



IBIX[®]
SPECIAL CLEANING



Technical Solutions for Cleaning in the field of Restoration



IBIX
SPECIAL CLEANING



The IBIX® System for Conservation

IBIX®, Technology Leader in Selective, Low-Pressure Cleaning using Micro-Air-Abrasion is a small-sized but very flexible and dynamic company that is strongly oriented to technological innovation.

IBIX® specializes in the design, manufacturing and marketing of low-pressure eco-friendly surface cleaning and conservation systems.

It offers services and consultancy to solve surface cleaning, preparation and maintenance problems, promoting the use of **IBIX®** low-pressure selective cleaning systems that are innovative, high-performance and versatile.

Thanks to its constant research and development in co-operation with conservation experts and professionals, **IBIX®** is now Technology Leader in the field of Conservative Cleaning.

IBIX® S.r.l. was founded in 2000, **IBIX®** is Member of Assorestauro, Italian Association for Art, Architecture and Urban Restoration and is actively involved in the Association's activities to promote the Italian Philosophy related to CH Conservation.

IBIX® works hand in hand with local historical and Government entities to preserve our heritage for the next Generation.

IBIX® has played the lead in two important conservative restoration projects promoted by the Italian Government, i.e. the Restoration of Peter I's Gate in St. Petersburg (Russia) and the Conservation of the Clock Tower at the Ottoman Imperial Dolmahbaçe Palace in Istanbul (Turkey).

Cultural Heritage Assets Restoration and Conservation: Low Pressure Selective Cleaning of Historical Surfaces

IBIX® supplies Technological Soft Cleaning Solutions for Restoration Works that are in compliance with the Italian Cultural Heritage Standard governing cleaning of historical surfaces (UNI Beni Culturali 11182/2006).

The IBIX® System for CH Assets Conservation

IBIX® Philosophy: 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. Our aim is to propose an integrated cleaning method based on innovative instruments for "on site" diagnostic analysis on the materials and preliminary tests to optimise cleaning techniques.

IBIX® has developed **IBIX® Mobile Lab**, a special mobile lab kit to support on-site evaluation of surfaces analysis, for architects and contractors to have immediate feedback and make qualified decisions using the **IBIX®** equipment. In the past this analysis would take up to 8 weeks in an outside LAB. Now a report can be printed immediately to speed up the conservation process.

IBIX® Mobile Lab & NANO IBIX® 3 is a versatile and easy to use technology package developed by **IBIX®** to provide an easy scientific approach to conservative cleaning problems.

Surface cleaning of historic and modern architecture: the most delicate part of the entire conservation project

The **IBIX®** method provides an important contribution to the cleaning cycle because it reduces chemical and mechanical surface stress to a minimum. We can achieve optimum calibration of the cleaning process by adjusting both the operating pressure, the grain size and hardness of the media.

Selective Micro Abrasion

The Micro Aero Abrasive System developed by **IBIX®** enables to gently remove residues and deposits caused by air pollution from valuable historic and modern stone structures and to fully respect the substrate material, its natural patina and any valuable historical coatings to be preserved such as lime, plaster, oxalate or protective films with no risk of uncontrolled abrasion of the surfaces.

It is possible to tune the working pressure starting from very low pressure levels equivalent to a whisper (0.2 bars), to control the 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.

The **IBIX®** BIX System is very versatile and offers accurate media flow controls. The operator can therefore tune the cleaning operations and select the following parameters in the most suitable way:

- **Operating pressure** (from 0.2 bars up to 8 bars)
- **Media grain size** (from 38 µm to 1800 µm)
- **Media flow**
- **Media hardness**
- **Media Chemical composition** (calcium carbonate, almandine, vegetal granules, bicarbonate of soda...)
- **Type of incidence on the surface** (direct, helical rotary movement with the **HELIX®** Vortex Technology...)
- **Nozzle size** (from 1.5mm up to 12 mm)
- **Possible use of vaporized water** (consumption from 0 to 25 liters/hour (7 gallons/hour) in case of very low pressure cleaning operations and to 60 liters/hour (16 gallons/hour) in case of medium pressure cleaning operations).

IBIX® INTEGRATED APPROACH TO HISTORICAL SURFACE CLEANING PROBLEMS

ANALYSIS OF THE MATERIAL AND THE DEGRADATION PHENOMENA

CLEANING TESTS

RESULTS ANALYSIS

DEFINITION OF THE OPTIMUM CLEANING CYCLE FOR EACH SPECIFIC CASE!

Selective and Ecologic IBIX® Cleaning Systems

NANO IBIX® 3

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

The **NANO IBIX® 3** kit comes out in three versions.

It features a small 3 liter (0.8 gallons) tank that can be emptied completely so as to facilitate changing the media and to avoid any risk of media contamination. This facility is provided by a specially moulded plastic funnel installed inside the **IBIX®** tank.

NANO IBIX® 3 BASIC

Dry NANO cleaner with conventional hose clamp and air/media mix valve.

NANO IBIX® 3 H₂O

Dual NANO cleaner (dry and/or wet) with conventional hose clamp and air/media mix valve.

NANO IBIX® 3 TRILOGY

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.



NANO IBIX® 3

This aero-abrasive cleaning system **NANO IBIX® 3** is a special kit for samples, ideal for small cleaning treatments and spot blasting as well, available in both DRY and H₂O versions.



NANO IBIX® 3 TRILOGY

It is a double functioning (dry/wet) aero-abrasive device, equipped with a special "Quick Connect" system and two easily interchangeable guns, i.e. H₂O and HELIX®.

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.

KIT NANO IBIX® 3

The **IBIX® 3 NANO Kit** comes out in three versions.

It features a small 2 liters (0.52 gallons) tank which can be emptied completely in order to facilitate the media exchange operations and to avoid any risk of media contamination. This facility is provided by a special molded funnel installed inside the **IBIX® 3 NANO** tank.



TECHNICAL FEATURES*

- 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 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.

*Specifications refer to the use with standard nozzle

Accessories

A special case comes with the kit. It contains a set of special graduated jars with single doses of 10 different types of media readily available for cleaning demos.



