



Oil & Gas Piping Solutions



Innovation Through Performance

Pexgol's PE-X (crosslinked polyethylene) pipes represent a breakthrough in piping technology, specifically tailored for the rigorous demands of the Oil & Gas industry. These pipes are crafted from high-density polyethylene, which undergoes a unique **crosslinking** process. This process forms a **resilient three-dimensional molecular network**, endowing the pipes with unparalleled strength and durability.

Adhering to Global Standards

Our commitment to quality and safety is underscored by our adherence to internationally recognized standards, ensuring our solutions not only meet but exceed industry expectations.

API 15PX: Setting the Bar for Excellence

The **API 15PX** specification is a testament to our pipes' capability in handling oil, gas, and non-potable water conveyance in both aboveground and buried applications. With an application **temperature range of -50°C to 90°C (-58°F to 194°F)**, Pexgol pipes offer unparalleled performance even in the most extreme environments.

Service Factors and Pressure Ratings:

- For water and dry gas applications, a service factor of 1 applies, with a maximum allowable working pressure of 30 bar.
- In scenarios involving wet gas and hydrocarbons, a more conservative service factor of 2 is employed, resulting in a maximum allowable working pressure of 15 bar.

ISO 14531: Global Standards for Gaseous Fuels

Pexgol's compliance with ISO 14531 standards showcases our pipes' versatility in gas conveyance systems. This standard outlines the requirements for PE-X systems, ensuring safe and efficient transport of gaseous fuels.

Temperature and Service Factors:

- The maximum temperature range for gas applications extends **up to 60°C / 140°F**, with a minimum threshold of -50°C / -58°F.
- A uniform **service factor of 1.6** is maintained across all applications, reinforcing the reliability of Pexgol pipes in both wet and dry gas environments.



Corrosion, Abrasion, and UV Resistance

Pexgol pipes exhibit superior chemical and corrosion resistance. They can handle a variety of chemicals, including aggressive acids, alkalis, and solvents commonly found in oil and gas processing. This resistance extends the life of the piping system, reduces maintenance costs, and mitigates the risk of environmental contamination.



Temperature Resilience

Designed to withstand extreme temperature variations, Pexgol pipes operate efficiently in environments ranging from -50°C (-58°F) to 110°C (230°F), ensuring consistent performance under diverse conditions.



Reliability Under Pressure

Pexgol pipes are engineered to handle high-pressure demands without compromising integrity, suitable for both high-pressure gas wells and low-pressure oil wells.



Eco-Friendly and Cost-Effective

The long lifespan of Pexgol pipes translates into a lower environmental impact. By minimizing the need for frequent pipe replacements, we reduce waste and conserve resources. This longevity, combined with the reduced energy requirements for operation, underscores our commitment to sustainability.



Quick and Easy Installation

The inherent flexibility of Pexgol pipes, combined with their availability in long coil lengths, facilitates easy handling and installation, even in challenging environments. Fewer joints are required, which minimizes installation time and risks, streamlining the entire process.



