DRY ICE BLASTER BUYERS GUIDE



Cold Jet®
the force of nature

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Introduction

Choosing the best tool for the job is a crucial choice in the modern industrial environment, and this concept applies when choosing which dry ice blaster to purchase. Whether you are interested in acquiring a dry ice blaster for your business or are curious whether dry ice blasting is right for your needs, Cold Jet has created this comprehensive and thorough guide to the dry ice blaster buying process.

Within this guide, you will discover:

- What dry ice blasting can do
- The various cleaning and production tasks dry ice blasting can handle
- The differences between the various dry ice blasters available
- Which dry ice blaster will best suit your needs

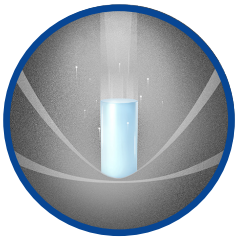


Key Takeaways

- A brief look into the fundamentals of dry ice blasting
- Understanding how dry ice blasting benefits affect your dry ice blaster buying decisions
- How to best match specific dry ice blaster capabilities to your cleaning needs
- The crucial features to consider when choosing the best dry ice blaster for your cleaning needs
- Understanding the differences in how budget blasters and premium blasters affect total cost of ownership
- The various dry ice blaster types and models available from Cold Jet and which models will best suit your cleaning needs
- Common questions asked when choosing the right dry ice blaster to purchase

A Quick Primer: The Science of Dry Ice Blasting

While you likely already know that dry ice blasting is an effective and efficient industrial cleaning method, understanding exactly how it works is the secret to knowing what to look for in a machine. Cold Jet identifies the underlying physics of this process using the I.C.E. acronym.

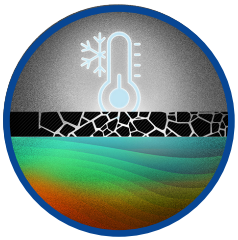


IMPACT

Dry ice particles or pellets are ejected from the blaster nozzle at high velocity and impact the intended surface. The kinetic energy created from this impact breaks the top layers of the contaminant, weakening its bond to the surface.

The Buying Implication

To achieve maximum kinetic energy, your blaster relies heavily on your facility's air supply. This means carefully evaluating a blaster's PSI and CFM requirements. If your applications require heavy impact, you will also want to prioritize a dry ice blaster with a higher blast pressure range to maintain higher velocities and cleaning power.

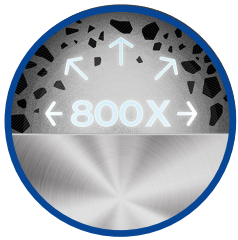


COLD

Since dry ice is solid CO_2 and maintains a temperature of -109.3ºF (-78.5ºC), it has a thermal effect on contaminants. The extreme cold causes contaminants to embrittle and shrink, further breaking their bond to the substrate.

The Buying Implication

Managing temperatures this extreme requires premium engineering. Budget blasters often freeze up during extended use. You must look for machines featuring cold-resistant motors to prevent clogging alongside heavily insulated hoppers that prevent the ice from sublimating prematurely inside the machine.



EXPANSION

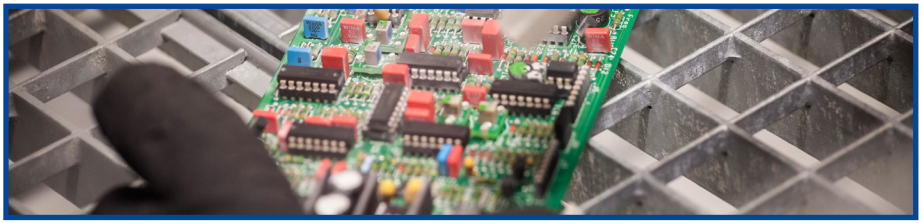
Upon impact, solid CO_2 instantly undergoes sublimation, converting into gas. This conversion causes a rapid volumetric expansion of the CO_2 (up to 800x the volume of the solid state), lifting contaminants away from the surface entirely.

The Buying Implication

Since the transition from solid to gas happens in milliseconds, the flow of dry ice through the machine must be flawless. This crucial distinction makes the internal feeding mechanism one of the most critical components of your purchase. A robust feeding system provides continuous agitation to prevent ice build-ups, clumping, and sputtering.

Translating Dry Ice Blasting Benefits into Buying Decisions

Due to its unique cleaning mechanism, dry ice blasting offers a host of operational benefits over water, solvents, or abrasives. Here is how those benefits should influence the hardware you choose:



Non-Abrasive Cleaning

Dry ice is naturally soft (1.5 out of 10 on the Mohs Hardness scale), meaning it can clean without damaging delicate substrates. However, the level of aggression needed depends entirely on what you are cleaning. Tough contaminants like tar and grease require a highly aggressive impact, while intricate plastic molds or sensitive electronics demand a much gentler approach to avoid surface profiling.

To Maximize This Benefit

Look for machines with variable dry ice pellet sizing capabilities. Advanced systems can take standard 3mm pellets (for aggressive cleaning) and shave them down to MicroParticles as small as 0.3mm (for delicate cleaning). This variability allows you to safely lower the aggression level for sensitive parts or maximize the impact for heavy buildup, all with a single machine.

Cleans In-Place and Online

Since dry ice is non-conductive and liquid-free, industrial machines can often be left online and "hot" during cleaning without being disassembled.

To Maximize This Benefit

If you are moving from machine to machine within a facility, mobility and portability are paramount. Prioritize blasters built with rigid aluminum frames, heavy-duty rubber wheels, and compact footprints designed for tight spaces.

Fast Cleaning Action

Dry ice blasting allows for immediate, point-and-clean action without the need for extensive prep work or machine disassembly. Because operators can often see results in real time with a single pass, the actual cleaning process is incredibly swift.

To Maximize This Benefit

Fast cleaning is only fast if you don't have to constantly stop to reload your blasting machine with dry ice. Match your blaster's hopper capacity to your workload. Choose smaller hoppers (13-20 lbs.) for occasional use, and larger capacities (60-80+ lbs.) for sustained, aggressive facility cleaning.

