REVEX

Engineered Revenue

RX60

Dry Ice Blasting System

User Manual

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. Preface

RX60

Welcome to the Revex RX60 Dry Ice Blasting System, and thank you for choosing Revex. Please read this manual carefully before operating the equipment.

This manual contains the information required by operating and maintenance personnel for daily work and routine maintenance. If you have any questions, please contact Revex technical support.

Revex reserves the right to modify and improve its products without prior notice and is under no obligation to make the same modifications to previously sold machines.

Users should be aware of all applicable local, state, and federal laws regarding dry ice blasting equipment. It is the operator's responsibility to ensure safe operating conditions.

1. Safety Precautions

Before use, please read this instruction manual thoroughly so that you can use this product safely and correctly. The purpose of these precautions is to prevent injury accidents caused by incorrect use. Please use the equipment only after understanding all the contents.

1.1 General Safety Requirements

- Operators must wear protective equipment including safety glasses, gloves, ear plugs, and hearing protection.
- There is significant impact force during the blasting process. Do not point the gun at yourself or others to prevent injury.
- Do not run the unit unattended.
- Always use the equipment in a well-ventilated environment.
- Do not use in flammable or explosive gas environments, corrosive environments, water-prone environments, or near flammable materials. Risk of fire, electric shock, and injury.
- Installation, wiring, operation, inspection, and fault analysis must be carried out by professional and technical personnel.
- Do not move, install, wire, or inspect the equipment while it is energized. Cut off power before performing any such work.
- Connect the grounded power supply and observe the rated range of power input voltage.
- Since carbon dioxide poses a risk of asphyxiation, always use the equipment in a ventilated environment.
- Because splashing dry ice poses a risk of injury, do not spray people directly with the gun.
- When there are people in the operating area, proceed with special care.
- Before removing the blast hose, turn off the main power and unplug the cable connector.

Required Personal Protective Equipment

			
Face Shield	**Ear Muffs**	**Cryo Gloves**	**Ear Plugs**

1.2 Dry Ice Handling Requirements

- Dry ice temperature is -109.3 °F (-78.5 °C). It can cause low-temperature frostbite. Without proper protection, do not touch dry ice with your hands.
- Open the dry ice bin cover to check for foreign objects before adding dry ice. If found, remove them before adding ice and close the cover.
- Use dry ice as soon as possible after loading to avoid caking of residual pellets.
- Do not use powdered or coagulated dry ice.
- Do not allow debris from the dry ice packaging to enter the hopper.
- After unpacking, use up the dry ice as soon as possible.

1.3 Workspace Requirements

Ensure the following conditions are met in the work environment before operating the equipment:

- Maintain at least 3 feet (1 m) of clearance on all sides of the machine for safe access and ventilation.
- Ensure adequate lighting in the cleaning area to clearly see the workpiece and surrounding hazards.
- Provide continuous mechanical ventilation or operate in an open, well-ventilated space. CO_2 displaces oxygen and accumulates in enclosed areas.
- Keep the floor dry and clear of debris. Dry ice blasting can dislodge contaminants that create slip hazards.
- Maintain an ambient temperature between 14 °F and 104 °F (-10 °C to 40 °C) and humidity below 75%.
- Post appropriate warning signage in the blasting area to alert bystanders of noise, flying debris, and CO_2 hazards.

2. Equipment Introduction and Principle

2.1 Equipment Introduction

The Revex RX60 is a high-performance dry ice blasting system designed for a wide range of industrial cleaning applications including: automotive aftermarket, EVA mold cleaning, petrochemical industry, foundry, vulcanization mold cleaning, motor and power equipment, printing, aerospace, thermal industry, metal surface rust and paint removal, fan impeller coating removal, electronics, molded product deburring, used equipment refurbishment, industrial cleaning services, food industry, fire damage restoration, marine industry, environmental protection cleaning, injection mold cleaning, coating machine maintenance, and other industrial degreasing and dust removal.

Revex RX60 Dry Ice Blasting System

Environmental requirements: Temperature: 14 °F to 104 °F (-10 °C to 40 °C) | Humidity: < 75%

2.2 Working Principle

The equipment feeds dry ice pellets from the hopper through a funnel into the ice mixing cavity. Inside, the ice wheel's grooves accommodate dry ice particles. The mixing stick, driven by the motor, rotates to bring dry ice into a confined space where it mixes with high-pressure airflow.

The dry ice and air mixture travels through the delivery tube and handle gun, focused into a specific airflow beam that impacts surface contaminants. Upon contact, dry ice pellets instantly expand approximately 800 times their original volume, stripping contaminants through a physical cleaning principle. Adjust the ice output rate according to contamination severity.

