



# TALAY TECH



**TECHNOLOGY  
QUALITY AND  
EXPERIENCE**

*We offer beyond standard service*



**TALAYTECH** | **ABOUT**

## Outstanding innovative solutions

- ▶ TalayTech is an innovative solution company that provides engineering, infrastructure, fabrication, construction, maintenance and repair services to the gas, oil, chemical, petrochemical and power market and industries.
- ▶ Our unique, innovative solutions distinguish us from our competitors. These innovative solutions incorporate custom fluid systems, integrated engineering, a "big data" way to complete the design, unique purpose-built equipment, and innovative perforating strategies.
- ▶ We offer quality guaranteed services to help support our customers with their most demanding challenges.
- ▶ With our broad knowledge and experience, TalayTech can offer our customers tailor-made solutions to meet their operational challenges and requirements.
- ▶ TalayTech offers 24/7 field and office support to deploy and run our innovative technology.
- ▶ We can support our customers using a wide range of innovative solutions in the oil and gas industry with our trusted partners.

## Our story

TalayTech is an excellent oil field service company that consistently provide cost-effective and intelligent solutions according to our customers' needs. Our foundation is built upon professional integrity and business ethics. It stands true for everything we do, including identifying the unique solution per our customer's requirements. TalayTech is not just the provider, but we are trusted partners. We go into the depth of internal expertise to find the right solution for our clients.

Reliability and quality are important when building the equipment and machinery for the oil and gas industry. If the machinery part fails, the process needs to be stopped, and the result can be expensive. TalayTech provides innovative and reliable solutions for smooth quality signal conditioning devices at short delivery times.

## Construction

TalayTech offers a wide range of industrial construction services to our customers; no matter what the size, we provide similar dedication for every project. On-time completion and high quality are our greatest priorities. We offer our clients the single-source responsibility regarding the completion of a construction project. Our expertise includes.

- ▶ Construction and modification of refinery and petrochemical units.
- ▶ Storage tanks and terminals for crude and refined products.
- ▶ Installation of process heater and package boiler.
- ▶ Installation and replacement of coke drums.
- ▶ Stacks, stack liners and air inlets/outlets.
- ▶ Precipitators and scrubbers.
- ▶ Construction, repair and power generation facilities.
- ▶ Other heavy industrial facilities.
- ▶ Steel structure

## Our Services

TalayTech provides a full range of services that can only be expected from major oil field services companies. We emphasize data analytics delivered during execution by utilizing real-time feedback. And the assessment of different variables boosts client return by providing productive and savvy hydraulic fracturing operations. It offers enhanced production results for our clients.

TalayTech has proved to be a reliable and trusted partner for the oil and gas industry. Our solutions and services help automate the work process in a well-monitoring and well-development process, empower cross-departmental collaboration for remote workplaces, guarantee data security and improve reporting and analytical facilities. Our services include.

- ▶ Construction
- ▶ Emergency Repair Services
- ▶ Aboveground Storage Tanks
- ▶ Engineering Strength
- ▶ Industrial washing and cleaning
- ▶ Tank Maintenance & Repair
- ▶ Fabrication
- ▶ Turnarounds & Maintenance
- ▶ Blasting & Painting

## Aboveground Storage Tanks

TalayTech is qualified, experienced, and offers quality work when it comes to aboveground storage tanks. We deliver the absolute best construction, maintenance and storage solution design. Talay Tech is committed to our client's success which makes us stand apart from our competitors. We are the professional tank maintenance and repair contractors who offer the resources, experience, quality and deliver your project on time within your budget. We provide the best

- ▶ Bottom tanks and cone roof tanks
- ▶ Knuckle and umbrella/dome roof tanks.
- ▶ The Stand Pipes.
- ▶ ASME pressure vessels.
- ▶ Sloped/dished bottom tanks.
- ▶ LNG tanks
- ▶ Vacuum chambers.

## Emergency Repair Service

When a problem strikes, you can rely on TalayTech to get your facility and equipment up and running. Regardless of whether your job site, plants or facility has suffered harm due to natural disasters or man-made incidents, our professional and skilled employees are available 24/7 to help you get back on track.

## Engineering Strength

TalayTech has the best engineer across different disciplines, so we can provide high standard service. Disciplines incorporate mechanical, electrical, civil and structural, instrumentations and controls, plates and shells, process and project engineering.

We dominate in project discipline with services ranging from project management to project welding and estimating. Our service includes.

- ▶ Front-end engineering and design.
- ▶ Conceptual design and feasibility studies.
- ▶ Control system automation.
- ▶ Detailed designs.
- ▶ Facility inspection and assessment.
- ▶ Welding engineering
- ▶ Construction management
- ▶ QA/QC services
- ▶ Seismic preparedness and recovery
- ▶ Dust hazard analysis

## Fabrication

TalayTech has completely prepared fabrication facilities to support your refining, power, petrochemical, and heavy industrial needs regardless of where your projects are. Expertise in structural steels, steel plates and vessel fabrication, we have everything to accommodate your fabrication requirements.

As an industrial contractor, our broad fabrication capabilities, joined with our multidiscipline construction specialization, provide reliable work for our customers' project needs. Our comprehensive technical standard allows us to deliver high-quality projects.

## Industrial Cleaning

TalayTech provides complete hydro cutting, hydro blasting, chemical cleaning, vacuum truck, products tank cleaning and exchanger bundle cleaning services. Our talented specialists make us the best industrial cleaning service provider.

We have expertise in abrasive water jet cutting, vessel, tank and tower cleaning and industrial vacuuming for dry and wet applications. Additionally, our professional experts offer sludge removal, condenser cleaning and ash removal and sulphuric acid tank cleaning for power industries.