Needs Assessment: Industrial Use Cases & Applications

The purpose for which you are purchasing a dry ice blasting machine is just as critical as any other consideration when choosing the right solution. Since dry ice blasting is so versatile, what you are cleaning (and where you are cleaning it) will heavily dictate the specific features you need.

In our many years of producing the highest quality dry ice blasters on the market, we have identified the following as the most common uses for dry ice blasting:

- ✓ Adhesive Removal
- ✓ Asphalt Removal
- ✓ Automotive Detailing & Restoration
- ✓ Composite Tool Cleaning
- ✓ Core Box Cleaning
- ✓ Deburring and Deflashing
- ✓ Facility Maintenance
- ✓ Food Processing Equipment Cleaning
- ✓ Historical Restoration
- ✓ Light Surface Rust Removal
- ✓ Mold, Fire, and Smoke Remediation
- ✓ Plastic and Rubber Mold Cleaning
- ✓ Surface Preparation
- ✓ Weld Line Cleaning

Dry ice blasting machines are used across numerous different industries that include, but are not limited to, the following:



Aerospace



Automotive Manufacturing



Engineered Wood



Food & Beverage



Foundry



Medical Equipment Manufacturing



Restoration & Remediation



Oil & Gas



Packaging



Plastics & Composites



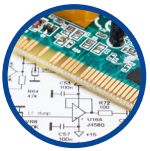
Power Generation



Printing



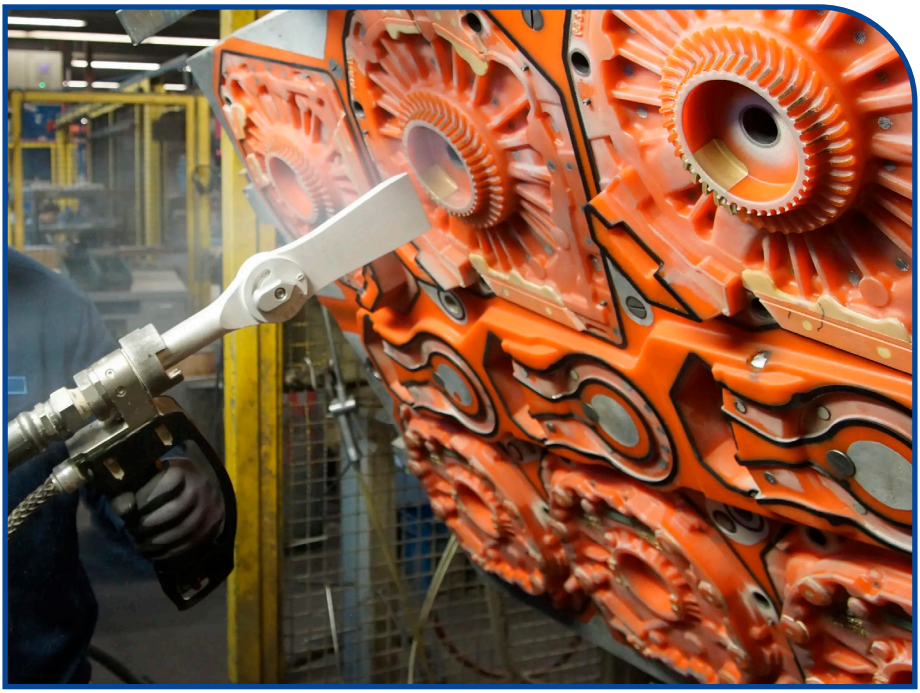
Rubber & Tires



Semiconductor Fabrication



Textiles



While those lists cover specific applications and industries, your day-to-day working environment will ultimately dictate the hardware you need. These factors should influence how your specific work environment and application needs drive your buying decision:

Industrial Cleaning, Decontamination, and Parts Finishing

Many industrial facilities rely on the high-frequency cleaning of large equipment, massive assembly lines, and individual tools to remain productive. Rather than just acting as a tool for occasional maintenance, dry ice blasting is often integrated into standard operations for the continuous, regular cleaning of production lines. Dry ice blasting is also utilized for the rapid deburring and deflashing of intricate parts (such as plastics) to prepare them for shipment. While minimizing downtime is always a factor, the ability to rapidly and repeatedly clean large-scale machinery in place is what makes dry ice blasting an invaluable, everyday solution for these environments.

The Buying Implication

If your facility requires the high-frequency cleaning of large-scale equipment, prioritize workhorse machines with large hopper capacities (up to 80+ lbs.) to minimize reloading and sustain those long cleaning sessions. Conversely, if your daily focus is parts finishing (like deburring and deflashing), you need a machine capable of MicroParticle dry ice sizing to ensure you do not cause surface profiling on delicate parts.



Automated Production Lines

Manufacturers utilizing automated assembly lines can seamlessly integrate dry ice blasting to clean and prepare parts in a repetitive, predictable pattern without disrupting production. These custom-built setups can be configured as semi-automated systems (where a robotic arm handles the blasting, but an operator manages the dry ice supply) or as completely self-sustaining, fully automated systems. In a fully automated setup, integrated equipment produces and feeds fresh dry ice directly into the blaster on-demand, requiring zero operator intervention.

The Buying Implication

Your dry ice blaster must interface seamlessly with your chosen level of automation. Look for machines specifically built for integration into autonomous production lines and prioritize models featuring Industry 4.0 IoT connectivity (like Cold Jet CONNECT®—Cold Jet's proprietary cloud-based machine monitoring and remote diagnostic platform) for remote monitoring, real-time diagnostics, and programmable recipes (blast pressure, particle size, feed rate) to ensure repeatable quality.

Contract Cleaning

Contractors offering professional cleaning, remediation, or restoration services increasingly face challenges such as rising operating costs, strict environmental standards, and heavy competition. To overcome these hurdles, contractors who perform cleaning tasks and jobs for other organizations or individuals favor dry ice blasting for its effective results, efficiency in time, and general cleanliness. The technology allows for a dry cleaning process that avoids the use of harsh chemicals or water, making it incredibly safe for equipment and environmentally friendly. Since dry ice blasting leaves behind no secondary waste, it results in shorter, more effective cleaning sessions and drastically reduces labor time.

