

GEOTHERMAL



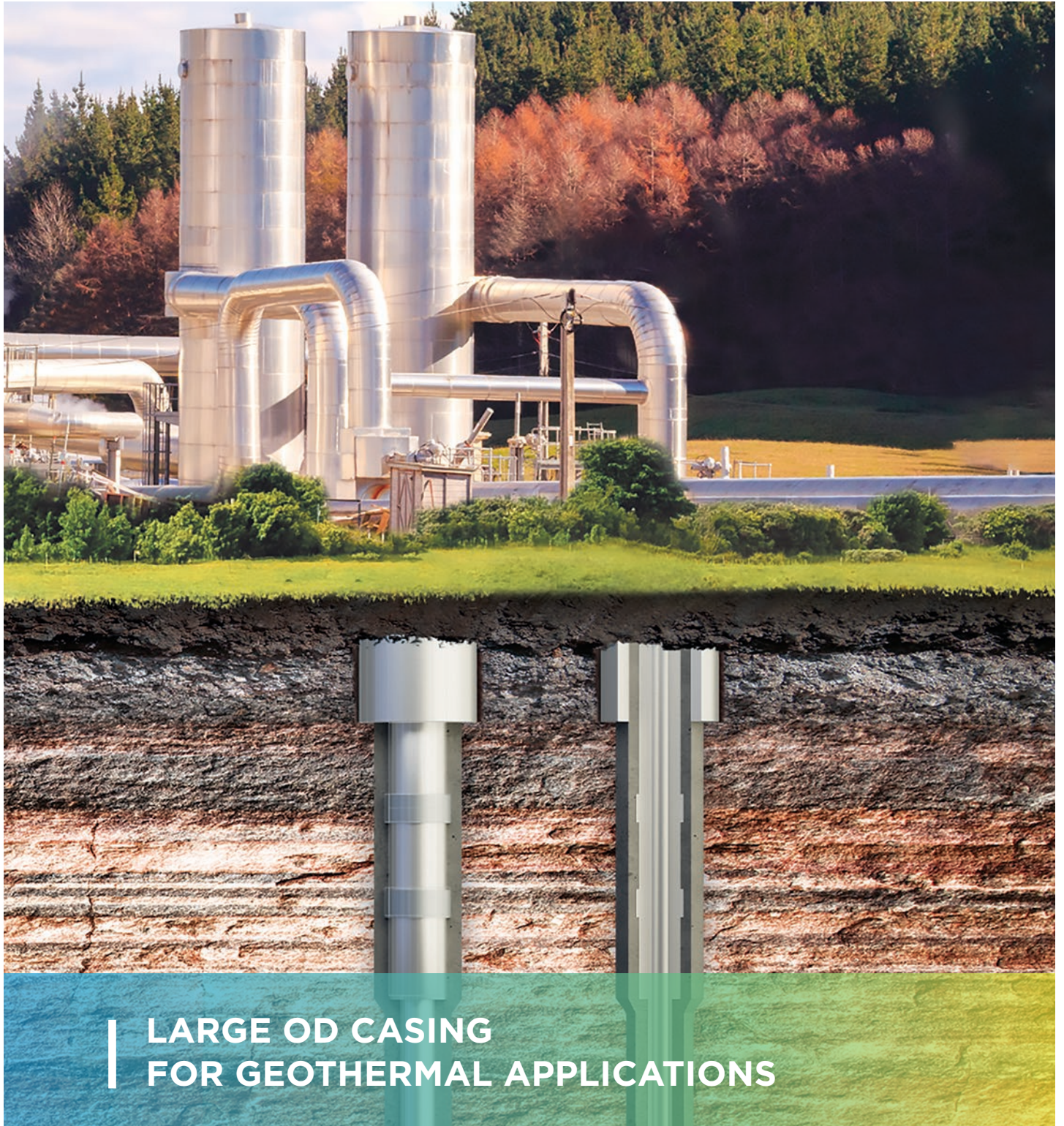
STRUCTURAL
PERFORMANCE



CERTIFIED
SEALABILITY



FIELD-PROVEN
RELIABILITY



LARGE OD CASING
FOR GEOTHERMAL APPLICATIONS

Meeting geothermal challenges for Large OD pipes

In geothermal wells, LOD (Large Outer Diameter) pipes used in the upper part of the well have unique requirements.



