



YOUR SPECIALTY  
INDUSTRIAL &  
ENVIRONMENTAL  
SERVICES PROVIDER



EXCHANGER SERVICES



## SERVICES

- Blinding of Exchangers
- In-Situ Exchanger Cleaning
- Pulling Bundles/Exchangers
  - Aerial Bundle Extraction (15 to 60 ton)
  - Remote Controlled/Self-Propelled (up to 60 ton)
- Transportation of Exchangers
- Cleaning of Exchangers (Internal & External)
- Ultrasonic Cleaning
- Inspection & Identification of Repairs
  - Non-Destructive Examination (NDE)
- Repair of Exchangers
  - Welding, Machining & Fabrication of Cover Plates, Bell Heads, Channel Heads, Floating Heads & Tube Sheets
- Full & Partial Re-Tubes
- Sandblasting & Coating
- Heat Treatment
- Tensioning/Torquing
- Hydro of Exchangers
- Turnover Documentation



## EXCHANGER SERVICES

CEDA offers complete blind-to-blind exchanger services from cleaning, repair and inspection to preservation and storage. Using state-of-the-art extraction and cleaning technologies, we are able to provide more efficient and cost-effective exchanger solutions. Our experience and expertise ranges from on-site at our client locations to off-site at one of our owned and operated facilities.

### ADVANCED ULTRASONIC CLEANING TECHNOLOGY

CEDA's advanced ultrasonic cleaning technology uses high-frequency sound waves to create microscopic cavitation bubbles that remove fouling, deposits and contaminants from intricate exchanger surfaces. This method is highly effective on tube bundles and sensitive materials that benefit from a non-abrasive but extremely thorough clean.

- Penetrates complex geometries and tight tube bundles.
- Non-abrasive cleaning protects metallurgy and coatings.
- Reduces cleaning time and improves throughput.
- Ensures consistent, repeatable cleaning quality.

# Exchanger Cleaning, Repair & Inspection Process

## 1. CLIENT ENGAGEMENT

Upon notification of required services, CEDA works with you to determine the best solution for transportation, cleaning, repair and inspection of the exchanger(s). This includes a detailed proposal outlining all activities including your requirements, and a timeline for services and costs.

## 2. RECEIVE FROM CLIENT/TRANSPORTATION

After acceptance of CEDA's proposal, we will begin to execute the required scope. If the scope is to be completed on-site, CEDA will use on-site teams to begin the process. If the scope is to be completed off-site, CEDA will work with your logistics team to organize scheduling requirements including transportation to CEDA's facility.

## 3. CLEAN EXCHANGER

Once the exchanger is handed over to CEDA, a complete visual inspection for acceptance will occur. During this stage, any visual deficiencies on tubes or gaskets will be identified. Cleaning of both the OD and ID will be completed at this stage using CEDA's specialized equipment.

## 4. CLIENT QA/QC INSPECTION

When the cleaning of the exchanger is complete, your QA/QC team will complete an inspection for acceptance.

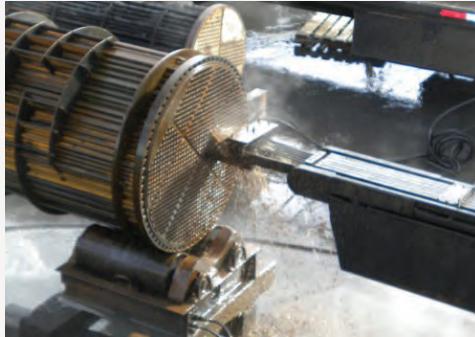
## 5. REQUIRED REPAIRS

As soon as the QA/QC inspection is done, any repairs identified will be completed. A third-party Non-Destructive Examination (NDE) company does the final inspection, which is verified by CEDA's quality control team and your quality assurance personnel.

## 6. TURNOVER TO CLIENT

Upon completion, you will receive a turnover package including all pertinent information relating to the specific exchanger and components.





