### PREMIUM FORGED PIPES AND BARS



### SIMPLIFY & ACCELERATE OPERATIONS WITH TAILORED-MADE PIPES

FULLY CUSTOMIZABLE SHAPES & SIZES

- EXTENSIVE RANGE OF GRADES
- REDUCE WELDING & MACHINING TIME



### VALLOUREC FORGES: PROVEN PRECISION & RELIABILITY

Since 2006, Vallourec has been a trusted partner for all its customers' forging needs, delivering high-quality seamless pipes meeting their specifications. The company covers the international needs of multiple applications through its two forges, the Aulnoye PFP® Pipe Mill in France and the Changzhou Pipe Works in China.

Vallourec uses a unique process of hot-piercing directly followed by highly-efficient radial forging and then heat treatment. Both sites combine the proven machining expertise of local teams with a highly automatized and controlled production environment.

> THE CHALLENGES OF ASSEMBLING PIPES

Pipes and bars are widely used in many industries. However, they are often imperfectly shaped or not fully adapted for the intended application. Operators must therefore weld and reshape the pipes to fit their requirements, necessitating extra machining time and additional costs.

# BEST-IN-CLASS PIPES FOR FASTER & EASIER INSTALLATION

#### FOCUS ON QUALITY

Vallourec prides itself on its robust quality management. Our forge operations are certified by the major international organizations, including ISO, API, OHSAS, DNV, TÜV, AFNOR and ABS.

Both our sites have in-house facilities covering a wide range of non-destructive testing and finishing operations. These include Phased Array Ultrasonic inspection (PAUT), Magnetic Particle Inspection, mechanical and hydrostatic testing, grinding and beveling. We also ensure individual traceability of all pipes from billet to shipment.



A one-step forging process enables short lead times because pipes are heated up once instead of twice.

All grades and dimensions are produced weekly, further contributing to short lead times.



#### HEAVY-WALL & OPTIMIZED PRODUCTION

**Benefit from expertise** in heavywall pipe forging and heat treatment.

Reduce waste thanks to near-net shape pipes featuring no unnecessary material.

Reduce machining time, welding and component purchasing by working with customized pipes that facilitate assembly.



#### ORDER FLEXIBILITY

Order sizes may vary from large series to small lots, depending on customer needs.

Sizes and shapes are fully customizable, with the possibility of non-standard shapes or shaped pipes with dimension variations across the length.

> Thicken/thin certain pipe sections **to optimize the overall design**.

## AN EXTENSIVE & FLEXIBLE PRODUCT OFFERING

Forged pipe
External shaping
Internal shaping
Integral upset pipe
Reduced end
Conical shaping
External & internal shaping
Shaped bar
For a complete list of dimensions & grades, please consult the enclosed appendix.

Forging is the most adaptable and versatile method of hot forming, and Vallourec provides extensive options.

Customers can choose from a very wide range of lengths, dimensions and materials for straight and shaped pipes and bars.

- Outside Diameter range: 191-813 mm (7 1/2"-32")
- Wall thickness range: 25-165 mm (1"- 6 1/2")
- Lengths: up to 13,8 meters (45 ft)
- Large portfolio of grades includes carbon, alloy and high-alloy steel grades, with other grades available on request



#### TAILOR-MADE FOR YOUR APPLICATION

Vallourec's forges have the technical capabilities & expertise to produce best-in-class pipes and bars for companies in multiple industries.

These include:

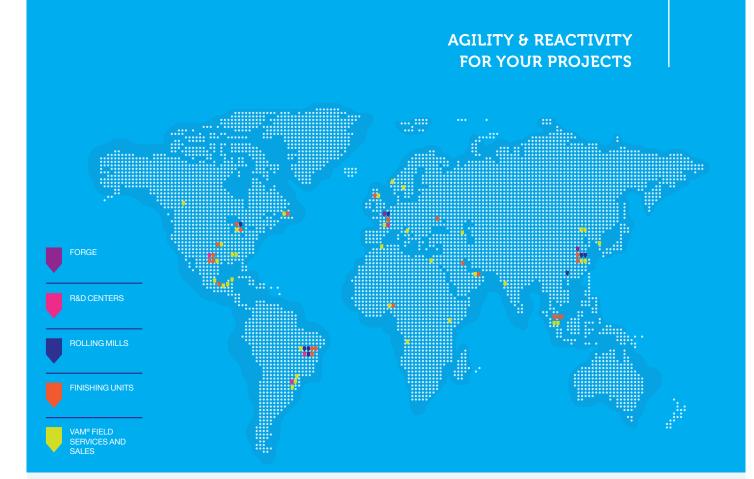
OIL & GAS OFFSHORE

- MECHANICAL ENGINEERING
- OIL & GAS MECHANICAL
- CIVIL & STRUCTURAL ENGINEERING
- DEFENSE
- NEW ENERGIES: HYDROGEN, GEOTHERMAL, WIND

- HYDRAULIC & GAS CYLINDERS
- POWER GENERATION: HEADERS, STEAM PIPING, FEED WATER PIPING
- PROCESS: REFINERIES, PETROCHEMICAL



WHATEVER YOUR APPLICATION, VALLOUREC FORGES PIPES ON DEMAND, QUICKLY AND WITHOUT COMPROMISING ON QUALITY.



#### NEED MORE INFORMATION?

Information is available online on vallourec.com or by scanning the following QR code.







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