The Buying Implication

Because your job site and contaminant change daily, versatility and transportability are your absolute top priorities. This extreme versatility allows contract cleaners to adapt to the needs of vastly different sectors, ranging from food-safe cleaning and printing equipment maintenance to historical restoration and power generation. Portable dry ice blasters that can be transported easily in work trucks or vans are heavily favored among contractors. However, larger, more robust machines are favored for major jobs where sustained, aggressive cleaning is needed. Look for models with rugged frames, large all-terrain rubber wheels, and highly variable blast settings so you can tackle a delicate fire remediation one day and heavy asphalt removal the next with the exact same unit.





Automotive Restoration and Detailing

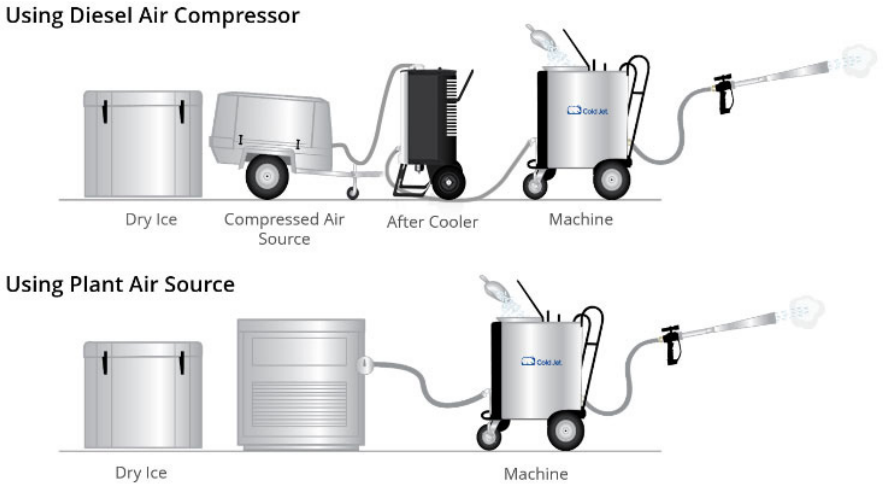
Automotive detailing and restoration professionals utilize dry ice blasting to handle a massive spectrum of cleaning challenges on a single vehicle. In this industry, absolute versatility is the driving factor. A detailer must be able to aggressively blast heavy grease, road grime, or cosmoline off an undercarriage or transmission, and then immediately transition to gently cleaning delicate wiring harnesses, interior components, and original finishes without causing damage. Because the process leaves no moisture behind, it is entirely safe for intricate electrical systems and allows for comprehensive cleaning without requiring time-consuming vehicle disassembly.

The Buying Implication

Because detailers transition constantly between heavy degreasing and delicate preservation, a basic, single-speed entry-level machine is often insufficient. You need a highly versatile machine capable of drastically scaling its aggression. Prioritize blasters that offer wide variable pressure (PSI) settings and variable dry ice pellet sizing. The ability to use standard 3 mm pellets for a tough chassis and shave them down to dry ice MicroParticles for delicate electrical components—paired with an extensive selection of precision nozzles—is what allows a single machine to safely service an entire vehicle.

Critical Buying Criteria: Key Dry Ice Blaster Features to Evaluate

Even if you have narrowed down your search to a dry ice blaster manufacturer like Cold Jet, not every blaster comes with the same capabilities. Some features are more critical than others, depending on your needs and application. Below is a comprehensive breakdown of the core features you must evaluate:



Compressed Air Requirements: Blast Pressure and Volume

Using dry, compressed air is the engine of dry ice blasting. It is also a primary mechanism for controlling how aggressively you clean. Cleaning at higher blast pressure ranges results in a more aggressive clean for tougher contaminants and buildup. Blasting at lower pressure ranges results in lower aggression levels that are better suited for light buildup and delicate substrates.

You must also ensure your compressed air source is capable of supplying the air pressure volume needed to operate your dry ice blasting effectively.

There are two primary metrics to evaluate:

Pounds Per Square Inch (PSI): PSI dictates the physical force of the air pushing out of the nozzle. Higher pressure equals greater impact. The industry standard baseline for most industrial dry ice blasters is an operating range between 80 and 150 PSI. High-pressure models can operate up to 300 PSI for higher aggression cleaning needs, while some models operate at as little as 20 PSI.

Cubic Feet Per Minute (CFM): CFM measures the overall volume of air flowing through the system. Dry ice blasters require a continuous supply of air, typically needing between 70 and 140 CFM to operate efficiently. However, some machines operate effectively at as little as 12 CFM.

The Noise Factor: The noise of dry ice blasting (typically 85 to 120 dB) comes primarily from the compressed air expanding out of the nozzle and meeting the substrate. Operating at lower blast pressure ranges will produce lower noise levels.

The Buying Implication

You must match your machine to your facility's air capabilities and your target contaminant. If you need to clean more aggressively, you need a machine that is capable of higher blast ranges. If you are cleaning light contamination or a sensitive substrate, prioritize a machine that can operate effectively at a much lower pressure range. Furthermore, since noise is directly tied to air pressure, utilizing a machine that can effectively clean at lower blast pressures is the most effective way to subdue the decibel levels of dry ice blasting.



Dry Ice Particle Size: Matching the Right Size to Your Application

Not every dry ice particle size is suited to every cleaning task, so understanding what each size does is key to choosing the right machine. Standard 3mm pellets carry more kinetic energy, making them ideal for aggressively removing dense, stubborn contaminants. On the other hand, MicroParticles shaved down to 0.3mm deliver the gentle, controlled cleaning needed for delicate surfaces and light contamination. As a general rule of industrial surface preparation, the tougher the contaminant, the larger the particle needed; the more delicate the surface, the finer the particle needed.



The Buying Implication

Dry ice blasters fall into three categories when it comes to particle size, and the right fit depends on how varied your cleaning needs are:

Pellet-only machines blast standard 3mm pellets and are a strong fit when your work is consistently aggressive.

MicroParticle machines shave dry ice blocks or pellets down to fine 0.3mm particles for delicate, detailed cleaning where surface protection is critical.

