaze and to blast the widest range of pieces and materials of every kind, from iron to glass, plastic, wood, stainless steel and aluminum.

Almost every abrasive type could be used and it's possible to choose suction or pressure airblast cabinets regarding with the finishing result to be obtained.

Suction airblast cabinets

The blasting is made with an appropriate blasting gun with two different hoses. The first hose is controlled by a pedal and is powered by air compressed, the second hose is connected to the abrasive tank. The air compressed flow produces inside the blasting gun a depression that sucks the abrasive through the hose connected to the tank. When arrives at the blasting gun, the abrasive is shot by the tungsten carbide nozzle.

These cabinets are suitable above all for polishing and glazing and have a limited abrasive's use.

The suction system doesn't allow the use of metal grit and has a lower yield in time under the same conditions of air compressed consumption compared to the pressure system.

Pressure airblast cabinets

The blasting is made through a blasting lance with one hose connected to the abrasive tank. The tank's pressure push the abrasive at the blasting lance, from the lance exits a jet of great power with a high work capacity.

At equal air consumption the pressure cabinets have a 4 times greater than the suction ones.

It's possible to use metal grit and for this reason these cabinets could be used for blasting, paint removing and those other that requires a greater aggressiveness in the pieces finishing.

Every cabinets manufactured by Lamef could be equipped by several fittings as an internal turntable powered or manual, an external bogie with a turntable, loading and unloading rolls conveyors, a rotary basket suitable for small metal parts' finishing, and many other devices for different applications.

Assistance and spare parts

for the assistance

service@lamef.it

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A right and convenient maintenance is a guarantee of the right and good functioning of our installations and machines. For this reason we not only sell our products, but assure an assistance to our customer both previously through professional updating courses about machine's use, and in case of malfunctioning with a prompt intervention of our technicians.

In addition to our regular maintenance service, Lamef offers a series of maintenance's programs with customized due dates depending on machine's type and use.

We have tested that a preventive assistance reduces by 70% the needed interventions to solve damages, and reduces also the overhead operating expenses of the machine.

A capacious warehouse allows us to deliver all over the world our components in a very short time
The original spare parts of Lamef are the guarantee that every single piece is fitting in your installation, easy to replace and will loyally serve you for a long time.

Lamef Srl

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