## Tank Maintenance And Repair

Due to our commitment to our customers, we have procured the reputation as the best tank repair and maintenance contractor. TalayTech can expand the life and worth of your facilities with complete modification, maintenance and repair services that, includes.

- ▶ Double bottoms
- ▶ Tank cleaning
- ▶ Cathodic protection
- ▶ Floating and fixed roofs
- ▶ Leak detection system
- ▶ Floating roof seals
- ▶ Nozzles and manholes
- ▶ Walkaway platform and handrails
- ▶ Floating suction, diffuser, sumps and heat coils
- ▶ Fire protection
- ▶ Tank air raising and relocation service
- ▶ Gauge system

## Turnarounds And Maintenance

As a turnarounds and maintenance contractor, we provide a wide scope of turnkey services with your requirements in mind: improving efficiencies, reducing cost, increasing productivity and raising the standard of quality. TalayTech offers comprehensive maintenance services for chemical, petroleum, petrochemical, and power industries.

## Our Ethics Policy

TalayTech has adopted the principles that constitute its fundamental ethical values and establishes the basis of its code of conduct.

- ▶ Working honestly without prejudice and contending fairly.
- ▶ Acting in accordance with transparency, reliability, fairness and honesty in business relationships.
- ▶ Treating all workers honourably, respectfully and equally.
- ▶ Recognizing the diversity and fundamental rights of the individuals.
- ▶ Carrying out regulations and guidelines with the highest standard of health and safety.
- ▶ Obey the countries' laws and regulations where the company operates.
- ▶ Creating and maintaining a relationship on trust.
- ▶ 100 % confidentiality with all the business partners.

## Sustainability

TalayTech acquires the universally accepted declaration for the benefits of our planet and living beings. The declaration emphasizes the focus on human rights, environment, labour standards and anti-corruption. We strive for sustainability and betterment of the planet.

- ▶ Respect and support the protection of extensively accepted human rights.
- ▶ We ensure that our company is not involved in any kind of human rights abuse.
- ▶ We appreciate the freedom of choice and the compelling acknowledgement of the right to collective bargaining.
- ▶ Abolish all types of forced labour.
- ▶ We are against all types of child labour and make efforts to eliminate it.
- ▶ TalayTech is against all forms of discrimination at the workplace in respect of occupation and employment.
- ▶ Uphold the precautionary approaches to deal with climate change.
- ▶ Support the initiatives to promote environmental responsibilities.
- ▶ Support the development and utilize environmentally friendly technology.
- ▶ We are against all forms of corruption, including bribery and extortion.

## Our Team of Experts

Our employees are TalayTech's key competitive advantage. We provide a profound employee-centred culture with a history of offering safe and reliable services. Our experienced, highly trained, and motivated employees offer the best solution and service to the oil and gas industry. Innovation solutions are as effective as the people who operate and manage them. Our consistent success relies upon the talent and tenacious dedication of our employees.

At TalayTech, we have a team of local and global expertise, sharing the similar goal of energetic commitment, consistent improvement, firm morals and collaboration to convey the incredible outcomes. We value our diverse workforce from ground level to executive level. TalayTech's leaders carry with them an abundance of aptitude and functional experience from different countries.

Experienced professionals, technical specialists, and a highly trained, locally sourced workforce provide skilled and practical innovative solutions for the oil, gas, and power production market.



**TALAYTECH** **SERVICES**



We understand that effective partnerships are based on more than capability.

They're also about relationships – working together to get the job done right, as safely, quickly and cost-effectively as possible. That commitment to the customer shines through in how we manage every project – large or small. It's built into our culture and our business approach, and it's more than a promise– it's what we deliver, every day.

We offer a wide range of industrial construction services to our clients, approaching every project, regardless of the size with the same dedication to safety, quality and on-time completion. We take tremendous pride in our ability to exceed our client's expectations, which stems from our commitment to our employees and their commitment to doing the right thing every time.

TalayTech offers a single source responsibility for completing construction projects. We firmly believe that the success of every project depends on open communication and working closely with our clients in the development and planning stages. For this reason Talaytech provides expert, site-specific project teams to support projects from planning through completion. We strive to maximize the potential for cost savings and shorten schedules while maintaining our commitment to quality and safety.

Our expertise includes:

- ▶ Refinery and petrochemical unit construction and modifications
- ▶ Crude and refined product storage tanks and terminals
- ▶ Package boiler and process heater installation
- ▶ Coke drum installation and replacement
- ▶ Stacks, stack liners and air inlets/outlets
- ▶ Scrubbers and precipitators
- ▶ Power generation facility construction and repair
- ▶ Other heavy industrial facilities



When it comes to aboveground storage tanks, there's no one more qualified, experienced or dedicated to safety and quality than Talaytech. We've been hard at work for delivering the absolute best in storage solutions design, construction and maintenance. Our pride and commitment to your success makes us stand apart.

As a professional new tank and maintenance & repair contractor, Talaytech offers the experience, quality and resources to ensure that your project comes in on time, within budget and with an unwavering commitment to safety.

As a general contractor, Talaytech conforms to API, ASME, AWWA, NBIC and all other relevant standards, codes and regulations, as well as our own strict quality assurance and quality control policies and procedures. We offer Balance of Plant EPC capabilities performing all stages of work including:

- We offer the best in:
- ▶ Civil and site preparation
  - ▶ Foundations, mechanical
  - ▶ piping and structural
  - ▶ Tank design
  - ▶ Engineering
  - ▶ Fabrication
  - ▶ Erection
  - ▶ Cone roof and bottom tanks
  - ▶ Open top floating roof tanks
  - ▶ Internal floating roof tanks
  - ▶ Dome/umbrella roof tanks
  - ▶ Knuckle roof tanks
  - ▶ Sloped/dished bottom tanks
  - ▶ LNG tanks
  - ▶ ASME pressure vessels
  - ▶ Stand pipes
  - ▶ Vacuum chambers





Giving you maximum value from your assets by minimizing downtime. We get the job done fast - without interfering with your operations.

