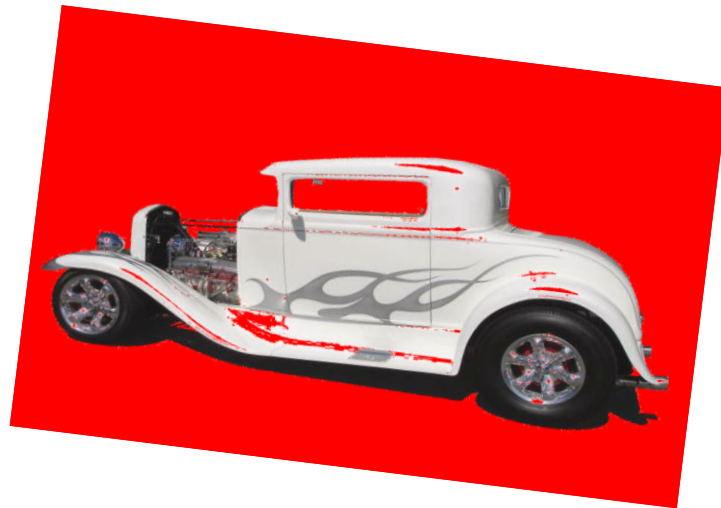


REDI-STRIP

METAL CLEANING CANADA LTD.

YOUR METAL FINISHING SPECIALISTS!



Quality and Service

Since 1978

ISO 9001:2015 Certified

Controlled Goods Program Registered

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WHERE THE BEST RESTORATION STARTS

Automobile restoration involves a lot of time, patience and effort. Having the job done right the first time is important. Clean metal allows superior welding repairs and paint adhesion. For long lasting body and paint work, the best first step is Redi-Strip Metal Cleaning.

Do it right with Redi-Strip!

Metal Cleaning for Automotive Restoration

Redi-Strip uses a three-step process to clean and prep automotive metal for painting. Steel car parts are immersed into chemical baths: 1) Hot Tank 2) Pickling Tank and 3) Zinc Phosphate Tank. These three steps are usually performed in sequence for parts that have minimal damage or corrosion.

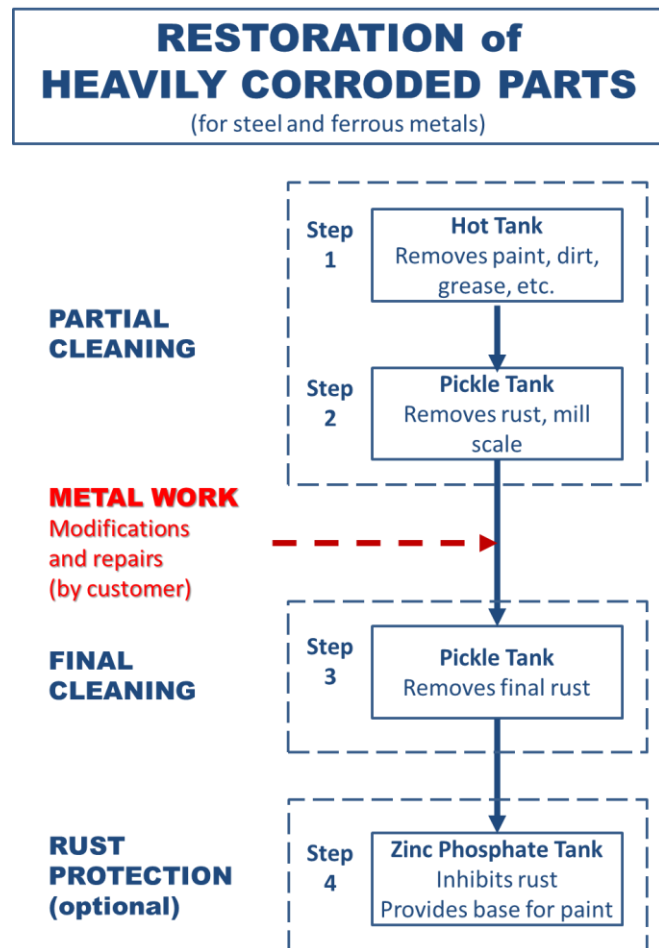
For parts that are heavily corroded or require repairs, the cleaning process is interrupted such that a **Partial Cleaning** is first performed, then **Metal Work** and repairs done, after which the metal is prepared for painting with **Final Cleaning** and **Rust Protection**.

