

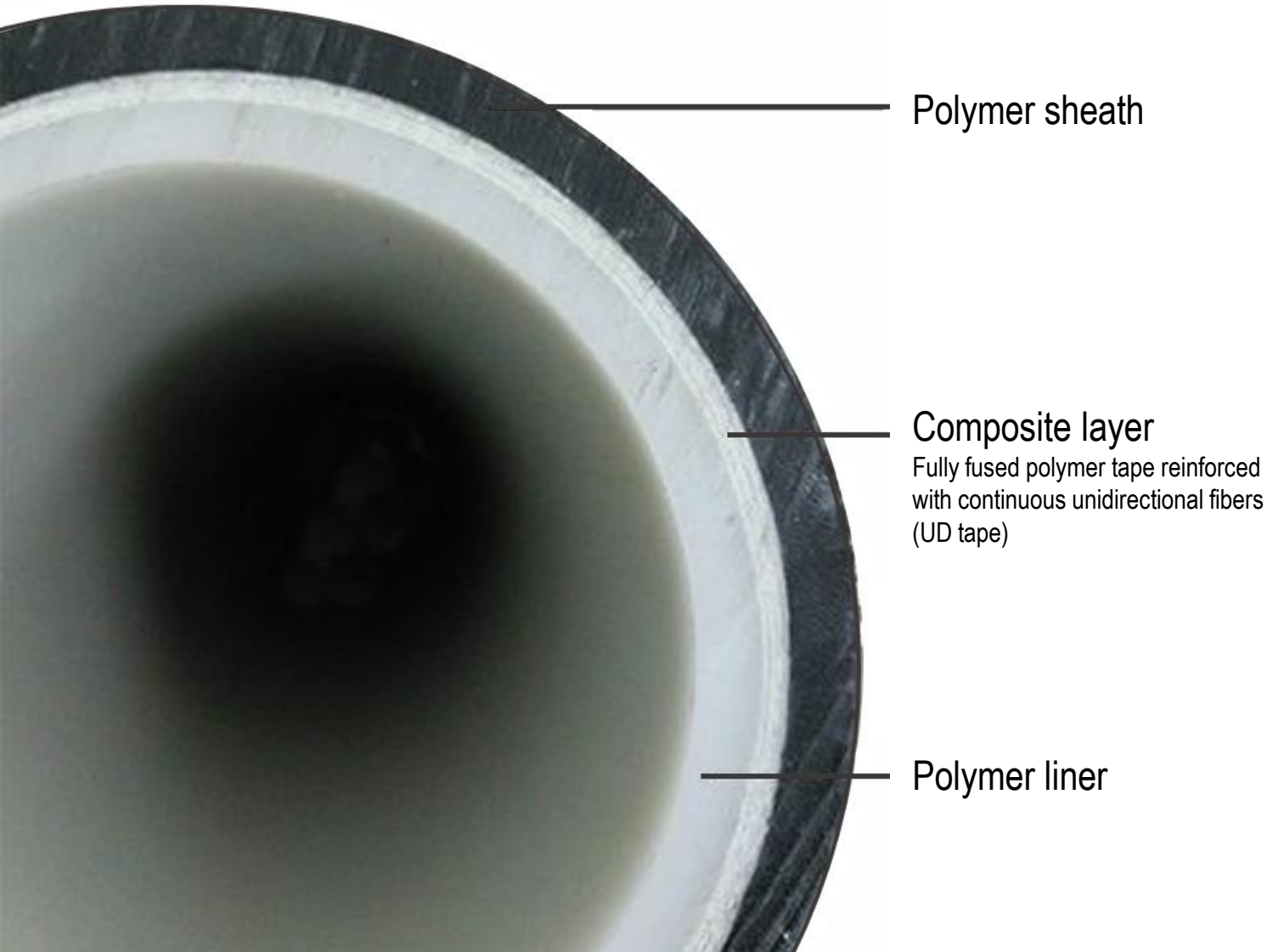
Thermoplastic composite pipe | Reinforced Thermoplastic Pipe