We guarantee that your asset will meet global safety demands and that it will be back in operation on schedule and budget - in better shape than ever.

We have the capability and capacity to deliver planned maintenance contracts and emergency repairs. We have invested significantly to ensure we have the latest facilities and equipment to provide a comprehensive range of services, both in-house and on-site. By developing rigorous processes and carrying out the work in house, we can ensure that we are in control of the most critical aspects of the repair process. You can be assured that your electro mechanical assets, large and small, are in the right place.



We provide industry-leading expertise in:

Aboveground storage, low temperature and cryogenic tanks and terminals  
Specialty vessels  
Silos and other bulk storage  
Natural gas processing  
Sulfur recovery, processing and handling  
Process plant design  
Power generation environmental controls and associated material handling  
Industrial power distribution design and engineering  
Electrical, instrumentation and controls / controls and automation  
Process heaters  
Material handling systems and terminals for cement, coal, sulfur, grain, fertilizer, mining and minerals

An EPC contractor, Talaytech employs the best engineers across multiple disciplines so that we can design to a higher standard. Disciplines include plates and shells; civil and structural; mechanical; process; electrical, instrumentation and controls; and project engineers.

An EPC contractor of choice, Talaytech excels in project disciplines too with services ranging from project management and procurement to project welding to estimating and cost controls.

Talaytech's services include:

- ▶ Conceptual Design and Feasibility Studies
- ▶ Front End Engineering and Design
- ▶ Detailed Design
- ▶ Control System Automation
- ▶ Facility Inspection and Assessment
- ▶ Construction Management
- ▶ Seismic Preparedness and Recovery
- ▶ Welding Engineering
- ▶ QA/QC Services
- ▶ Dust Hazard Analysis

and more.





No matter where your projects are, Talaytech has fully equipped fabrication facilities strategically located to service your power, refining, petrochemical or heavy industrial needs. Specializing in steel plate, structural steel and vessel fabrication, our shops are set up to handle your most demanding fabrication requirements.

Expertise	Material capabilities
ASME pressure vessels Scrubbers and absorbers Flare stacks and tips Shop built tanks Structural steel Process piping spools Modules Stacks/liners Component fabrication API shop fabricated tanks	Hastelloy Aluminum Carbon steel Stainless steel Duplex alloys Chrome Inconel

Metal services	Product Types
Plasma burn Beveling/rolling Breaking Shearing/sawing MIG/TIG/SubArc	Pressure vessels Towers and drums Piping and stacks Scrubbers and liners

### Turnkey Fabrication and Erection Services

As a full-service industrial contractor, our extensive fabrication capabilities combined with our multidiscipline construction expertise provide a reliable, single source for our clients' project needs. Maintaining comprehensive technical standards and stringent QA/QC procedures allow us to deliver consistent, high-quality projects every time.





Industrial cleaning operations form a core part of our services, whether we're deploying teams of confined space operatives to clean a storage tank or using specialist technology to remove sludge from a settlement lagoon. We are able to offer our services and carry out operations across the country.

We combine the experience of our team of consultants and operatives with innovative sludge removal and high-pressure jetting technology to provide a full range of services.

Our industrial cleaning teams are all trained and qualified to operate in hazardous locations, such as confined spaces to give you the peace of mind that when we carry out industrial cleaning for your organisation. It is carried out compliantly and with health and safety as our top priority.

Once a cleaning operation is complete, we can utilise our fleet of waste management vehicles to remove any waste liquids or sludge generated by the cleaning process. This waste can then be treated or disposed.

We are proud of our continuous service to the petroleum industry. We are committed to the best technology because experience tells us it boosts productivity, which enables your oil field operation to function smoothly. Our oil field services are in support of your goals and our customers tell us we are a trusted partner in helping hit the mark.



We're proud of the reputation we've earned for outstanding turnaround and outage services safely meeting demanding schedules and tight budgets.

We have the experience to execute multiple turnaround projects of varying degrees of complexity, ranging from a single unit to an entire plant. Our turnarounds are executed by an experienced team of project managers and field supervisors who expect the unexpected and solve problems through constructability/design reviews, planning, project controls, appropriate staffing, equipment and material procurement, outsourcing and subcontractor management.

We provide our personnel with the most advanced specialty equipment to safely minimize cost and maximize time savings, including truck mounted bundle extractors, tube rolling equipment, aerial extractors, lifts, straddle carriers and other specialized equipment.

Our project teams specialize in large project mechanical repair and maintenance of units, such as FCCU and coker revamps involving heavy lift top head/cyclone replacements, coke drum repairs and replacements and the installation of coke drum heading devices and valves. We understand the critical nature of turnarounds and the need to safely and effectively manage these projects, ensuring an on time and leak free startup. Our personnel is committed to providing outstanding service, while searching for innovative ways to improve quality and productivity safely.



**TALAYTECH** | **PORTFOLIO**





Sandblasting & Painting









# Installation





Talaytech's activities are undertaken with integrity, responsibility and respect for the environment and the community in which these activities take place. This entails conducting operations in an ethically and practically sound manner that minimises risks and places high priority on the safety of those involved in Talaytech's operations.

