



### Ar-Tech Coating Ltd. Southern Alberta's Leading Applicator

Ar-Tech Coating Ltd. was founded in 1989 by Arne Sorensen. Since those humble beginnings in Taber AB, Ar-Tech has grown to be the largest applicator of protective coatings and specialty paint products in Southern Alberta.

Todays demanding regulatory and operating environments in the Oil and Gas, Chemical / Fertilizer industries, and Water / Waste Water facilities require sophisticated coating materials applied in a safe and environmentally compliant manner so these assets achieve their engineered life cycle and return on investment.

- Our professional applicators keep pace with the latest developments in Coating Technologies, and the
  equipment and conditions for applying them. Ar-Tech operates at the highest standards in the
  industry, with investments in the latest equipment and facilities, to support our Customers in ensuring
  their projects achieve target results.
- With our modern shop facilities, Ar-Tech can handle projects year round. Climate controlled, special purpose buildings are capable of housing your largest projects and ensuring optimal process conditions.
- Ar-Tech has a well equipped fleet of field service vehicles and is ready to support your Field Operations. Turnarounds or short lead time maintenance, it doesn't matter.......... Ar-Tech is the professionals choice and "Where Service Comes First".



Ar-Tech application professionals



# **Our Mission**

# Ar-Tech Coating will deliver to our customers reliable, cost effective and high quality work.

#### **Objectives**

Our objectives are to continue to provide customers with industry leading levels of service, quality and value.

#### Commitment

We are committed to understanding our customers' needs and to exceed their expectations with the timely provision of quality workmanship and services. With consistent and capable leadership, we seek to ensure long term, supportive relationships between our customers, vendors and employees. By encouraging co-operation and creativity, we are committed to building a business based on employee involvement, training and development within a safe and healthy work environment.







# Why Choose Ar-Tech Coating Ltd?



- Ar-Tech has been in business for over 25 years and has developed a reputation for high quality work. Ar-Tech stands behind its service.
- Ar-Tech holds the line on prices by improving our process technology and cost control. NOT by taking chances or shortcuts on jobs.
- Ar-Tech strives for continuous improvement in all aspects of its operations including safety and training. Ar-Tech belongs to a number of industry associations which provide us with up to date standards and practices.



# **Quality Coating**

### Preserving your Assets and Leaving Nothing to Chance

Ar-Tech is a specialist in the application of Internal and External Coatings and Paint. Corrosion costs industry and consumers billions of dollars, whether it be infrastructure, plant or equipment. Our results are measured by the extent to which your assets achieve their designed life and our ability to eliminate any chance of premature coating failure. After 25 years of service, Ar-Tech has proven that we can deliver these results.

Coating failure can occur for many reasons but they can be grouped into five categories:

- 1) Incorrect Coating Selection
- 2) Poor Surface Preparation
- 3) Error in Application/Curing or Mixing of the Coating
- 4) Manufacturer Formulation Error
- 5) Faulty Equipment Design or Operation

Ar-Tech gets the call to remedy field failures caused by inexperienced applicators. Ar-Tech can mitigate the first three reasons due to our experience and understanding of the many details that contribute to coating success:

- Ensuring proper due diligence in coating selection.
- The importance of Surface Preparation and how contamination can cause Blistering and Delamination. A white blast alone can not eliminate salts and it is necessary to clean and test for them.
- Achieving proper mil thicknesses is crucial. Too thin of a coat, may cause through film breakdown and pinpoint corrosion.
- Excessive thickness will create internal stresses and crack, especially when applying epoxies. Insufficient curing occurs as the coating exterior cures faster, creating a skin that entraps solvent leading to early failure.
- Sharp edges, welds, blind areas, and protrusions are common areas for coating failure and require appropriate finishing and application.



Coating has cracked due to inadequate cure, coating thickness.



Ineffective tank repairs lead to further deterioration and pitting



Corrosion and pitting in a tank shell



Coating exhibiting spot corrosion



Coating delamination due to insufficient surface preparation or improper coating specification

## Surface Preparation & Abrasive Blasting Laying the Foundation for Coating Excellence

Ar-Tech follows SSPC/NACE Standards, manufacturers coating guidelines and customers specifications to ensure correct surface preparation.

Critical aspects of surface preparation are substrate cleanliness and freedom from salts, mill scale, oils, and other chemicals. The precise cleaning method used is determined by the types of contaminants.

Abrasive blasting remains one of the most effective methods for preparing surfaces for coating. The SSPC and NACE standards outline the industry guidelines. Abrasive media selection, lighting, temperature, use of compressed air which is dry and oil free are all blast parameters that impact the eventual suitability of the substrate for coating.



Ar-Tech's Compressor Room produces "quality" air that is dry, and filtered free of oil and contaminants.





Coatings typically require blast surface finish of SSPC-SP5. The coating manufacturers will also specify a certain surface profile, which is largely media dependent, to ensure coating adherence to substrate.

Ar-Tech monitors these variables for each job to ensure process reliability. These records are kept on file and released to the Customer upon request to comply with their traceability or quality systems.



The pressure vessel pictured on the left was prepared to a blast finish of SSPC-SP5 internally and SSPC-SP6 externally. The same criteria applies to the complex areas such as the nozzles, grating, manway and baffles.