MEDIA SAMPLE CASE

Polypropylene case with cut foam padding containing 11 graduated jars:

- 5x1 l(0.26 gal) graduated jars
- 5x0.5 l(0.13 gal) graduated jars
- 1 x250 ml(0.07 gal) graduated empty jar to be used for dosing purposes

Supplied Media:

- 5x0.5 l(0.13 gal) jars with **IBIX**[®] Art Garnet media (20/40, 30/60, 80, 120, 200 mesh)
- 5x1 l(0.26 gal) jars with:
 - Z5 White Carrara Marble Calcium Carbonate - grain size 200 - 300 µm
 - Z6 White Carrara Marble Calcium Carbonate - grain size 100 - 200 µm
 - Refined Bicarbonate of Soda - grain size 40 µm
 - Granulated Walnut (vegetal granules from shredded walnut shells - grain size 200 - 800 µm)
 - Corn-cob (corn-cob granules - grain size 280 - 800 µm)

NANO GENERIC MEDIA SAMPLE AND NOZZLE CASE

Polypropylene case with cut foam padding containing 11 graduated jars with 10 different types of media and 7 nozzles as follows:

- Selective cylindrical standard nozzles Sizes 1.5 mm (0.06 in) - 2 mm (0.08 in) - 3.5 mm (0.14 in) - 4.5 mm (0.18 in) + 1 Selective cylindrical 3 mm nozzle 115 mm (4.53 in) mm long
- 1 Venturi 2.5 mm (0.10 in) standard nozzle
- 1 Venturi 4 mm (0.16 in) nozzle 115 mm (4.53 in) long

NANO PLUS MEDIA SAMPLE AND NOZZLE CASE

Polypropylene case with cut foam padding containing 11 graduated jars with 10 different media and 5 HELIX® outlet cones:

- 2 standard HELIX outlet cones sizes 4 - 6 mm (0.16 - 0.24 in)
- 3 selective outlet cones with cylindrical inside hole sizes 2 - 3 - 4 mm (0.08 - 0.12 - 0.16 in)

PORTABLE AIR COMPRESSORS

A single phase, low consumption (2.2 kW), electrically-powered SCREW compressor is the ideal air compressor to be used with the NANO kit for sampling purposes or small jobs.

IB 2 Trolley Electrical has a foldaway frame and can be easily carried on a station-wagon. Thanks to these features the kit is compact, easy to transport and handle, an excellent solution that is almost noiseless (68 dB).

PORTABLE COMPACT ELECTRICAL SCREW COMPRESSOR IB2 TROLLEY ELECTRICAL

230V - Powerful - Low noise - Light & Compact

TECHNICAL FEATURES

- Air compressor with screw - type compression unit - wheeled for maximum versatility and compactness
- Electric motor: 2.2 kW / 230 V
- Air flow rate: 300 l/min (10.59 CFM)
- Max. pressure: 10 bar (150 psi)
- Noise level: 69 dB(A)
- Weight: 55 kg (121 lb)
- Dimensions: 700x650x700 mm (27x25x27 in)

PORTABLE COMPACT PETROL ENGINE SCREW COMPRESSOR IB2 TROLLEY PETROL

4.8 HP Petrol Engine - Powerful - Low Noise - Light & Compact

TECHNICAL FEATURES

- Air compressor with screw - type compression unit - wheeled for maximum versatility and compactness
- Engine: Honda GX 200 - 4.8 Hp
- Air flow rate: 400 l/min (14.12 CFM)
- Max. pressure: 10 bar (150 psi)
- Noise level: 75 dB(A)
- Weight: 65 kg (143 lb)
- Dimensions: 700x650x700 mm (27x25x27 in)



IB 2 Trolley

IB 2 Trolley Petrol



Technical advantages

The is a very high added value **IBIX®** product with the following advantages:

- cleaning samples or demonstrations aimed at obtaining new cleaning jobs become very easy, accurate and cheap;
- the **NANO IBIX® 3** + IB 2 Trolley Air Compressor can be carried in a small car;
- real data about cleaning speed and media consumption can be obtained, this helps to make precise quotations and to avoid estimates and approximations that may lead to wrong calculations.

NANO IBIX® 3

a more professional approach to stand out from competition

IBIX Mobile Lab® St01



IBIX Mobile Lab® ST01 is a comprehensive & versatile portable laboratory to analyse and diagnose historic building materials in an easy and clear manner. By using this equipment the basic techniques to categorise natural and artificial stones as well as degradation phenomena are made available to all those working in cultural heritage preservation.

The methods of analysis used comply with both Italian and European regulations by UNI-Beni Culturali (Cultural Heritage) and EN-Conservation of Cultural Property respectively. The equipment features a multilingual user interface.

IBIX Mobile Lab® ST01 is a must to efficiently manage cultural heritage throughout the entire conservation process, from the fact-finding project to the conservation itself, paying special attention to programmed maintenance.

FUNCTIONS:

- **Optical microscopy:**
Portable USB microscope; magnification: 10X min, 150X max; built-in LED light
- **Reflectance Spectrophotometry and Colourimetry:**
reflectance spectrophotometer; spectral range: 410-740 nm; automatic calibration; colour space used: CIE L*a*b*; Illuminant: D65; Observer: 10°; Reference standards: EN 15886:2010 "Conservation of cultural property - Test methods - Colour measurement of surfaces"
- **Measurement of water absorption under low pressure**
Cell to measure water absorption under low pressure by IBIX MOBILE LAB®; diameter of surface measured: 27-35-47 mm; measurement column volume: 0.2-1-2-5-10 ml; measurement on horizontal/vertical surfaces; Reference standards: NORMAL 44/93 'Assorbimento d'Acqua a bassa Pressione' (Water absorption under low pressure)
- **Moisture content by gravimetric determination**
Weighing set; dehydration; samples processed by IBIX MOBILE LAB®; Reference standards: UNI 11085:2003 - Beni culturali - Materiali lapidei naturali ed artificiali - "Determinazione del contenuto d acqua: Metodo ponderale" (Cultural heritage - Natural and artificial stones - Moisture content determination. Gravimetric method)
- **Total soluble salt testing**
Conductivity meter and pH meter; operating range: pH from 0.00 to 14.00; EC from 0 to 3999 µS/cm; resolution: 0.01 pH; EC: 1 µS/cm; precision: ±0.05 pH; EC: ±2% FS; temperature: ±0.5 °C; automatic temperature compensation; weighing set; dehydration; samples processed by IBIX MOBILE LAB®; Reference standards: UNI 11087:2003 - Beni culturali - Materiali lapidei naturali ed artificiali - Determinazione del contenuto di sali solubili (Cultural heritage - Natural and artificial stones - Determination of soluble salt content)
- **Tests to analyse sulphate, nitrate, chloride content**
Photometer for transmission measurements; light source: LEDs;

wave-length: 525 nm; operating range: SULPHATES: 5-150 mg/L; NITRATES: 0.1-45 mg/L; CHLORIDES: 0-210 mg/L; weighing set; dehydration; samples processed by IBIX MOBILE LAB®; Reference standards: UNI 11087:2003 - Beni culturali - Materiali lapidei naturali ed artificiali - Determinazione del contenuto di sali solubili (Cultural heritage - Natural and artificial stones - Determination of soluble salt content)

