



**Polar  
Specialized  
Industries**



**CUSTOMIZED INDUSTRIAL SOLUTIONS**



**“Over a decade of trust, commitment  
and the highest quality standards”**



# TABLE OF CONTENTS

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▲ ABOUT US	03
▲ PRODUCT RANGE	05
▲ PRESSURE EQUIPMENT	07
▲ LV-SWITCHGEAR	09
▲ THERMAL INSULATED DOORS	11
▲ CONTAINERIZED SOLUTIONS	15
▲ SURFACE PREPARATION	17
▲ PIPES AND VESSELS	19
▲ QUALITY ASSURANCE & CONTROL	21



# ABOUT US



A subsidiary company of Taha Investment Group (TIG) Limited, Polar Specialized Industries (PSI) LLC was established in 2010 to manufacture and assemble specialized components for industrial applications in the Oil & Gas, Petrochemical and Refrigeration sectors.

Our modern facility, located in KIZAD - Abu Dhabi, houses the high-capacity production of pressure vessels, switch gears, customized mobile containers, shell & tube metal cladding, ducting and thermal insulated doors.

PSI has been built on a legacy of trust, commitment, experienced staff and the highest quality standards to meet your requirements.



**Polar  
Specialized  
Industries**



# PSI

COMMITTED TO **INNOVATIVE INDUSTRIAL SOLUTIONS**





## PRODUCT RANGE

PSI is a complete solution provider for markets within the MENA region, Europe and beyond. We have the capacity, capability, knowledge and expertise to design and custom-build your specialized requirements.

Backed by our knowledge of industrial processes, our in-house design teams can provide our clients with effective solutions to suit their requirements and meet expected standards of quality.

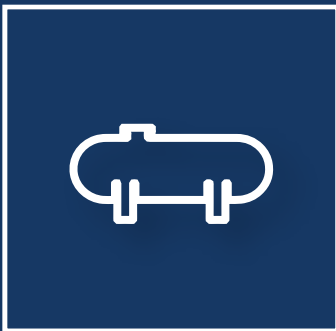
Our primary focus is on the design and packaging of customized industrial equipment for the oil and gas, petrochemical and refrigeration sectors.

PSI offers a wide range of industrial solutions to meet various requirements and solve challenges faced by our valued clients. Our skilled team operate in a modern and well-equipped facility to produce pressure vessels, switch gears, racks & packages, customized mobile containers, shell & tube metal cladding and thermal insulated doors. We also take care of surface preparation activities, such as sandblasting and painting.

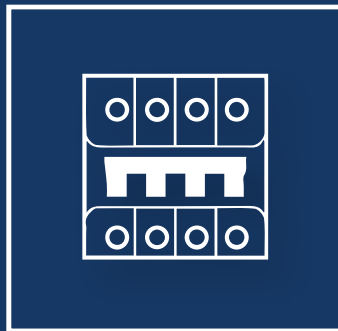
“**Polar Specialized Industries (PSI) LLC - A name to rely on for dependable, high-performance industrial solutions**”



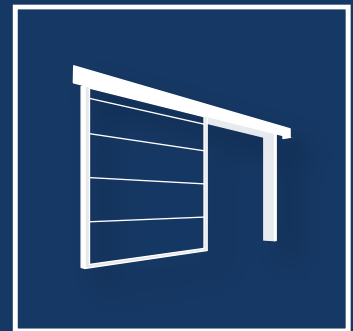
Polar Specialized Industries specializes in the engineering, design and manufacturing of components required for industrial applications. These components include:



