

OFFSHORE CONSTRUCTION



OUTSTANDING
WELDABILITY



CUSTOMIZED
SOLUTIONS



DURABILITY

INDUSTRY

INNOVATIVE STEEL GRADES TO WITHSTAND OFFSHORE EXTREMES

— WIDE DIMENSION
PORTFOLIO ENSURES
MAXIMUM FREEDOM
FOR OFFSHORE DESIGNERS

— OCEANFIT® GRADE FAMILY
FOR LIGHT WEIGHT, SUPER
HIGH STRENGTH & IMPACT
TOUGHNESS

— ALL REQUIREMENTS OF
INTERNATIONAL STANDARDS
AND CLASSIFICATION FULLY
MET

ADD VALUE TO YOUR PROJECT WITH ADVANCED TUBULAR SOLUTIONS

Designed to resist, our tubular solutions are used in offshore constructions all over the world, providing high performance, reduced weight solutions for:

- Jack-Up structures
- Offshore Cranes
- Wind Turbine Installation Vessels (WTIV)
- Offshore Wind Farms (fixed bottom and floating)
- Other platforms and vessels

Our solutions offer outstanding weldability, high static values and excellent surface behavior, along with robustness and safety irrespective of climates and sea conditions. Never failing to partner with you to build the best solution for your specifications and needs, we manage complex projects guaranteeing customized solutions and timely deliveries to optimize your operations.



"We've become more competitive thanks to Vallourec's high strength materials which enables us to improve our fabrication techniques thanks to better weldability, tighter and constant tolerances and surface quality."

OFFSHORE WIND MANUFACTURER

WE DEVELOPED A NEW X100/S690 LOW-CARBON ALLOY CONCEPT SPECIFICALLY FOR SELF-ELEVATING UNITS like Jack-ups, Wind Turbine Installation Vessels or Foundation Installation Vessels, offering high resistance at quasistatic fracture, high toughness down to -60°C , and welding without preheating or PWHT.

500
RESEARCHERS
AND
TECHNICIANS

5
RESEARCH
CENTERS AND
TEST CENTERS

€41
million
DEVOTED
TO R&D IN 2020

20
NEW PATENTS
FILED

OFFSHORE
GRADES DOWN
TO
 -60°C

COMPETITIVE RANGE MEETS ALL CUSTOMER REQUIREMENTS

From standard to premium, Vallourec's seamless tubes and exclusive heat treatment capabilities ensure our complete range of ultra resistant steel grades are fit-for-purpose for a wide range of offshore applications. Approved by international offshore standards, our dedicated Oceanfit® grades offer outstanding mechanical property values, high yield strength up to 890 MPa (and 960 MPa on request), toughness down to -60°C, high charpy values at low temperature and easy processing thanks to excellent weldability.

WIDEST DIMENSIONAL RANGE FOR GREATEST FLEXIBILITY

From 21.6 up to 711 mm, our diversified mills ensure the widest dimensional range in seamless tubular solutions for maximum flexibility in design.*

SHAPES & SIZES:

Hot-formed seamless



Round
OD: 21.6-711 mm
WT: 4-110 mm



Square
OD: 40x40 up to
300x300 mm
WT: 4-25 mm



Special
geometries/
shaped
components



Rectangular
OD: 50x30 up to
400x200 mm
WT: 4-25 mm

*Development of customized solutions, applicable also for small quantities, e.g. prototypes or small lot sizes.