• Ambient parameter measurement

Infrared pyrometer to measure surface temperature; measurement range: -20_+270 °C; resolution: 1 °C; precision: ± 3 % of the measurement value -1 °C; measurement point (distance / size ratio): 8:1; emissivity: 0.95
Psychrometer; measuring range: 0-100 % RH; 30...+100 °C; Resolution: 0.01 % RU; Temperature: 0.01 °C; Precision: ± 2.0 % RU at 25 °C; ± 0.5 °C at 25 °C; wet bulb temperature and dew point temperature calculation



IBIX® Dry Blasting Systems

Perfect for a wide variety of applications, pre-painting preparation and surface cleaning. The IBIX® blasting machines always deliver a perfectly consistent air and media flow, they notably require very low air volume and one operator only.

IBIX® 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 cylindrical
- 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
- 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.

IBIX® 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 5.5 mm cylindrical
- Other applicable nozzles: internal Ø 1.5-2-2.5-3-3 L.115-3.5-4-4.5-5.5 L.115-7 mm cylindrical and 2.5-4-4 L.115-5-6-6 L.115 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): 30 Kg approx.



IBIX® 40*

- 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: 5000 l/min (176.57 CFM)
- Standard nozzle: internal Ø 10 mm cylindrical
- Other applicable nozzles: internal Ø 7-8-12 mm cylindrical
- Blasting medium - air hose with protective sheath: 10 m
- Blasting medium tank capacity: 40 l
- Max height: 1100 mm
- Max width: 355 mm
- Max length: 520 mm
- Weight (with empty tank): 48 Kg approx.

IBIX® 60*

- 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 1800 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: 6000 l/min (211.89 CFM)
- Standard nozzle: internal Ø 12 mm cylindrical
- Other applicable nozzles: internal Ø int. 7-8-10 cylindrical
- Blasting medium - air hose with protective sheath: 10 m
- Blasting medium tank capacity: 60 l
- Max height: 1300 mm
- Max width: 500 mm
- Max length: 570 mm
- Weight (with empty tank): 70 Kg approx.

*Specifications refer to the use with standard nozzle.

IBIX® H₂O Portable Surface Cleaning Systems

Dual action wet and/or dry technology. Special wet surface treatment nozzle for water spraying and mixing at nozzle outlet with carbonates and other minerals, installed in the standard tungsten carbide nozzle. The IBIX® H₂O units feature quick lock systems for easy connection to water mains or a water tank.

New integrated selective cleaning systems with automatic water spraying function for low pressure washing with carbonates or mineral blasting materials.

IBIX® H₂O technology can be used in two different ways i.e. standard dry operation with mineral or vegetal media or low pressure spraying of atomised water mixed with blasting media. In conservative restoration jobs, IBIX® H₂O ideally meets any cleaning requirements and offers top level performance in the field of urban recovery (graffiti cleaning, removal of chewing-gums, etc).

IBIX® 9 H₂O*

- 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 38µm 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 cylindrical
- 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
- 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.

IBIX® 25 H₂O*

- 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 1400µm 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 5.5 mm cylindrical
- Other applicable nozzles: internal Ø 1.5-2-2.5-3-3 L.115-3.5-4-4.5-5-5.5 L.115-7 mm cylindrical and 2.5-4-4 L.115-5-6-6 L.115 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): 30 Kg approx.



IBIX® 40 H₂O*

- 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: 5000 l/min (176.57 CFM)
- Standard nozzle: internal Ø 10 mm cylindrical
- Other applicable nozzles: internal Ø 7-8-12 mm cylindrical
- Blasting medium - air hose with protective sheath: 10 m
- Blasting medium tank capacity: 40 l
- Max height: 1100 mm
- Max width: 355 mm
- Max length: 520 mm
- Weight (with empty tank): 48 Kg approx.

IBIX® 60 H₂O*

- 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 1800 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: 6000 l/min (211.89 CFM)
- Standard nozzle: internal Ø 12 mm cylindrical
- Other applicable nozzles: internal Ø int. 7-8-10 cylindrical
- Blasting medium - air hose with protective sheath: 10 m
- Blasting medium tank capacity: 60 l
- Max height: 1300 mm
- Max width: 500 mm
- Max length: 570 mm
- Weight (with empty tank): 70 Kg approx.

*Specifications refer to the use with standard nozzle.



HELIX®

Rotating helical vortex cleaning system

VORTEX IS THE KEY

**HELIX®: THE BEST TECHNOLOGICAL SOLUTION
FOR CONSERVATIVE CLEANING**

PATENTED HELIX® SYSTEMS: THE CUTTING EDGE VORTEX TECHNOLOGY

A combination of the Venturi effect generated by a special conformation of the outlet cone and a helical rotary movement system considerably **reduce the air volume** and **increase the cleaning target area**. The use of special wear resistant tungsten carbide steel produce a nozzle that stands out for its durability and longevity, even when using extremely hard abrasives.

30% FASTER

30% MORE EFFICIENT

- designed especially for Cleaning delicate natural and artificial stones, marble and wood;
- low pressure projection with "tangential impact" on the surface for a variety of Media such as: Calcium Carbonates, Walnut shells, Almandine Garnet including fine and superfine micronized products.

Surface cleaning of historic and modern architecture is the most delicate part of the entire conservation project.

The **HELIX®** method provides an important contribution to the cleaning cycle because it reduces chemical and mechanical surface stress to a minimum. Optimum calibration of the cleaning process can be achieved by adjusting both the operating pressure and the grain size and hardness of the media.



Compared to traditional nozzles the new generation **HELIX®** System:

- offers a larger target area with the same nozzle diameter;
- requires less air and media to clean the same surface as traditional nozzles, saving valuable resources and money;
- maintaining the uniform action of the spray pattern allows the operator to work from a greater distance, minimizing invasiveness to the surface.