**PRESSURE EQUIPMENT**



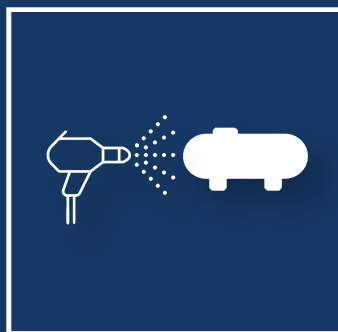
**LV-SWITCHGEAR**



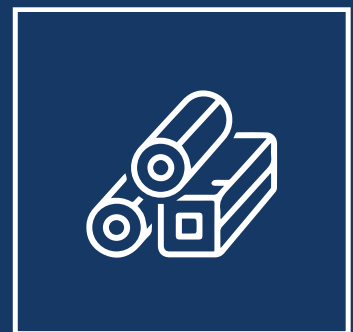
**THERMAL INSULATED DOORS**



**CONTAINERIZED SOLUTIONS**



**SURFACE PREPARATION**



**CLADDING AND INSULATION**



# PRESSURE EQUIPMENT

## PRESSURE VESSELS

PSI is specialized in the engineering, design and manufacturing of heavy duty pressure vessels, including piping systems, assemblies and valves. Our pressure vessels are manufactured using steel or stainless steel, with wall thicknesses of up to 50mm. Furthermore, Our team is also able to manufacture pressure vessel of various sizes for different applications, such as ammonia separators, boilers, storage tanks, LPG tanks, as well as being able to customize a vessel to your specific requirements. We are ASME certified, but are also able to design pressure equipment to comply with the local standards of your region.

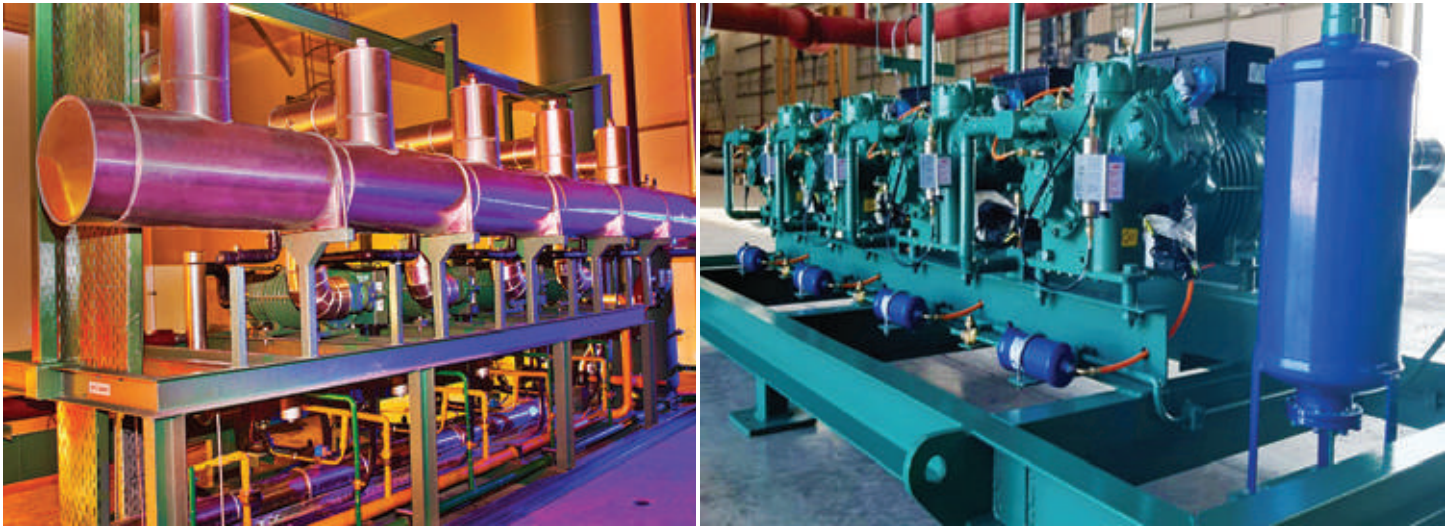




# INNOVATION BUILT ON STRONG ROOTS

## SKID & RACK PACKAGES

Whether it is for processing, heating or cooling applications, PSI has the in-house capability of manufacturing, fabricating and assembling various components together to provide you with a standard or customized rack to cater to your facility's requirements. Our long-standing relationships with various major component suppliers, combined with our in-house manufacturing of major components - such as pressure vessels, control panels and cladding – ensure that we can provide the highest quality levels for the solutions provided to you.