STRUCTURAL INTEGRITY
In surface casing, LOD pipes must withstand considerable loads to ensure the well's integrity over its lifespan of at least 30 years. LOD pipes must also withstand thermal stress during production and cooling of the well.



SEALABILITY
In wells where the upper part of the surface casing is used as the pumping chamber for the downhole pump, premium connections are needed to ensure sealability. Wells near urban areas may also be subject to regulations requiring sealability.



COST-EFFICIENCY
For the best return on investment, operators must ensure fast installation and optimize the choice of tubulars and connections to last the entire life of a well.



RESISTANCE TO HIGH FLOWS
Due to high flow rates in geothermal wells, casing connections should feature flush ID bore to prevent erosion and corrosion.

A VARIED OFFER OF GEOTHERMAL-READY LOD PIPES AND CONNECTIONS

Vallourec provides a wide range of LOD tubes and connections adapted to every type of geothermal project.

Tubes

► For casings of 16" to 18 5/8", Vallourec manufactures its own high-quality seamless API grades (all 5CT steels from K55 to Q125).

To cover every LOD need, we work with longstanding and qualified partners for larger diameters. Our offer for 20" casing covers both LOD ERW* and seamless pipes fitted with Vallourec premium or semi-premium connections. For 22" and above, Vallourec provides expert guidance and supplies welded pipes fitted with Weld-on connectors.

Connections

► Depending on the nature of their project, operators can choose from Vallourec's BIG OMEGA[®]-IS or VAM[®] LOX connections.

LOD Casing Offer for Most Common Geothermal Needs

OD range	18 5/8"	20"	20"	22" and above
Casing pipes	Seamless	Welded (ERW)	Seamless	Welded
Grades	K55, L80, T95, P110	X65 / X80	K55, L80	X65 / X80
Connections	BIG OMEGA [®] -IS/VAM [®] LOX			Weld-on connectors

► Please get in touch with the Vallourec Sales Team to inquire about the availability of combinations.

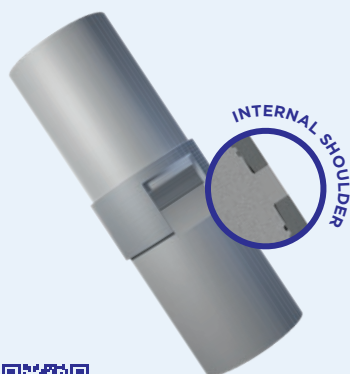
*Electric Resistance Welded.

PROVEN CONNECTIONS FOR GEOTHERMAL PERFORMANCE

Vallourec's semi-premium **BIG OMEGA®-IS** and premium **VAM® LOX** both deliver flexibility, reliability and easy handling.

Key features

- Can be threaded on both seamless and ERW (welded) pipes
- Easy and reliable make-up provides good running performance
- Available for 18 5/8" pipes and 20" pipes
- Flush ID prevents erosion and corrosion from geothermal turbulence
- 30 years of successful running with field-proven structural performance



➤ SCAN THE QR CODE
FOR FULL DETAILS
OF BIG OMEGA®-IS

*IS = Internal Shoulder

BIG OMEGA®-IS FOR STRUCTURAL PERFORMANCE

The semi-premium connection **BIG OMEGA®-IS*** is perfectly adapted to geothermal projects where the surface casing must sustain **structural loads** and there is no risk of **gas or fluid leakages**. Its Internal Shoulder provides extra compression, torque and bending resistance.