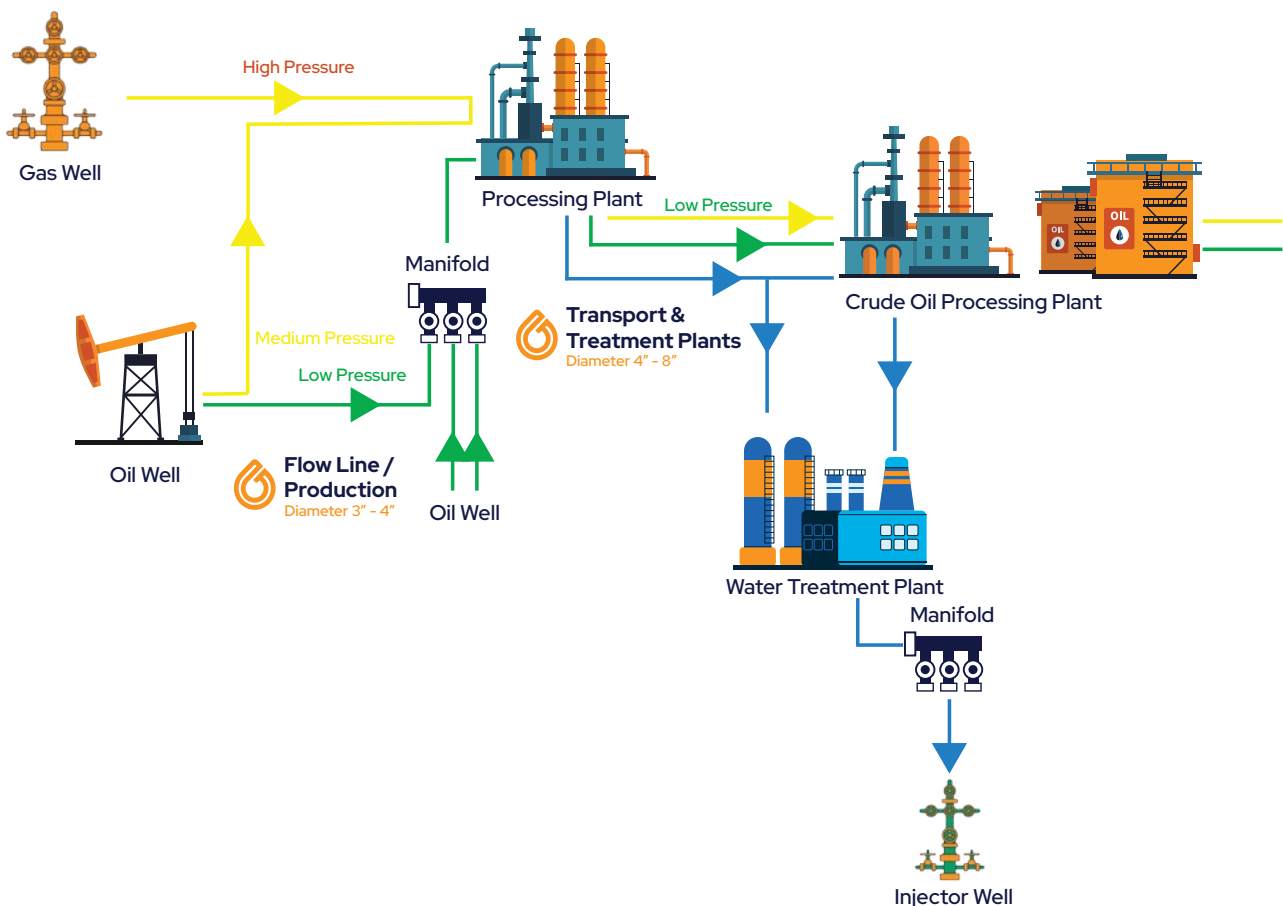
RCP Resistance

Resistance to Rapid Crack Propagation (RCP) is a hallmark of Pexgol pipes, ensuring long-term durability even under dynamic pressure variations.

Applications in Oil & Gas

- **Production Flow Lines for Oil / Gas:** Utilizing Pexgol pipes for production flow lines enhances operational efficiency due to their pressure tolerance and chemical resistance.
- **Transport of Formation / Injection Water or Fresh Water:** Pexgol pipes provide a reliable solution for the transport of both formation water in extraction processes and fresh water for injection purposes.
- **Process Oil / Gas / Water Plants:** Our pipes are ideally suited for processing facilities, offering the durability required for continuous operation and material transfer.
- **Fire Extinguisher Systems:** The flexibility and resilience of Pexgol pipes make them an excellent choice for fire extinguisher systems in the Oil & Gas industry, capable of withstanding both physical and thermal stress.

Pexgol's innovative piping solutions encapsulate superior performance and adherence to the highest industry standards, rendering them an indispensable asset for modern Oil & Gas operations.





Maximizing Efficiency, Minimizing Costs

In the **Oil & Gas** industry, where operational and capital expenditures are critically scrutinized, Pexgol piping solutions emerge as a beacon of cost **efficiency and sustainability**. Our pipes are not only designed for durability and reliability but also to significantly reduce overall costs.

Reduced Installation Costs

Pexgol pipes, due to their lightweight and flexible nature, significantly simplify the installation process. Pexgol pipes can be easily maneuvered and laid out in challenging terrains, reducing the need for heavy machinery and specialized labor.