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.



HELIX®40*

- 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: 5000 l/min (176.57 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: 40 l
- Max height: 1100 mm
- Max width: 355 mm
- Max length: 520 mm
- Weight (with empty tank): 48 Kg approx.



*Specifications refer to the use with standard nozzle.

SPECIFICATIONS:

EU PED Directive 97/23/CE Certificate No. TIS-PED-BO-10-12-061202-4523

ASME USA Standard Certified - Certificate #41,780



Triple function air-cleaning system: Dry/H₂O/Vortex

Trilogy technology encloses in a single machine the best **IBIX**[®] innovation. With the extraordinary trilogy equipment, it is possible to increase the cleaning speed, improving the performance offered by **IBIX**[®] machines. Trilogy combines in a single machine the dry technology, the H₂O and the helical vortex **HELIX**[®], in order to offer the answer to every treatment need. Trilogy offers to the operators the maximum versatility as well as the possibility to expand the range of available services along with the quality of the work performed. All of this, without giving up the usual strengths of **IBIX**[®] machine: convenience, speed, lightness, safety and ecology are the key features of these innovative machines.

- **Dual Aero-abrasive Technology**, it is suitable for performing different types of cleaning works;
- **IBIX**[®] **Easy-Test Nano Technology**, it allows to empty the machine thoroughly, avoiding any contaminations among the media fluxes, it also helps to find the ideal abrasive material for every type of performance;
- **Quick Connect System**, it enables a lengthening of the blasting medium hose and a quick change of the guns;
- **Quick release valve**, it improves the abrasive material consumption and offers better performances;
- **Dual mode water supply**, it enables to use water as a dust damper as well as an abrasive solution to be combined with other elements in order to achieve perfect cleaning results.

Available equipment:

- Compressed-air pipe + inert + water (length: 3 m + 10 m extension cord) with "Quick Connect" quick-fixing.
- Double gun: H₂O + **HELIX**[®] patented system
- Conical bottom tank: it improves the inert's flux and avoid different inerts contamination.
- Blend's valve with Tungsten Carbide hose-fitting (high abrasion resistance) and "Quick Connect" fixing system.



Optional:

- **HELIX**[®] cones kit (Ø int. mm 4-6)
- Cylindrical nozzles Box (Ø 2-4,5 mm) and Venturi (Ø 2,5-4 mm)
- Nozzle kit "Long Nozzle" in order to increase the abrasive jet intensity (available with 3mm cylindrical diameter – 4mm Venturi)*.

* The "Long Nozzle" is essential for the **IBIX**[®] extractor fans' use.



TRILOGY 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 cylindrical with DRY and H₂O guns; internal Ø 3 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 2-4-6-8 mm Venturi with HELIX® gun
- Blasting medium - air hose with protective sheath: 6 m
- Blasting medium tank capacity: 9 l
- Max height: 890 mm
- Max width: 310 mm
- Max length: 350 mm
- Weight (with empty tank): 18 Kg approx.



TRILOGY 28*



- 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 5.5 mm cylindrical with DRY and H₂O guns; internal Ø 6 mm Venturi with HELIX® gun
- Other applicable nozzles: internal Ø 1.5-2-2.5-3-3 L.115-3.5-4-4.5-5.5 L.115-7 mm cylindrical and 2.5-4-4 L.115-5-6-6 L.115 mm Venturi with DRY and H₂O guns; internal Ø 2-3-4 mm selective and 2-3-4-8 mm Venturi with HELIX® gun
- Blasting medium - air hose with protective sheath: 10 m
- Blasting medium tank capacity: 28 l
- Max height: 1080 mm
- Max width: 320 mm
- Max length: 426 mm
- Weight (with empty tank): 40 Kg approx.

*Specifications refer to the use with standard nozzle.

IBIX® H₂O SELECTIVE CLEANING SYSTEMS

Double operating wet/dry technology that allows to vaporise the exiting water with carbonates and other minerals. IBIX® H₂O systems are provided with quick-fixing for an easier connection to the water supply network or to a water tank.

In the preservative restoration, IBIX® H₂O System allows to fill any clearing need, offering high-standard performances in terms of quality and quantity results. As well as high performances for the urban decor [graffitis, chewinggums, etc... removal].



DRY BLASTING SYSTEM

DRY BLASTING SYSTEM



HELIX®

H₂O



CLEANING SYSTEM WITH HELIX® SPINNING COIL VORTEX

A combination of Venturi effect is created by the special outbound conic shape and its spinning coil vortex movement allows to significantly reduce the compressed air demand and to increase the contact area.

The use of special wearing Tungsten-carbonate-based steels allows to design durable nozzles which can also resist to heavy abrasives.



Gum-System – revolutionary portable solution for chewing gum removal

Chewing gum removal is a major headache for local authorities, schools, universities, transport hubs and facilities managers.

- Easily manoeuvred by one operator
- No vehicles required so no access issues
- No trailing cables or hoses means elimination of trip or electrocution risks
- No noisy generators so cleaning can be done at night if required without risk of complaints
- No high pressure water sprays so no mess and less risk



- No need to barrier off areas means time savings and less disruption
- No harmful chemicals – Gumwand uses our own unique vegetable derived cleaner
- No need for power supplies or drainage – residue can be simple swept away
- Interchangeable brushes allow interior as well as exterior use
- Amazingly low running costs coupled with high

efficiency mean real cost savings

- No risk of damage to the underlying surface unlike power washing
- Removes chewing gum from concrete in around 3 seconds

The Gumwand contains a small LPG canister, a built in reservoir for the cleaning solution, a rechargeable battery and our clever little pump. The battery powers the pump, which injects the cleaning fluid into the vaporiser at a rate around 3ml per second. The LPG powers the heating unit built into this lightweight machine.

The whole unit is easily manoeuvred on its wheels meaning no strain on the operator's arm or a requirement to carry anything.

The Proprietary Gumwand cleaning solution is derived from totally natural and sustainable sources and is ph neutral. It instantly turns discarded gum into powder, which leaves no residues.



ECOBIX



ECO-FRIENDLY AUTONOMOUS MOBILE UNIT FOR GRAFFITI REMOVAL, MAINTENANCE AND CONSERVATION OF URBAN SURFACES



ECOBIX is the result of the practical experience in the urban cleanliness field that inspired **IBIX®** to develop specific solutions for the conservation and restoration of urban areas and historical buildings, creating a system able to provide an answer to all needs emerged in the years in this industry.