## VALVE STATIONS

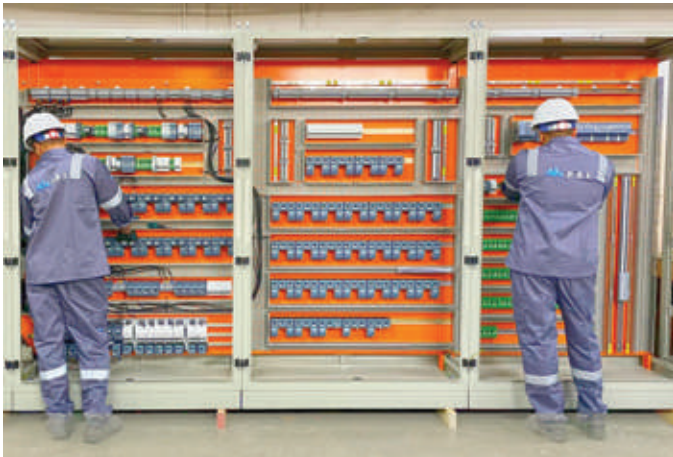
Through close coordination with our engineering team and the use of special software, we are able to design our valve stations with the necessary precision required to pre-fabricate them at our facility. This ensures that we maintain a controlled environment throughout the fabrication process and are able to deliver projects on time and within budget.



# LOW VOLTAGE SWITCHGEAR

We design and build switchgear systems with a special focus on industrial applications. We use e-plan software to design our products with full compliance to major industry standards.

PSI fabricates, assembles and customizes switchgear and control panels to suit your specific requirements. With our client-oriented solutions, you can be 100% sure of the high quality of products delivered. Our switchgears and panels are cost-efficient and make the power distribution process within your facility a safe and secure one. We design and assemble LV switchgear as per international standards, such as IEC61439-1, to meet all our client requirements. Our switchgear panels are also equipped with soft starters & VFDs and PLCs. We also offer HMI, PLC and SCADA programming.



- CONTROL PANEL
- MAIN DISTRIBUTION BOARDS - **MDB**
- SUB-MAIN DISTRIBUTION BOARDS - **SMDB**
- FINAL DISTRIBUTION BOARDS - **FDB**
- MOTOR CONTROL CENTER - **MCC**
- PROGRAMMABLE LOGIC CONTROLLER - **PLC PANELS**



## CONTROL PANEL

Control panels manufactured by PSI are designed to monitor and control the packaged equipment. The controls can be skid-mounted and prewired, or remote-mounted in an unclassified electrical area. The control system can also be interfaced with our customer's plant control system if required. A typical control system includes power distribution components, control components, programmable controller and on-skid wiring in conduit.



## MAIN DISTRIBUTION BOARDS (MDB)

An MDB is a panel or enclosure that houses the fuses, circuit breakers and ground leakage protection units, where the electrical energy that is used to distribute electrical power to numerous individual circuits or consumer points is taken in from the transformer or an upstream panel.



## SUB-MAIN DISTRIBUTION BOARDS (SMDB)

The MDB feeds SMDBs, which are generally installed at the point where a large distribution cable terminates and several smaller sub-circuits start. These switchboards are larger than a final distribution board circuit. The boards are installed midway through the power distribution system, at the point where the large distribution cable ends and the several smaller sub-circuits begin.





## FINAL DISTRIBUTION BOARDS (FDB)

Final Distribution Board is an assembly of protective devices, such as Miniature Circuit Breaker (MCB), Residual-Current Device (RCD), etc. The Sub-Main Distribution Board feeds the Final Distribution Board that provides electrical energy to the final circuits. Final Distribution Boards are available in row type distribution, panel assembly (single or multi-split arrangement), flush or surface mounting versions.



## MOTOR CONTROL CENTER (MCC)

A motor control centre is an assembly to control some or all electric motors in a central location. It consists of multiple enclosed sections having a common power bus and containing fuses or circuit breakers, under & over voltage protection, power disconnect switch and various types of starters - including DOL, star/delta, a soft starter or a variable frequency drive. A motor control centre can also include push buttons, indication lights and metering devices. Motors can be controlled manually or automatically using digital controllers or programmable logic controllers.



## PROGRAMMABLE LOGIC CONTROLLER (PLC PANELS)

We offer a wide range of programmable logic controller (PLC) panels that are extensively used in the industrial automation process. Our production unit is equipped with advanced technology that helps in providing a flawless range of products. These are also customizable and are designed and fabricated according to the requirement of the clients. Our PLC panels are appraised across the region due to their sturdy and sophisticated construction and their proven longer functional life. We ensure that the right brand of PLC, HMI, etc. are chosen based on your demands and specifications.