Our pipes can be supplied in lengths up to several hundred meters, drastically reducing the number of required joints and fittings.

Sand Embedding Not Required

Pexgol pipes eliminate the need for sand embedding, a process often required for traditional piping to protect against external pressures. This not only reduces material costs but also simplifies installation, particularly in remote or environmentally sensitive areas.



Pexgol's innovative approach to piping solutions in the Oil & Gas industry provides an unparalleled blend of cost efficiency, operational excellence, and environmental responsibility, making it the preferred choice for forward-thinking companies.

Lower Maintenance and Operational Costs

The exceptional durability of Pexgol pipes means a significantly reduced frequency of replacement and repair. This longevity directly impacts operational costs, ensuring smoother, uninterrupted flow of operations over extended periods. The intrinsic resistance of Pexgol pipes to corrosion and abrasion minimizes maintenance demands.

Environmental and Indirect Cost Benefits

By needing fewer replacements and repairs over their lifetime, Pexgol pipes contribute to a lower environmental footprint, aligning with corporate sustainability goals and potentially qualifying for environmental credits or incentives. The smooth interior surface of Pexgol pipes reduces friction losses, leading to lower energy costs in pumping and transportation of fluids and gases.



Fittings & Connections

We offer a full piping solution that includes a wide range of fittings and accessories for easy, cost-efficient and quick installations.

Electrofusion Fittings



Electrofusion fittings are used to connect Pexgol cross-linked polyethylene pipes. The pipes and fitting are joined by electrofusion welding, creating a leak-proof seal. During the electrofusion process, a current is transported through a heating wire.

The surrounding material (around the wire) is melted, welding the pipe to the fitting.

Service temperature for the PE 100 electrofusion fittings is limited to 40°C. For higher temperatures reinforced electrofusion couplers "series 1" (up to 70°C) and "series 2" (up to 90°C) can be used according to temperature requirement .

Pexgol approves and supplies the following fittings systems and installation tools: Plasson, Friatec, GF/Wavin.



GP Flanged Couplers



Available sizes from diameters 63 mm to 710 mm. The flange are ANSI150 compatible and have oval holes designed to fit other international standards. The couplers can be used for the full range of temperatures and pressures, as Pexgol pipes from class 10 to 30.

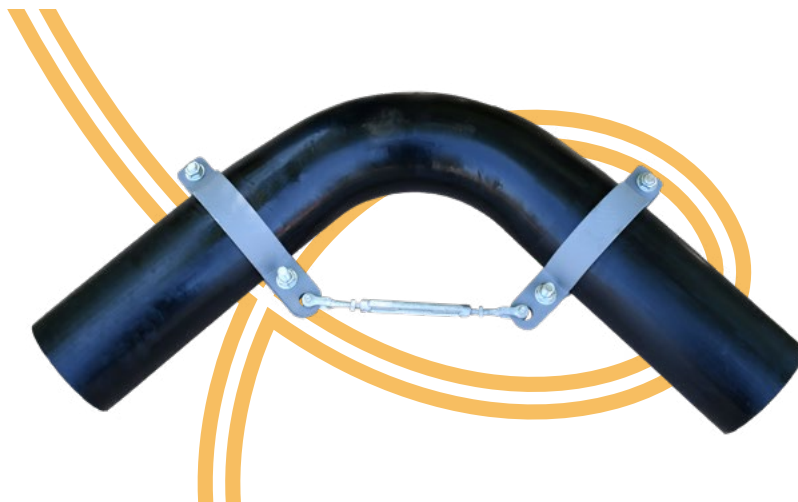
The GP flanged couplers are supplied as two halves or four quarters, depending on the pipe size and include an EPDM gasket or NBR, HNR or Viton gaskets for oil/gas applications.



PE-Xa Elbows

PE-X elbows are produced from Pexgol pipes of class 15 to class 30 in all diameters up to 710 mm according to a proprietary process. PE-X elbows can be supply with flared ends (up to 710 mm) or with plain ends for electrofusion, GP flange coupler, Mechanical double connector, etc.

The length of each leg can be different. The elbows are supplied with a fixation device to allow tolerance of -2° and ± 25 mm in length.