JACK-UP RIGS

- Bracings & Span breakers
- Choke & Kill
- Topsides
- Jackcase & Spudcans
- Offshore Cranes

TOTAL
DELIVERIES
>60 000t
PRODUCED FOR
JACK-UP RIGS



WIND TURBINE INSTALLATION VESSELS & CRANES

- Bracings
- Offshore Cranes
- Boom Pipes

TOTAL
DELIVERIES
>5,000t
PRODUCED FOR
WTIV

TOTAL
DELIVERIES
>2,000t
PRODUCED FOR
OFFSHORE
CRANES

OFFSHORE WIND FARMS

- Boatlandings
- Topsides
- Platforms
- Anode Rings
- Anode Cages
- J-Tubes
- Other Secondary Structures

TOTAL
DELIVERIES
>25 000t
PRODUCED FOR
OFFSHORE WIND
FARMS



OUR DIMENSIONAL RANGE

Mill	Round tubes Size range (mm)	Rectangular Size range (mm)	Square Size range (mm)
Mülheim Germany	OD: 21.6 – 181.8 mm WT: max. 32 mm	50 x 30 mm – 180 x 100 mm WT: max. 25 mm	40 x 40 mm – 150 x 150 mm WT: max. 25 mm
Rath Plug Germany	OD: 193.7 – 406.4 mm WT: max. 40 mm	200 x 100 mm – 400 x 200 mm WT: max. 25 mm	150 x 150 mm – 300 x 300 mm WT: max. 25 mm
Rath Pilger Germany	OD: 244.5 – 711 mm WT: max. 110 mm	-	-
Aulnoye France	OD: 209.5 – 445 mm WT: max. 90 mm	-	-
Tianda China	OD: 114.3 – 323.8 mm WT: max. 25 mm	-	-
Belo Horizonte Brazil	OD: 33.4 – 406.4 mm WT: max. 50 mm	60 x 40 mm to 400 x 200 mm WT: max. 25 mm	50 x 50 mm to 300 x 300 mm WT: max. 25 mm

OUR GRADE OFFER

Characteristics	Oceanfit® & comparable grades			Norms
<ul style="list-style-type: none">Yield strength up to 960 N/mm² toughness down to -60°CHigh mechanical valuesGood ductility/charpy values at low temperatureExcellent weldabilityApproved by main classification societies	Oceanfit® 355 Grade 6 X52, X52N, X52Q L360N, L360Q S355NH, S355NL, S355QL, S355QLH VL A36, VL D36, VL E36, VL F36 AH36, DH36, EH36, FH36 Y22, Y27	Oceanfit® 420 X60N, X60Q L415N, L415Q S420QL, S420QLH VL A420QT, D420QT, E420QT VL A0420QT, D0420QT, E0420QT AQ43, DQ43, EQ43 Y32, Y37	Oceanfit® 460 X65N, X65Q L450N, L450Q S460QL, S460QLH VL A460QT, D460QT, E460QT, F460QT VL A0460QT, D0460QT, E0460QT, F0460QT AQ47, DQ47, EQ47, FQ47 Y42, Y47	Grades acc. to classification society DNV ABS other classification societies
	Oceanfit® 500 / 550 X75Q / X80Q L520Q / L550Q S500QL, S500QLH VL A500QT, D500QT, E500QT VL A0500QT, D0500QT, E0500QT VL A550QT, D550QT, E550QT VL A0550QT, D0550QT, E0550QT AQ51, DQ51, EQ51 AQ56, DQ56, EQ56 Y52, Y57	Oceanfit® 620 / 690 X90Q / X100Q L620Q / L690Q S620QL, S620QLH VL A620QT, D620QT, E620QT VL A0620QT, D0620QT, E0620QT VL A690QT, D690QT, E690QT, F690QT VL A0690QT, D0690QT, E0690QT, F0690QT AQ63, DQ63, EQ63, FQ63 AQ70, DQ70, EQ70, FQ70	Oceanfit® 770 S770QL, S770QLH	Others ISO 12633-1:2011
			Oceanfit® 890 VL A890QT, D890QT, E890QT AQ91, DQ91, EQ91	API grades API 5L 46th Edition

VALLOUREC TEAM HELPING YOU EXPAND ACTIVITIES OFFSHORE

The ability of the energy industry to expand its activities in the marine environment will play a significant role in its growth. We can make a critical contribution in helping customers unlock a new field of opportunities.

