



HIGHEST PROVEN
PERFORMANCE

FAST & RELIABLE
RUNNING

EXTENSIVE
OFFER

Operation KPIs

Pipes run	% Rejects	% Backouts	Joints/hour
490	0.0%	1.0%	8

Running Performance

0 REJECTS

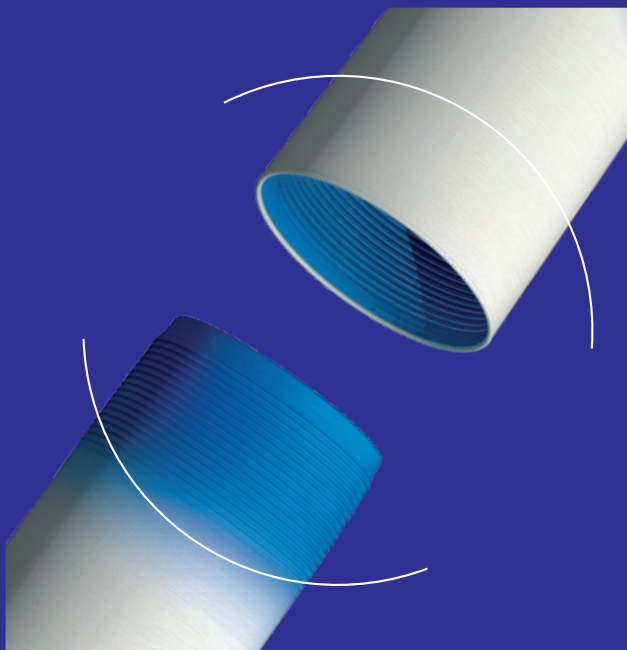
490 JOINTS RUN

SAFE SEAL

TESTED ACCORDING TO API RP6CS 2017 CAL IV

VERSATILE AND EASY TO USE, SETTING THE STANDARD

- **THREADED & COUPLED**
- **3 1/2" TO 16"**
- **AVAILABLE WITH CLEANWELL[®]**



THE PERFECT DUO – VAM® 21 & CLEANWELL® TECHNOLOGY

CLEANWELL® is a non-polluting coating applied in the mill to threaded connections replacing both storage and running compounds. Delivered “rig-ready”, means reduced handling operations, both in the yard and on the rig. It ensures rapid and safe running in challenging operations, provides excellent sealability and improved protection against galling and corrosion. The result: lower operating costs.



ENVIRONMENTALLY FRIENDLY

— No storage or running compound means zero discharge to the environment and no risk of plugging the well bore. Non-sticky, no cleaning is required, reducing water consumption and contamination.



IMPROVED OPERATIONAL PERFORMANCE

— On the yard, CLEANWELL® requires no specific maintenance during storage for up to 3 years. Corrosion resistant, it can withstand all weather conditions; it remains clean and easy to inspect.

— On the rig, CLEANWELL® improves running operations, increasing the number of joints run per hour by up to 30%.



SAFER

— Reduced handling operations means fewer people on board the rig. Applied in the mill, CLEANWELL® requires no additional handling operations. It offers a cleaner and safer operating environment and reduces risk of accident.

+30%
NUMBERS OF JOINTS RUN PER HOUR⁽¹⁾

HANDS - FREE

COMPLIANT WITH OSPAR COMMISSION⁽²⁾

“Using VAM® 21 with CLEANWELL® we had faster running and no rejects. We don’t want to use anything else!”

— AKER BP, North Sea.

“Running CRA pipes with CLEANWELL® was fantastic compared to standard running compounds with not a single reject.”

— PETROBEL, Egypt.

⁽¹⁾Observed during controlled tests compared to conventional running compound
⁽²⁾Convention for the protection of the marine environment of the north-east atlantic



HIGH PERFORMANCE, ENHANCED RESISTANCE, TESTED, PROVEN & TRUSTED.

The latest generation of premium connections, **VAM® 21** has the highest proven technical performance with outstanding sealability and extreme compression resistance. Validated by the severest testing protocols and widely adopted by Oil & Gas operators, **VAM® 21** ensures fast and reliable running in the field, whatever the application, even the most critical.

PROVEN PERFORMANCE

- As strong as the pipe body with 100% compression resistance
- Extensively tested as per API RP 5C5: 2017 CAL IV
- Sealability validated up to 240°C (464°F)
- VAM® 21 HT offers High Torque performance
- Performance validated on High Collapse grades
- Bending validated up to 42°/100 ft

- Tested as per TWCCEP protocol for Thermal Wells up to 350°C (662°F)
- Fatigue test data available

APPLICATIONS

- Offshore and Onshore
- Deepwater (including Risers)
- HP/HT wells
- Salt domes (High Collapse)
- Shale (High Torque)
- Geothermal
- Drilling with Casing

PRODUCT RANGE

- OD:** 3 1/2" to 16"
Standard, alternative and special drifts
- Grades:** Carbon steel grades (API 5CT), Sour Service, High Collapse, Corrosion Resistant Alloys (API 5CRA), 13CR, Super 13CR, Duplex, Super Duplex and Nickel-base Alloys
- YS:** From 80 ksi to 140 ksi



HIGHEST PROVEN PERFORMANCE

— Test results prove that VAM® 21 offers the highest performance in terms of compression, torque, collapse and high temperature resistance.