Robust, efficient and easy to use

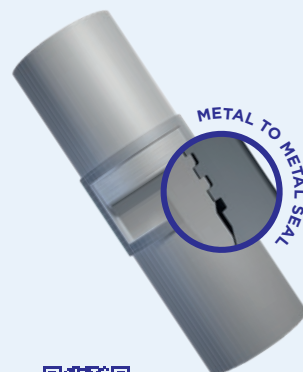
- Rugged thread design with no risk of cross-threading or over-torque
- Fast and cost-efficient alternative to basic weld-on connectors
- Up to 100% MIYP (Minimum Internal Yield Pressure) of pipe body

VAM® LOX FOR EXCEPTIONAL SEALABILITY

VAM® LOX is a premium surface casing connection designed to meet the demanding conditions of geothermal wells. It **combines structural integrity with gas tightness** – an essential combination for many geothermal projects.





Fast running and risk reduction

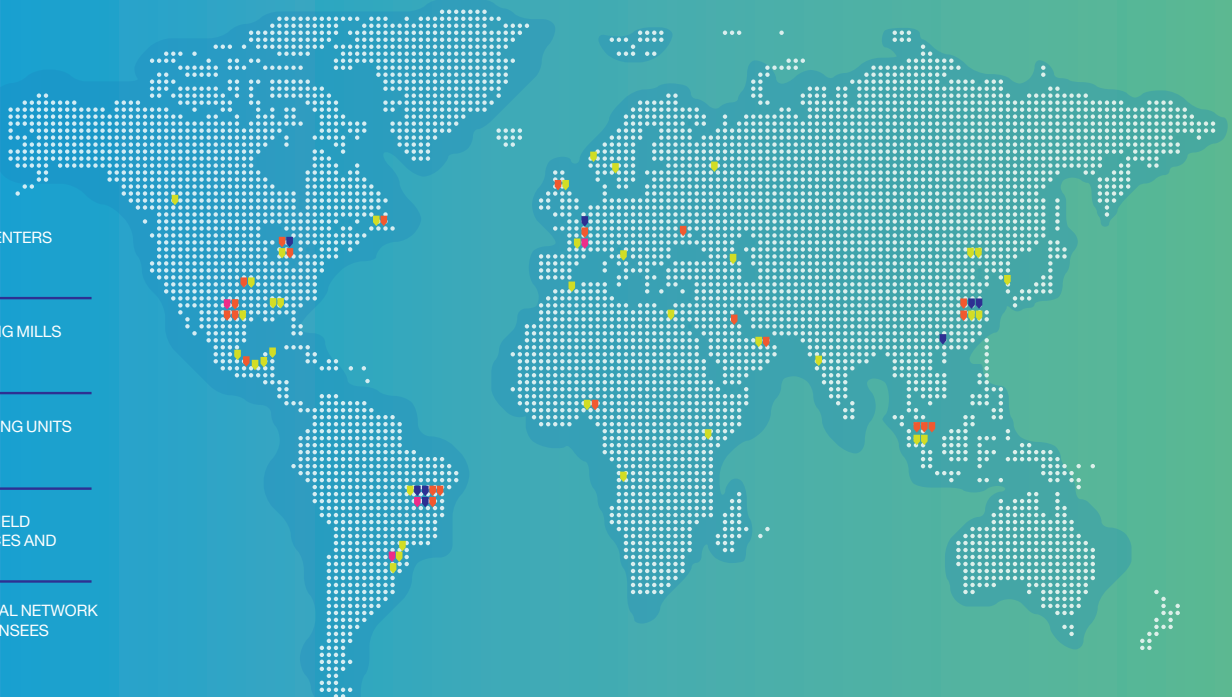
- Fitted with metal-to-metal seal
- Sealability certified as per API 5C5 CAL I (gas)
- Double start thread



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FOR FULL DETAILS
OF VAM® LOX

YOUR PARTNER, SETTING THE PACE FOR INNOVATION AND PERFORMANCE EVOLUTION

-  R&D CENTERS
 -  ROLLING MILLS
 -  FINISHING UNITS
 -  VAM® FIELD SERVICES AND SALES
- INTERNATIONAL NETWORK OF VAM® LICENSEES



NEED MORE INFORMATION?

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



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