Vallourec offers dedicated solutions and services to customers worldwide to meet the challenges of designing as well as building structures and facilities in an ocean environment that must be able to resist the extreme weather conditions like low temperatures, high wind speeds and fierce wave loads of the ocean.



MEETING THE CHALLENGES OF JACK-UP RIGS

Dedicated steel grades designed for the legs of Jack-up rigs enable operation in deeper waters and colder climates, while fully meeting the demanding mechanical properties requirements of designers and owners.

- Specific advantages include:
- Toughest design requirements, down to -40°C and -60°C temperature
 - Light structure for the legs due to our high strength material and tight tolerances
 - Easy processing possibilities due to a variety of special solutions like shaped pipes (PFP)
 - Save up to 15% costs in welding with our newest Super Oceanfit® 100 WeldFIT
 - Faster coating process due to extra good surface conditions

COUNTRY	China, Republic of Korea, Singapore
PROJECTS	- JU-2000E Project & CJ46/CJ50 Project (China), - CAT J/CJ70 Project (Korea), - B Class (Singapore), - Pacific Class 400 (Singapore)



MAJOR MANUFACTURERS TURN TO VALLOUREC FOR CRANES & WIND TURBINE INSTALLATION VESSELS

Vallourec successfully partnered with the Samsung Heavy Industries (SHI) shipyard in South Korea that builds some of the world's most advanced Wind Turbine Installation Vessels (WTIV).

Our premium tubular solutions contributed to safety, efficiency and reliability and set up new industry standards for lifting capacity and jacking speed even in extremely rough sea conditions. In addition, Vallourec recently delivered more than 700 tons of pipes in ABS approved EQ70 (X100Q) and EQ47 (X65Q) grades for the first ever Jones Act compliant and largest U.S. WTIV currently under construction. Since 2018, Vallourec has delivered over 2,000 tons of steel to the various major Offshore Crane manufacturers for the construction of Heavy Lift Cranes (HLC) and Leg Encircling Cranes (LEC).

COUNTRY	Republic of Korea, United States of America, The Netherlands
PROJECTS	- Wind Orca and Osprey (WTIV), - Seajacks Scylla (WTIV), - Charybdis (WTIV)



EXPERTISE IN OFFSHORE WIND FARMS

Vallourec has contributed to the creation of solid wind farm structures around the world, providing quick delivery, customized sizes, excellent weldability and lower maintenance due to seamless square and rectangular structural hollow sections.

COUNTRY	Germany, UK, France, Denmark
PROJECTS	- EnBW Baltic 2 (Germany), - Dudgeon (UK), - Saint Nazaire (France), - Kriegers Flak (Denmark), - Yunlin (Taiwan), - Akita (Japan), - Hywind Tampen Floating (Norway), - Dogger Bank (Europe)

SERVICES



PROTOTYPE ASSISTANCE
Thanks to our manufacturing process we can support customers with low minimum quantities.



MATERIAL SELECTION
We offer advice and recommendations on engineering, grades, dimensions and technical issues including fatigue.



TECHNICAL SUPPORT
We provide customized support on welding.

“Today, offshore construction is maturing and becoming a thriving sector not only in Oil & Gas but also in the context of renewable energy. We support industry operators with innovative and flexible solutions and services to rise to the unique challenge.”

— GEORGES BITTÈS,
INDUSTRY PRODUCT LINE DIRECTOR

YOUR INDUSTRIAL
PARTNER, SETTING THE
PACE FOR INNOVATION
AND PERFORMANCE
EVOLUTION

5 INTERNATIONAL
R&D CENTERS

50 PRODUCTION
SITES

WORLDWIDE
SALES AND
SERVICES



Agricultural
Machinery



Civil Construction



Automotive



Offshore
Construction



Cranes/ Lifting
Equipment

NEED MORE INFORMATION?

Information is available online
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