Ar-Tech is an experienced partner for completing jobs which will be 3<sup>rd</sup> party inspected, particularly pressure vessels, tanks and pipes that carry harsh chemicals and are subject to regulatory oversight.

# Tank and Vessel Coating

### Assisting in the Safe and Productive Operation of your Assets



Ar-Tech has amassed considerable application experience with a wide variety of materials including epoxies, urethanes, glass and metal filled coatings. Need support with a project? Ar-Tech can provide insight to solutions based on our 25 years of project history and access to leading experts.

Low VOC, high solid and fast curing coatings require specialized equipment. Ar-Tech makes the necessary investments to stay at the industry forefront for the benefit of its Customers.

Coating failure in the field will be expensive. Factor in downtime costs, lost production and potential liability and an inadequate coating job does not make sense.

Trust Ar-Tech professionals. Customers can be confident in the training and expertise of our coating teams. Trained to work safely with quality in mind the end result will be a product finished to NACE standards.

Attention to detail is critical to ensuring coating integrity. Brackets, welds and supports prove challenging if not properly prepped. Hard to reach or inaccessible areas are susceptible to low/high coating or holidays, especially in confined spaces.

All of our Tanks and Vessels are inspected by in-house NACE certified personnel to assure coating thickness and that it is contaminant and holiday free. Ar-Tech offers a 2 year warranty on all Tank, Vessel and Pipe coating. It's a warranty we stand behind and to which our 25 years of service can attest.



Coating thickness verified through mil checks

## **Pipe, Spool and Riser Coating** Assuring the Integrity of your Fluid Systems







Ar-Tech has purpose built facilities and equipment for the coating and curing of pipe, spools and risers for Chemical, Water and Oil & Gas installations. Preparation for internal coating includes the evaluation of welded joints for proper finish. We target a consistent holiday free coating throughout the internals including bends and flange junctions. Our larger climate controlled coating shop is complemented by an additional curing box capable of higher temperatures to reduce cure time.

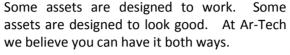
Diameters from 2" and up can be coated. Multi-flanged spools with bends or large risers can be coated and it's the Customers option to have them painted by Ar-Tech in-house or have them supplied primed and ready for field paint. All our pipe come with the Ar-Tech 2 year warranty.





## Industrial Painting Protection of Assets and Image





From drilling rigs to utility trucks, pipe to tanks....we have the paint system to ensure durability and appearance. Ar-Tech uses high performance polyurethane, epoxy or enamel paint coatings. Our paint application professionals know the difference between a paint finish. Our Customers finish on their field installations to look great and they want it to last.





Keeping up with the latest equipment and paint system developments in the marketplace benefits our Customers with tailor-made solutions that can fit their budget. Low VOC paints not only benefit the environment but provide safer working conditions for everyone.





www.artechcoating.com

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# Facilities

### Purpose Built for Year Round Work on your Largest Projects



Ar-Tech constructed its facilities with two things in mind;

- 1) create optimal coating & painting environments,
- 2) large scale for handling the big jobs that are customary in our market.

Ar-Tech made this investment because barns and multi-purpose shops are not conducive to professional results.

Dry conditions are crucial for blasting. Post blast the clock starts to tick on the next step in the process. There is a short window, less than a working day, until rust blooming begins.

Substrate and ambient temperatures and humidity have to be controlled to attain the best possible coating conditions. Air temperature, steel temperature, humidity and dew point are readings that are all monitored and recorded as part of our quality system. Ar-Tech's buildings rely on in floor radiant heating and sophisticated ventilation to optimize conditions.





Ar-Tech's Environmental Control System



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# Field Work Bringing it to our Customers





Ar-Tech is ready to bring it..., any time of the year, whether it is on-site construction, a turnaround or unexpected maintenance. Our fleet includes 900 CFM high pressure, single and multi-personnel blast units with large capacity hoppers for running non-stop.

Our field experience is instantly recognized when our professionals show up on site, ready to work, with no delays. They understand the situation right down to how the weather is going to impact that days activities. They will be familiar with and certified to your site safety standards and have all of the equipment necessary to complete the job.





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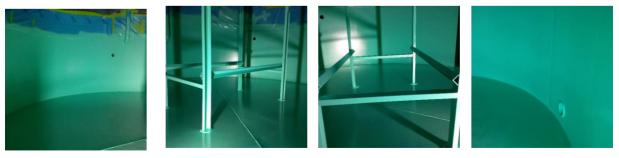


# Application

The coating solution selected was Enviroline 2405, a high solids thick film epoxy designed for rapid cure in petrochemical industry applications. The heavy build of this product (16-25 mils) provided additional assurance that a holiday free coating could be achieved after one application despite pitting on the tank floors. Target mils were 15-20 on the walls and 20-25 on the floor.

Ar-Tech professionals were able to white metal blast, mask and coat a tank in one day. The second day consisted of inspection/repair and cure. The first tank was put into service as scheduled.

With a plan to work concurrently, Ar-Tech was able to complete all three tanks in 5 days, rotating a six man crew between 2 sites and maintaining round the clock heater watch.





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