3. Equipment Structure and Control System

3.1 Equipment Composition

The Revex RX60 consists of an electrical system, an ice delivery system, an ice storage chamber, and a blasting system.

Key Components

			
Blast Gun	**Narrow Nozzle**	**Round Nozzle**	**Flat Nozzle**

3.2 Control System

A 7.5 kW (10 HP) air compressor is required. The compressor should be located less than 164 feet (50 meters) from the cleaning site.

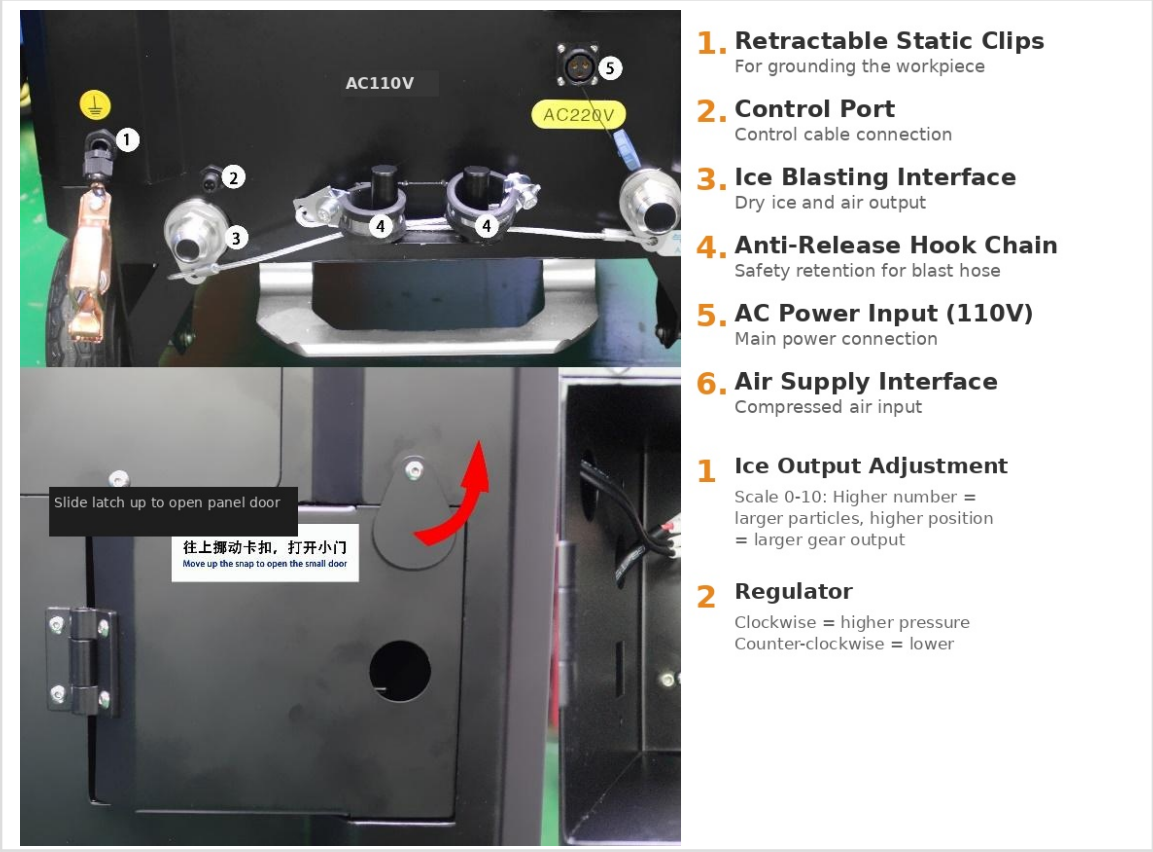
3.3 Equipment Specifications

Specification	Value
Power	1.1 kW
Voltage	AC 110V / 60 Hz
Air Consumption	28 – 424 CFM (0.8 – 12 m^3/min)
Air Supply Pressure	29 – 232 PSI / 0.2 – 1.6 MPa (adjustable)
Ice Delivery Speed	0 – 7.9 lbs/min (0 – 3.6 kg/min, adjustable)
Hopper Capacity	77 lbs (35 kg)
Net Weight	205 lbs (93 kg)
Dry Ice State	Input: 1.5 – 3 mm pellets | Output: 1.5 – 3 mm (not crushed)
Drive Mode	Direct drive
Dimensions (L x W x H)	37.4" x 28.3" x 45.7" (95 x 72 x 116 cm)
IoT Connectivity	Optional network port for remote control or automation

4. Operating Instructions

4.1 Operating Interface

The Revex RX60 features the following connections and controls:



Connection points and control panel layout

- **1. Retractable static clips** — For grounding the workpiece
- **2. Control port** — Control cable connection
- **3. Ice blasting interface** — Dry ice and air output
- **4. Anti-release hook chain** — Safety retention for blast hose
- **5. AC Power Input** — Main power connection
- **6. Air supply interface** — Compressed air input

Control panel features:

- **Ice output adjustment** — Scale 0-10: higher number = larger particles; lower = smaller.
- **Regulator** — Controls blasting pressure. Clockwise increases; counterclockwise decreases.