Thermoplastic Composite Pipe Manufacturing Equipment

for the oil fields

TCP TURNKEY PLANT

FARTROUVEN
Research and Development



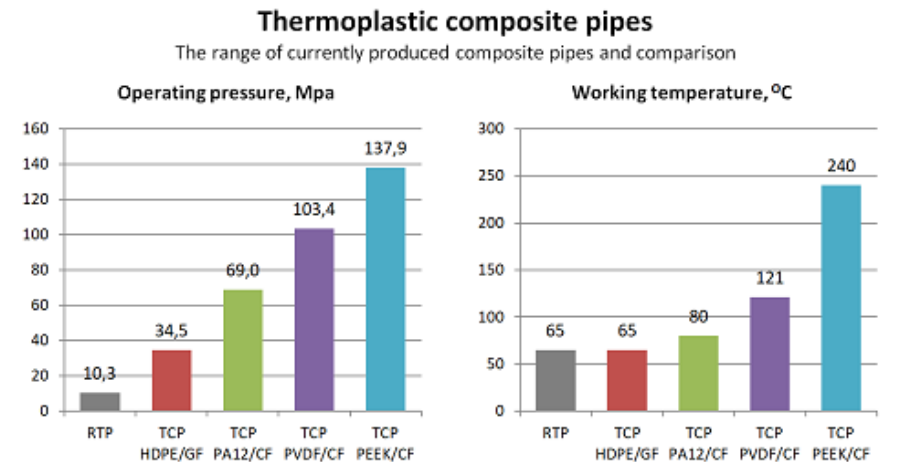
Production complex

is designed for the manufacture of flexible
Thermoplastic composite pipes (TCP)
and Reinforced Thermoplastic Pipes (RTP)

Diameter range: 2-10 " (ID)

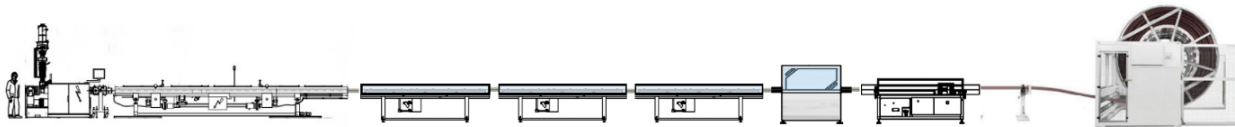
Operating pressure: 4,0... 137,9 MPa (600 ... 20 000 psi)

Qualification: API RP 15S, DNVGL-ST-F119

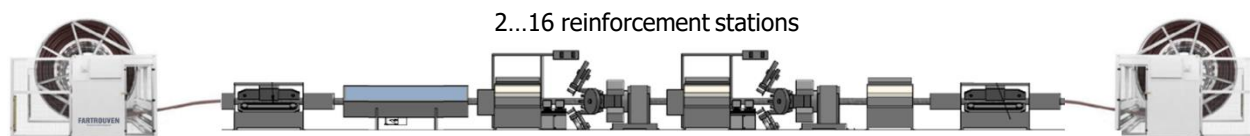


THREE STAGES

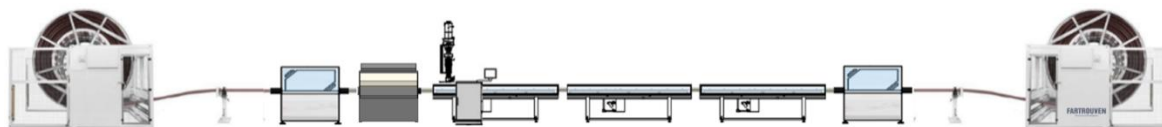
STAGE 1. Liner manufacturing



STAGE 2. Formation of the reinforcing system



STAGE 3. Applying a polymer sheath



MANUFACTURING PROCESS

The process is divided into 3 stages. This allows you to carefully control the manufacturing process of all TCP layers, improving the quality of the pipe as a whole. It also facilitates the implementation of repeated reinforcement cycles.

In the technological cycle of TCP manufacturing, before the formation of the reinforcing system, the liner settles for 6..24 hours until the shrinkage process is completed. This will prevent the occurrence of stresses in the “liner-reinforcing system” boundary layer, as well as increase the resistance of the pipe to delamination at high pressures.

The three-stage manufacturing process also allows for flexible placement of equipment in the production area.