Partial Cleaning – Metal parts undergo initial cleaning which removes paint, grease and rust. The cleaning process is stopped after completion of Step 2 (pickling).

Metal Work – The parts are returned to the customer who can then more easily see the degree of damage and corrosion, weld parts on, and make other repairs to the metal.

Final Cleaning – After metal work / repairs are complete, the parts are returned to Redi-Strip for Step 3 where they undergo a second pickling treatment.

Rust Protection – Phosphating may be done as a final step to protect parts from further rusting; after which, the metal is ready for priming, filling and painting.



Partial Cleaning is the First Step!

Partial Cleaning

Step 1. Hot Tank – Steel parts are immersed in hot caustic solution to remove paint, dirt and grease.

Step 2. Pickling Tank – Steel parts are immersed in an inhibited acid solution to remove surface corrosion, rust and mill scale. The metal is now ready for inspection and repair.

Metal Work (by customer)

Steps 1 and 2 complete the Partial Cleaning. Any metal work such as welding or repairs is best done now. **The steel is NOT ready for paint.*

Final Cleaning

Step 3. Pickling Tank – A second immersion of the steel parts in inhibited acid removes any final rust or surface corrosion.

Rust Protection

Step 4. Zinc Phosphate Tank (optional) – Phosphating provides corrosion protection and results in superior paint adhesion. Parts are now ready for paint. **Note: Etching primers must NOT be used on a Zinc Phosphate surface.*

THE BENEFITS OF PARTIAL CLEANING

Partial Cleaning lets you get the best quality restoration for your car!

◆ **Easy Inspection and Interim Metal Repairs** – Partial Cleaning exposes the metal so that your restoration crew can quickly identify areas needing repairs and perform the metal work before returning parts for Final Cleaning.

◆ **Reduced Contamination** – All metal repairs should be done before Final Cleaning. Doing otherwise contaminates the metal surface with weld splatter, oil and grime; additionally, any areas of repaired metal will not have the same rust protection and paint adhesion properties as fresh phosphated metal.

◆ **Elimination of Corrosion Hot Spots** – By doing a Partial Cleaning first, any required metalwork next, and then finishing with Final Cleaning and Rust Protection, your automotive parts will have consistent and continuous surface properties, minimal surface contamination, and less chance of “corrosion hot spots.”

THINGS TO REMEMBER WITH PARTIAL CLEANING

1. Partial Cleaning does not extensively clean all rust, dirt and chemical residue from seams and joints. Final Cleaning is required to remove any remaining rust, dirt and residue.
2. A Partial Cleaning prepares the automotive part for welding and other metal repairs — NOT painting or filling.
3. If replacement panels are painted, send them to Redi-Strip for paint removal before welding them to the vehicle body.
4. For Final Cleaning, parts must be returned clean with NO primer, NO body fillers and NO heavy corrosion (light surface rust is acceptable).
5. If parts have primer and/or filler on them when returned for Final Cleaning, a surcharge will be added.

Services Offered

Redi-Strip Metal Cleaning specializes in metal cleaning, pretreatment and finishing. The *One Stop Shop*, Redi-Strip completes each part of the auto restoration process in-house thus saving you time and money.

Automotive and metal parts can be transformed into finished pieces of lasting quality with the following Redi-Strip services:

Cleaning – Metal parts are cleaned of grease, paint and coatings by immersion in tanks of chemical solution or by media blasting.

Rust Removal – Rust is removed by pickling in inhibited acid solution or by media blasting.

Metal Substrate Coating – Freshly cleaned steel is protected from corrosion and prepared for painting with phosphate conversion coatings. Stainless steels are cleaned and protected from selective oxidation by passivation.

Painting – Parts can be primed immediately after cleaning and painted in-house, thereby minimizing corrosion and surface contamination of freshly cleaned metal.