4.2 Start-Up Preparation

- Connect the air intake pipe.
- Connect the ice outlet pipe.
- Connect the control cable to the equipment.

- Connect the blast gun, ensuring the nozzle is securely mounted.
- Open the hopper cover, confirm it is dry, clean, and free of residues, then close.
- Connect the ground wire to the object to be cleaned or its conductive support.
- Open the air supply unit. Allow the hose to pressurize and check for leaks.
- Plug the power cord into an electrical outlet. Extension cords must meet machine requirements.
- Put on all required protective gear.
- Turn on the power switch.

4.3 After Start-Up

- Spray compressed air for one minute to purge the system.
- Clearance: Turn ice output to maximum, press gun start. After blowing, adjust to appropriate value.
- Open the hopper lid.
- Place 3 mm dry ice pellets into the ice bin and close the hopper.
- Press the gun start button to begin dry ice blasting.

4.4 Shutdown Procedure

- Blast until all dry ice in the hopper is expelled.
- Clear frost from ice dispensing tubes and nozzles.
- Close the gun button to stop ice/gas dispensing.
- Turn off the power switch.
- Close the main air pressure valve.
- Open the filter vent valve to completely relieve pipeline pressure.
- Once pressure is relieved, disconnect cable, close hopper, unplug hose, and hang on unit.

4.5 Operation Best Practices

- Never allow foreign objects to enter the ice compartment hopper.
- Use only the gun and cable as provided by Revex.
- Smoothly stretch any twisted ice outlet and air intake pipes.
- Lock the casters when in use.
- Stop blasting when compressed air pressure falls below 58 PSI (4 kg/cm^2).
- Start with low ice discharge rate and gradually increase to find optimum.
- Empty the hopper when operation is interrupted.
- Intermittently press the trigger to crush any condensed dry ice.
- After operation, blast the hopper empty for one minute without dry ice.
- Position the ice outlet tube for maximum mobility before use.

4.6 Technical Tips

- Keep the nozzle perpendicular to the surface for fastest cleaning.
- Optimal distance is approximately 2 inches (5 cm) for most nozzles.
- Use the recoil of the gun to support your body, rather than resisting it.

5. Personnel Training

- Operators must be trained prior to starting and maintaining the equipment.
- Training targets: Workers designated by the customer who are healthy, capable, and have basic electrical knowledge.
- Revex technical personnel will train workers on equipment use, maintenance, and testing. Those who pass evaluation can operate the equipment.

6. Troubleshooting

6.1 Power On but Ice Stick Does Not Rotate

(1) Check for foreign objects stuck in the mixing mechanism below the downcomer.

(2) Verify the device is energized, emergency stop is disengaged, and inverter display shows normal data. **Solution:** Clear foreign objects and restart, or contact Revex support.

6.2 Ice Stick Rotates but Gun Does Not Spray

(1) Verify the air source interface is properly connected and compressor is running. **Solution:** Correctly connect air source and confirm compressor is operational.

6.3 Normal Operation but Nozzle Only Sprays Air

(1) Check if hopper is empty. If ice is present, verify stirrer is rotating normally. **Solution:** 1. Add dry ice. 2. Contact Revex for ice delivery support.

7. Equipment Maintenance

7.1 Routine Maintenance

- Periodically inspect air inlet and dry ice delivery tubes for cracks and joints for leaks.
- After use, add lubricant through the ice-filling funnel to keep equipment lubricated and rust-proof.
- Wipe down the exterior of the machine after each use to prevent buildup of moisture and debris.
- Inspect all quick-connect fittings and hose clamps for tightness at least weekly during regular use.

7.2 Storage Guidelines

- Store the equipment in a clean, dry, indoor environment away from direct sunlight.
- Ensure the hopper is completely empty and dry before storing. Leave the hopper lid slightly open for air circulation.
- Drain all air lines and disconnect hoses. Coil hoses loosely and hang from the equipment frame.
- Cover the machine with the included protective cover, or a clean tarp, during extended storage periods.

