The Changzhou Tube Works

PREMIUM FORGED PIPES AND FINISHING PLANT
We share one objective: Total customer satisfaction

Based on a history that stretches back to 1904 when the first tube delivery reached Shanghai, Vallourec has built strong and lasting business relationships in China. Working in close accord with business partners in China to support the development of steel tube applications, Vallourec has established several production sites in Changzhou in order to be close to its customers.

This includes the Vallourec Changzhou works. Inaugurated in 2006 as a finishing plant for hollows prefabricated in Düsseldorf-Reisholz (Germany), the plant is now as well equipped with state of the art forging tools. Vallourec Changzhou is proud to supply you with outstanding quality large-diameter pipes. Both production steps are available: customers can still choose the so-called two step process where the hollows come from Europe or they can call for one step production, where even the hot forming part is made in the Vallourec Changzhou works. Vallourec Changzhou is proud to supply you with outstanding quality large-diameter pipes. Both production steps are available: customers can still choose the so-called two step process where the hollows come from Europe or they can call for one step production, where even the hot forming part is made in the Vallourec Changzhou works.

Our safety, quality and environmental regimes are often cited as outperforming international standards. Our experienced management team together with our highly qualified, dedicated workforce are committed to one shared objective: total customer satisfaction.

About us

You need...

...a unique offer?
Vallourec Changzhou works supplies a wide range of high-quality finished tubes.
- Carbon, alloy and high alloy steel grades
- Outside diameters 280 to 1200 mm
- Inside Diameters 160 to 1070 mm
- Wall thicknesses 20 mm to 190 mm
- Tailor-made solutions
- We listen to the customer

...highest quality?
Vallourec Changzhou works has its roots in Europe.
- Sister plants in France (forging)/Germany (finishing)
- Machining and finishing equipment mainly comes from Germany and Italy
- We train our staff in Europe
- Certified tubes as you need them
- Own laboratory in China
- Vallourec Quality System

...a trustworthy supplier?
You can count on a world leader in seamless tube production.
- Background of more than 100 years tube production
- Our environmental policy guarantees that we minimize our ecological footprint
- Our management passes through extensive Vallourec training processes

...flexibility and service?
The process itself is extremely flexible and our service is outstanding.
- Dozens of steel grades in stock
- Excellent supply chain
- Located close to Shanghai and close to the SE Asian market
- Short lead time
- Prematerial from Europe or China
- Combined offer- everything you need for your project
Total Quality Management (TQM) - Our second nature

A continuous improvement team at work

Vallourec Management System
To attain its leadership ambition to be everywhere in the world, the leader in premium tubular solutions, Vallourec has built its strategy on a management model and a set of clearly defined and regularly updated strategic and operational priorities.

The Vallourec Management System (VMS) provides a framework for setting and reviewing objectives, targets and goals at all level of the organization and in each area of activity. It drives excellence in all key areas of operations, including, but not limited to, Safety, Health, Quality and Environment with a continuous improvement process guided by the Vallourec Code of Ethics and through an understanding of our customers’ needs.

Vallourec encourages employees and supports their development by recognizing and improving their effectiveness. According to the Vallourec Management System, all members of the Vallourec family, from the top management to the operator, are responsible for realizing the corporate policy objectives within their own sphere. All employees are encouraged to participate in interdisciplinary continuous improvement teams, so as to:

- help tap hidden potentials,
- develop best practice strategies and
- achieve constant positive results day after day.

Vallourec Changzhou has set in place the VMS to guarantee sustainable satisfaction of the stakeholders. VMS relies on the three key pillars:
- Set and deploy objectives
- Monitor and decide
- Analyze and improve
to support the teams to achieve the objectives either strategic, operational or related to continuous improvement.

Quality Management
In line with international and national standards and specifications, the quality management system in place at Vallourec Changzhou works has been certified in accordance with:
- ISO 9001
- PED 97/23/EC Annex I paragraph 4.3,

At each step of the manufacturing process, every single product is identified and checked against customer specifications and internal standards based on the order sheet. This extensive measurement and evaluation system is further supported by proven methods and state of the art equipment.

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In our industry, leadership means excellence in everything we do.

Philippe Crouzet
Chairman of the Management Board, Vallourec

Innovations for HSE
Following the Vallourec environmental policy, the Vallourec Changzhou works construction plans have been designed with a strong focus on innovations regarding Health, Safety and Environment (HSE) responsibilities. Ecological impact values are measured in all areas of operation, particularly water consumption, emissions, energy consumption, noise and optimization of waste management.

As a result, the Vallourec Changzhou works has gained the ISO 14001 certificate for its Environmental Management System and the OHSAS 18001 certificate for Safety Management.

Practical achievements
Sparing no efforts to make progress on environmental issues on a day to day basis the plant was selected in 2008 by the local government as a best practice model for clean and sustainable management. Shortly after having set up a continuous improvement team (CIT) to focus on environmental protection, with a particular emphasis on reducing water consumption, the Vallourec Changzhou works was able to reduce its water consumption by 50%.

