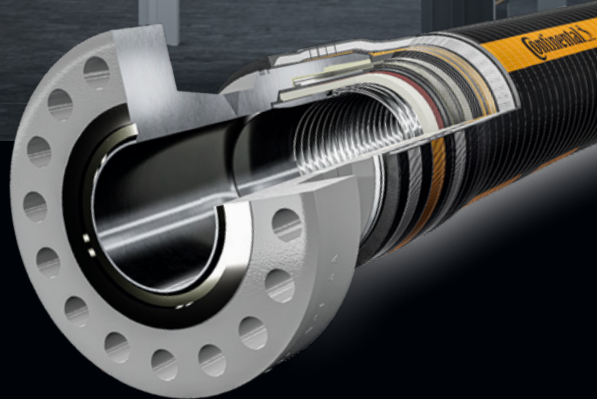


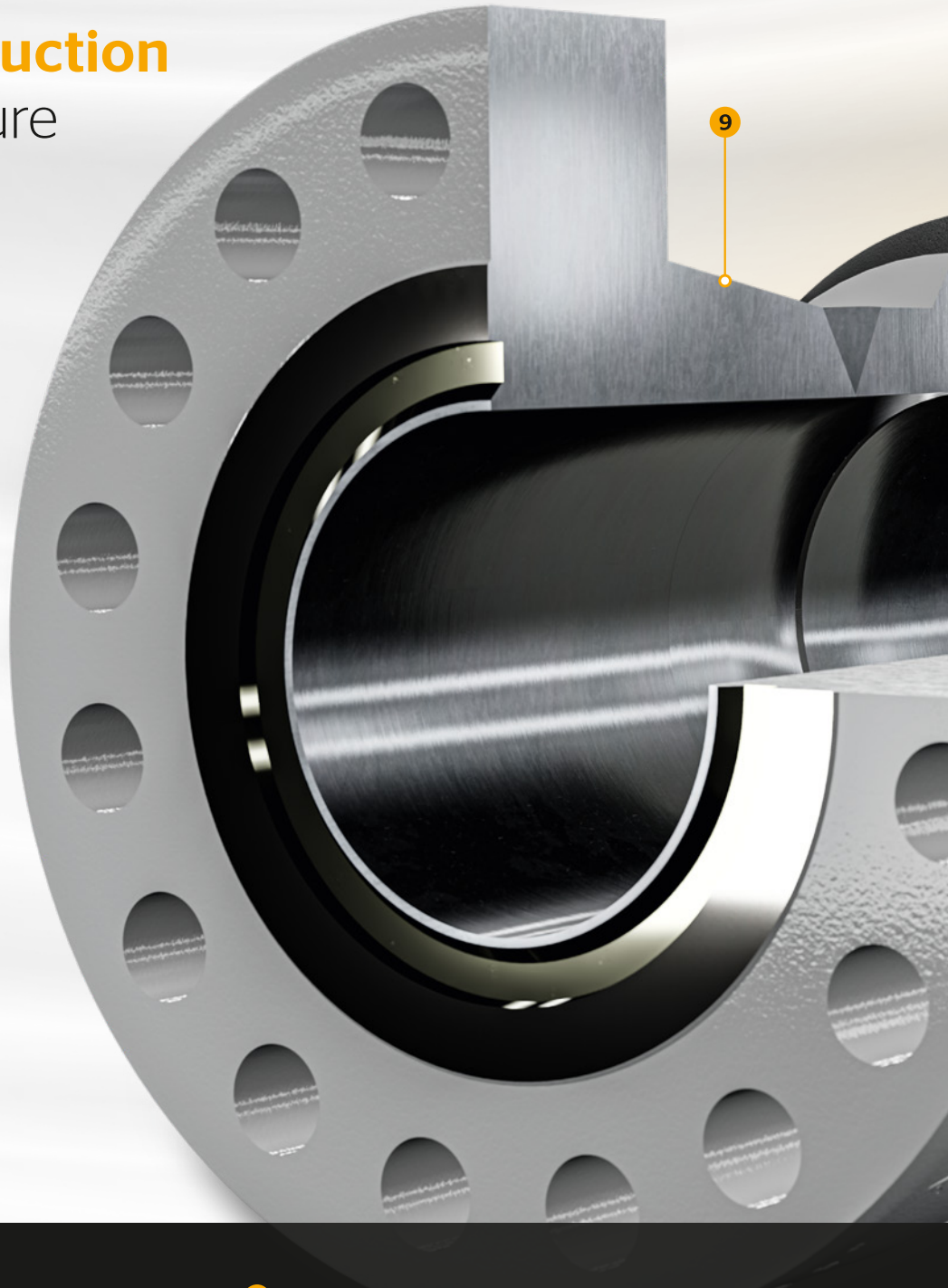


API 17K Gas Transfer Hoses

FSRU and FLNG gas
Import and Export lines



General construction of a high pressure bonded hose



The flexible hose lines are a bonded construction comprising steel and elastomeric materials. The principal characteristic of bonded construction