7.3 Important Notice

- Unauthorized disassembly is prohibited. Revex is not responsible for failure from unauthorized modifications.
- Use only genuine Revex replacement parts and accessories. Third-party components may void the warranty.

8. Warranty and Support

8.1 Limited Warranty

Revex warrants the RX60 to be free from defects in materials and workmanship under normal use for a period of one (1) year from the date of original purchase. This warranty covers the main unit and all standard components included in the box.

This warranty does not cover damage resulting from: misuse, neglect, or failure to follow the operating instructions in this manual; unauthorized modification or repair; use of non-approved parts or accessories; normal wear and tear of consumable components; or damage caused by freight or shipping.

8.2 Warranty Service

To obtain warranty service, contact your authorized Revex dealer or Revex technical support with proof of purchase. Revex will, at its sole discretion, repair or replace defective equipment or components.

8.3 Technical Support

For technical questions, troubleshooting assistance, parts orders, or warranty claims:

Resource	Details
Website	**www.revexuptime.com**
Phone	**(728) 218-4401**
Email	**inquiries@revexuptime.com**
Parts & Accessories	Contact your authorized Revex dealer
Training & Certification	Available through Revex or authorized partners

Revex reserves the right to modify specifications and features without prior notice. This manual is provided for informational purposes. Always refer to the latest version available at the Revex website.

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9. What's in the Box

Your Revex RX60 ships with the following components. Upon receiving your equipment, verify all items against this list. If anything is missing or damaged, contact your Revex dealer immediately.

RX60 Dry Ice Blasting System

High-performance main unit with large-capacity hopper, digital control panel, and heavy-duty caster frame.

77 lb hopper | 205 lbs net weight

Air Inlet Hose

High-pressure red rubber hose with brass quick-connect fittings on both ends. Delivers compressed air from the compressor to the machine.

DN25 | Length: 33 ft (10 m)

Ice Outlet Hose

Insulated black delivery hose that carries the dry ice and air mixture from the machine to the blast gun. Thermally lined to minimize ice sublimation.

DN20 | Length: 16 ft (5 m)

Spray Gun with LED Handle

Ergonomic pistol-grip blast gun with built-in LED work light and trigger control. Accepts all Revex nozzle attachments.

Model: PQ-S07

Narrow Nozzle

Precision aluminum nozzle for concentrated blasting. Ideal for tight spaces, seams, and detail work where focused impact is needed.

Model: PQ-B03

Flat Fan Nozzle

Wide-profile flat nozzle for broad surface coverage. Best for large flat areas, panel cleaning, and rapid decontamination.

Model: PQ-B65

Round Nozzle

General-purpose cylindrical nozzle for balanced coverage and impact. Suitable for most cleaning applications.

Model: PQ-Y9

Dry Ice Scoop

White plastic scoop for safely loading dry ice pellets into the hopper. Sized to fit through the hopper opening.

Control Switch Cable

Remote trigger cable with spring strain relief connector. Links the blast gun trigger to the machine's ice delivery system.

Qty: 2

Grounding Clip

Copper alligator-style clip with insulated cable. Connects to the workpiece or its conductive support to safely discharge static buildup during blasting.

Protective Face Shield

Clear full-face polycarbonate shield with adjustable headband. Protects against flying debris and dry ice particles.

ANSI Z87.1 rated

Noise-Reducing Earmuffs

Over-ear hearing protection with padded headband. Required during blasting operations to protect against sustained high-decibel noise.

NRR 25 dB

Cryogenic Protective Gloves

Insulated black gloves rated for cryogenic temperatures. Protects hands from frostbite when handling dry ice and operating in cold blast zones.

1 pair

Corded Ear Plugs

Orange silicone ear plugs with cord and carrying case. Provides additional or alternative hearing protection during operation.

Qty: 2 sets

Power Cable

AC power cord with blue industrial-grade waterproof connector. Supplies 110V/60Hz power to the machine's motor and control system.

AC 110V / 60 Hz

Spare Control Cables

Replacement control cables with waterproof quick-disconnect connectors. Pre-terminated for plug-and-play installation.

Wear part — Qty: 2

Spare Airtight Seal

Replacement seal ring for the ice delivery mechanism. Maintains hopper pressure and prevents air leaks during operation.

Wear part — 1 pc

Spare Roller

Precision-machined stainless steel ice feed roller. Pre-machined to factory tolerances for drop-in installation.

Wear part — 1 pc

Brass Adapter Fittings

Zinc-plated brass hex nipple adapters in three sizes. Allows connection to various compressor and air line configurations.

1" to 1", 3/4", 1/2" | Qty: 3

For support, visit www.revexuptime.com or contact your authorized Revex dealer.