



MultiBlast Series Sand Blasting System

Safety and Maintenance Manual



Important Notes

Read all instructions and warnings before using this product.

Save this manual for future reference.

This manual provides essential information on the safe operation and proper maintenance of the MultiBlast Series Sand Blast System. Every effort has been made to ensure the accuracy of this manual.

Specifications and features may change without prior notice.

General Product Specifications

Composition:

- Abrasive blast room body
- Blasting media reclaim system
- Blasting system
- Dust collector system

Specifications:

- Tank Volume: 0.5 m³ (maximum capacity)
- Working Pressure: 6–8 bar
- Air Consumption: 7 m³/min

Keep this manual, sales receipt, and applicable warranty for future reference.

Safety Instructions

Common sense and caution cannot be built into a product; they must be provided by the operator.

- Keep work areas clean, organised, and well-lit. Cluttered or dark areas may cause accidents.
- Do not operate the blast system in explosive environments, including areas with flammable liquids, gases, or dust. Sparks may ignite fumes or dust.
- Keep children, bystanders, and distractions away while operating the blast cabinet.
- Always check that the **power switch is OFF** before connecting the unit to a power source. Connecting it with the switch on may cause injury or property damage.
- Wear **appropriate safety gear**, including safety goggles, dust masks, gloves, and non-slip footwear.
- Use the correct tools and accessories recommended for your model. This ensures safe and efficient operation.
- Do not operate the equipment if you are tired, under the influence of alcohol or drugs, wearing loose clothing or jewellery, or standing on unstable footing.

Note: Safety glasses and ear protection must always be worn during operation.

Service and Maintenance

Service must only be performed by **qualified personnel**. Unauthorised service may result in injury.

- Always use identical replacement parts and follow the instructions in this manual.
- Failure to follow these instructions may create a risk of electric shock or injury.
- Before use, read and understand all warnings, instructions, and labels. Ignoring them may cause serious injury, property damage, or death.

Before Use:

- Close and latch the door before operating the blast cabinet.
 - Inspect all parts for damage before use; do not operate if parts are damaged.
 - Maintain proper footing and balance.
 - Clean spills and abrasive material from the work area.
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Assembly

- Ensure the blast cabinet is **disconnected from the power source** during assembly.
 - Plug in the system only after assembly is complete.
 - Refer to the Parts Diagram and Parts List to assist with assembly.
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Operation

1. Inspection Before Start

- Always wear hood, dust mask, and heavy-duty gloves.
- Inspect all connections to ensure they are tight and properly sealed.
- Check the dust collector fan axle and lubrication levels.
- Inspect pressure gauges, safety valves, and abrasive control valve filters weekly. Replace filters as needed.

2. Filling Blasting Media

- Remove large clumps or contaminants before filling.

3. System Testing

- Start the compressor and dust collector system **at least 5 minutes** before operating the blast cabinet.
- Slowly open the compressor control valve; do not exceed 8 bar.

4. Sand Blasting Operation

- Place the workpiece into the blasting cabinet.
- Open the pulse jet air source, bucket elevator, floor recovery system, and dust collector control valve.

- Wear full protective equipment.
 - Enter the blasting chamber and close the door.
 - Test the nozzle and gun to ensure the blaster is functioning correctly and there are no leaks.
 - When finished, turn off the blaster, compressor, recovery unit, elevator, and dust collector. Open the gate valve to return abrasive to the blasting tank.
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Maintenance

- Keep the system clean and protected from damage.
- Inspect for worn or damaged parts before and after use. Replace as necessary.

Daily Maintenance

- Check chamber door closure.
- Inspect dust collector ducts and cartridges.
- Clean dust from the electrical control box.

Monthly Maintenance

- Check all bolts and fasteners.
- Inspect transmission parts and lubricate chains.
- Inspect the blower fan and piping for wear and secure attachment.

Semi-Annual Maintenance

- Check all bearings and air control boxes.
- Inspect the tightness of bolts and connections on motors, chain wheels, blowers, and screw conveyors.

Lubrication

- All moving parts must be lubricated before operation.
- Bearings: apply #2 lithium-based grease every 3–6 months.
- Chains, pins, and other moving parts: apply #30 machine oil weekly.
- Motors and cycloid reducers: lubricate according to manufacturer specifications.

Lubrication Points:

- Elevator upper and lower sections
 - Separator
 - Screw conveyor
 - Cycloid reducers
 - Motors
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Lubrication Schedule

The following parts of the equipment require regular lubrication. Frequency and type of lubricant are specified below.