The first issue involves particularly the value of the environment and its respect; **IBIX®** uses ecological, low environmental impact equipment to reduce pollution and its consequences.

The second issue is the possibility to operate in urban contexts open to the public and with traffic, without disturbing the surrounding activities and people nearby, considering the necessity to work in restricted areas and historical city centers.

ECOBIX is the answer to these needs: a completely ecological device, able to move nimbly in every urban context and containing the best solutions for urban cleanliness.



Accessories

IBIX® SERVICE KIT

A new and very professional way of managing service and repairs.

IBIX® Service Kit is a professional tool and spare part case that enables the **IBIX®** user to service his machine and do repairs quickly and directly on the worksite. This means reducing production and worksite stops to a minimum. A Service Kit for each **IBIX®** most widely used models:

- **IBIX® 9 H₂O / HELIX® 9 / IBIX® 25 H₂O / HELIX® 25.**

The **IBIX® Service Kit** contains:

- all tools including the special tools that are required to disassemble and reassemble the **IBIX®** blaster parts;
- all spare parts (except for aluminum extrusions, blast hose, main air valve, wheels and some other structural parts ...);
- air and water couplings and adaptors
- the new «heavy duty blasting kit»: a special air/media mixing valve + a Quick Connect type hose connector made of tungsten carbide;
- a full kit of nozzles including 3 « speed blast » nozzles for **IBIX®** conventional blasters that enable media projection acceleration;
- a professional degripping spray agent.

IBIX® service kit 9 H₂O



IBIX® service kit HELIX®25

NOZZLE BOXES

Nozzle boxes for **NANO IBIX® 3, IBIX® 9, IBIX® 25** and **IBIX® 40** (Dry and H₂O versions).



PPE - Personal Protection Equipment

Filter Spec Pro

JSP Filter Spec ensures the maximum compatibility between safety goggles and breathing mask preventing the fogging of glasses or some air leaks from the mask.

The latest generation of helmet JSP with the new Filter Spec ensures absolute compatibility between the two components.

The helmet provides maximum comfort, the protective rubber adheres to the nose in order to maintain perfectly in line the masks with the breathing valve and the internal space dry and clean.



Breathing mask

With filter recommended for light blasting jobs.

Power Cap®

Power Cap® Active™ is a lightweight and innovative positive pressure respirator designed to protect the user from dust particles and contaminants in the air; comfortable, lightweight and ergonomic, it is the ideal solution for works in dusty environments such as blasting and cleaning, as well as joinery, carpentry, food industry etc. It is compliant with EN 12949 TH1P standards.



Recommended for medium-light blasting jobs; it conveys more comfort for the operator.

Dust JetStream construction

- Filter installed on **JetStream** belt: fan equipped with an automatic alarm and a built-in battery which supplies 180 l/min of filtered air.
- Helmet: several shells available to match different kinds of applications.
- Supply line: reinforced hose to avoid kinking.



Jetstream for Dust and Organic Gases – Restoration Range

It offers APFs – Assigned Protection Factors - 20 times higher than WELs – Workplace Exposure Limits – for organic gases and vapors and for very fine dust, fumes and water vapors.



AGROFILTER Battery operated breathing helmet

All-in-one helmet fitted with a sun shade peak that protects the lift-up visor from the sun. This also enables the helmet to be rested in any position because the peak also protects the visor if it is accidentally dropped.

The air circulates in a chamber and flows over the visor to prevent it misting up.

It is suitable for medium blasting jobs.





APOLLO HELMET

Apollo helmet has a strong durable frame that provides optimum work safety. It is also equipped with oxygen supply that ensures comfortable and safe use for the operator.

The Apollo technology improves the work process, ensuring ease of operation due to its special features:

- The replaceable inlet connector guarantees a longer life of the helmet in case of wear;
- The visor sheath is very wide in order to protect the top of the helmet from abrasive dust;
- The washable lining inside, on the neck, makes the helmet cleaning easy and fast;
- The fixing strip of the helmet, wrapping around the bottom edge of the cap, can be easily closed with a buckle locking the helmet for maximum user safety;
- The helmet can be adjusted through a comfortable knob.

It is suitable for heavy blasting jobs, including in confined areas.

CPF20 filter is designed to eliminate moisture and water (or oil) vapour and particles up to 0.5 micron in the breathing air generated by the compressor. This unit can provide filtered air to the user of the fed helmet during the entire blasting work.



Lances *

Connected to a suitable industrial extraction fan, such devices facilitate dust suction when performing indoor works. They allow extending the spray gun and thus facilitate the treatment of ceilings and floors, and the special uses of **IBIX®** technologies.



CURVED TIP FLOOR LANCE FOR FLOORS

ECOFINISH lance, ideal lance for preparing surface pre-coating, allows working on walls and floors with maximum comfort.

INTERNAL TUBE BLASTING LANCE

The flexible body allows following any pipe curves to be treated while the adaptable shims retain the tip centered during the blasting. A special diffuser nozzle allows blasting the inner pipe along the length of the lance.



NOZZLE EXTENSION LANCE



FUNNELS WITH OR WITHOUT STRAINER



*lances are customizable accessories

«No Dust» suction hoods & brushes *

Connected to a suitable industrial extraction fan, such devices facilitate dust suction when performing indoor works.



BACK PACK

Thanks to a practical harness, **IBIX®** Back Pack allows carrying the machine as a backpack. Ideal for treatment at height and difficult access.



24 L STAINLESS STEEL SPRAYER

TECHNICAL FEATURES

- 24 l (5.28 gal) stainless steel tank wheeled
- Max working pressure: 8 bar (116 psi)
- Empty weight: 15 kg (33 lb)
- Compressed air connector
- Water spray nozzle with special support bracket for **IBIX®** spray gun fixing, water on/off tap, tank to nozzle water delivery hose
- Nozzle model LM/75 with 7.5 m RILSAN spiral pipe



REFRIGERATION AIR DRYERS

These dryers achieve excellent performance even in instances of high ambient and high inlet temperatures ensuring a reduced compressed air pressure drop.

The compressed air quality is essential to ensure proper operation of the **IBIX®** blasters.

They must be fed with oil-free and dry air especially when they are used with fine abrasives or bicarbonate of soda.