## CERTIFICATIONS

CEDA maintains Provincial Certificates of Authorization for Construction, Repair and Alteration of boilers, pressure vessels and piping in:

- Alberta (ABSA)
- British Columbia (TSBC)
- Saskatchewan (TSASK)
- Ontario (TSSA)

Additionally, CEDA holds the following certification:

- APEGA Permit to Practice

CEDA's ASME Welding Procedure Library includes over 90 WPS's for a variety of processes (SMAW, GTAW, GMAW, FCAW, SAW) and materials (ferrous and nonferrous).

## OFF-SITE SERVICES

CEDA owns and operates exchanger facilities to support the cleaning, repair and inspection of bundles during regular maintenance activities and turnarounds. We are able to manage multiple bundles concurrently, 24 hours a day, 365 days a year. In addition, we have the capacity to store and preserve exchangers for any duration, including wrapping to protect exchangers from the elements.



Specializing in  
industrial maintenance,  
turnaround and  
environmental services.



**In a complex and ever-changing world, we're the ones who get it done. CEDA is where resourcefulness meets inventiveness, where experience meets innovation and where challenges inspire world-class solutions. With over 50 years of hands-on experience, our skilled workforce takes on the toughest industrial projects with determination, ingenuity and a results-driven approach—always with safety at the forefront.**

We help industries thrive by delivering reliable industrial and environmental services that maximize production, mitigate risk and prevent costly outages. Powered by cutting-edge technologies, CEDA provides more than 120 specialized services and cost-effective solutions across North America, creating exceptional value for our clients.

**CEDA PROVIDES INTEGRATED SOLUTIONS FOR:**

### Environmental Services

As an industrial maintenance, turnaround and environmental services provider, we are committed to helping our clients progress their environmental, social and governance (ESG) initiatives. We partner with our clients to keep their critical assets in the best operating condition to minimize adverse impacts to the environment and to use resources efficiently.

### Operations & Maintenance

CEDA offers a wide range of comprehensive operation and maintenance services focused on the breadth of mechanical and industrial cleaning activities. Our experience and footprint across Canada has resulted in effective strategies to address the ever-changing needs of our clients. We are capable of working onsite as well as providing maintenance and repairs to live operating units in a safe and timely manner without unplanned disruptions.

### Turnarounds & Outages

CEDA has the experience and expertise to support the supply and management of integrated turnaround and outage related services including mechanical, chemical cleaning, pressure and vacuum, fabrication, heat exchanger cleaning and repair, or any combination thereof. We support the most demanding schedules with multiple dayshift and nightshift crews in various locations.

### Capital Projects

CEDA is a complete service provider for capital project activities from off-site fabrication of piping, pressure vessels, modules, and packaged equipment to site installation, commissioning and startup. What sets CEDA apart is our ability to provide multiple mechanical and industrial cleaning services, therefore, limiting the number of subcontractors.

### Commissioning & Startup

CEDA's pre-commissioning, commissioning and startup services for new build or facility expansion projects are multi-disciplinary, where we interface between construction and operations to verify work based on project specifications. We manage the relevant punch list across hydro-testing, cleaning, commissioning and remaining mechanical activities. CEDA is able to complete the static testing of equipment up to the issuance of ready for commissioning certificates.



## Integrated or Stand-Alone

CEDA's service and product lines work as an integrated offering or independently.

### CEDA'S CORE SERVICES & PRODUCTS

-  PRESSURE, VACUUM & FLUID TRANSPORTATION
-  CHEMICAL CLEANING
-  TANK MAINTENANCE & CLEANING
-  PIGGING & DECOOKING
-  EXCHANGER SERVICES
-  MECHANICAL & FABRICATION
-  MANUFACTURING & PROCESS EQUIPMENT
-  PROJECT SERVICES
-  TAILINGS MANAGEMENT & ENVIRONMENTAL SOLUTIONS