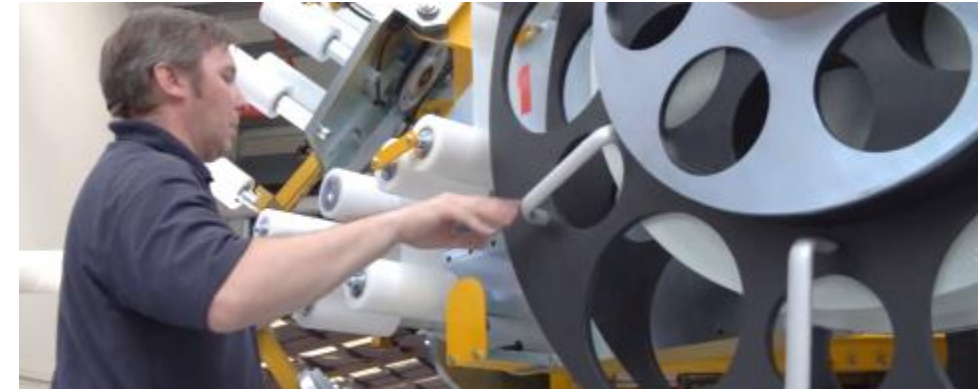
HIGH-TECH EQUIPMENT



EQUIPMENT & SERVICE

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Automated Process Control



ENGINEERING

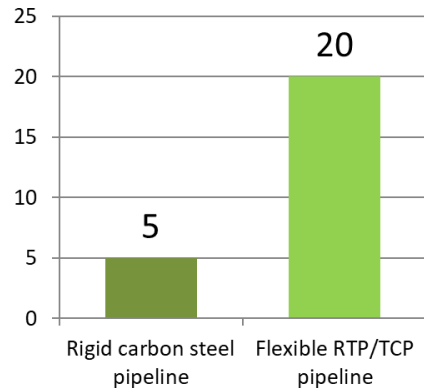
Optimization of production equipment specifications to solve consumer problems.

Flexible solutions to achieve the best performance and high quality finished products

COMPETITIVE ADVANTAGES AND A GROWING MARKET

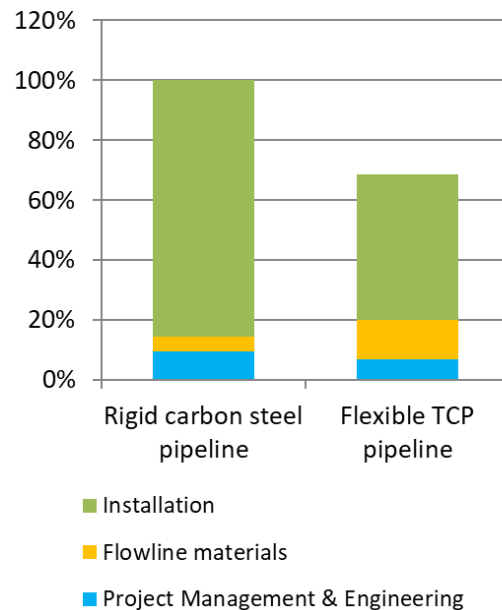
Extended service life of oil and gas pipelines
 Ease of installation and lower cost of ownership
 Cost of ownership of TCP pipelines is 30% lower than carbon steel pipelines

Service life of oil and gas pipelines, years



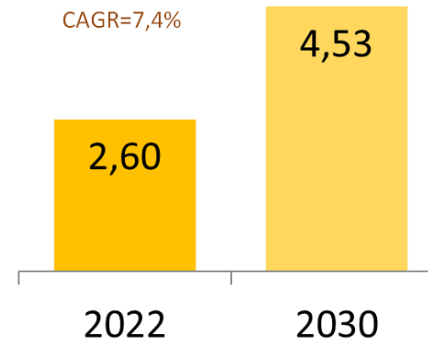
Source: Avery A and Martin S. Reinforced thermoplastic pipe – Innovative technology for onshore field developments. In: Proceedings of the 22nd international conference on offshore mechanics & arctic engineering. Cancun, Mexico, 2003

INSTALLATION COST Rigid Steel vs Flexible TCP



Source: Strohm

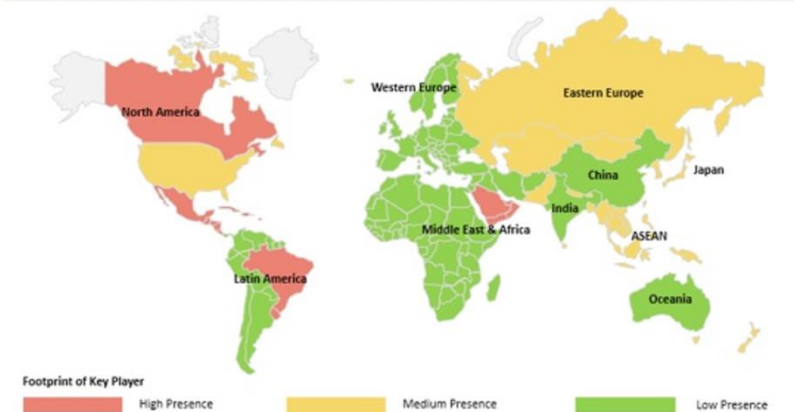
The global thermoplastic pipe market 2022-2030, \$ billion