No.	Part Name	Lubrication Point	Lubrication Frequency	Lubricant Type
5	Elevator – Upper	Bearing base	Monthly	#2 lithium-based grease
6	Elevator – Lower	Bearing base	Monthly	#2 lithium-based grease
7	Separator	Bearing points	Monthly	#2 lithium-based grease
8	Screw Conveyor	Bearing points	Weekly	#30 machine oil
9	Screw Conveyor – Cycloid Reducer	Reducer bearings	As per manufacturer specification	#30 machine oil
10	Separator	Bearing points	Monthly	#2 lithium-based grease
11	Elevator	Bearing points	Monthly	#2 lithium-based grease
12	Elevator	Bearing points	Monthly	#2 lithium-based grease
13	Screw Conveyor	Bearing points	Weekly	#30 machine oil
14	Motor	Motor bearings	As per manufacturer specification	Motor-specific lubricant
15	Screw Conveyor	Bearing points	Weekly	#30 machine oil

Notes:

- The **elevator (upper and lower sections), separator, and screw conveyor** each have **two lubrication points**.
- Follow the lubrication frequency and type strictly to ensure long-term operation and reduce wear.
- Always check lubrication levels before starting the machine.

Troubleshooting

Fault	Possible Cause	Solution
Poor dust collection	Fan wiring error	Rewire fan correctly
	Bag loose or missing	Replace or secure dust bag
	Poor duct connections	Ensure all parts are sealed properly
Excess abrasive in dust collector	Separator airflow too high	Adjust air baffle to optimise dust collection
Poor cleaning effect	Insufficient abrasive	Add new abrasive
	Incorrect abrasive size	Select correct granularity
	Agglomerated or old abrasive	Replace abrasive
Elevator not running	Blocked by large abrasive	Clear obstruction
	Belt slip	Adjust driving wheel tension
	Excess abrasive at elevator base	Shut down and clean
Cleaning chamber door difficult to open	Door spindle requires lubrication	Apply lubricant
Separator not effective	Uneven flow curtain	Adjust flow control plate
	Incorrect wind speed	Adjust wind butterfly valve and flow plates
Screw conveyor not running	Blockage	Clean and remove obstruction
	Bent screw shaft	Correct or grind blades
	Broken weld on shaft head	Re-weld

Notes:

- Refer to the Electrical Parts section for electrical faults.
- If problems persist, contact customer service.

Control Panel Operator Manual

1. Overview

This control panel operates the dust collection and material handling system, including the fan, dust cleaning system, elevator, lighting, and scraper units.

All operators must read and understand this manual before operating the equipment.

2. Safety Instructions

- Ensure the system is properly installed and earthed before use.
- Do not operate with wet hands.
- Keep all guards and covers in place during operation.
- Familiarise yourself with the **Emergency Stop (10)** at all times.
- Isolate power using the **Power Lock (5)** before maintenance.

3. Control Panel Functions

1. Fan ON	2. Dust below ON	3. Elevator ON	4. Power ON	5. Power Lock
6. Fan OFF	7. Dust blow ON/OFF	8. Elevator OFF	9. Light ON/OFF	10. Emergency Stop
11. Scraper 1 ON	12. Scraper 2 ON	13. Scraper OFF		

Power Controls

No.	Function	Description
4	Power ON	Activates the control system
5	Power Lock	Main isolator switch

Fan Controls

No.	Function	Description
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1	Fan ON	Starts the main fan
6	Fan OFF	Stops the main fan

Dust System Controls

No.	Function	Description
2	Dust Below ON	Activates lower dust collection
7	Dust Blow ON/OFF	Controls dust cleaning/blowback

Elevator Controls

No.	Function	Description
3	Elevator ON	Starts the elevator
8	Elevator OFF	Stops the elevator

Lighting

No.	Function	Description
9	Light ON/OFF	Controls lighting

Scraper Controls

No.	Function	Description
11	Scraper 1 ON	Starts scraper 1

12	Scraper 2 ON	Starts scraper 2
13	Scraper OFF	Stops all scrapers

Emergency Control

No.	Function	Description
10	Emergency Stop	Immediate shutdown of all systems

4. Standard Operating Procedure

4.1 Start-Up (Boot Sequence)

Follow this sequence strictly:

1. Press **(1) Fan ON**
2. Press **(3) Elevator ON**
3. Press **(11) Scraper 1 ON**
4. Press **(12) Scraper 2 ON**
5. Turn **(9) Light ON** (if required)

 Important:

- The fan must be running before starting the elevator or scrapers.
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4.2 Operation – Dust Cleaning

- Turn **(7) Dust Blow ON** during operation.
- After **10–20 minutes**, turn **(7) Dust Blow OFF**.

This ensures proper cleaning without unnecessary wear.

4.3 Shutdown Sequence

Follow this order:

1. Press **(13) Scraper OFF**
2. Press **(8) Elevator OFF**

3. Turn **(9) Light OFF**
 4. Press **(6) Fan OFF**
 5. Turn **(7) Dust Blow OFF** (if not already off)
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4.4 Emergency Stop

- Press **(10) Emergency Stop** immediately in an emergency.
 - Identify and rectify the issue before restarting.
 - Reset the emergency stop before resuming operation.
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5. Maintenance Guidelines

- Inspect buttons and switches regularly.
 - Ensure all labels remain clear and legible.
 - Test emergency stop function periodically.
 - Always isolate power before maintenance.
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6. Important Notes

- Always follow the correct start-up and shutdown sequence.
- Do not operate dust blow continuously beyond required duration.
- Never bypass safety controls.
- Report any faults immediately.