



PERFORMANCE IN TUBULARS

Our world is based on high tech seamless pipes that can withstand the toughest conditions, day in, day out. We promise highest performance based on the core values customization, innovation, sustainability and responsibility.



CUSTOMIZATION



INNOVATION



SUSTAINABILITY



RESPONSIBILITY

PRODUCTION, R&D, SALES LOCATIONS AND LICENSEES





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DryTec®

voestalpine Tubulars DryTec® is the dope-free alternative for Premium Connections, currently available for VAGT® and VAsuperior®. DryTec® increases your efficiency and safety on-site and helps you to protect the environment.

PRODUCT CHARACTERISTICS & CUSTOMER BENEFITS

LUBRICANT FREE

» SAVES PREPARATION AND **INSTALLATION TIME**

Compared to thread connections with thread compound, where transport/storage compound has to be removed and installation compound has to be applied, connections with DryTec® are ready to install. Therefore, DryTec® stands for easier handling and cost savings by elimination of work steps.

» ELIMINATES THE RISK OF WELL CONTAMINATION

Excess thread compound could clog sand screens, valves, and perforating guns. It could cause wire line failures and completion fluids contamination. It causes damage to the near-well zone by clogging pores and reducing the inflow rate. DryTec® protects you from these problems.

PROTECTIVE DESIGN » PREVENTS YOU FROM

UNEXPECTED COSTS

Compared to thread compounds, DryTec® provides an additional corrosion protection during transport and storage. It eliminates failure potential caused by too much or insufficient lubricant application and improves make-up, even for multiple make-up, at the same time. In addition, this dry alternative decreases the danger of contamination of the connection on site (e.g. with sand).

SAFE & ENVIRONMENTALLY FRIENDLY » PREVENTS YOU FROM TROUBLES

Compared to thread compounds, DryTec® means no pollution at the rig and in the well. It increases the safety of your staff and reduces the impact on the environment.

READY TO INSTALL » SAVES WATER

DryTec® connections are ready to install. Compared to connections with thread compound, no water is needed to remove transport/storage compound. Therefore, DryTec® stands for easier preconditions for your running/installation work on site.

REFERENCE PROJECTS

» VERMILION ENERGY

Saves costs and ensures clean work on-site with DryTec® - The dope-free thread coating solution.

» CABOT OIL & GAS

Demonstrates its commitment to being an ESG leader through the first use of DryTec® technology in the U.S.

» BIRCHCLIFF ENERGY

Simplifies operations in freezing environment with DryTec® - The lubricant free thread coating conquering Canada.



REFERENCE PROJECTS

VERMILION ENERGY

SAVES COSTS AND ENSURES CLEAN WORK ON-SITE

In early June 2021, Vermilion installed 3,850 feet of voestalpine Tubulars' production casing with VAGT-DryTec®.

| Project key data | |
|------------------|--------------------------------|
| Operator | Vermilion Energy |
| Location | NGA-6, Nijega/ Netherlands |
| Type of the Well | Gas, first sidetrack |
| Sidetrack Length | 3,850 ft (1.17 km) |
| Material used | 7" x 23 ppf L80-1 VAGT-DryTec® |

Numerous customers, including Vermilion, strive for more efficient and ecological processes in their daily business and approach voestalpine Tubulars to develop tailor-made solutions together.

To address the present requirements regarding efficiency, environment and safety, the voestalpine Tubulars' R&D team developed DryTec® with the intent to make customers' lives easier. This dope-free coating technology on premium casing connections eliminates work steps and helps to create a safe work area with clean tools.

Vermilion successfully installed 7" x 23.00 ppf L80-1 VAGT-DryTec® with a semi-automatic pipe handler with top drive make-up and was very satisfied with the outcome.

In addition to the increased safety on-site and time savings for preparation operations compared to pipes with doped threads, the positive environmental aspects as well as easier re-use and disposal of thread protectors were well received.

What does the installation crew think about this product of voestalpine Tubulars?

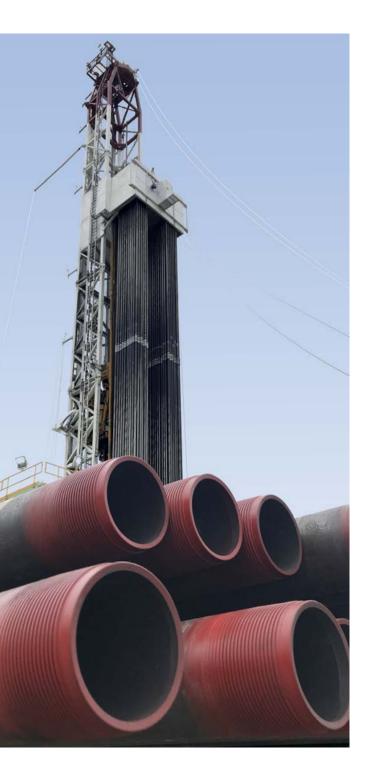
"From my point of view DryTec® will be the future, because it makes work cleaner and there is no contamination of completion tools and thread protectors with dope."