*hoods are customizable accessories

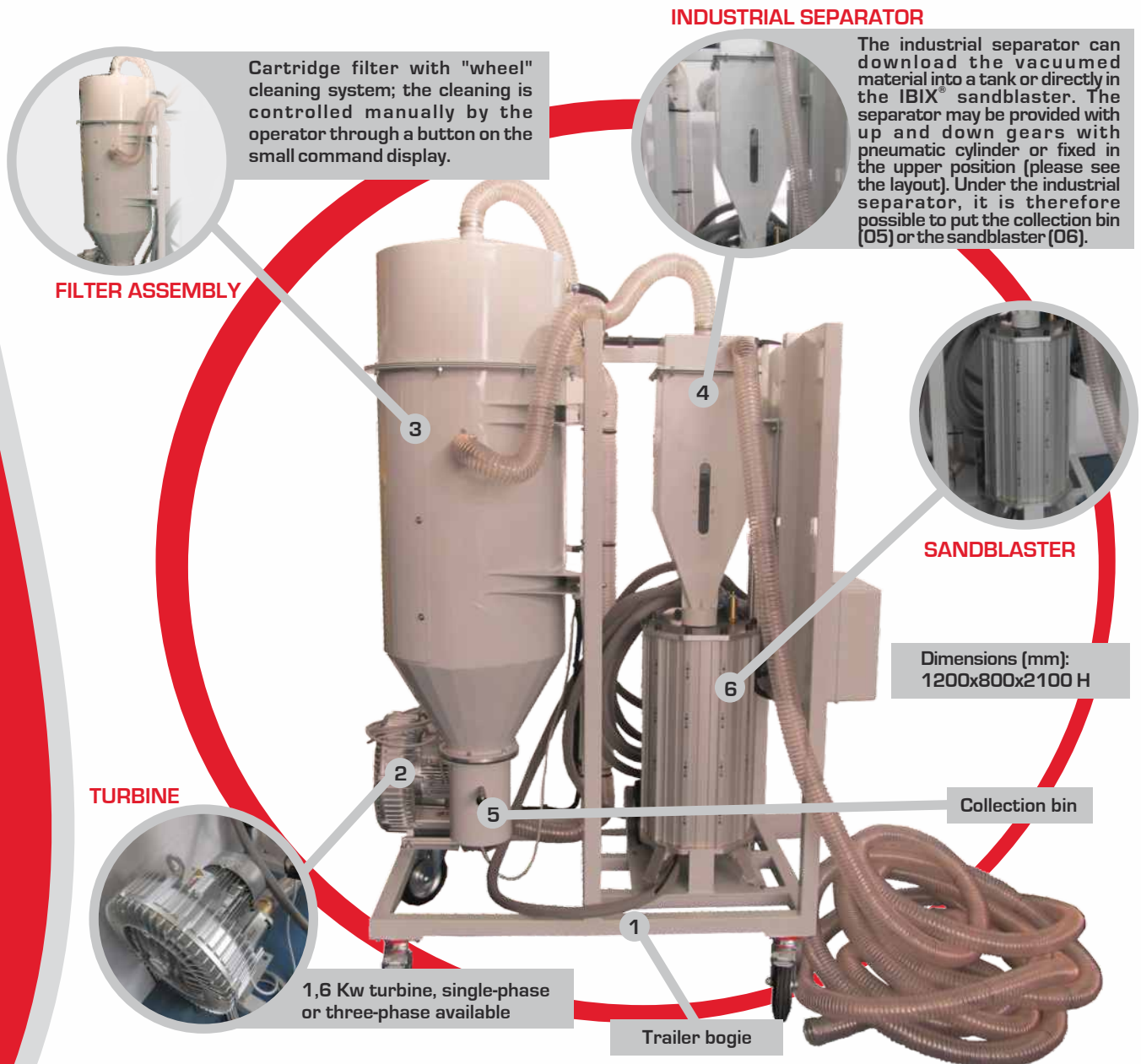
Recovery Unit IBIX® R1

The media recovery unit is made up of a special structure that contains a cyclone specifically designed to recover and recycle the media normally used with the **IBIX®** ecological blasting and media cleaning systems. The cyclone has a special filter drawer that allows residues and any foreign bodies of sizes that could create clogs in the **IBIX®** to be retained.

Thanks to the recovery and filtering of the material **IBIX® R1** allows costs connected to abrasive consumption to be contained.

The system is able to reuse the material for various blasting cycles*, reducing the impact of media cost on the process to a minimum. **IBIX® R1** is environmentally friendly. The media used is non toxic and does not contain free silica, plus the recovery of the abrasive limits the cost of disposal with significant advantages in terms of environmental sustainability.

*The number of times the media can be reused varies depending on the application and the working conditions. When the abrasive becomes ineffective it must be changed.



IBIX® Compressors range

IB 2 (Electro-compressor)

A new portable, electrically-driven, rotary screw compressor, ultra-compact featuring low noise emission.

TECHNICAL FEATURES

- Wheeled compressor
- Electric motor: 2.2 kW / 230 V
- Air flow rate: 300 l / min (10.59 CFM)
- Max. pressure: 10 bar (150 psi)
- Noise level: 60 dB(A)
- Weight: 50 kg (110 lbs)
- Dimensions: 619x209x509 mm (24x8.23x20 in)



Recommended for IBIX® Nano or IBIX® 9 (for working pressure lower than 3.5 bar (50 psi) with 3 mm (0.12 in) standard cylindrical nozzle).

IB 2 TROLLEY - Screw Type Electro-compressor

TECHNICAL FEATURES

- Air compressor with screw - type compression unit - wheeled for maximum versatility and compactness
- Electric motor: 2.2 kW / 230 V
- Air flow rate: 300 l / min (10.59 CFM)
- Max. pressure: 10 bar (150 psi)
- Noise level: 69 dB(A)
- Weight: 55 kg (121 lb)
- Dimensions: 700x650x700 mm (27x25x27 in)



IB 2 TROLLEY PETROL – Screw Type Motor-driven compressor

TECHNICAL FEATURES

- Air compressor with screw - type compression unit - wheeled for maximum versatility and compactness
- Engine: Honda GX 200 - 4.8 Hp
- Air flow rate: 400 l / min (14.12 CFM)
- Max. pressure: 10 bar (150 psi)
- Noise level: 75 dB(A)
- Weight: 65 kg (143 lb)
- Dimensions: 700x650x700 mm (27x25x27 in)



Recommended for IBIX® Nano or IBIX® 9 (for working pressure lower than 3.5 bar (50 psi) with 3 mm (0.12 in) standard cylindrical nozzle).