Talaytech is committed to:

- ▶ Comply with all applicable Health, Safety and Environment (HSE) laws, regulations and standards and to apply responsible standards where legislation is inadequate or does not exist.
- ▶ A systematic framework of hazard identification and risk assessment through which safe operations can be managed.
- ▶ Develop effective HSE management systems to identify and manage risks associated with its activities by focusing on risk avoidance and prevention.
- ▶ Establish accountability and responsibility for HSE within organisational line management.
- ▶ Provide training, equipment and facilities necessary to maintain a safe and healthy worksite.
- ▶ Support environmental protection, practice pollution prevention, and seek viable ways to minimize the environmental impact of operations, reduce waste, conserve resources and respect biodiversity.
- ▶ Protect and minimise any harm to the environment in our activities, and continuously focus on improving our environmental procedures.
- ▶ Monitor and review our HSE policies and procedures on a regular basis to ensure suitability and effectiveness.
- ▶ Ensure that partners and contractors' policies are compliant with our own standards, and recognise that all working on our behalf can impact our operation and reputation and that we all share a common responsibility for our safety.

We recognize that providing and integrating a sound environmental, health and safety program into our business is key to our success.

**TALAYTECH**

**WORKSHOP  
SERVICES**



Steady growth has been achieved over the years, based on a reputation of quality and reliability. Our in-house teams include all of the estimators, designers, draughtsmen, project managers, fabricators, welders and steel erectors that we require to successfully service our customers.

The company management is fully committed to continual development, training and improvement. All of our services are compliant with current legislative and quality standards. Our design and detailing departments utilise the latest software packages and our workshop and site staff are fully trained in all aspects of the industry, from health and safety to welder coding.

It's important to understand how structural steel structures are designed before assembling them together.

Our estimating department offer a very quick turnaround to enquiries and our directors are always happy to meet clients to discuss project requirements. We provide a comprehensive one-stop service including design, detailing, fabrication and erection of steelwork on site. We also provide metal floor decking, netting, roof and wall cladding and edge protection. Our industry experience is vast and ranges from small stairs and balustrades to complex and multi-storey steel frames.



### Process & Uses?

Steel Industry is essential to almost every phase of modern life and also a powerful part of the economy. We can see some of the prominent trends related to the implementation of new and advanced technologies. Comprehensive, advanced machining technology is encouraging governments, manufacturers, and other businesses to rely on steel for their projects.

So, let us understand, in particular, the Structural Steel Fabrication – the Process & Its Uses!

Steel Fabrication is the making of metal structures through cutting, bending, and assembling means. Steel Manufacturers create machines, parts, and various structures through raw materials & multiple processes.





## Processes

The process involves Cutting that includes Sawing, Shearing, or Chiseling & then moving to another method called Torching. We require handheld torches (such as oxy-fuel torches or plasma torches); and numerical control (CNC) cutters (using a laser, mill bits, torch, or water jet) also in this process.

**Bending** is the next step achieved by hammering (manual or powered); even press brakes & tube benders help to turn the Steel. New Metal Fabricators also use press brakes to air-bend metal sheets into form. Through CNC, they place bend lines in specific positions.

**Assembling** is the next step achieved through welding, binding wires, riveting, threaded fasteners & even through crimped closures.

## The Regular Steel fabrication elements are:

- ▶ Plate Metal
- ▶ Formed and expanded metal – Tube stock
- ▶ Welding Wire/ Rod
- ▶ Casting

## Structural Steel Fabrication is a multifaceted process involving a series of steps, which include:

- ▶ Surface cleaning
- ▶ Cutting and machining
- ▶ Punching and Drilling
- ▶ Straightening, bending and rolling
- ▶ Fitting and reaming
- ▶ Fastening
- ▶ Finishing
- ▶ Quality control
- ▶ Surface treatment
- ▶ Transportation



**Below-mentioned is some of the benefits of Structural Steel Fabrication:**

**Durability** – Steel possesses some fantastic features of being durable, corrosion-resistant, and tensile. Also, being lightweight & higher in strength, it is an excellent option for construction.

**Adaptability** – Steel is exceptionally adaptable and flexible. Through the welding process & metallurgical properties, Steel forms any shape and size.

**Affordability** – Structural Steel is much affordable than other metals such as copper, silver, gold, aluminum, and magnesium. Even while installing after fabrication, it offers increased efficiency saving both money and time.

**Safe** – Steel fabricators coat Structural Steel with a fire-resistant material making it highly resistant to fire. It is also water-resistant & can withstand storms and earthquakes if appropriately built.

**Recyclable** -Structural Steel is easily recyclable, again making it a fantastic environment-friendly option.



Storage tanks are designed and constructed according to API 620 (low pressure) and API 650 (atmospheric). Other international norms may also be taken into account. The capacity of conical roof, dished and floating roof tanks reaches up to 1,000,000 barrels.





Propane, LPG, ammonia, ethylene, chlorine etc. Sphere tanks for storage are within the scope of our production. To date, spherical tanks with capacities ranging from 500 m<sup>3</sup> to 7.000 m<sup>3</sup> have been manufactured and installed. Our company is also specialized in LPG storage and tanker filling facilities.



Aluminium (more specifically an aluminium alloy) is one of the world's most commonly used metals. Its lightness coupled with its strength, and excellent corrosion resistance are the main reasons for it being used in the design of the aluminium geodesic dome roof and this non corrosive property means that the aluminium geodesic dome roof can be used on tanks used to store most products.





## INTERNAL FLOATING ROOF FABRICATION

The floating roof of a floating roof tank is a floating roof floating on the surface of stored liquid, floating up or down with the level of stored liquid. There is an annular space with seal gland between the floating roof and the tank wall, to separate air when stored liquid float up or down on the roof, greatly reducing evaporation loss in the storage process.





We can adapt any seal design to suit your particular roof configuration. In particular if you have tanks that suffer from tank shell distortion we can tailor make a sealing system that will provide an effective sealing solution. We offer the following types of tank seal.

#### **Double seal**

The most cost effective tank seal, can also be offered as a complete installation with an integral foam dam.

#### **Mechanical seal**

Suitable for tanks without appreciable tank shell distortion or where the product stored is particularly aggressive.

#### **Liquid seal**

Suitable for all tanks but particularly where tank shell distortion is present.