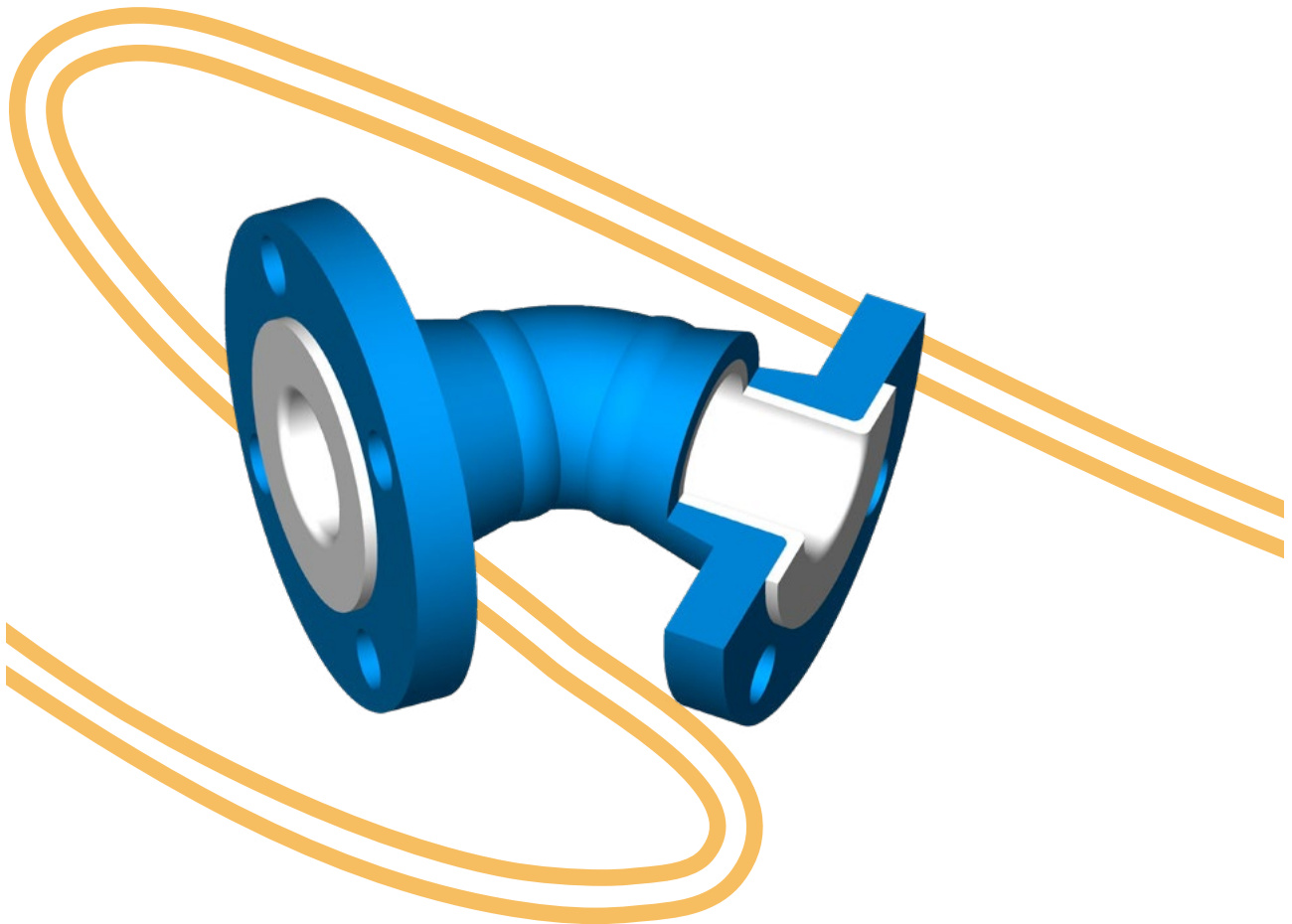


PE-X Lined Fittings

PE-X lined steel fittings consist of a steel flanged fitting lined with thick black PE-X coating which extends over the full face of the flanges.

