



TECHNICAL REPORT
SODIUM
BICARBONATE



CYM MATERIALES S.A.
SOLUCIONES INDUSTRIALES

INTRODUCTION

CYM Materiales S.A. manufactures and supplies equipment for cleaning and restoring all kinds of surfaces by blasting with sodium bicarbonate.

This treatment delivers effective, fast and environmentally friendly results and, in specific cases, replaces the usual surface cleaning methods such as blasting or sandblasting.

This cleaning system uses sodium bicarbonate under pressure as the abrasive. It replaces pressure washing, sandblasting and blasting, achieving an excellent degree of finish and cleanliness on delicate surfaces.

HOW DOES THE PROCESS WORK?

The bicarbonate particles are propelled by compressed air through our machines, striking the treated surface and cleaning it almost immediately and flawlessly.

The advantage of this system is that treated surfaces —aluminum, stainless steel, brick, stone, marble, fibreglass, seals and plastic, among others— are left in perfect condition after cleaning.

The process is carried out in a single step and generates no pollutants. The abrasive is not recovered, which ensures a consistently optimal result. The softness of the bicarbonate crystals gives very fragile surfaces such as glass an excellent clean with no etching effect.

This system requires no prior surface preparation and no degreasing, thanks to the alkaline nature of the product. Sodium bicarbonate dissolves readily in fresh water, so the residues can be discharged into treatment systems or open water without polluting, and even reduce unpleasant odours.



PROPERTIES OF SODIUM BICARBONATE

- It is non-toxic, whether inhaled, in contact with the skin or ingested.
- It does not irritate the eyes or the skin.
- Thanks to its properties, it replaces almost all the conventional chemicals on the market used to remove oil and grease.
- It suits all kinds of automotive work: body and paint shops, vehicle workshops, engine reconditioning shops, etc., including stripping the paint from a car or a motorcycle. The advantage of this system is that the paint, grease or coating to be removed comes off in a single operation without damaging the metal surface.
- It is very useful for cleaning engines, since their delicate components are not damaged by bicarbonate. It is also used in car restoration, removing grease, oil and any deposits without damaging the parts.
- Monument restoration, as it provides a professional clean without causing any damage to the surfaces. It removes mould, staining, marks and paint from marble, concrete, stone, granite, etc.
- Bicarbonate cleaning is the answer for cleaning equipment in the food industry, such as ovens and grills, among many others. Its main benefit in this industry is that bicarbonate is itself a foodstuff, so it poses no risk.
- Building surfaces —walls and ceilings— are often covered with grease, grime, paint and the like. This system avoids the use of chemicals and solves the problem quickly, cleanly and simply.
- Bicarbonate is entirely suitable for refineries, chemical plants and grain elevators, because it does not produce sparks.

Before



After



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BENEFITS OF USING SODIUM BICARBONATE:

- It is biodegradable
- It is water-soluble
- It is non-flammable
- It produces no fumes
- It is non-toxic according to OSHA criteria
- It can be used with either cold or hot pressurized water
- It uses conventional compressed-air spare parts held in permanent stock.

For further information, please contact our engineering and sales departments, who will advise you on installing this equipment and on everything related to blasting equipment, processes, finishes, throughput and automation.

TECHNICAL DETAILS - PRESSURE POTS

Models	Load capacity			Dimensions		Working pressure, max. (kg/cm ²)	Weight (kg)	Number of outlets
	Liters	Shot (kg)	Sand (l) (kg)	Ø (mm)	Height (mm)			
CY-70	70	300	120	400	800	7	70	1
CY-150	170	700	300	600	1200	7	180	1

Note:

- (1) Using sand as a blasting abrasive can cause a disease known as silicosis. Alternative abrasives are recommended in its place.

If you cannot find the equipment you need in this catalogue, please contact our sales or engineering department, who can help you develop the best equipment for your needs, aiming to reduce your operating costs and improve the profitability of your production systems.

Remote control can be supplied with a pneumatic or an electrical system, as required.

BLASTING EQUIPMENT

In Argentina, CYM Materiales designs and manufactures centrifugal wheel and compressed-air blasting equipment: blast rooms and blast cabinets, hanger, table, tumble and belt blast machines, lines for profiles, plates and pipes, and portable units, together with the accessories and consumables each process requires.

The Engineering department surveys the customer's process —part, required output and surface finish— and defines the equipment, the wheel power and the recovery and dust collection system to be used.





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