A 90 (Motor-driven compressor)

TECHNICAL FEATURES

- Wheeled air compressor with high capacity Cejn type fittings
- Engine power: HONDA ENGINE 9 Hp
- Air flow rate: 500 l / min (17.6 CFM)
- Max. pressure: 10 bar (150 psi)
- Noise Level: 77 dB(A)
- Weight: 108 kg (235 lb)
- Dimensions: 1070x770x890 mm (42x30x35 in)



The A 90 Motor-driven compressor is equipped with connections suitable to match with the IBIX® 9 System concerning dimensions and air flow.

IB 700 (Motor-driven compressor)**TECHNICAL FEATURES**

- Air compressor with screw-type compression unit-wheeled
- Engine power: HONDA G340 11 Hp /unleaded petrol
- Air flow rate: 700 l/min (14.7 CFM)
- Max. pressure: 10 bar (150 psi)
- Noise level: 77 dB(A)
- Weight: 140 kg (308 lb)
- Dimensions: 800x1100x1000 mm (31x43x39 in)



The IB 700 Motor-driven compressor is equipped with connections suitable to match with the IBIX® 9 concerning dimensions and air flow.

E 90 (Electro-compressor)**TECHNICAL FEATURES**

- Wheeled electrical air compressor
- Power supply: 400 V/50 Hz
- Air flow rate: 630 l/min (22 CFM)
- Max. pressure: 10 bar (145 psi)
- Noise level: 77 dB(A)
- Weight: 135 kg (297 lb)
- Dimensions: 750x585x790 mm (29.6x23x31 in)



The E90 Motor-driven compressor is equipped with connections suitable to match with the IBIX® 9 System concerning dimensions and air flow.

IB 2000 (Motor-driven compressor)**TECHNICAL FEATURES**

- Air compressor with screw-type compression unit - wheeled
- Engine power: HONDA 22 Hp/unleaded petrol
- Built-in cooling system with automatic condensate separator and discharger
- Air flow rate: 1900 l/min (67 CFM) - CE: 1600 l/min (56.5 CFM)
- Max. pressure: 8 bar (116 psi)
- Noise level: 97 dB(A)
- Weight: 220 kg (485 lb)
- Dimensions: 1200x780x950 mm (47x30x37 in)



The IB2000 Motor-driven compressor is equipped with connections suitable to match with the IBIX® 25 System concerning dimensions and air flow.

IB 2000 (Electro-compressor)**TECHNICAL FEATURES**

- Air compressor with screw - type compression unit - wheeled
- Power supply: 400 V/50 Hz
- Air flow rate: 2090 l/min (73.81 CFM)
- Max. pressure: 8 bar (116 psi)
- Noise level: 68 dB(A)
- Weight: 347 kg (765 lb)
- Dimensions: 1900x690x1610 mm (74x27x63 in)



Other electro-compressors and motor-driven compressors from 550 l/min to 2.000 l/min (4-15 kW if electric) are available upon Customer request

A modern and attractive compressor range design.

Super silent compressors, respectful of the strictest environmental standards at global level.

- Compact, ergonomic and durable;
- Minimum noise pressure level and emissions, in accordance with the strictest regulations;
- SKID Versions available.



IB 2600 DR Refrigeration Compressor

TECHNICAL FEATURES

- Engine Power: Kubota D1105 -E3B 18,5 kW/Diesel
- Air flow rate: 2500 l/min (88.3 CFM)
- Max. pressure: 8 bar
- Noise level: < 98 LWA
- Weight: 640 kg (1410 lb)
- Dimensions [with axle]: 2841x1398x1230 mm (111x55x48 in)

Dehumidifier P104

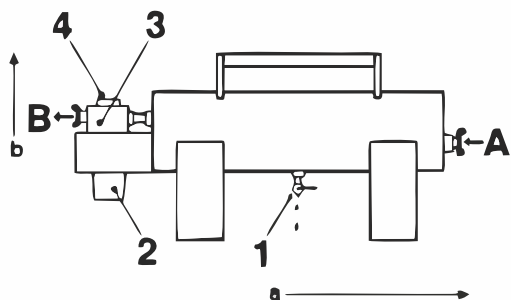
Dehumidifier for blasting. The air flow, already discharged of most part of the moisture, It is further dried through a sintered bronze filter. In output from the dehumidifier, the filtered air is free of moisture in order to allow the perfect operation of the blaster.



USE MODE

The dehumidifier P104 must be connected to the compressed air hose connecting the compressor to the blaster. For best performance, it is recommended to install the unit as close as possible to the blaster and as far as possible from the compressor.

Technical features



a	650
b	340
Weight	13 kg
Fitting Ø	1/2"
Drying capacity	700 l/min (24.72 CFM)

Green Blasting and Cleaning Media

IBIX® Green Cleaning Technology



The **IBIX®** business philosophy is dedicated to promoting respect for the environment and the conservation of our historical, cultural and architectural heritage.

The **IBIX®** System is a totally sustainable technology designed to have extremely low environmental impact that minimizes waste production and uses only non-toxic, neutral media that can be reclaimed and re-used.

The **IBIX®** Units allow for wide variety of choices and can use media of different chemical composition and hardness (**IBIX® Art Garnet**, **Carbon® Art Calcium Carbonate**, Vegetal granules such as walnut shells, Bicarbonate of Soda, Glass Beads ...), different grain size (from 38 µm to 1800 µm)

**Choosing the right Media allows the Operator
to make the correct choice for any surface preparation applications**

IBIX® Art Garnet Natural Abrasive Material

IBIX® Art Garnet consists of almandine garnet grains, one of the hardest, most durable natural minerals known to man. Eco-friendly, thanks to its non-toxicity, **IBIX® Art Garnet** is compliant with environmental protection standards. It makes **working environments safer, healthier, cleaner** and **reduces noise levels** because of the lower pressure.

IBIX® Art Garnet is Safe and Chemically Inert

It does not contain ferrite and therefore does not oxidize which means it can be used to blast Stainless Steel, Antimagnetic Steel, Aluminium, etc. It does not break on impact and contains no free silica therefore it is safe for operators. Garnet cuts disposal costs, thanks to low consumption and reusable media.

Properties

Low consumption: thanks to the high stripping speed of this abrasive (high number of grains per unit of volume), its blasting speed in sq.m/h (ft/h) is higher. Our **IBIX®** units can strip up to 150-350 ft/h.