# THERMAL INSULATED DOORS



We manufacture a wide range of insulated doors that help maintain accurate temperatures in refrigerated warehouse facilities. All of our heavy-duty products are durable, easy to maintain and operate with reduced service intervals. Our thermal insulated doors are designed and manufactured based on years of experience in the market and always meet the highest safety, reliability and quality standards in the industry.

## SLIDING DOORS

Our insulated sliding doors are incredibly versatile and suitable for a large range of different applications, from cold stores and dry stores, to blast freezers and ambient processing areas. They are designed to operate within multiple work environments; including dairy, poultry and meat processing plants, fruit and vegetable stores, medicine production facilities, and logistics and warehouse storages. For projects with strict hygiene standards and sensitive environments, we are able to provide stainless steel options for our door leaves, profiles, rails, handles and hinges. Depending on the level of traffic in a specific area, we can provide either a manually or electrically-operated door to suit your requirements. Additionally, we can supply various accessories depending on the type of operation and access needed, such as pull cords, motion sensors, induction loops and more. Alternatively, if required, you can install and link your own access system to our electrical doors using various potential free contacts available.





## HINGED DOORS

Composed of a 100 mm (Chiller and Freezer type) and 140 mm thick (Blast Freezer only) insulated core with a polyester coating on both sides, these hinged doors are finished with anodised aluminium profiles all around with thermal breaks to prevent heat bridges. Fabricated with galvanised steel/plastic rising hinges, they also come with an emergency unlocking device. The freezer design is provided with frame heating in the door frame and threshold, with glazing also available as an additional option.



## CONTROLLED ATMOSPHERE (CA) DOORS

CA doors are especially designed for gas-tight rooms in facilities where storage of perishable goods is required, such as berries, bananas and potatoes, among other fruits & vegetables. A CA door makes the room completely gas tight by utilizing an inflatable gasket operated by an air pump. As it is light weight, the door can be opened and closed seamlessly, thereby making our doors the ideal solution for gas-tight storage chiller and freezer rooms.



## SPECIAL INSULATED DOORS

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We have a long track record of developing customized industrial door systems for major companies, airports and warehouses. If the industrial door you need is not available in the market, you can count on us to create the right solution for you. Our design specialists are available to collaborate on a technical design that meets all of your requirements.



## PE SWING DOORS

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Durable, impact-resistant traffic doors made of Polyethylene for the retail and food industries. They are hygienic (EU/FDA approved), made to measure, easy to install and come in various colour options.





# Engineering

is intelligence made  
visible by **design**





# CONTAINERIZED SOLUTIONS



## REFRIGERATED CONTAINERS

PSI's refrigerated containers are designed and manufactured for heavy cargo that needs to be kept refrigerated. We have a dedicated team on hand of engineering specialists with many years of refrigeration experience that can help tailor the right product for your needs and deliver turnkey solutions for your satisfaction.