Source: Globe Newswire



Global RTP Market: Key Player Regional Footprint

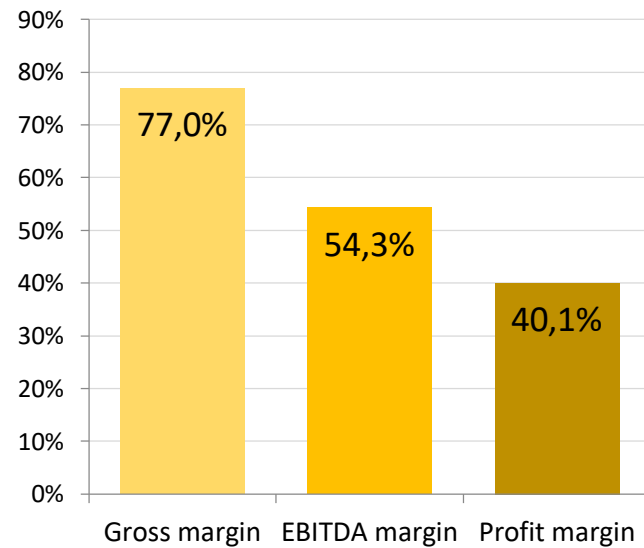


ON LAND AND IN THE SEA

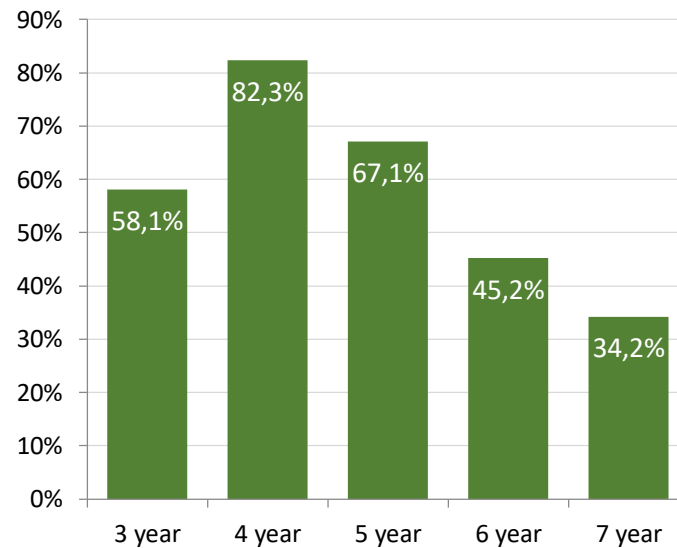


HIGH BUSINESS PROFITABILITY

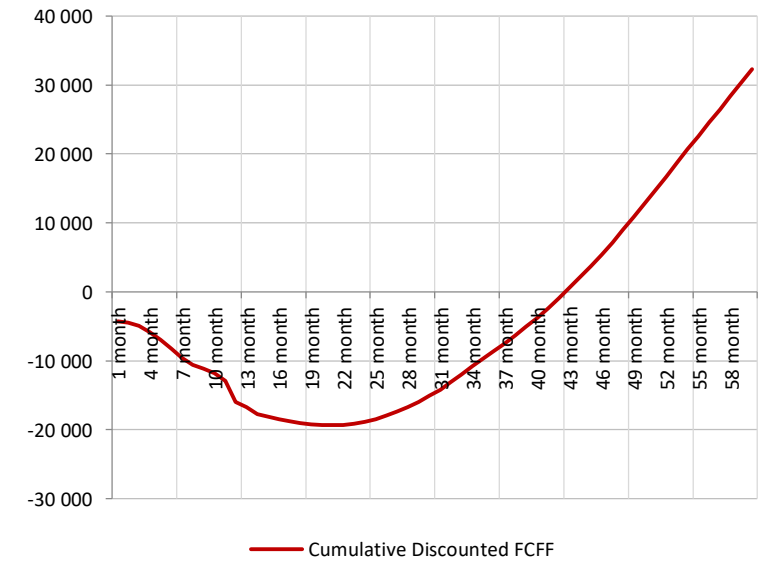
Project cost effectiveness



ROI



Project payback schedule



A VIDA É BOA!



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Soluções inovadoras para a fabricação de tubos compósitos