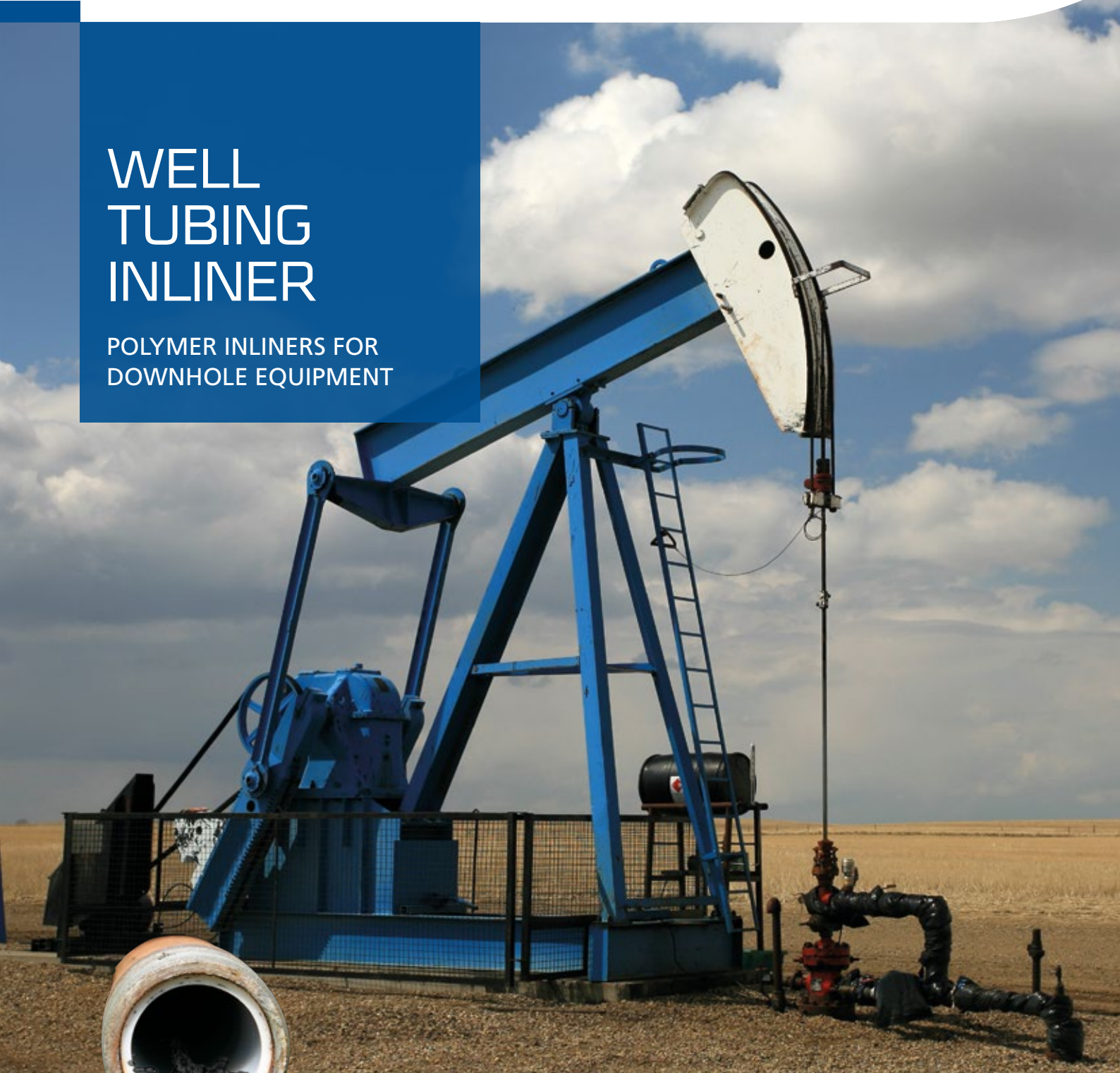


WELL TUBING INLINER

POLYMER INLINERS FOR
DOWNHOLE EQUIPMENT





The Plastics Experts.

To meet the high demands of the oil producing industry a new product was developed. Well tubing liners significantly reduce the corrosion and abrasion in tubings. Thus the lifetime of tubings can be increased and as a result maintenance costs are decreased by this patented technology.

The AGRU success story has been unfolding now for around seven decades. Founded back in 1948 by Alois Gruber senior, nowadays the company is one of the world's most important single-source suppliers for piping systems, semi-finished products, concrete protection liners and lining systems made from engineering plastics. Our ability to supply everything from a single source sets us apart. We use only top-grade thermoplastic polymers as our raw materials. When it comes to application-technical consulting, we are your best partner in the field.



Quality

At AGRU, customer satisfaction comes first. Technical consultations, training courses, welding instruction and expert supervision on site are essential parts. The AGRU quality assurance system is compliant with ISO 9001:2008 and its environmental management system fulfils ISO 14001:2004. This in turn ensures that the products comply with international norms, as monitored and evaluated on an ongoing basis by independent testing agencies standards.

The start-to-finish attention to quality ensures that the products meet and beat the strictest technical specifications, providing safe operation within gas, water and waste-water infrastructures.

WELL TUBING INLINER

Increased lifetime

Current Situation

The majority of oil wells are operated by subsurface sucker rod pumps or progressive cavity pumps. Both stand for high demands on the mechanical properties of the steel tubing due to the movement of the rod string. The main root cause of tubing failures is a synergistic effect of both, the rods wearing on the tubing wall (abrasion) coupled with the electrochemical attack (corrosion) of the environment. This results in high maintenance costs and production losses. In some cases these high costs may even lead to an abandonment of the well.



Benefits

The preferred material which was used in the past for lining of oil well tubings was polyethylene (PE). Due to improved material properties PE-X offers an increased durability at elevated temperatures even with abrasive media (e.g. crude oil containing sand) and also against the abrasive action of pumping rods. OMV showed that lining of steel tubings with PE-X significantly reduces downhole failures:

- Lifetime increase of sucker rod pump and PCP wells
- Abrasion and corrosion resistance
- Extended workover intervals, thus reduced work-over costs
- Reduced energy consumption of pumps (15 - 20 %)
- Reduced production costs



Solution

In order to reduce the frequency of work overs and maintenance costs, polymeric inliners for well tubings can be used. Recently a patent has been applied by OMV and Borealis for using crosslinked polyethylene (PE X) for this kind of application (patent WO 2009/080556). AGRU is a licensee for this technology. Due to several advantages tubing inliners made of PE-X offer significant benefits compared to existing solutions.





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The Plastics Experts.

Your distributor



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