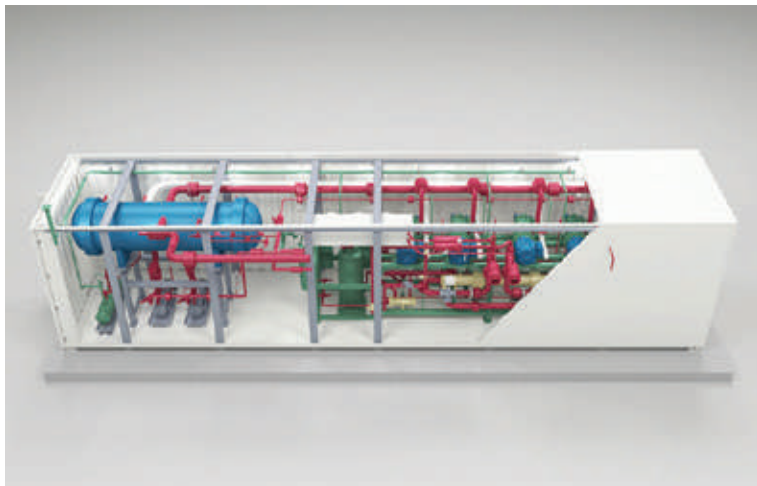
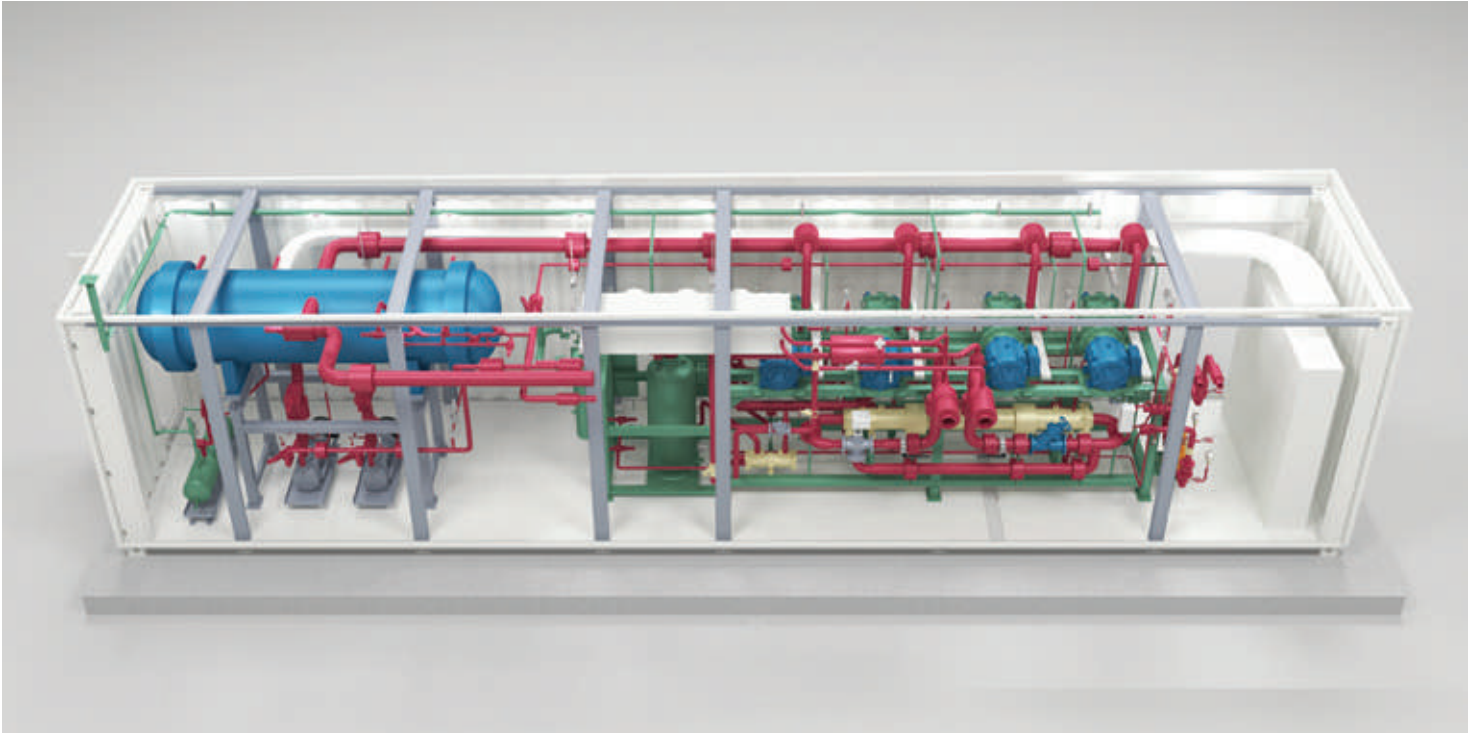




## CHILLER CONTAINERS - FREEZER CONTAINERS

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PSI designs and manufactures refrigerated containers in line with ISO and DNV specifications. These special refrigerated containers are provided with heavy-duty refrigeration systems, so that products can be cooled and frozen properly while being stored and transported over long distances and warmer regions.



## CUSTOM-MADE CONTAINERS

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We recognize the need for special custom-made containers that cater towards specific client requirements. Examples of such containers can range from portacabins, modular on-site offices, mobile cold storage rooms and many more. Such applications require an in-depth understanding of the insulation, acoustic, cooling & MEP requirements. At PSI, we are able to design and manufacture such containers by taking these elements into consideration to ensure that you are guaranteed the optimum solution to your requirements.

