



IBIX[®]
SPECIAL CLEANING



Technology for Restoration of Historical Buildings

IBIX® SYSTEM FOR RESTORATION

IBIX® Srl is a Member of Assorestauro and is actively involved in the association's activities for the promotion a promotion of the Italian approach to CH Conservation.

OUR APPROACH

Each historical building is made of "**UNIQUE**" materials. Therefore it is not possible to standardize cleaning procedures.

A scientific approach to the problem provides the best possible result for each specific case.

IBIX® CLEANING METHOD

IBIX® cleaning method reduces chemical and mechanical surface stress thanks to the adjustable operating pressure of material flow, grain size and hardness of the media which are selected according to the different surfaces.

Media are also chosen according to their total biocompatibility and health to the operator and environment.

The Micro Aero Abrasive System developed by IBIX® enables to gently remove residues and deposits caused by air pollution from valuable historical and modern stone structures and to fully respect the substrate, its natural patina and any valuable historical coatings such as lime, plaster, oxalate or protective films.

With IBIX® System there is no risk of uncontrolled abrasion of the surfaces.

It is possible to regulate media flow, the type of incidence on the surface (direct or tangential) and to choose the most suitable media chemical composition and grain curve depending on the nature and conditions of the surface to be treated.

IBIX® MOBILE LAB

IBIX® developed IBIX® Mobile Lab, a special mobile lab kit to carry out on-site analysis of stone materials and analysis of degradation.

It is a very useful tool for architects and contractors to have immediate feedback and make qualified decisions, thus avoiding long waiting times for laboratory test results.

IBIX® Mobile Lab users will be able to print a report immediately with a simple click of the mouse.

ROTATIONAL VORTEX HELIX® MEDIA CLEANING SYSTEM

Combination of the Venturi effect generated by a special conformation of the outlet cone and the spiral-shaped movement considerably reduce the air volume and increase the cleaning target area. The use of particularly resistant tungsten carbide nozzle guarantees durability and longevity, even when using extremely hard abrasives.



NANO IBIX® 3 Basic*

- Pressure adjustable from 0.2 to 7.5 bar (depending on the compressor)
- Micrometric dosing of the blasting material
- Particles can range in size from 38 µm up to 600 µm and have different specific gravity (from Natural Mineral Almandine to Sodium Bicarbonate, Calcium Carbonate, Magnesium Carbonate, glass beads and vegetal media)
- Recommended compressed air supply: 300 l/min (10.59 CFM)
- Standard nozzle: internal Ø 3 mm cylindrical with DRY and H₂O guns; internal Ø 2 mm Venturi with HELIX® gun
- Other applicable nozzles: internal Ø 1.5-2-2.5-3 L 115-3.5-4-4.5 mm cylindrical and 2.5-4-4 L 115 mm Venturi with DRY and H₂O guns; internal Ø 2-3-4 mm selective and 3-4-6-8 mm Venturi with HELIX® gun
- Blasting medium - air hose with protective sheath: 2.5 m
- Blasting medium tank capacity: 2 l
- Max height: 500 mm
- Max width: 220 mm
- Max length: 270 mm
- Weight (with empty tank): 10 Kg approx.



HELIX® 9*

- Pressure adjustable from 0.2 to 7.5 bar (depending on the compressor)
- Micrometric dosing of the blasting material
- Particles can range in size from 38 µm up to 800 µm and have different specific gravity (from Natural Mineral Almandine to Sodium Bicarbonate, Calcium Carbonate, Magnesium Carbonate, glass beads and vegetal media)
- Recommended compressed air supply: 500 l/min (17.66 CFM)
- Standard nozzle: internal Ø 3 mm Venturi
- Other applicable nozzles: internal Ø 2-3-4 mm selective and 2-4-6-8 mm Venturi
- Blasting medium - air hose with protective sheath: 6 m
- Blasting medium tank capacity: 9 l
- Max height: 870 mm
- Max width: 310 mm
- Max length: 350 mm
- Weight (with empty tank): 18 Kg approx.