#### **Foam seal**

Used either as vapour mounted (not in contact with the stored product) or liquid/product mounted.

#### **Secondary seal**

Can be retro fitted to existing floating roof tanks.



Product or chemical deposits on heat-transfer surfaces weaken an exchanger's heat-transfer capacity and must be cleaned away regularly to maintain high performance and prevent disruption of processing. Heat exchanger fouling, or the unwanted accumulation of deposits on heat-transfer surfaces, can result in several costs:

- ▶ Production loss from shutdowns
- ▶ Maintenance costs for removal of heavy fouling deposits
- ▶ Replacement of plugged equipment





Talaytech offers the most complete line of loading arm systems and loading-rack equipment for today's bulk loading and unloading requirements. Loading arm systems allow the transfer of oil or liquefied gas from one tank to another through a pipe system. When transferring gas, you will need both a bottom and top loading arm. Whether the application involves tank trucks, drums or totes, and the moving of petroleum products, liquefied gases, asphalt, solvents or hazardous/corrosive chemicals.





**Truck Loading Platforms** to fit your tank truck loading, unloading, inspection, and sampling applications. Our loading rack designs provide your operators with a convenient, safe, and durable solution.



### Safety till the last step

A folding stair is the last step before finishing a loading arm project and TALAY-TECH manufactures many types of them: with or without safety cage and with 3, 4 or 5 steps.

We also produce structures made with structural tubes on foundations, stairs to access platforms, operator canopies and arms' anchoring.





# FOAM CHAMBER

Choice of four foam chamber sizes for various foam solution flow rate requirements

- Hinged inspection hatch with captive bolt securement for ease of inspection and maintenance
- "CR" epoxy finish
- Teflon vapor seal allows unrestricted flow of expanded foam
- Convenient vapor seal replacement without removal of retaining bolts
- UL Listed



## PRESSURE VACUUM VALVE (P/V VALVE)

A valve which keeps the tank over pressure or under pressure within approved, limits. P/V valve provides for the flow of the small volumes of vapour, air or inert gas mixtures caused by thermal variations in a cargo tank. The vacuum valve opens if the pressure in the tank falls below a pre-set level-to draw air into the tank through a flame trap. In the event of over-pressure, two release valves open to ensure that venting is upwards and at high velocity, to avoid concentrations of gas on deck.



C.O.D Plate cutting and marking only as per “approved for construction drawing”.

Machining of clean-out door flange and cover as per drawings.  
Stress relief shall be carried out of clean-out door according to API 650 & the approved PWHT procedure.





## (PWHT) POST WELD HEAT TREATMENT

Post-weld heat treatment is a process that involves elevating the temperature of a material or materials following a welding process. Post-weld heat treatment is performed to alleviate residual stresses, increase the strength, increase or decrease the hardness, and reduce the risk of cracking. An array of heating processes can be used to carry out post-weld heat treatment. TALAYTECH's have a professional department capable to perform heat treatment activities for the welded joints, plates, and casting including Post weld heat treatment for the welding, annealing, tempering, and normalizing.



(PWHT) POST WELD HEAT TREATMENT

Abrasive blast cleaning is most often associated with cleaning painted and unpainted steel. It may also be used with care to prepare concrete and masonry surfaces and to clean and roughen existing coatings for painting. Abrasive blasting is an impact cleaning method. High-velocity abrasive particles driven by air, water, or centrifugal force impact the surface to remove rust, mill scale, and old paint from the surfaces.

Abrasive cleaning does not remove oil or grease. If the surface to be abrasive blasted is painted with leaded paint, additional controls must be employed to minimize hazards to workers and the surrounding environment. The degree of cleanliness obtained in abrasive blasting depends on the type of abrasive, the force with which the abrasive particles hits the surface, and the dwell time.





Steam boilers are **TALAYTECH'S** main area of expertise and the reason for our company. From a small-scale industry that needs steam in its production process, through to a large electrical power plant that requires steam for its turbine glands, passing through low or high-pressure boilers and applications to recover heat from engine or turbine exhaust gases, without forgetting hybrid boilers which can operate equally with gas recovery or with a liquid or gaseous fuel burner.

**As boilers experts we can offer you the following different types of steam boiler types:**

- ▶ Steam boiler burner
- ▶ Heat recovery steam boiler
- ▶ Hybrid steam boilers
- ▶ Electric steam boiler generator





At **TALAYTECH**, safe working conditions, proper angle welds, and controlled plant environments are among our highest priorities as we work to provide our clients with the highest quality systems. Our state-of-the-art plant guarantees higher quality industrial piping systems in less time.

All pre-fabricated piping applications are integrated at our state of the art fabrication facility with pumps, valves, sensors and most other process system components before shipment.

**TALAYTECH** guarantees proper fit-up and integration with our industrial piping systems.



Tank storage of crude, petroleum, chemicals and other liquids provides a critical interface between production and transportation. Aging infrastructure and the risk of leakage and structural failure is an intolerable risk to terminal operators. This is why Corrosion Service focuses on providing tank cathodic protection designs, engineering, supply and field services to the tank storage industry in Iraq.





Talaytech Engineering provides National (Regulation on Fire Protection of Buildings) and International (NFPA, FM, UL, EN, VDS, LPCB, GOST, RINA... etc.) in line with accepted standards, offers the most appropriate solutions with its expert technical staff.





It carries out the construction of steel structures for which it is candidate in accordance with the "Design and Build" model by employing its own design group. In other words, **TALAYTECH** has developed an engineering design firm far beyond than a manufacturing company as for steel structures.