# SURFACE PREPARATION



## SANDBLASTING

Sandblasting equipment is used in a wide variety of industries that require surface preparation prior to the application of a protective coating. The surface of the component is cleaned by a mixture of abrasive and high-pressure compressed air being directed onto the component by a blast nozzle. Our sandblast room contains the abrasive being shot at the component and provides proper lighting and ventilation for the operator's safety.

At PSI, we are able to perform sandblasting at our in-house facility on a variety of metal components, including, but not limited to:

- Pipes & Fittings
- Valves
- Steel Tanks
- Chemical Tanks
- Boilers
- Pressure Vessels
- Containers
- Steel Members







## SPRAY PAINTING

PSI also provides a full range of professional spray painting services available to suit your precise requirements. Our professional coating applicators have the training, craftsmanship, experience and skills necessary to complete any project on time and within budget.

The success of any paint application is dependent on a number of parameters, including:

- **Surface preparation through the application of a suitable primer**
- **Film thickness application via spray painting**

At PSI, we can apply a range of spray paints to the colour of your choice, as well as protective coatings to provide protection against corrosion to vessels, pumps, valves, structural steel fabrications and machined components. The substrate may be prepared by abrasive blasting to the highest standard, followed by the application of multiple layers of paint.



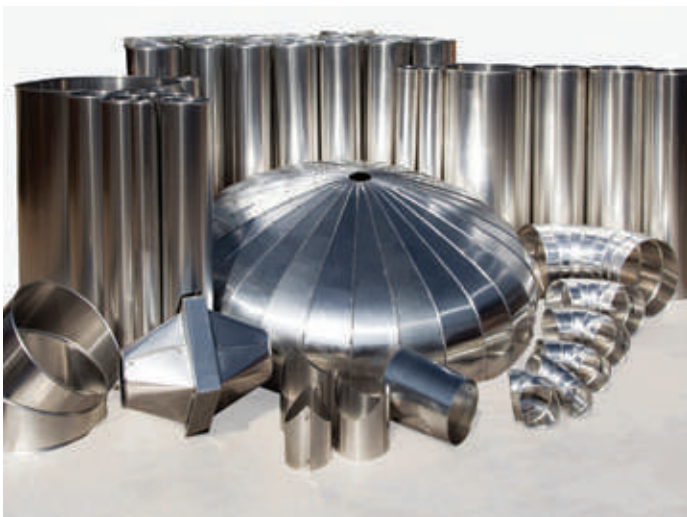
# PIPES AND VESSELS CLADDING AND DUCTS



In various industrial processes, preserving the desired temperature plays an important role in realizing a system's efficiency and performance.