Metal Cleaning, Pretreatment & Finishing			
Function	Service	Options	Notes
Chemical Cleaning	Degreasing	• Hot Tank	• Removes oil, grease • Removes paint, coatings
	Stripping	• Hot Tank	• Degreases • Removes paint, coatings
	Pickling	• Pickle Tank (inhibited acid)	• Removes rust, mill scale
Blast Cleaning	Media Blasting	• Wide choice of abrasive media	• May thin metal • Profile for paint adhesion • Fast, economical
Corrosion Protection	Phosphate Coating	• Zinc Phosphate • Manganese Phosphate (Parkerizing)	• Provides base for paints • Corrosion protection • Parkerize to add anti-galling properties to metal surfaces
Finishing	Painting	• Priming • Painting	• Best to prime ASAP after cleaning

Chemical Cleaning

Chemical cleaning is a non-destructive means for cleaning metal. Parts are degreased, stripped of paint and coatings, and cleaned of rust and corrosion by submerging the parts in chemical baths.

For best results, all parts should be completely dismantled as this allows for easier removal of paint, rust and residual chemicals than from parts that are fastened together. The greater the expanse of exposed metal, the more effectively chemical solutions can strip the parts and the more thorough the cleaning process.

HOT TANK STRIPPING

Steel parts are submerged in a hot caustic bath to remove paint and grease. This submersion ensures all hidden areas such as seams, rolled edges and boxed channels make contact with the stripping solution.

Note: Aluminum ID tags and aluminum fasteners must be removed from mild steel or stainless steel parts before immersion in the Hot Tank.

COLD TANK STRIPPING

Aluminum parts and pot-metal castings are stripped in a cold bath. These types of material must be kept separate from steel body parts as they will dissolve in chemical baths used for steel.

HAND STRIPPING OF UNDERCOATING

Undercoating is stripped by hand. Save time and money by removing the undercoating yourself.

RUST REMOVAL (PICKLING)

After steel parts are free of paint, grease, dirt and undercoating, the next step is rust removal by immersion in an inhibited acid pickling solution. Pickling removes rust, corrosion and mill scale from steel, easily revealing the good metal remaining. Like the degreasing and paint-stripping baths, the pickling bath gets into all the hidden areas of the submerged parts.

PRESSURE WASHING

After each chemical bath parts are thoroughly rinsed with pressure washers where special attention is paid to seams and channels to ensure parts are rinsed free of residual chemicals and contaminants.

Deionized Water Final Rinse – As an option, the final rinse may be done using 1-micron, filtered, deionized water. This extra-clean water helps remove salts and contaminants more efficiently and is part of the same procedure used for cleaning pipe to high standards such as required in cleaning parts for oxygen service.

Blast Cleaning

Media Blasting or blast cleaning with dry media is often faster and more economical than chemical cleaning for removing paint, coatings or corrosion from metal. Redi-Strip can blast to the factory surface (bare metal) or lightly clean and profile for paint adhesion.

A wide range of media is available to dry-strip most materials including steel, aluminum, special alloys, galvanized metal, alclad, plastics, fiberglass, urethane rubber, wood, etc. Mil spec media can be used for blasting to certified surface preparation standards. Base coatings such as alodine, anodizing and phosphates can be left intact or removed. So too for fiberglass gel coats and fillers. Some plastics and fillers will be lightly etched.

Depending on the extent of dry stripping desired, automotive bodies can be left pre-assembled thus saving time and shop space.

Phosphate Coating

For superior paint adhesion and under-paint corrosion protection, phosphating of freshly cleaned ferrous metal parts is highly recommended. By immersing parts in a phosphate bath, molecules on the surface of the metal are electro-chemically converted into a layer of insoluble phosphate crystals. This non-conductive crystalline coating on the entire surface of the part reduces further electrochemical activity such as rust or oxidation.

Some benefits of phosphating are:

- Superior paint adhesion.
- Superior protection against under-paint corrosion.
- Superior corrosion resistance when using waxes or rust-inhibiting oils (also known as "Phosphate and Oil" or P&O coating).
- Superior break-in for friction bearing surfaces (especially useful for liners of large rebuilt engines, gears, shafts, pinions, etc.).