Variable particle size machines let you precisely dial in the exact particle size for the job so you can fine-tune from aggressive to delicate, depending on what the work calls for. Cold Jet's patented Particle Control System (PCS®) is a proprietary on-board dry ice pellet-shaving mechanism found in the Aero2 PCS ULTRA that takes standard 3mm pellets and lets the operator select from 28 different particle sizes (from 0.3mm up to 3.0mm in 0.1mm increments) right from the control screen. This function allows a single machine to move seamlessly from heavy-duty removal to delicate precision work without swapping equipment or dry ice.

Hopper Capacity: Sizing It to Your Workload

The type of cleaning you intend to perform dictates the hopper capacity you need. A blaster's hopper size determines how long you can clean continuously before stopping to reload more dry ice. Capacities typically range from compact 13 lb. hoppers up to 80+ lb. hoppers built for sustained work.

It's also worth noting that a quality hopper does more than hold dry ice; insulated hopper walls keep ambient heat from prematurely sublimating the dry ice supply (turning it back into gas) before it reaches the feed mechanism, which helps prevent wasted dry ice, clumping, and clogging.



The Buying Implication

If you run a contract cleaning business or clean in large-scale industrial production environments, a high-capacity hopper (40 to 80+ lbs.) will significantly reduce time spent refilling and easily support the high feed rates that aggressive, sustained cleaning demands. If your work is smaller in scale or you are doing short precision cleaning, a smaller hopper (13 to 20 lbs.) is more appropriate. Whichever size is best for you, look for a well-insulated hopper, especially if you operate in warm or humid conditions.





Dry Ice Feeding Mechanism: Consistent, Clog-Free Delivery

How dry ice moves through the machine dictates the consistency of your clean. A robust feeding mechanism delivers a steady, uniform flow of dry ice to the nozzle while a weak one introduces problems mid-job. The result is an inconsistent clean and frequent interruptions due to clumping, striping (gaps in the dry ice stream), and loss of pellet integrity as the dry ice travels through the blasting hose.

The Buying Implication

The feeding mechanism is one of the clearest dividing lines between budget and premium dry ice blasters. Budget machines often cut costs by relying on cheaper materials and manual agitation to break up dry ice buildup, which makes the whole process less reliable and less efficient. Look for a higher-quality system built to keep dry ice moving consistently. For example, Cold Jet's patented SureFlow Feeder System uses an automated electromagnetic hopper agitation mechanism designed to eliminate sublimated ice clumping. It does this by combining thumpers, ramrods, vibrators, and an insulated hopper to provide optimal agitation and a steady, uninterrupted flow of dry ice.

To prevent operational downtime, Cold Jet engineers recommend utilizing integrated moisture-control features. Cold Jet's defrost cycle clears those freeze-ups and clogs to minimize machine downtime and keep you blasting.

Construction & Materials: The Source of Durability and Mobility

What a dry ice blaster is made of determines two things: how much abuse it can withstand and how easily you can move it. Industrial environments are dirty and unforgiving, and equipment takes a beating over time through bumps, scrapes, and tumbles. The materials and frame design are what separate a machine that lasts for years from one that quits early. Just as important is the machine's movement format, which dictates how it's meant to move with you from job to job.

The Buying Implication

First, consider the construction of the blasting machine. Budget blasters often cut costs with cheap, brittle plastic that fails under impact. Premium machines use engineered combinations of durable materials such as stainless steel, rigid aluminum, and tool-grade aluminum alloys that are selected to balance strength against weight. For example, Cold Jet's Aero2 ULTRA series of machines combine a coated tool-grade aluminum alloy, stainless steel, and polymer frame specifically to stay rugged while reducing weight and size for easier handling.

Second, match the movement format of the blasting machine to the job. Some machines, like the tabletop i^3 MicroClean, sit on a mobile cart and are designed for cleaning a single piece of equipment from a fixed workstation. Others are built on wheels for true portability, which is ideal for contract cleaners and facility maintenance techs who move the machine constantly. If your work takes you to different places, prioritize a mobility-minded design with large all-terrain wheels and thoughtful hose and accessory management. If your work happens at one station, a compact cart-based unit may be a better fit.





Analog vs. Digital Controls: Simplicity or Precision

How you operate the machine and how precisely you can repeat a result comes down to its control system. The definitive factor when choosing between analog and digital is process repeatability. Analog machines rely on manual dials, knobs, and gauges to set blast pressure and feed rate. You adjust by hand and read the settings off physical gauges. Digital machines replace physical gauges with an LCD screen and electronic controls, letting you set parameters precisely. Neither is better outright as they serve different operators and different kinds of work.

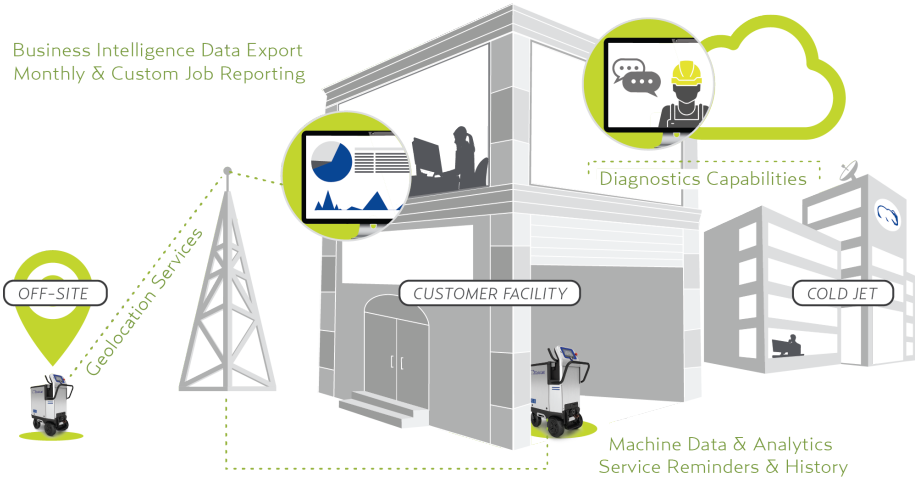
The Buying Implication

Analog controls are the workhorse choice. With fewer electronics, they're simple, rugged and easy to learn, which is a strong fit if you run consistent, repeatable jobs. The trade-off is that dialing in settings is manual, and repeating an exact setup across operators or shifts relies on the operator getting it right each time.