This type of fitting can be used as a standard fitting such as a Tee, an elbow, or a reducer. The fittings are supplied with an external epoxy coating. Standard fittings are supplied with wall thickness of PE-X layer: 3–5mm for corrosion resistance and up to 10 mm for abrasion resistance.

The fittings are usually supplied with weld-neck flanges. Loose flanges are supplied on request. Shorter fittings (with slip-on flanges instead of weld-neck flanges) are supplied on request.





Transportation

An outstanding feature of the Pexgol pipe is its flexibility, due to the cross-linked structure. This structure enables the pipe to return to its original diameter after de-coiling. As a result, Pexgol is able to supply longer lengths of pipe, compared to other suppliers and types of pipes. Pexgol pipes can be shipped in coils, coils with cores and straight sections.

Pexgol pipes are available in diameters **from 63 mm (2") to 355 mm (14") as coils** or as **straight section of 11.8 m** for all diameter **up to 710 mm**.

Pexgol pipes in roll with maximum dimension, external diameter up to = 3.95 meters.

Pipe		Maximum Length per coil (m)	Maximum Length per coil (ft)
Outside diameter (mm + in)	Class		
63 (2")	12	4,500	14,760
63 (2")	15	4,500	14,760
63 (2")	19	4,500	14,760
63 (2")	24	4,500	14,760
63 (2")	30	4,500	14,760
75 (2,5")	10	NA	NA
75 (2,5")	12	3,300	10,824
75 (2,5")	15	3,300	10,824
75 (2,5")	19	3,300	10,824
75 (2,5")	24	3,300	10,824
75 (2,5")	30	3,300	10,824
90 (3")	10	NA	NA
90 (3")	12	2,000	6,560



Pipe		Maximum Length per coil (m)	Maximum Length per coil (ft)
Outside diameter (mm + in)	Class		
90 (3")	15	2,000	6,560
90 (3")	19	2,000	6,560
90 (3")	24	1,300	4,264
90 (3")	30	1,300	4,264
110 (4")	12	1,300	4,264
110 (4")	15	1,300	4,264
110 (4")	19	1,300	4,264
110 (4")	24	1,000	3,280
110 (4")	30	1,000	3,280
125 (4")	12	1,000	3,280
125 (4")	15	1,000	3,280
125 (4")	19	1,000	3,280
125 (4")	24	760	2,493
125 (4")	30	900	2,952
140 (6")	12	900	2,952
140 (6")	15	900	2,952
140 (6")	19	900	2,952
140 (6")	24	450	1,476
140 (6")	30	620	2,034
160 (6")	12	620	2,034
160 (6")	15	620	2,034
160 (6")	19	620	2,034
160 (6")	24	400	1,312
160 (6")	30	450	1,476
180 (6")	12	500	1,640
180 (6")	15	500	1,640
180 (6")	19	500	1,640
180 (6")	24	500	1,640
180 (6")	30	500	1,640

Pipe		Maximum Length per coil (m)	Maximum Length per coil (ft)
Outside diameter (mm + in)	Class		
200 (8")	12	270	886
200 (8")	15	350	1,148
200 (8")	24	350	1,148
200 (8")	30	350	1,148
225 (8")	12	176	577
225 (8")	15	245	804
225 (8")	19	245	804
225 (8")	24	300	984
225 (8")	30	300	984
250 (10")	15	150	492
250 (10")	19	200	656
250 (10")	24	250	820
250 (10")	30	230	754
280 (10")	15	125	410
280 (10")	19	170	558
280 (10")	24	170	558
280 (10")	30	170	558
315 (12")	15	65 (with core)	213 (with core)
315 (12")	19	100	328
315 (12")	24	150	492
315 (12")	30	150	492
355 (14")	19	57 (with core)	187 (with core)
355 (14")	24	100	328
355 (14")	30	100	328



TANQUE AGUA
80 m³



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Pexgol PE-Xa Pipes

Pexgol PE-Xa cross-linked polyethylene line pipe has many features that make it an excellent, cost-effective alternative to other pipe materials:

- Excellent chemical and corrosion resistance (chemical agents, slurries, toxic materials, radioactive materials).
- Reduced installation costs with long-length coils/spools.
- Improved flow capacity due to smooth interior surface.
- High resistance to abrasion and UV exposure.
- Wide working temperature range.