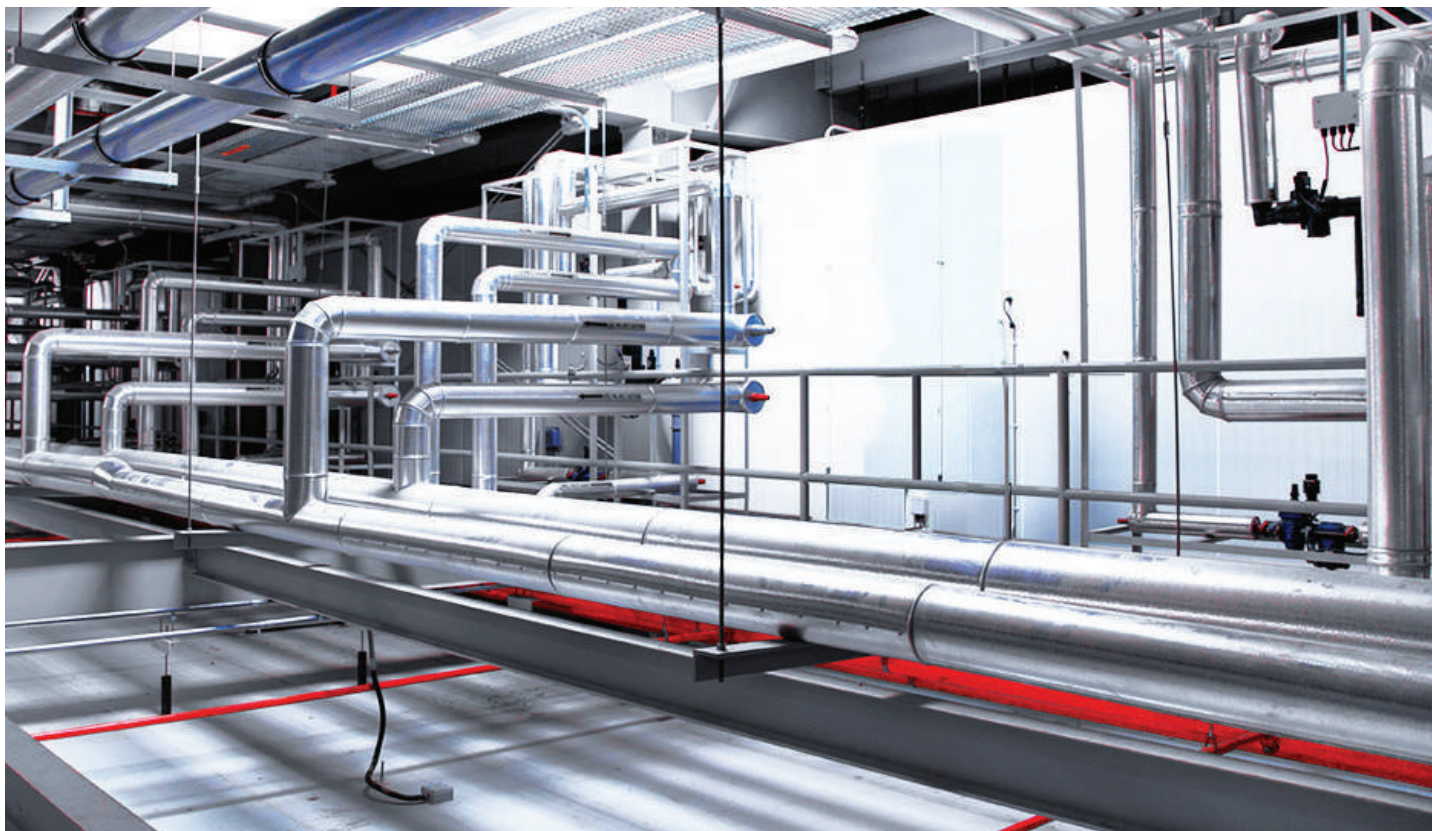
PSI has vast experience with providing shell and tube insulation services at the highest quality standards. Our state-of-the-art automatic metal sheet fabricating machine ensures that we are able to produce high volumes of shell and tube pre-fabricated cladding of different shapes and sizes engineered to your design requirements.

We provide insulation and cladding services to a variety of industries worldwide, including processing plants, pharmaceutical, oil and gas, refrigeration or any other thermal processes for the Offshore, Marine and Construction industries.





# PIPES AND VESSELS INSULATION



Thermal insulation is key to ensuring the efficient operation of various processes, conservation of energy and optimizing costs. At PSI, we have the know-how and experience to provide solutions to various commercial insulation challenges. Our dedicated estimation team provides technical advice and a fully comprehensive service to ensure the most efficient solutions are provided by utilizing a wide variety of different insulation materials, such as mineral wool, PUR & PIR. PSI manufactures insulation covers for valves and flanges, high temperature covers, as well as precision metal casings. We also provide fabrication services for a wide range of cladding materials required for thermal insulation, including aluminum, stainless steel, galvanized steel, Aluzinc and coloured coated steel materials. These materials can be used to produce standard pipe casings and valve boxes.



# QUALITY ASSURANCE

As part of its core principles, PSI always makes sure to adhere to stringent rules and practices that ensure effective Quality Assurance and Control. We are an ISO and ASME accredited manufacturing facility that provides solutions at required high-quality standards to our valued clients. We also aim to continuously improve our processes and services at every step of our production and delivery.

## ISO CERTIFICATION



## HEALTH AND SAFETY

PSI has implemented various protocols and practices to ensure that strict health and safety standards are always followed by and for our valuable employees. We aim to protect our employees from any occupational hazards and also minimize negative impacts on our environment. PSI is also committed towards the training and development of its staff in order to continuously increase their knowledge and competency. We undergo regular process audits to verify our performance and standards.





# COMPLETE FABRICATION SOLUTIONS





**Polar**  
**Specialized**  
**Industries**

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