Digital controls are the right fit when precision and repeatability matter. A screen-based system lets you fine-tune blast pressure, particle size, and feed rate precisely, then save them as programmable "recipes." By saving specific blasting settings, any operator can reproduce the same clean at the touch of a button, reducing user error and ensuring consistency across jobs. If you run varied applications, have multiple operators, or need documented repeatability, the digital controls are right for you.

Smart Features: Industry 4.0 and IoT Connectivity

Beyond on-machine controls, the most advanced blasters are connected. Industry 4.0 / IoT capability links the machine to a cloud platform, turning it from a standalone tool into a monitored, supportable asset. Certain Cold Jet machines have access through Cold Jet CONNECT, a proprietary cloud-based telemetry and support platform that is built into smart models like the i³ MicroClean 2 and the Aero2 ULTRA series. Rather than just running the machine, connectivity lets you see how it is performing, get help faster when something goes wrong, and protect consistency across jobs and operators.



The Buying Implication

If uptime, repeatable quality, and responsive support are priorities, IoT connectivity is a worthwhile investment. A platform like Cold Jet CONNECT provides remote monitoring and diagnostics to identify issues (often before they cause downtime) and resolve them through self-guided troubleshooting or by connecting directly with a Cold Jet technician via chat, service ticket, or video call. This platform also gives you on-demand access to machine data, documentation, and training. If you run varied applications, multiple operators, or a fleet of machines where every hour of downtime costs you, connectivity quickly pays for itself.



Automation-Ready: Integrating into Robotic Production Lines

If you plan to build dry ice blasting into an automated or robotic production line, the single most important thing to understand is that not all blasters are capable of automation. Many machines, especially analog and budget models, are designed strictly for manual, handheld operation and cannot be integrated into an automated process. If inline cleaning, surface prep, or part finishing is your goal, automation readiness becomes a critical requirement to confirm before you buy.

True automation readiness means the machine can interface with a manufacturing-tier robotic arm and your facility's PLCs to run exact, repeatable cleaning patterns without interrupting production. In practice, that depends on the blaster having an integration module that speaks standard industrial protocols (such as EtherCAT, EtherNet/IP, and PROFINET) and supports safety handshakes like an E-stop tie-in with the cleaning booth.

The Buying Implication

Do not assume a premium machine can automatically be bolted onto a robot. Capability for manual blasting does not equal capability for automation. If automation is the goal, specifically confirm the model is automation-ready; Cold Jet's Aero2 PCS ULTRA, Aero2 PLT ULTRA, and i³ MicroClean 2 are all designed for automation integration. Verify that the dry ice blaster offers the integration module and protocols your line uses.

Cold Jet products scale from semi-automated cells (where an operator refills the hopper) to fully automated COMBI PCS systems (Cold Jet's fully integrated dry ice production and blasting systems) that pair the blaster with dry ice production. In these systems, pellets are made and fed on demand with no operator intervention. Decide how far you need to automate, then make sure the machine you choose can actually get you there.

Budget vs. Premium Blasters: Understanding Total Cost of Ownership

There is a wide range of dry ice blasters on the market, and while prices vary for many reasons (build quality, features, size, etc.), most machines fall into two broad categories: budget and premium. Budget blasters capable of industrial level cleaning can run as low as $10,000 for professional models, while premium models can cost upwards of $55,000. That sliding scale is directly tied to the quality and usage the machine is built for, and the sticker price rarely tells the whole story. The real number that matters is total cost of ownership: what the machine costs you over its entire service life once durability, consumable efficiency, and support are factored in.

The Buying Implication

A lower purchase price can quietly cost you more over time. When weighing budget options against premium options, look past the sticker and compare what you're actually getting:

Build quality and longevity: Budget machines often use cheaper materials and construction that wear out or break down sooner. Premium machines are built with robust materials to withstand harsh industrial use, giving them a longer service life and spreading the upfront cost across far more working hours. For example, a quality blaster should last 10+ years.

Features and control: Cheaper blasters tend to come with a simplistic nozzle and limited blast settings, which restricts the range of jobs they can handle and the efficiency with which they handle them.

Efficiency: Premium machines are engineered to get more out of every pound of dry ice and every CFM of air. Robust feeders deliver a consistent stream with less waste and refined airflow paths to clean more effectively with fewer consumables. Budget machines tend to waste more dry ice and air, raising your operating costs on every job.

Service network and parts: Budget machines frequently lack a support network, so when something goes wrong or a part is needed, you face longer downtime and harder-to-source replacements.

Long-term value: Premium machines like those from Cold Jet cost more upfront, but deliver more in build quality, features, longevity, efficiency, and a service network unmatched in the industry. Combined, these factors typically lower total cost of ownership over the life of the equipment.



Choosing the Right Dry Ice Blaster: The Cold Jet Lineup

At this point you have the framework to evaluate any dry ice blaster on the market: air requirements, particle-size control, feeding reliability, and construction. The natural next step is to apply that framework to a specific lineup, and that is where Cold Jet comes in.

Cold Jet has been pioneering modern dry ice blasting since 1988 and leads the industry in machine quality, efficiency, and longevity. Every machine in our lineup is built around the same fundamentals of quality and efficiency, and each is backed by a global support network that handles parts, troubleshooting, and repairs for the life of the equipment. That combination of proven engineering and lasting support is what turns a dry ice blaster from a one-time purchase into a long-term, high-return investment.



With that in mind, here's how the lineup breaks down so you can match a machine to your operation:

Smart Dry Ice Blasters

Cold Jet's line of smart dry ice blasters brings cleaning and contaminant removal into the digital age with intuitive LCD screen controls, programmable settings, and Industry 4.0 / IoT capabilities.

Aero2 PCS ULTRA

The Aero2 PCS ULTRA is the most versatile dry ice blaster on the market and is powered by Cold Jet's patented Particle Control System (PCS®), an on-board dry ice pellet-shaving mechanism that lets operators select from 28 particle sizes ranging from 0.3mm to 3.0mm in 0.1mm increments. The Aero2 PCS ULTRA is the truest jack-of-all-trades blaster, allowing seamless movement between aggressive removal and delicate precision work with a single machine. Programmable application recipes take that flexibility a step further, letting users set and save blasting parameters like blast pressure, particle size, and feed rate so the same dialed-in clean can be recalled instantly and repeated reliably across operators and jobs.