is the build-up of individual layers in the flexible hose wall which are then combined into one unit through vulcanization.

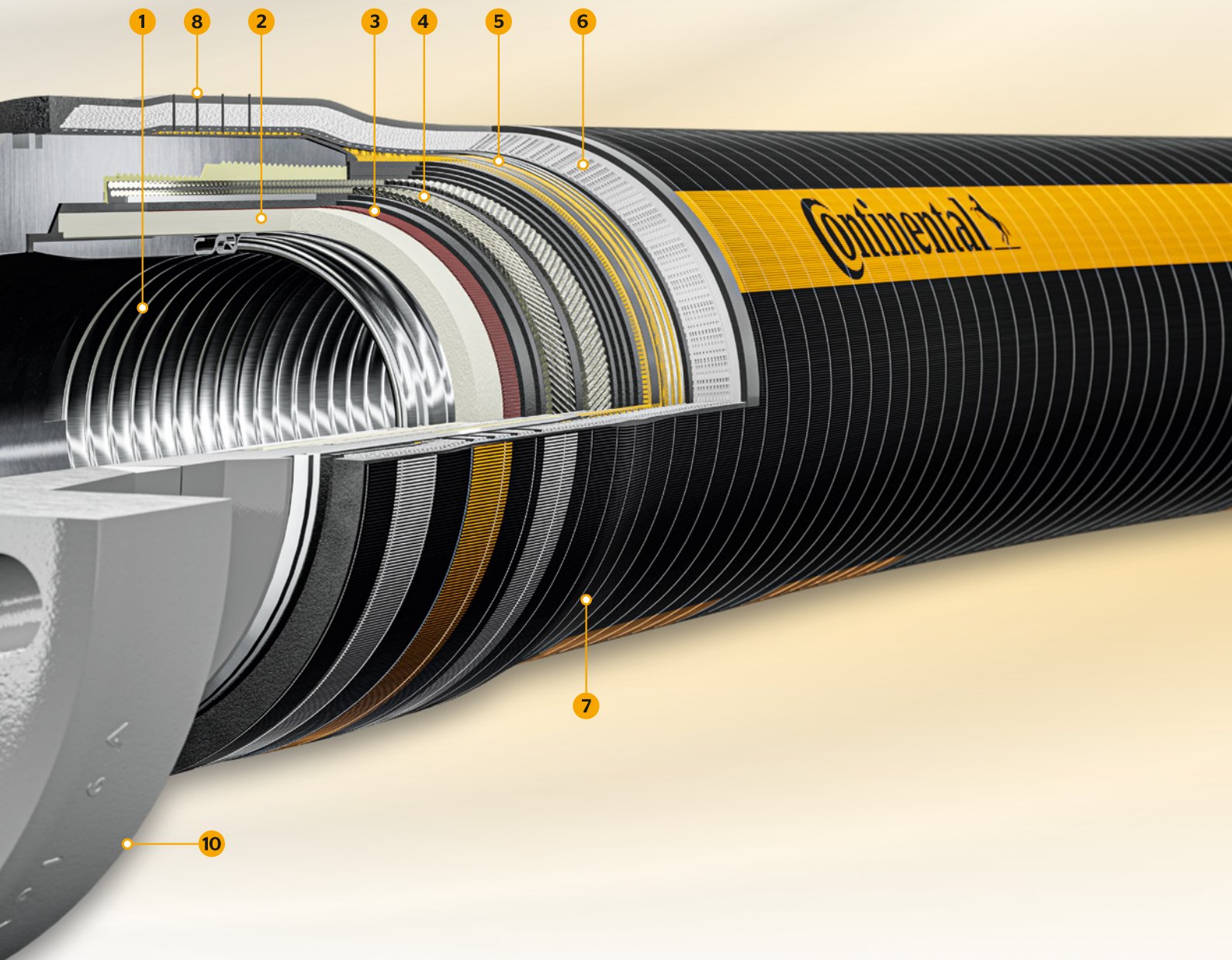
Hose assemblies are manufactured either as a single bonded unit to specified lengths where the couplings are an integral part of the hose, or they can be mechanically assembled to the cured hose.