The Vallourec Changzhou works is ISO 14001 certified.
Serving your application

Power Generation applications
The steel tubes and pipes for the powergen sector must meet tough quality requirements. In today’s modern Ultra Super Critical (USC) power plant design they have to withstand operating temperatures of up to about 630 °C (1160 °F) and pressures up to 350 bar (5000 psi) throughout the plant’s service life of several decades.

Our products from the Vallourec Changzhou works are used for critical power station components such as:
- Headers
- Steam piping
- Piping components
This includes main-steam, re heater and feedwater pipes. They can be supplied in lengths of up to 11 m, machined to precise dimensional tolerances (diameter and wall thickness), and due to the use of ultramodern centre lathes and deep hole boring machines they also satisfy special surface requirements.

“ Our high-quality large-diameter pipes serve a multitude of applications in the powergen, process and mechanical industries and many more. ”

Line Pipe applications
Everywhere in the process and oil & gas industry, where tubes resistant to high pressures are required, the products from Vallourec Changzhou works are the first choice. This concerns:

- Upstream
  - Enhanced oil recovery (EOR)
  - Thermal e.g. steam assisted gravity drainage (SAGD)
  - Gas injection (CO2); chemical, Topsides for FPU, FPSO, FLNG

- Midstream
  - Central processing facilities
  - Gas-oil separation plants
  - Gas processing: liquefied natural gas (LNG and FLNG), gas-to-liquids (GTL).

- Downstream
  - Refineries: hydrocrackers, sulfur recovery units, fluid catalytic crackers (FCC), visbreakers, upgraders, cokers, distillation columns, fired heaters
  - Petrochemicals: steam crackers, olefins, aromatics, fertilizers


Vallourec / Changzhou Tube Works
Mechanical applications
Tubes from Vallourec Changzhou are typically used for the following mechanical applications:

- Axles
- Fluid power components
- Gas cylinders (e.g., for the mining industry or truck building)
- Printing rolls
- OCTG mechanicals
- Yellow goods (e.g., cranes)
- Frames and cages

For decades Vallourec has gained experiences with forging products and processes in its Brazilian mill to serve several industries with shaped tubular products, e.g., the automotive industry with trailer axles. This knowledge has now been transferred to the French sister PFP plant in Aulnoye, where the first tests with shaped tubes were more than satisfactory. By transferring this technology to the plant in Changzhou shortly, Vallourec will be able to serve the Chinese market with innovative and unique types of forged shaped tubes, where customers can save time, effort and ultimately money during the machining process. Our experts can help you if your final machining process is complicated and scrap-producing. Together, we will find out, how our shaped tubes can improve your production process.

Further Developments: Shaped Products

Shaped tubes were produced in the PFP sister plant in Aulnoye (France) to offer customers a way to save scrap, efforts, time and money in their production process.

Production program

Broad range of materials
Our highly qualified steelworks are specialized in the production of carbon, alloy (e.g., P22, WB36) and high alloy (e.g., P91, P92) steel grades.

Wide range of dimensions
Premium Forged Pipes (PFP) are usually ordered by the inside diameter and minimum wall thickness. However, we can also deliver the PFP in defined outside diameters. Two different production processes are available: customers can choose the so-called two step process where the hollows come from Europe or they can call for one step production, where even the hot forming part is made in our Vallourec Changzhou works.

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Production sequence for Premium Forged Pipes

- Steel from China
- Rotary heat furnace
- Heat treatment shop
- End cut off saw
- Hollows from Germany
- Saw
- Steel from Germany
- Vertical Piercing Press
- Quenching
- Internal grinding
- Hydrostatic test
- Boring
- External grinding
- Finishing turning
- Straightening
- Finish turning
- Ultrasonic test
- Quenching
- External grinding
- Hydrostatic test
- Final inspection
- Shipment
- Forge
- Final inspection
- Shipment

Post production - we call it finishing - is our speciality

Our laboratory - warrantor for the reliability of our client’s products

Vallourec’s Changzhou works is equipped with facilities to carry out all the required chemical composition and mechanical property tests. Most of the devices are made by well-known test machine manufacturers, such as Zwick or OLYMPUS. Fully qualified professionals, standard operations in compliance with international test specifications, together with high quality test machines make our test results precise and reliable.

Heat treatment - one important key to premium products

Heat treatment influences the metallurgy of steel. Through controlled heating and cooling the physical and mechanical properties of the steel are shaped to customer’s specification. High-temperature, high-pressure applications in harsh environments, extended loads for steel constructions - whatever your project demands, our heat-treated seamless steel tube fulfill complex requirements.

Hydrostatic pipe tester - we can work under pressure

With our hydrostatic pipe tester we are able to ensure the safety, reliability and leak tightness of a tube. The hydrostatic test uses water with a pressure up to 200 bar (2900 psi). Each test is recorded and the results are documented.

Boring, grinding, testing - our way of doing a triathlon

Each application is unique and individual. The same applies for our tubes. With boring machines, grinding machines for inner and outer surface treatment and several items of testing equipment (e.g. ultrasonic and hydrostatic testing) the Vallourec Changzhou works is equipped to comply to all our customer’s specifications.

“We are well prepared for your needs. Are you prepared for our tubes?”
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Xinbei District,
Changzhou 213033 (China)

Addresses of our sales offices are given on our website.

www.vallourec.com