Beyond its versatility, the Aero2 PCS ULTRA is engineered for consistency and uptime. Its patented SureFlow Feeder System combines thumpers, ramrods, vibrators, and an insulated hopper to keep dry ice flowing steadily. A new array of ultra-cold-temperature motors, paired with proprietary control firmware and drivers, keeps performing efficiently even through long, continuous blasting cycles. A core contamination control system shields critical internal components from dust and debris to minimize routine maintenance. Additionally, the machine's patent-pending defrost cycle adds moisture control, core cleaning, and clears freeze-ups to maximize machine uptime.

Dimensions	38.5 x 19 x 45 in (98 x 48 x 114 cm)
Weight	266 lb (120.6 kg)
Dry Ice Capacity	60 lb (27 kg)
Power Req.	110/220V AC (50/60 Hz); AMPS: 4.5
Feed Rate	0-4 lb/min (0-1.8 kg/min)
Blast Pressure	20-145 psi (1.4-10 bar)
Air Supply	40-145 psi (2.8-10 bar)

Aero2 PLT ULTRA



The Aero2 PLT ULTRA is the most powerful machine in Cold Jet's Aero2 ULTRA lineup, built to take on the toughest contamination. This full-pressure, full-pellet blaster drives standard 3mm pellets up to 250 PSI (17.2 bar) with a feed rate up to 6 lbs./min (2.7 kg/min). The Aero2 PLT ULTRA provides more than enough power to remove the most stubborn buildup, and is configurable with Cold Jet's proprietary nozzles to optimize your blast setup for any job. Its "straight-through" air system and redesigned SureFlow Feeder System (automated hopper agitation mechanism) minimize air pressure loss and premature sublimation inside the machine to maximize air supply yield and reduce dry ice waste. Programmable application recipes let operators set and save blast pressure and feed rate, so the same high-output clean can be recalled and repeated reliably across jobs and operators.

The Aero2 PLT ULTRA is engineered for consistency and uptime. Its patented SureFlow Feeder System combines thumpers, ramrods, vibrators, and an insulated hopper to keep dry ice flowing steadily. A new array of ultra-cold-temperature motors, which are paired with proprietary control firmware and drivers, keeps performing efficiently even through long, continuous blasting cycles. An intuitive 7" LCD display plus Cold Jet CONNECT IoT connectivity put precise control, remote monitoring, and diagnostics at your fingertips.

Dimensions	38.5 x 19 x 45 in (98 x 48 x 114 cm)
Weight	243 lb (110.2 kg)
Dry Ice Capacity	60 lb (27 kg)
Power Req.	110/220V AC (50/60 Hz); AMPS: 4.5
Feed Rate	0-6 lb/min (0-2.7 kg/min)
Blast Pressure	35-250 psi (2.4-17.2 bar)
Air Supply	40-250 psi (2.8-17.2 bar)

i³ MicroClean 2



The i³ MicroClean 2 is Cold Jet's most lightweight and compact smart dry ice blaster, purpose-built for precision work to safely remove contaminants from delicate surfaces and complex cavities where surface protection is critical. Using dry ice blocks or pellets shaved down to fine microparticles, the MicroClean 2 cleans gently yet effectively, and operates on as little as 12 CFM at pressures from 20 to 145 PSI to operate where larger machines cannot. The low air demand also makes it notably quieter than typical blasters, and it reduces overall consumable usage by more than 25% over its predecessor (i³ MicroClean) to clean more efficiently with less dry ice.

Despite its compact footprint, the i³ MicroClean 2 is a fully smart machine. A 7" LCD screen with digital controls lets operators precisely set blasting parameters such as blast pressure and feed rate, which can be saved as programmable, password-protected application recipes so any operator can reproduce the same clean and prevent costly user error. Additional features, such as a screen lock for full control of the operation, an LED dry ice level indicator, and an internal 20-micron blast air filter that guards against contaminated air increase the machine's usability and efficiency. Built on a lightweight stainless-steel body and rigid aluminum frame with integrated storage and a rolling cart, the i³ MicroClean 2 is IoT-enabled through Cold Jet CONNECT for remote monitoring and diagnostics.

Dimensions	31 x 25 x 47 in (78 x 62 x 120 cm)
Weight	190 lb (86 kg)
Dry Ice Capacity	25 lb (11 kg)
Power Req.	110/240V AC (50/60 Hz)
Feed Rate	0-1.5 lb/min (0-0.7 kg/min)
Blast Pressure	20-145 psi (1.4-10 bar)
Air Supply	50-145 psi (3.4-10 bar)

Pellet Dry Ice Blasters

Cold Jet's pellet dry ice blasters use standard high-density dry ice pellets, and for operators who prefer classic analog controls, robust performance, and workhorse reliability, they deliver quality throughout their service life. With straightforward, manual controls, these machines are simple to learn and are dependable shift after shift. Built to hold up in tough industrial environments, they are a proven choice for anyone who values rugged simplicity and consistent, no-nonsense cleaning power.

Aero 40FP



The Aero 40FP is a robust, high-performance pellet blaster ideal for the operator on the go, ready to travel into just about any environment to get the job done. This mid-level, full-pressure machine pairs strong build quality with large all-terrain wheels to go wherever your work takes you. A compact motor keeps weight and power consumption down to make transport and setup that much easier. With a full range of blast pressure on tap, the Aero 40FP delivers the muscle to handle demanding cleaning jobs without sacrificing portability.

Under the hood, the Aero 40FP is built to keep blasting without interruption. Its Performance SureFlow system, Cold Jet's advanced hopper agitation and delivery mechanism, lets you run a full hopper through 100 feet of hose without poking, clogging, or losing cleaning aggression. Patented radial feeding technology, an aerodynamic rotor loading system designed to reduce pad wear, uses aerodynamic loading to reduce wear on the pads and rotor to extend machine life. An enhanced rotor delivers a pulse-free blast stream with precise feed-rate control, and an onboard pressure regulator makes it easy to dial in the right setting for each job, all through simple, dependable analog controls.