**TALAYTECH** can provide design, manufacturing, assembly services as well as engineering consultancy services.



## Features

Fabricated Construction

Filtration down to 40 microns

Large strainer baskets

Both compact and high capacity units are available

Materials of Construction Bronze

Carbon Steel

Stainless Steel

Other materials upon request

Other materials upon request

End Connections

Flat Faced

Raised Faced

Threaded (NTP)

Buttweld

Socketweld

Ratings

ASME Class 150

ASME Class 300

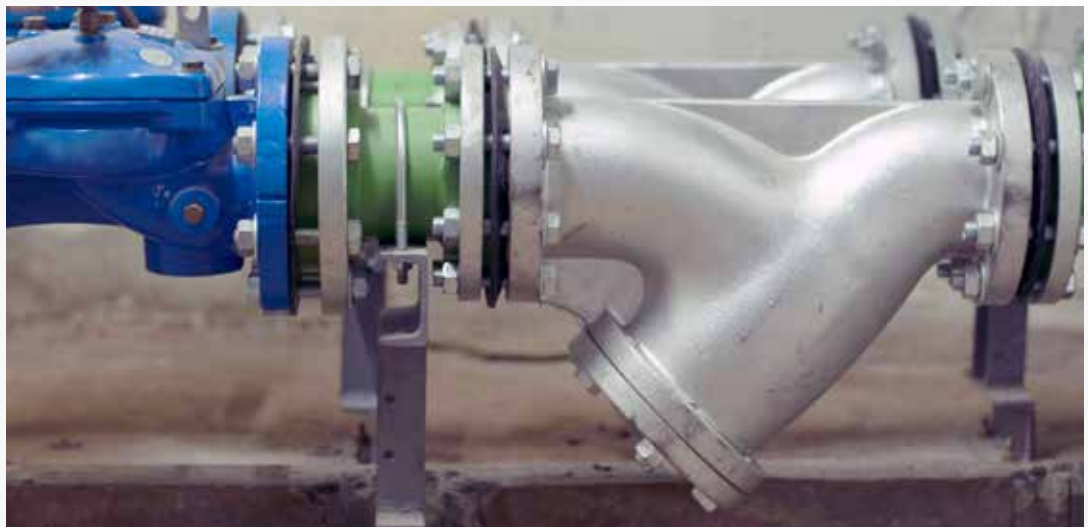
ASME Class 600

ASME Class 900

ASME Class 1500

Sizes

Fabricated - custom sized to meet requirement





In order to meet the demands of the developing technology and oil industry sector, we have developed the machinery park and we are producing in a quality manner at international standards with our expert staff. Our company, which is involved in the leading projects of the world, keeps customer satisfaction at the highest level by making quality controls at every stage of the work.

**We manufacture all kinds of tanks and pressure vessels, Slop Tank Manufacturing, Norwegian deck tanks, Fuel Tanks.**





Tank insulation in tank and silo insulations, we insulate with aluminum coating, stainless sheet coating, embossed sheet coating, galvanized coating materials on rock wool and glass wool.

**1) Stone wool (isoglass) tank insulation**







OUR FIELD WORK



# OUR FIELD WORK





OUR FIELD WORK



What We Do Today

OUR FIELD WORK

# OUR FIELD WORK





Our Activities include but not limited to the following

### Pipeline Construction:

The construction of a pipeline is divided into three phases: pre-construction, construction and post-construction – it's a highly-coordinated, well-planned operation by a large team of experienced professionals.

### Work Includes:

- Working according to standards API 1104, 1102, 1110 & ASME 31.4.
- Site Survey works and marking.
- Right of Way, Clearing and Grading.
- Pipe transportation and stringing.
- Pipeline Joints Welding Activities (Manual or Automatic).
- PWHT if any and Hardness Testing.
- Joint Coating and Repairs of Coating or any Damage Caused to Line Pipes During Installation.
- Trenching (Excavation of pipeline ditch and backfilling with clean soil).
- Main, secondary & earth roads, railways, river crossings according to (API-1102).
- Reinforced concrete of pipelines weighting and slabs.
- Pipeline lowering & backfilling.
- Tie-in welding.
- Pig Launching and receiving installation.
- Valve station installation (Piping, Valves, and Supports).
- Well head connections.
- Hydrostatic Testing (Cleaning, Gauging, Filling, Pressurizing, Data Recording & Dewatering).
- Holiday Testing.
- Drying, Treatment with Glycol.
- Temporary Cathode protection system installation (galvanic).
- Permanent Cathode protection system installation (impressed current or sacrificial anodes) and insulation joints installation.
- Installation of Fiber Optic Cables.
- Pre-commissioning and provide assistance during Commissioning.
- As part of the Commissioning Team.
- As-Built Drawing.







## Office

- +964 751 698 9859  
+964 751 698 9860
- info@talaytech.com
- www.talaytech.com
- S13/15 New Azady Residential Project (Atconz villas), 120 mt. Street, Erbil, KR, Iraq



## Workshop

- +964 751 698 9859  
+964 751 698 9860
- info@talaytech.com
- www.talaytech.com
- Terminal Kani Kirshala Road  
3.4 km from Mosul Road  
4.7 km from Gwer Road  
Erbil, Kr, Iraq





# TALAYTECH

Iraq Dealer Of



**KANAT**<sup>®</sup>  
PAINTS & COATINGS

[f](#) [@](#) [t](#) [in](#) /kanatboya

[www.kanatpaints.com](http://www.kanatpaints.com)





## About Us

### Who We Are

We are **protective paints and coatings business unit** of Kanat Paints.

Other business units of Kanat:

- Cookware
- Industrial
- Defence & Aviation

### What We Do

- Design or develop liquid paints for industries that we serve in our R&D.
- Prepare and/or revise paint specifications for our customers.
- Propose paint systems regarding to the expectations.
- Inspect regularly or full time during paint applications with certified inspection team.