HELIX® 25*

- Pressure adjustable from 0.2 to 7.5 bar (depending on the compressor)
- Micrometric dosing of the blasting material
- Particles can range in size from 38 µm up to 1400 µm and have different specific gravity (from Natural Mineral Almandine to Sodium Bicarbonate, Calcium Carbonate, Magnesium Carbonate, glass beads and vegetal media)
- Recommended compressed air supply: 1500 l/min (52.97 CFM)
- Standard nozzle: internal Ø 6 mm Venturi
- Other applicable nozzles: internal Ø 2-3-4 mm selective and 2-3-4-8 mm Venturi
- Blasting medium - air hose with protective sheath: 10 m
- Blasting medium tank capacity: 25 l
- Max height: 990 mm
- Max width: 320 mm
- Max length: 426 mm
- Weight (with empty tank): 38 Kg approx.



*Specifications refer to the use with standard nozzle.

Certification:

Machines built in conformity with EU 97/23/CE Certificate Nr. TIS-PED-BO-10-12-061202-4523 directive and with ASME standards of the USA.

IBIX® 3 NANO cleaning and blasting system is a Special Kit for Preliminary Sampling Operations that is also ideal for Small Cleaning Jobs and Spot Blasting.

IBIX® 3 NANO PLUS - Dual NANO cleaner (dry and/or wet) with special Quick Connect System and two quickly interchangeable guns, i.e. a standard H₂O gun and a HELIX Gun.

IBIX® 3 NANO KIT - The Kit consists of a small 3 liter (0.8 gallons) tank that can be emptied completely so as to make replacement of the media very easy and quick, thus avoiding any risk of media contamination. Changing media is easier thanks to a plastic funnel installed inside the IBIX tank. The kit is available with a briefcase of aggregates suitable for sampling.

NANO IBIX® 3 WITH PEN - The Nano IBIX® 3 can be also equipped with micro-tip. This tool allows you to work on the smallest details with maximum comfort. The pen is made of tungsten carbide and unlike the ceramic tips, it is very strong and durable.

IBIX® H₂O PORTABLE SURFACE CLEANING SYSTEMS

Dual action wet and/or dry technology. Special wet treatment nozzle for water spraying and mixing at nozzle outlet with carbonates and other minerals. **IBIX® H₂O** units are equipped with quick lock systems for easy connection to water mains or water tank. In conservative restoration jobs, **IBIX® H₂O** meets any cleaning requirements and offers top level performance in the field of urban recovery (graffiti cleaning, removal of chewing-gums, etc.).



IBIX® ECOLOGICAL MEDIA

The **IBIX®** method is based on respect for the environment and surfaces. For this reason **IBIX®** has developed a totally eco-friendly technology with low environmental impact. **IBIX®** equipment offers a wide range of environmentally friendly media to ensure maximum operational efficiency and respect for nature.

IBIX® ART

Ideal for blasting wood, stone etc.



CARBON ART

Calcium carbonate material selected for the cleaning of stone surfaces



ECOSHELL VEGETABLE MEDIA

Cleaning ecological with no alteration to surfaces.



SODIUM BICARBONATE

Precision cleaning and decontamination



CASE STUDIES

IMPERIAL FORUM (I CEN. A.C), ROME – Cleaning of facings stone and travertine

SAINT PETER'S SQUARE, THE VATICAN (XVI SEC AC.) – Restoration of Bernini's colonnade

LOUVRE MUSEUM (XIII CEN. A.C), PARIS – Sandstone cleaning

EIFFEL TOWER (XIX CEN. A.C), PARIS – Cleaning of stone pillars

GATE OF PIETRO (XVIII CEN. A.C), ST. PETERSBURG – Stone cleaning

NOTO CATHEDRAL (XVIII CEN. A.C.) – Limestone cleaning

ITALIAN EMBASSY IN ISTANBUL, TURKEY - Cleaning and removal of protective coating with **IBIX®** Art dry method

DOLMABAHCÉ PALACE, ISTANBUL, TURKEY - Wet cleaning

SANT'ANTONIO BASILICA (XIII CEN A.C) - Cleaning of columns, statues and bricks

LUCERA CATHEDRAL (XVI CEN. A.C) – Brick and sandstone cleaning

and many more...



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