

LAMEF
MILANO - ITALIA



Robotic blastrooms

DECOBLAST



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

The robotic blastrooms DECOBLAST have as aim maximizing the amount of releasable materials without radiological restrictions and minimize the amount of 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 as 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.

At the bottom of the separator comes only clean and selected abrasive to be used in the abrasive cycles. The abrasive regeneration 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 blasting machine to be used in the next operative cycles.





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 transport pieces
- 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 airblast machine



The automatic airblast 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 process can be dry or wet and it is possible to foresee the use of one or more types of abrasive.

In order also to guarantee and meet the needs of its customers LAMEF structured at its headquarters has a Testing center - to perform sandblasting and shot peening tests with different types of machines and the use of different abrasives in order to find the most suitable solution to achieve the result required by the customer.

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



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.



Airblast machines for glass processing



Machines designed for the blasting of the glass sheets in vertical position. Suitable for both large that the small production and series production. Is possible operates both in manual and automatic mode.

The cabin is provided with two lateral openings, protected from dust of great thickness brushes, for the introduction of plates and is open at the top in order to work slabs of excess profit to the cabin.

The plate is supported by collars equipped with rollers sliding and automatic conveyor belt that allows the handling, and then the introduction of the plate into the cabin for its processing.

A filtration system self-cleaning cartridge ensures the recovery and automatic recycling of the abrasive and the separation of waste dust.



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



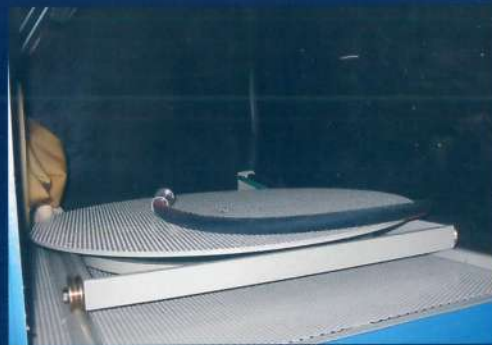
SV 3000 Model

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



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 takes place by means of a lance which is connected via a pipe to a tank containing the abrasive. The pressurizing of the tank pushes the abrasive until the spear from which comes out a great power jet and high working capacity. Being equal to the pressure air consumption cabins have a yield 4 times greater than a corresponding suction machine. And is possible the use of abrasive-metal and are therefore suitable in the sandblasting, stripping and in all those applications where you search a greater aggressiveness in the finishing of the pieces.



Assistance and spare parts

per assistenza contattare

service@lamef.it



A right and convenient maintenance is a guarantee of the right and good functioning of our installations and machines.

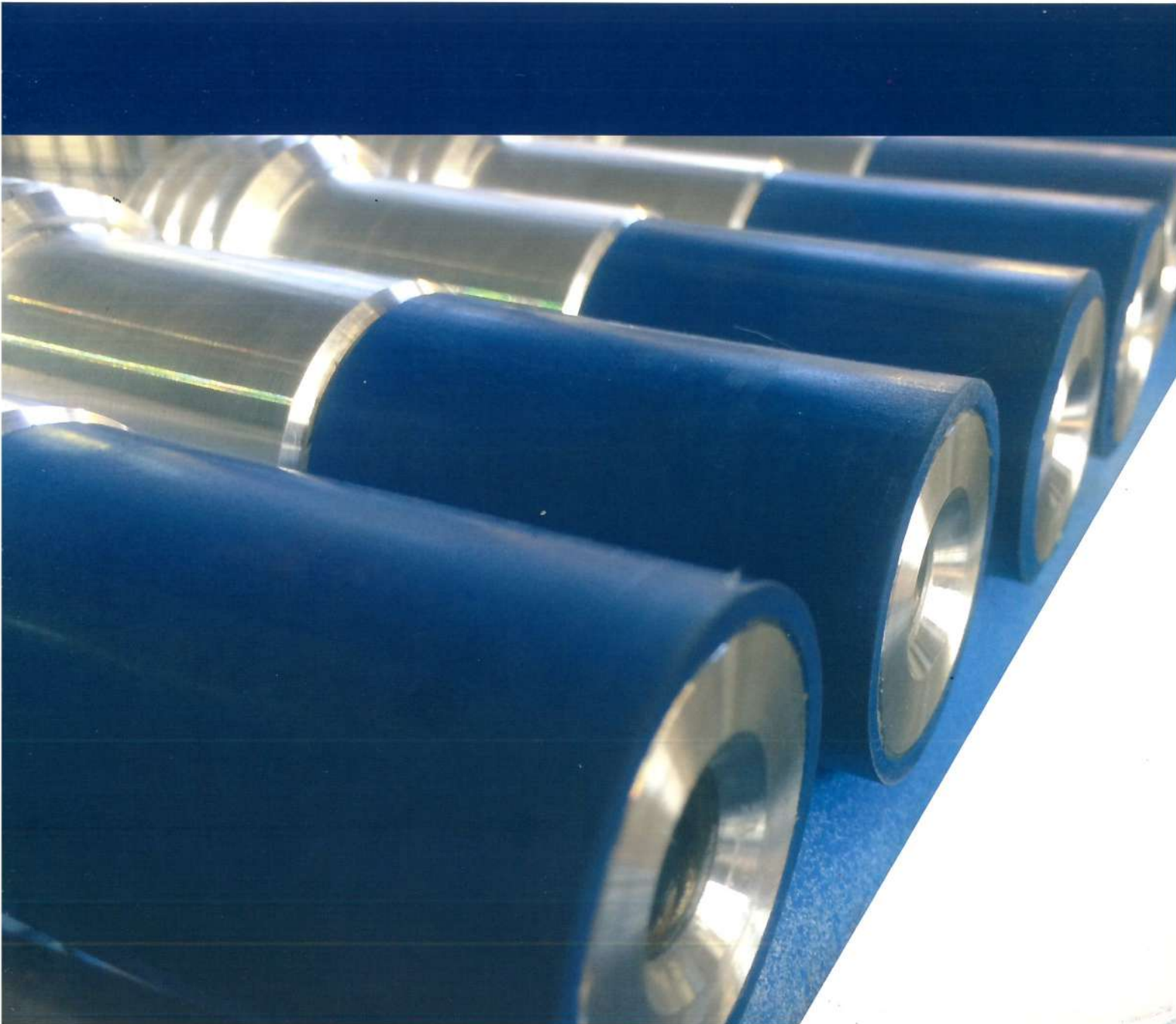
For this reason we not only sell our products, but assure an assistance to our customer both previously through professional updating courses about machine's use, and in case of malfunctioning with a first aid of our technicians.

In addition to our regular maintenance service, LAMEF offers a series of maintenance program programmed with customized time limits in relation to the type and use of the system.

We verified that preventive care reduces by 70% the necessary actions to resolve failures thus also reducing the overall costs of management of the machine itself

A large stock of spare parts allows us to deliver all over the world our components in an extremely time rapid.

The LAMEF original parts are the guarantee that each piece fits your specific system, that is easy to install and to continue to serve you faithfully for a long time.



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