Redi-Strip offers two phosphate coating services:

1. **Zinc Phosphate** – Zinc Phosphating provides rust-proofing and a base for paint or other coatings. The coating is typically light-gray with a matte or non-reflective surface and fine crystalline grains.
2. **Manganese Phosphate (Parkerizing)** - Parkerizing is the accepted standard for improving surface lubrication of ferrous metals while also providing surface corrosion protection. The oil-absorbing coating produced (Mohr 5) reduces wear and galling by minimizing metal-to-metal contact.

Parkerizing improves thermal stability of subsequent coatings over other phosphate coatings and is usually used on gears, pinions, shafts, liners, drilling rig collars, firearms and other friction-bearing parts. Conversion coatings are generally thicker than those from zinc phosphating, and the crystals have a dark-gray or black finish.

Handling Instructions for Phosphated Parts

Gloves - Do not touch pieces with bare hands. Wear clean, lint-free gloves.

No Tarps – Do not cover items with plastic or tarps (except for protection during transport). Condensation can trap under the plastic, absorb NO_x and/or SO_x from the air and form acids, which attack the phosphate coating.

Avoid Freezing – Store phosphated parts in a dry space that does not freeze to avoid condensation.

Short-Term Protection – Cover the parts with cloth sheets, especially if parts cannot be primed by the next day. The cloth will protect the parts from airborne particulate contaminants.

Minimal Contact – Do not sand, buff, rub or disturb the phosphate surface needlessly.

Lacquer Thinners – Do not wipe the surface with lacquer thinners. If you must wipe off any dirt, oil, etc., use oil-free thinners only or acetone.

** Note: Most thinners have some oil content. This oil will be absorbed and held by the phosphate coating even after wiping and evaporation of the thinner. Paints do not adhere to an oily surface.*

Flash Rust – Do not try to rub away small amounts of flash rust. Rubbing flattens the phosphate crystals and reduces the quality of paint adhesion. If your phosphated part has excessive amounts of flash rust, try test-wiping a small area lightly with an inhibited “Metal Prep” before doing a larger area.

Primers – Do not use etching primers or vinyl wash primers. The metal has already been prepared for painting by the Zinc Phosphate process.

Fillers – Do not apply body fillers directly to a zinc phosphated surface. Instead, prime zinc phosphated parts PRIOR to applying any body fillers so that there is less chance of damaging or removing the phosphate coating when sanding out body fillers.

Priming, Filling and Painting

Prime first, fill, then paint. For best results, auto bodies and metal parts should be primed right after cleaning as freshly cleaned and unprotected metal will immediately start corroding and surfaces become re-contaminated.

- Do not apply body fillers directly to a zinc phosphated surface.
- Prime zinc phosphated parts BEFORE applying any body fillers.
- Do not use etching or vinyl wash primers on zinc phosphated metal.

Redi-Strip Metal Cleaning Canada Ltd.

Redi-Strip Metal Cleaning is a world class metal cleaning, pretreatment and finishing facility in Delta's Tilbury Industrial Park near Vancouver, Canada.

Since 1978, Redi-Strip has provided quality service to a wide range of industries including aerospace, oil and gas, mining, pulp and paper, electronic, medical, military, utilities, marine and automotive.

The company's 35,000 square foot state of the art facilities include a variety of large chemical tanks, two blast booths, two paint booths, pressure washers, coating curing facilities and lifting capabilities to 30,000 pounds.

Redi-Strip specializes in:

- Non-destructive paint stripping, degreasing and rust removal.
- Media blasting with various media to dry-strip all types of materials.
- Metal substrate coatings to provide a base for paints, corrosion protection and anti-seizing properties to metal.
- Priming, painting and curing of coatings.
- Other finishing options such as oil coatings, cleaning for oxygen-, chlorine- and other services to customer specifications and international standards.

Redi-Strip is ISO 9001:2008 certified and Controlled Goods Program registered.

Contact Us!

Redi-Strip would be pleased to be your metal cleaning and automotive restoration specialist. Contact us to discuss your requirements or to arrange a facility tour for your auto club or organization.

REDI-STRIP THE ONE STOP SHOP

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