Dimensions	36 x 20 x 40 in (91 x 51 x 102 cm)
Weight	257 lb (117 kg)
Dry Ice Capacity	40 lb (18.2 kg)
Power Req.	110/220V AC, 1 Phase (50/60 Hz); AMPS: 2.5
Feed Rate	0-4.5 lb/min (0-2 kg/min)
Blast Pressure	20-250 psi (1.4-17.2 bar)
Air Supply	65-250 psi (4.5-17.2 bar)

Aero 80FP

The Aero 80FP takes the proven design of the Aero 40FP and scales it up, doubling the hopper capacity to a full 80 lbs. and boosting output with a feed rate up to 7 lbs./min. For big jobs that demand sustained cleaning power, the larger hopper means far fewer stops to refill dry ice and longer stretches of uninterrupted work. The full range of blast pressure, ranging from gentle cleaning at 20 PSI up to aggressive blasting at 300 PSI, gives you the muscle to take on the heaviest contamination. A tilt-out hopper and rugged, mobile build make this high-capacity machine practical to load, move, and maintain on demanding job sites.



Like the rest of the Aero line, the 80FP is engineered to keep blasting without interruption. Its Performance SureFlow system (Cold Jet's heavy-duty, continuous-feed agitation and delivery architecture) lets you run a full hopper through 100 feet of hose without poking, clogging, or losing cleaning aggression. The patented radial feeding technology, a friction-reducing air-lock delivery method engineered to maximize consumable lifespan, uses aerodynamic loading to reduce wear on the pads and rotor to extend machine life. An enhanced rotor delivers a pulse-free blast stream with precise feed-rate control, an onboard pressure regulator makes dialing in each job simple, and built-in ESD (static) control adds a layer of operating safety. All these features are managed through straightforward, dependable analog controls that minimize air and ice usage along the way.

Dimensions	43 x 20 x 46 in (109 x 52 x 118 cm)
Weight	389 lb (176 kg)
Dry Ice Capacity	80 lb (36.4 kg)
Power Req.	110/220V AC, 1 Phase (50/60 Hz); AMPS: 2.75
Feed Rate	0-7 lb/min (0-3.2 kg/min)
Blast Pressure	20-300 psi (1.4-20.7 bar)
Air Supply	65-300 psi (4.5-20.7 bar)

IceRocket PLT



The IceRocket PLT packs powerful dry ice blasting performance into a compact, highly mobile frame. At just 106 lbs. with a 13 lbs. hopper, it's the most portable machine in the lineup. This entry-level machine is easy to move around a facility or take from job to job, and is engineered to be more aggressive and efficient than other blasters in its class. Running standard 3 mm pellets on as little as 50 CFM, it delivers professional-grade cleaning that helps operators cut downtime and increase throughput, making it an ideal entry point into dry ice blasting without stepping down to a hobbyist-grade tool.

However, do not let the entry-level positioning fool you on durability. The IceRocket PLT is built with heavy-duty, high-quality components designed to hold up to demanding, real-world facility use. Its simple analog controls keep the learning curve short by allowing operators to dial in blast pressure and feed rate by hand and start cleaning right away. Best of all, it's backed by the same world-class, local-to-you Cold Jet service and support network behind every premium machine, so you get professional-grade reliability and uptime at an entry-level price point.

Dimensions	18.8 x 20.4 x 38.6 in (48 x 52 x 98 cm)
Weight	106 lb (48 kg)
Dry Ice Capacity	13 lb (6 kg)
Power Req.	100/240V AC (50/60 Hz)
Feed Rate	0-1.5 lb/min (0-0.68 kg/min)
Blast Pressure	29-145 psi (2-10 bar)
Air Supply	72-145 psi (5-10 bar)

Elite 20



The Elite 20 is a mid-level, compact dry ice blaster that steps up the versatility and power. Engineered to handle light, medium, and tough applications alike, it delivers industrial-strength performance in a heavy-duty yet mobile package with low dry ice consumption. Its ¾ in blasting hose makes it especially well-suited to more demanding surfaces, giving operators the muscle to tackle a wider range of cleaning jobs from a single, manageable machine.

That versatility is backed by a built-to-last construction that runs consistently. A durable stainless-steel frame stands up to rigorous industrial use while an insulated lid and hopper minimize dry ice sublimation for steady, uninterrupted cleaning. An easy-adjusting dosing system lets operators fine-tune dry ice dosage on the fly to match the task at hand by dialing back for delicate work or ramping up for stubborn contamination. A user-friendly control panel keeps those blasting parameters simple to manage shift after shift.

Dimensions	29 x 17.7 x 42.5 in (74 x 45 x 108 cm)
Weight	230 lb (104 kg)
Dry Ice Capacity	66 lb (30 kg)
Power Req.	100/240V AC (50/60 Hz)
Feed Rate	0-3.7 lb/min (0-1.68 kg/min)
Blast Pressure	29-232 psi (2-16 bar)
Air Supply	72-232 psi (5-16 bar)



MicroParticle Dry Ice Blasters

Cold Jet's MicroParticle dry ice blasters shave dry ice into fine microparticles (as small as 0.3mm), and for operators who need to clean delicate surfaces and intricate, hard-to-reach areas, they deliver gentle precision without sacrificing cleaning results. Using low blast pressures and a controlled, fine-particle stream, these tabletop machines safely lift contaminants from sensitive substrates and complex cavities where standard pellets would be too aggressive. Lightweight, compact, quiet, and easy to position, they're the right choice for precision work in fields like aerospace, medical device, electronics, and historic restoration.

Looking for a Smart MicroParticle Blaster?

While the i³ MicroClean 2 is fundamentally engineered as a premium MicroParticle machine, it is featured above in our Smart Dry Ice Blasters category due to its advanced digital telemetry. If your precision cleaning operations require Industry 4.0 IoT connectivity, programmable recipes, and a 7" LCD interface paired with 0.3mm shaved dry ice capabilities, please refer to the i³ MicroClean 2 specifications in the preceding section.

i³ MicroClean



For those looking for simplicity without sacrificing precision cleaning performance, the i³ MicroClean delivers gentle, precise cleaning for delicate surfaces and complex cavities in a compact tabletop package. This lightweight, single-hose, low-pressure blaster shaves dry ice into fine microparticles and blasts at adjustable pressures, running on as little as 12 CFM, making it notably quieter than larger machines. With classic, easy-to-use controls, it's an approachable, no-frills way to bring professional precision cleaning to detailed work.