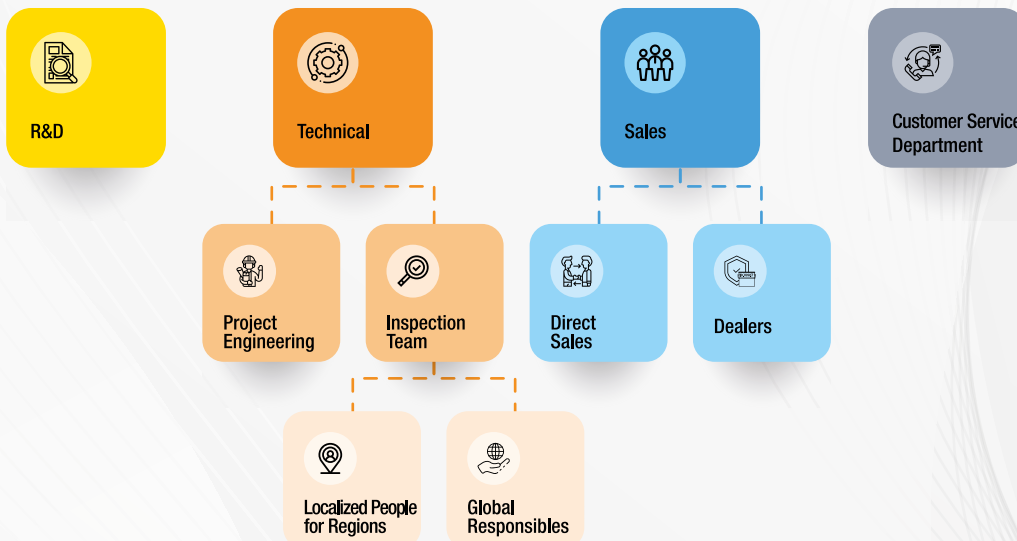
### To Whom We Serve

Manufacturing companies of;

- 🏗️ Steel Structures
- 🔧 Pipelines
- 🏘️ Storage Tanks
- 🌬️ Wind Towers
- 🔧 Technological Equipments

Also on site paint applicators/maintenance companies.

## How Do We Serve



## Map



## The Products Used Specialized For **Structural Steel**

<b>10500</b> <b>KANAT ZnR-SILICATE PRIMER</b>	<i>is a two component, solvent borne, zinc-rich ethyl silicate primer. Zinc content in the dry film conforms to SSPC-Paint 20, Level 2 and ISO 12944 standards.</i>
<b>11080</b> <b>KANEPOX SHOP PRIMER RC</b>	<i>is an epoxy based, two component zinc phosphate containing shop primer with a very fast drying speed.</i>
<b>12200</b> <b>KANEPOX UNIFAST</b>	<i>is an epoxy based, two component, high built primer/midcoat containing zinc phosphate. It is specifically designed for fast dry even at low temperatures (down to -5°C). *</i>
<b>11350</b> <b>KANEPOX ZINC RICH TT</b>	<i>is an epoxy based, two component micronized zinc dust containing primer with outstanding resistance to severe weathering. Zinc content in the dry film conforms to SSPC-Paint 20, Level 3 and ISO 12944 standards. **</i>
<b>15550</b> <b>KANEPOX MASTICOAT</b>	<i>is an epoxy-polyamine based, two component, zinc phosphate containing, high built, self priming mastic primer/midcoat with low volatile organic content (VOC).</i>
<b>37770</b> <b>KANPOLY ACR ENAMEL HS</b>	<i>is an acrylic polyurethane resin-aliphatic isocyanate based, two component, high solids, gloss aliphatic polyurethane topcoat.</i>

\* MIO containing version of 12200 coded product is also available as 14700 KANEPOX UNIFAST MIO

\*\* Different zinc content in Level 1 & Level 2 acc. SSPC Paint 20 Standard are also available as 11320 KANEPOX ZINC RICH HC & 11420 KANEPOX ZINC RICH 80 respectively.

\*\*\* Lead-free version of all products are available.





## The Products Used Specialized For **Tanks External**



<b>15550</b> <b>KANEPOX MASTICOAT</b>	<i>is an epoxy-polyamine based, two component, zinc phosphate containing, high built, self priming mastic primer/midcoat with low volatile organic content (VOC).</i>
<b>18000</b> <b>KANEPOX TAR</b>	<i>is a coal tar modified epoxy-polyamine based, two component one coat/topcoat with excellent adhesion and elasticity. It has good resistance to immersion to soil chemicals.</i>
<b>37850</b> <b>KANPOLY ACR ENAMEL DTM</b>	<i>is an acrylic polyurethane resin based, two component, zinc phosphate containing, high solids, gloss topcoat. Can be applied directly to the metal surface in C3 medium corrosive environments. Can be applied directly to galvanized and aluminium surfaces.</i>

\* Lead-free version of all products are available.

## The Products Used Specialized For **Tanks Internal**



<b>18521</b> <b>KANEPOX LINING FREE</b>	<i>is an epoxy-polyamine based, two component, solvent-free one coat/topcoat with excellent resistance to fresh water, sea water.</i>
<b>19020</b> <b>KANEPOX NOVA HOLDING PRIMER</b>	<i>is a novalac (phenolic) epoxy-polyamine based, two component primer and/or tiecoat containing zinc phosphate. It is specifically designed for fast dry even at low temperatures (down to -5°C).</i>
<b>19300</b> <b>KANEPOX NOVA PREMIUM</b>	<i>is a novalac (phenolic) epoxy-polyamine based, two component, high-built one coat/topcoat with excellent chemical resistance. It is most often used in those applications where chemical, solvent and water resistance are required.</i>
<b>19570</b> <b>KANEPOX HYGIENIC</b>	<i>is a phenolic epoxy-polyamine based, two component, solvent-free one coat/topcoat with excellent resistance to water, crude oil, diesel fuel, jet fuel (JP-8, Jet A1) and unleaded gasoline.</i>

\* Lead-free version of all products are available.