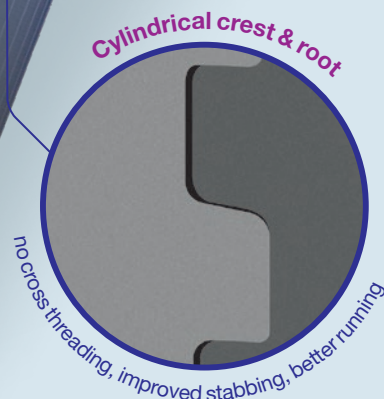
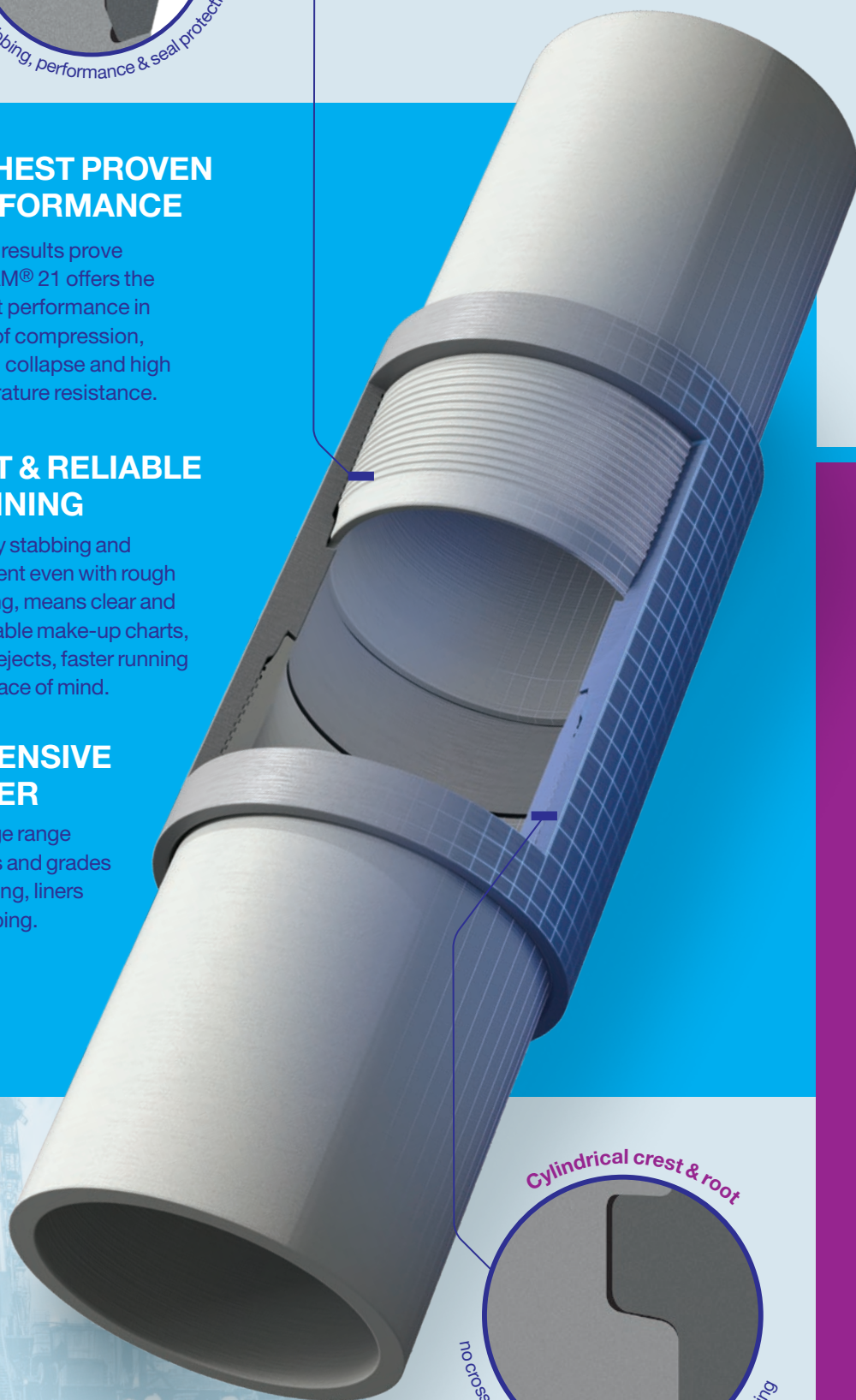
FAST & RELIABLE RUNNING

— Easy stabbing and alignment even with rough handling, means clear and repeatable make-up charts, fewer rejects, faster running and peace of mind.



EXTENSIVE OFFER

— Large range of sizes and grades for casing, liners and tubing.