Low Friability: re-utilized 3 to 5 times (according to application types) without losing any of its outstanding stripping power.

CarbonArt® is Special formulated Calcium Carbonate that the **IBIX®** technical team selected in collaboration with experts in monument restoration. After laboratory and worksite testing it proved to be one of the most effective and less invasive materials for cleaning stone, brick and marble.

CarbonArt® contains calcium carbonate in two grain sizes that **IBIX®** selected specifically for cleaning works of art. Very fine, homogeneous grain size and rounded morphology, as well as the purity of the extremely white material are features certified by analyzing every production batch.

Available Grain Sizes

Z5 White Carrara Marble Calcium Carbonate - grain size 200 - 300 μm

Z6 White Carrara Marble Calcium Carbonate - grain size 100 - 200 μm

These characteristics, plus Mohs hardness lower than 3, make **CarbonArt**[®] an excellent product for cleaning stone elements and especially delicate old brick on monumental works defaced by soot, black crusts, carbonizations in general, air-borne particles and saline efflorescence.

Sodium Bicarbonate

Totally water soluble, baking soda is used to clean substrate made of composites, scratch-prone materials, glass, polished, marbles and granites, ceramics, stainless steel, aluminium with no risk of abrasion. It is very effective, ecological and leaves the surface, even polished surfaces, unaltered. It does not leave dirt or any particles on the surface.

After cleaning, what is left does not require special treatment.

Nuovi inerti non silicei

tra cui:

- Ossido di alluminio
- Scaglie di carbone
- Sfere d'acciaio



IBIX[®] makes Soda Blasting EASIER and CHEAPER

The **IBIX**[®] portable blasting system becomes a very special, easy-to-use sodablaster. It offers major advantages over conventional sodablasters that are normally bulky, hard-to-transport, and require very large air volumes. These make the **IBIX**[®] unit very **Unique**.

Our **IBIX**[®] units enhance the properties of fine and super fine media and abrasives such as fine garnet, calcium carbonate, soda, walnuts etc. for any delicate surface preparation applications such as:

- Fine abrasive blast cleaning: graffiti removal, removal of chewing-gums, stone, brick, wood conservative cleaning and restoration;
- Marine, Aerospace and Automobile maintenance: restoration and new fabrication;
- Blast etching: glass and metal frosting, sanding, galvanized coatings, stainless steel, aluminium, alloys, fiberglass, composites;
- Delicate blast cleaning: turbines, castings, plastics, boat restoration, lapidary;
- Degreasing and decontamination.



IBIX[®] is the best multi use Media Cleaning System

A comprehensive solution for building structural restoration specialists, wood cleaning and restoration specialists, antique restorers, building contractors, cleaning companies, multi service companies...

PLASTER REMOVAL



CLEANING OF BRONZE STATUES



MICRO-PRECISION CLEANING



WOODEN ARTIFACTS RESTORATION



REMOVAL OF ALGAE, MOSS AND LICHEN



CLEANING OF THE RESIDUES OF ATMOSPHERIC POLLUTION



STONE CLEANING



IBIX[®] is the Technological Leader in the field of graffiti cleaning

The **TRILOGY System with H₂O Technology** enables to speed up the cleaning process whilst ensuring more delicate cleaning and reducing the consumption of cleaning media and water considerably.

The **IBIX[®]** System removes graffiti from stone, aluminium, and glass surfaces using ecological cleaning material and vaporized water, **WITHOUT** using aggressive chemical products that involve disposal problems.



TRILOGY System with H₂O Technology



IBIX®

A new System for Wood Restoration

IBIX® is a revolutionary system that provides great convenience in surface cleaning / preparation and surface abrasion treatments of wood materials. Thanks to low-pressure and centrifugal blasting of HELIX® Technology, paintings and other coatings on wood surfaces can be easily removed without damaging original texture.

The system can prepare the surface at a single step for subsequent treatment by providing great convenience in operations such as surface cleaning / preparation before wood restoration, painting, varnish and other coating removal, fade-out cleaning of all soft or hard wood types, providing rustic appearance to fresh wood items. System increases labor efficiency by providing great convenience in operation on both decorated and smooth surfaces.

Thank to IBIX® System, painting and coating removal, fade-out cleaning of wood materials in old structures such as beam, ceiling, floor, window shutter and joinery, doors can be performed without damaging original texture and at a shorter time compared to traditional systems.



TRILOGY System with HELIX® Technology



REFERENCES

ROME



Imperial Forum of Trajan (1 century AD) – Cleaning of tuff stones and bricks, tuff bricks and mortar, travertine.

FLORENCE



Pitti Palace (1440) – repair job prior consolidation work.

IBIX® Special Cleaning, experience in preservation

TURIN



Corso Cinema (1929) – removal of persistent paint layers with almandite and walnut shells.

NAPLES



Fountain of Neptune (1595) – removal of lime deposits with calcium carbonate and water spray.

PARIS



Louvre Museum (XIII century AD) – sandstone cleaning with aluminum silicate.

PARIS



Eiffel Tower (XIX century d.C.) – cleaning of stone pillars with almandite 80 mesh.

IBIX® Special Cleaning, experience in preservation

SAINT PETERSBURG



St Peter's Gate (1714) – cleaning of Kikerno (dolomite) stone, removal of finish plaster and stucco. Cleaning/sandblasting new segments of restoration stone.

SAINT PETERSBURG



Catherine Palace (1717) – cleaning of persistent facade deposits with almandite.

WASHINGTON



Cleaning of aluminum structures from particulate air pollution with sodium bicarbonate.

BERLIN



Post Office Building – cleaning of smog film with water vaporization.

IBIX[®] Special Cleaning, experience in preservation

MALTA



Walls XVI century – cleaning of delicate Maltese stone with sodium bicarbonate.

ISTANBUL



Dolmabahce Palace – Kufeki stone dry & micronised water and sodium carbonate cleaning.

**Low Pressure Selective Cleaning
of Historical Surfaces
in the field of CH Conservation**

Building Structural Restoration

Antique Restoration

Graffiti Removal

**Removal of Chewing-Gums
from Pavements and Flooring**

Wood Cleaning and Restoration

Decontamination after Fire

**Restoration of Fire and Water-damaged
Industrial and Civil Structures**



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 **UNINDUSTRIA BOLOGNA**