



Dry Ice Blasting for Cars and Classic Vehicles

Underbodies, engine bays and chassis cleaned on your driveway

Under every car is a record of its life: decades of road grime, oil leaks, old underseal and wax, and the rust and repairs hiding beneath them. Before an owner, restorer or buyer can judge what needs doing, all of that has to come off.

The usual options are scraping and wire brushing, heat guns, chemical strippers, pressure washing or grit and soda blasting. They work, but they are slow and filthy, or they push water into seams and box sections, or they leave grit in every cavity and can damage panels and original parts.

Dry ice blasting offers a different approach. In this guide I want to explain how it works and where it delivers real advantages for cars, classics and restoration projects.

What is dry ice blasting?

Dry ice is solid carbon dioxide (CO_2) at around -78.5°C . Instead of melting, it turns straight back into gas when it warms, a process called sublimation.

In dry ice blasting, small pellets of this material are fired at a surface using compressed air. Three things happen on impact:

- **Impact energy** breaks up and dislodges the deposit.
- **Thermal shock** makes the residue brittle and weakens its bond to the surface beneath.
- **Sublimation** turns the pellet into gas, which expands rapidly and lifts the residue away from behind.

The pellets disappear into the air. The only thing left to collect is the residue that has been removed. There is no water, no detergent and no blast media to clean up afterwards.

Where dry ice blasting really outperforms traditional cleaning

1. It removes underseal, grease and grime

Thermal shock makes old underseal, wax, oil and road dirt brittle, and the expanding gas lifts it away. Depending on the coating, we can take surfaces back to sound original finish or bare metal, so you can see exactly what you are dealing with.

2. No grit left in the car

Grit and soda get into box sections, seams, engines and interiors, and turn up for years afterwards. Dry ice simply sublimates. The only thing left is the dirt removed, which is swept or vacuumed up.

3. No water in seams and cavities

Pressure washing drives water into sills, box sections and seams where it sits and causes rust. Dry ice is a dry process, so nothing is left behind to corrode.



4. Gentle on original parts

Dry ice is non-abrasive. It does not warp panels, round off edges or erase casting marks, stampings and part numbers. Pressure is turned down for delicate components and turned up for heavy underseal.

5. Engines and wiring cleaned in place

Engine bays, gearboxes and axles can be cleaned without removal. Dry ice is non-conductive and leaves no moisture, so it can be used around wiring and electrics, with the battery disconnected.

6. We come to you

Vortex Ice Labs is fully mobile. We work on your driveway, in your garage or at your workshop, with no need to trailer the car to a blasting bay.

Environmental credentials

Classic car owners and restorers increasingly care about how work is done as well as the result. Dry ice blasting can help on several fronts.

- **Recycled CO₂.** The CO₂ used to make dry ice is typically recovered as a by-product of other industrial processes, such as fertiliser production and fermentation, rather than produced specially. Blasting returns it to the atmosphere it would otherwise have reached, so the process adds no new CO₂ of its own.
- **No chemicals.** No strippers or degreasers to buy, store or dispose of.
- **No oily wash water.** Nothing runs off your driveway into drains.
- **No blast media waste.** There is no spent grit to bag up and send to landfill.
- **Keeping originals in use.** Non-abrasive cleaning helps preserve original parts rather than replacing them.

At a glance

	Scraping, washing and grit blasting	Dry ice blasting
Water introduced	Pressure washing drives water into seams	None
Media left behind	Grit and soda get everywhere	None
Chemicals	Strippers and degreasers	None
Damage to panels	Grit can warp and thin panels	Non-abrasive
Part numbers and stampings	Can be worn away	Preserved
Electrics	Must be protected from water	Non-conductive, no moisture
Location	Often a blasting bay	Mobile, on your drive or at your workshop



Typical applications for cars

- **Underbody and chassis:** removing underseal, wax, grease and road dirt to inspect for rust and previous repairs.
- **Engine bays and engines:** oil and grime cleaned off in place.
- **Suspension, axles and subframes:** cleaning before inspection, painting or refurbishment.
- **Wheel arches and inner wings:** mud, underseal and stone chip coatings.
- **Restoration projects:** stripping shells and parts before the owner or restorer starts metalwork.
- **Pre-purchase and show preparation:** showing a buyer or judge what is really under the car.
- **Motorcycles and parts:** frames, engines and components.

Our setup at Vortex Ice Labs, and why it matters for your car

Vortex Ice Labs is a fully mobile service. We bring a complete, self-contained system to you, so you do not need power or compressed air. The air passes through four stages before it reaches the surface.

- 1 **Compressor.** This supplies the large, steady volume of air needed to drive the pellets. Consistent flow means consistent cleaning, with no drop in performance halfway through a job.
- 2 **Aftercooler.** Compressing air heats it, and hot air carries a lot of moisture. The aftercooler cools the air straight away so that moisture condenses and can be drained off. Without it, water would freeze inside the blaster, causing pellets to clump and block, and could be sprayed onto the surface being cleaned.
- 3 **Filtration.** Filters then remove the remaining water, any oil carried over from the compressor, and fine particles. On a car this matters. The aim is to leave metal clean and dry, not to put oil or water onto surfaces that need protecting.
- 4 **Dry ice blasting unit.** The pellets are metered into the conditioned airstream and delivered through the hose and nozzle. Pressure, ice feed and nozzle choice are adjusted for each task, from delicate engine components to thick underseal on chassis rails.

Every stage protects the result. Clean, dry air means a clean, dry car ready for inspection or the next stage of work.

Working safely, and where it fits

Dry ice blasting is a powerful tool, and we plan each job with you before we start.

- **Ventilation.** As the ice sublimates it releases CO₂ gas, so we work outdoors or in a well-ventilated garage, with the doors open and, where needed, gas monitoring.
- **Noise and PPE.** Blasting is loud, and operators use hearing protection, eye and face protection, and insulated gloves. People nearby need to be kept clear of the work area or protected too.
- **Containment.** Removed underseal and dirt can travel, so we sheet off nearby cars and surfaces and clear up afterwards.
- **Bare metal needs protecting.** Once underseal and paint are removed, bare metal will start to surface rust if left. Plan your rust treatment, primer or protection promptly. We clean and leave the preservation



work to you or your restorer.

- **What it will not do.** Dry ice does not remove rust that is tightly bonded to the metal, and some hard factory coatings may stay on. It reveals the condition of the car; it does not repair it.

Used this way, it is most valuable before restoration, for honest inspections, and for cleaning without risking water, grit or damage to original parts.

Final thoughts

Owners and restorers need to see what is really under a car without causing more damage. Traditional methods will always have a role, but they bring water, grit, chemicals and mess with them.

Dry ice blasting removes those trade-offs. It cleans without media or water, preserves original parts, and we bring it to you.

If you would like to see how it could work on your car, I would be happy to arrange a visit or a trial area. Get in touch with us at Vortex Ice Labs.

Ian Glover, Vortex Ice Labs

Tel: 07438 409188 | Email: ian@vortexicelabs.co.uk

Web: www.vortexicelabs.co.uk

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