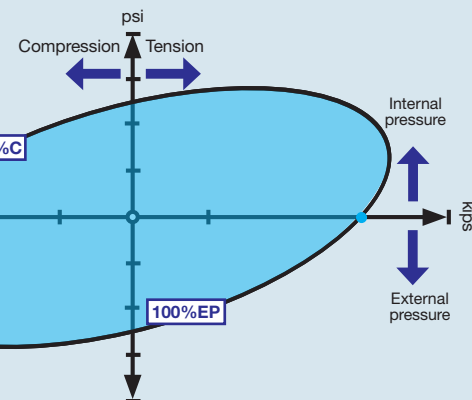


TRUSTED BY AROUND THE

Onshore and offshore unconventional wells, VAM 21 is a versatile, reliable and proven technology. Setting the standard from the North Sea to South Africa and the present operations in North America, fields in the Middle East by a worldwide network. This is why national oil companies around the world use VAM® 21.

300+
DEEPWATER WELLS
EQUIPPED WITH
VAM® 21

VAM® 21 - MAXIMUM LOAD SERVICE ENVELOPE FOR API RP 5C5: 2017 CAL IV PERFORMANCE



OPERATORS THE WORLD

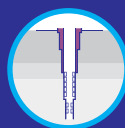
more, in conventional and
wells, VAM® 21 is the most
and easy to use connection.
rd – for HP/HT wells from
outh East Asia, for deepwater
Mexico, the west coast of
salt wells of Brazil, for shale
h America to conventional
e East – VAM® 21 is supported
etwork of VAM® Licensees.

al and international oil
d the world have confidence



Validated for triple stands

VALLOUREC ADDED VALUE SERVICES



WELL DESIGN SOLUTIONS

To optimize your well design.



TECHNICAL SUPPORT

To help you select the right
connections and materials.



VAM® LICENSEE NETWORK

International network to support
VAM® connections.

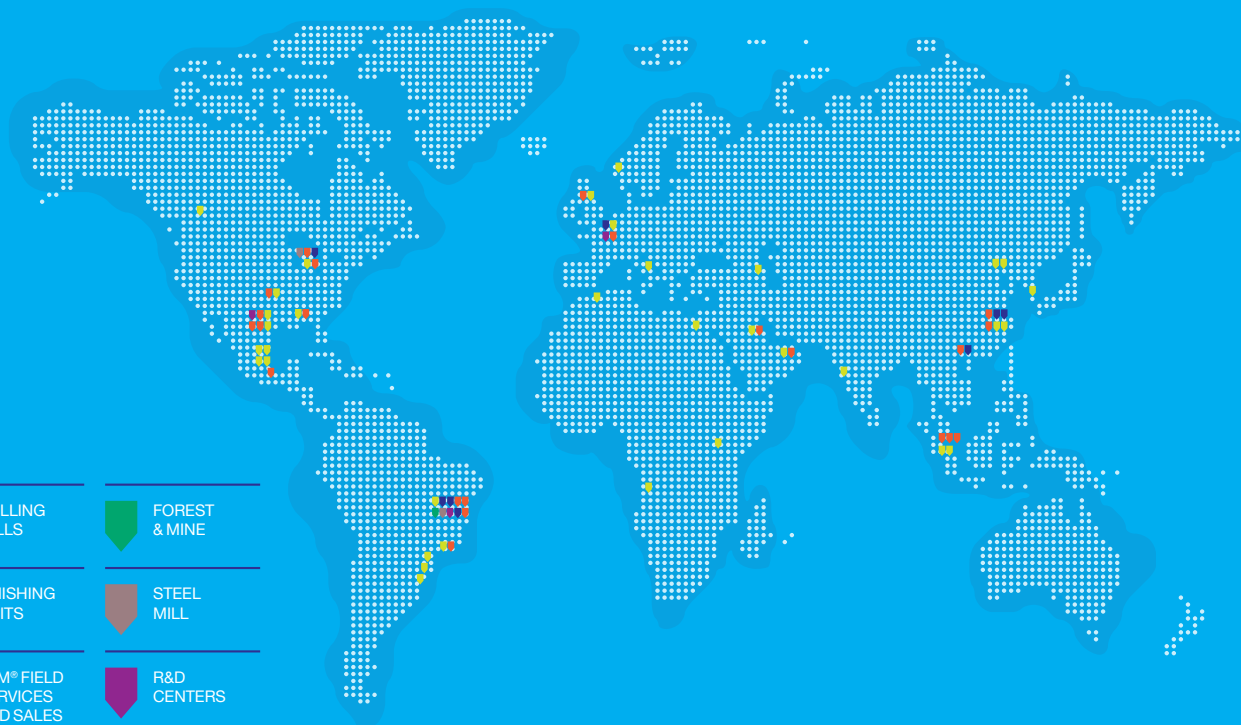
240°C

TRUSTED FOR THE
MOST CHALLENGING
HP/HT WELLS

1,000,000+

VAM® 21 SUPPLIED TO
MAJORS AND IOCS

YOUR PARTNER, SETTING THE PACE FOR INNOVATION AND PERFORMANCE EVOLUTION



NEED MORE INFORMATION?

Information is available online on
solutions.vallourec.com or by
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