Drilling Engineer, Vermilion Energy



"DryTec saves all the costs for the pipe thread preparation at the storage yard, creating a monetary benefit for Vermilion."

Drilling & Completions Logistics Coordinator, Vermilion Energy



CABOT OIL & GAS

DEMONSTRATES ITS COMMITMENT TO BEING AN ESG LEADER THROUGH THE FIRST USE OF DryTec® TECHNOLOGY IN THE U.S

In early June 2021, Cabot Oil & Gas installed 12,697 feet of voestalpine Tubulars' production casing, including VAsuperior-ET-DryTec®.

| Project key data | |
|------------------|---|
| Operator | Cabot Oil & Gas |
| Location | Griffiths J12, Rush Township/ Pennsylvania |
| Type of the Well | Shale, batch drilling |
| String Length | 12,697 ft (3.87 km) |
| Material used | » 5 ½"x23 ppf Q125 VAroughneck |
| | » 5 ½"x23 ppf VA-EP-Q125 VAsuperior-ET-DryTec® |

Among our customers there always exists a desire to improve both safety and efficiency. One opportunity to achieve both goals is through the elimination of thread compound (dope) use on premium casing connections.

The team on-site successfully installed 5 1/2" x 23.00 ppf VA-EP-Q125 VAsuperior®-ET-DryTec® and was very satisfied with the outcome.

The benefits of increased safety achieved through less on-site handling, and the minimized environmental risk were well recognized. Further, the make-up and installation of the VAsuperior®-ET DryTec® connections were entirely consistent with the well-established legacy of the doped product, so there is zero sacrifice in connection performance.

What does the installation crew think about this product of voestalpine Tubulars?

"Great product. DryTec® could be the safe solution for us in future. In addition, regarding ESG, the disposal of thread protectors is much easier than protectors of doped threads."

> Drilling Engineer/Supervisor/ Chief of Operations of Company

BIRCHCLIFF ENERGY

SIMPLIFIES OPERATIONS IN FREEZING ENVIRONMENT WITH DryTec® - THE LUBRICANT FREE THREAD COATING **CONQUERING CANADA**

In early 2022, Birchcliff Energy installed two strings, with lengths of 16,194 and 14,548 feet, of voestalpine Tubulars' production casing with the VAsuperior®-DryTec® technology.

| Project key data | |
|------------------|---|
| Operator | Birchcliff Energy Ltd. |
| Location | Pouce Coupe/ Alberta |
| Type of the Well | Shale gas, batch drilling |
| String Length | 16,194 ft (4.94 km) and 14,548 ft (4.43 km) |
| Material used | 4 ½" x 15.20 ppf VA-XP-T95-1 VAsuperior®-DryTec® |

Throughout the long-term relationship between voestalpine Tubulars and Birchcliff Energy, both companies have dedicated themselves to pioneering game-changing technologies to make processes more efficient, provide a safe work environment and operate in a sustainable manner.

In the winter months in Alberta and British Columbia, removing the storage compound is a time-consuming operation. The removal of protectors with heat is common, as is the use of a hybrid of water and steam to clean frozen thread compound from the threads, followed by applying running compound at the rig floor. Combatting these challenges, DryTec® proves to be a powerful solution to save time and costs for the mentioned tasks while mitigating health and operational risks by avoiding doping operations at the rig site.

Birchcliff Energy is reviewing DryTec® as a standard product for its Canadian operations.

What does the customer and the installation crew think about this product of voestalpine Tubulars?

"I didn't believe that such a product really works!"

Tong Hand/Casing Crew



"We are considering use of DryTec® as a standard product in the future to eliminate the risks associated with improper doping."

Senior Completion Engineer/Birchcliff

SERVICES



myTubulars APP PRODUCT DATASHEETS, FIELD SERVICE AND LICENSEES

myTubulars

Generate datasheets and load envelopes containing dimension and performance data for products provided by voestalpine Tubulars with our Datasheet Generator. You can quickly and easily check the product application against field requirements in advance also on your tablet or smartphone by using the myTubulars App.

myTubulars is available for all iOS and Android devices for free in the App stores.

GET THE APP!





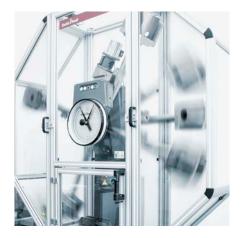




Field Service during the installation can be provided upon request. Please visit the Customer Service site on our web page www.voestalpine.com/tubulars

WHY voestalpine Tubulars?

Support from material and product selection, in-house material and product development, to final product and installation consulting from one source.



PRODUCT DEVELOPMENT



CONNECTION DEVELOPMENT



MATERIAL DEVELOPMENT



PROCESS DEVELOPMENT



TAILOR-MADE SOLUTIONS



FIELD SERVICE

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