## Main Approvals

Global

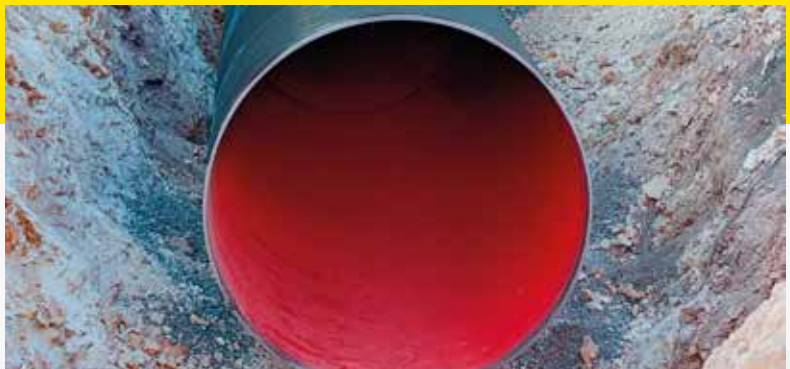
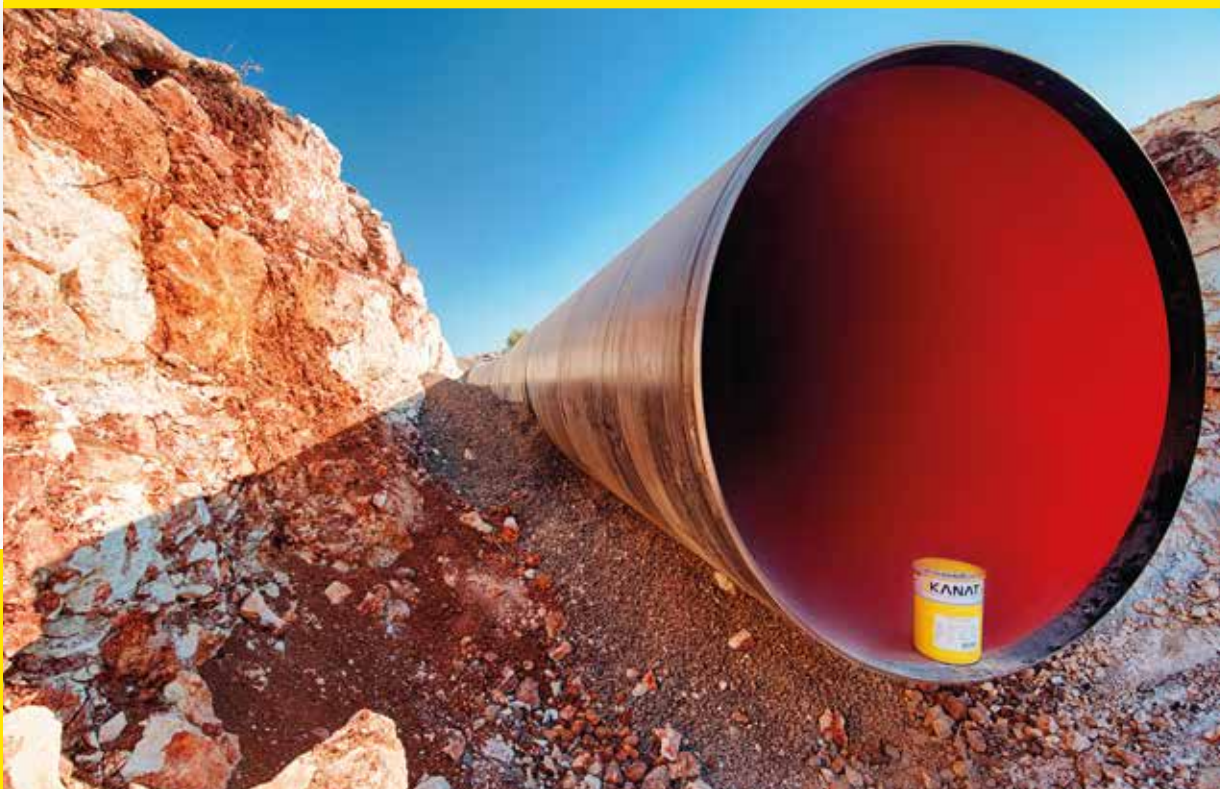


National





# MOROCCO SAISS 2 WATER PIPELINE PROJECT



**Date of the Project**      2020

**Length of The Pipeline**    72.000 m (Ø: 126")

**Project Location**            Morocco

Project Owner      Pipe Manufacturer







## SOCAR AEGEAN (STAR) REFINERY STEEL MANUFACTURING AND INSTALLATION



**Date of the Project**

**2015-2018**

**Size of the Project**

**40.000 tons of steel**

**Project Location**

**Izmir / Turkey**

Project Owner



Steel Manufacturer





## MAINTENANCE AND REPAIR OF CRUDE OIL TANKS IN BOTAS CEYHAN TERMINAL



**Date of the Project**

**2020 – ongoing**

Project Owner

Tank Manufacturer

**Size of the Tanks That are/to be Coated**

**11x135.000 m<sup>3</sup> & 1x50.000 m<sup>3</sup>**

**Project Location**

**Adana / Turkey**



\*Providing full time inspection during all surface preparations and paint applications of each coat.







## SARSANG DEVELOPEMENT PROJECT - PHASE 1 EPC OF WELLBASED PRODUCTION FACILITY- DESIGN & FABRICATION WORKS



**Date of the Project**

**2021 – ongoing**

**Size of the Tanks That are/to be Coated**

**4x7.000 m<sup>3</sup>**

**Project Location**

**Iraq**

Project Owner

Tank Manufacturer



**HAVATEK**  
HAKKARIA SAKKARTI IN TEHRAN A.S.