Despite its small footprint, the i³ MicroClean is built to clean efficiently and reliably. It uses dry ice economically by delivering as much as 45 minutes of cleaning before reloading. The adjustable blast pressure gives operators the flexibility to fine-tune performance for each task, from the most delicate surfaces to tougher detail work. An internal 20-micron blast air filter guards against the effects of contaminated air; an ergonomic lighted applicator and integrated static bonding cable make it comfortable and safe to operate; and a durable transport cart keeps the machine easy to move from workstation to workstation.

Dimensions	22 x 16 x 21 in (56 x 41 x 53 cm)
Weight	130 lb (59 kg)
Dry Ice Capacity	20 lb (9.1 kg)
Power Req.	110/240V AC (50/60 Hz)
Feed Rate	0-1.2 lb/min (0-0.6 kg/min)
Blast Pressure	20-140 psi (1.4-9.7 bar)
Air Supply	50-145 psi (3.4-9.7 bar)

Frequently Asked Questions

How do I know which kind of dry ice blaster I need?

The right dry ice blaster is the one matched to your specific application. Start by asking what you'll actually be cleaning, how tough the contaminants are, and how often you'll run the machine. For occasional or "as-needed" jobs, a smaller, entry-level blaster is usually the best fit; frequent, large-scale, or sustained cleaning calls for a larger, professional-grade machine with the capacity and feed rate to keep up. The nature of the work also matters, as aggressive removal of stubborn buildup favors a high-pressure machine while delicate surfaces and intricate detail work call for the gentle precision of a microparticle blaster.

If your needs vary across both ends of that spectrum, a machine that lets you adjust particle size (like the Aero2 PCS Ultra with its Particle Control System) may be the best fit, letting you fine-tune your blasting from aggressive to delicate on a single machine. Whatever the size or type, prioritize high build quality and a strong service and support network, as these factors are what keeps a machine running reliably and delivers the best return over its service life.

Is there a dry ice blaster that can "do it all" and be used for different cleaning tasks?

Yes — the most versatile machine in Cold Jet's lineup is the Aero2 PCS ULTRA thanks to its patented Particle Control System (PCS®), Cold Jet's proprietary on-board dry ice pellet-shaving mechanism. Instead of locking you into a single pellet size, the Aero2 PCS ULTRA lets operators choose from 28 different particle sizes right from the control screen, ranging from 0.3mm up to 3mm in 0.1mm increments. This range means one machine can move seamlessly from very delicate, detailed work to aggressive removal of the toughest contaminants. The Aero2 PCS ULTRA is the closest thing to a true do-it-all dry ice blaster for operations that span a wide variety of surfaces and contaminants.



Are Cold Jet dry ice blasters worth it?

The definitive factor when evaluating whether a premium machine like a Cold Jet dry ice blaster is worth the investment is the Total Cost of Ownership (TCO) rather than the initial sticker price. Budget blasters often look appealing upfront, but they frequently cost businesses significantly more over time due to consumable waste, rapid component wear, and prolonged operational downtime.



Here is exactly why Cold Jet's premium engineering and post-purchase support translate into a long-term, high-return investment:

Decades of Proven Innovation: Having pioneered modern dry ice blasting since 1988, Cold Jet holds a portfolio of over 250 patents worldwide. This legacy of engineering ensures a Cold Jet machine delivers a service life of 10+ years in harsh industrial environments.

Consumable Efficiency: Budget machines waste massive amounts of compressed air and dry ice. Cold Jet machines utilize the SureFlow Feeder System (an automated hopper agitation and delivery mechanism), which ensures every pound of dry ice is delivered consistently without clumping, reducing daily consumable costs.

Extreme Versatility: Instead of buying multiple machines for different tasks, Cold Jet's Particle Control System (PCS®), a proprietary on-board dry ice pellet-shaving mechanism, allows a single unit to seamlessly transition from heavy industrial stripping to delicate surface detailing.

Uptime and Post-Purchase Support: Industrial downtime is exceptionally expensive. Smart models feature Cold Jet CONNECT (a proprietary cloud-based telemetry platform) for remote predictive maintenance. Additionally, Cold Jet backs its equipment with one of the largest support networks in the industry, including local service technicians, rapid spare-parts availability, and after-hours troubleshooting to ensure your assembly lines keep running.

How long is a dry ice blaster service lifespan?

A high-quality dry ice blaster should deliver a service life of 10+ years, though the actual lifespan comes down to three factors: build quality, serviceability, and user maintenance. The industry standard baseline for long-term durability starts with build quality; machines made from durable, high-tolerance materials like stainless steel, aluminum, and polymer composites hold up far better against the constant wear of industrial use. Serviceability matters just as much, meaning ready access to spare parts and trained service technicians so machines can be repaired and kept running rather than retired early. Finally, user maintenance makes the difference over the long haul as operators who care for their equipment by following the manufacturer's maintenance and safety guidelines can significantly extend a machine's working life. Together, these factors protect your return on investment, spreading the cost of the machine across many more years of productive use.

Is having a dry ice blaster with Industry 4.0 IoT connectivity important?

While having a dry ice blaster with Industry 4.0 IoT connectivity is not required for optimal performance, the feature can grant multiple benefits:

See the status of your dry ice blaster at any given moment and see critical data regarding usage and maintenance alerts with on-demand diagnostics and metrics

Faster troubleshooting of issues through self-diagnosis or remotely with a certified technician

Save blasting "recipes" to use specific blasting settings on demand at any time without needing to reset each session

I'm on a limited budget; which dry ice blaster is the best "bang for your buck" that balances performance with price?

If budget is your primary concern, the IceRocket PLT is the best value in Cold Jet's lineup. It's engineered to be more aggressive and more efficient than other entry-level blasters, delivering genuine professional-grade cleaning performance at the most accessible price point. Since the IceRocket PLT is backed by the same world-class Cold Jet service and support network as every premium machine, you get entry-level pricing without giving up the reliability, parts availability, and long-term return on investment that protect your purchase.

Notes

Notes

Global Headquarters
Loveland, Ohio, USA

Europe Headquarters
Zellik, Belgium

Asia Headquarters
Shanghai, China

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