① Stainless steel interlock stripwound tube

Protects the polymer lining from mechanical damage, prevents blistering in case of high pressure gas service and decompression with vacuum service, supports the wall of the flexible hose and facilitates pigging. The material can be AISI 316L or 254 SMO grade stainless steel, depending on the conveyed medium.

② Polymer lining

Fluid barrier of the flexible line. Protects the hose construction from corrosive and abrasive effects of the conveyed medium.



The thickness of lining depends on the internal pressure, the inside diameter and the conveyed medium. The lining material is selected to withstand chemical and heat effects of crude oil, seawater, gases, hydraulic fluid or whatever substance is conveyed through the hose.

3 Textile plies

To distribute the forces of internal pressure.

4 High strength steel cable reinforcements

They determine internal pressure resistance.

5 Gas leading plies

To allow diffused gases to migrate to venting points.

6 Fire resistant plies

Protects the hose in case of exposure to flame at 704°C (1300°F) for at least 30 minutes.

7 Elastomeric cover

Protect the flexible hose line from external impact, abrasion, weather, seawater, oil, etc.

8 Gas venting holes

Permeated gas layers.

9 Bonded coupling

Factory built-in vulcanized couplings.

10 End connector

Butt Welded, integral or threaded type of Flanges, HUB's or Hammer Lug Union.

Natural Gas Hoses for FSRU Vessels

Standard API Spec. 17K

Topside and Subsea Flexible natural gas transfer lines. A flexible solution for FSRU gas and FLNG gas import and export lines.

Continental's flexible hoses are conveying natural gas from the Floating Storage and Regasification Unit (FSRU) to a jetty, fixed platform or a subsea manifold. The Natural Gas Hose and the flexible gas transfer solution is an important part of the Liquefied Natural Gas (LNG) value chain, contributing to the transition to cleaner energy sources until complete carbon neutrality is achieved.

Natural gas is the cleanest fossil fuel, its combustion does not emit soot, dust or fumes. It generates 30 % less carbon dioxide (CO₂) than fuel oil and 45 % less than coal, with a twofold reduction in nitrogen oxide (NO_x) emissions.

The flexible hose lines are a bonded construction comprising steel and elastomeric materials.

Standard API Spec. 17K

Construction

Bore type	full flow, rough bore
Liner type	H ₂ S resistant HNBR or PA
Operating temperature	-30 °C to +90 °C (-22 °F to 194 °F)
Working pressure	1250 PSI to 5000 PSI
Max. available length	60 m (200 ft) up to 8" 30 m (100 ft) up to 14"

Features & Comments

- › Material of the end fittings is either carbon steel or duplex
- › Diffused gases are vented
- › Finite Element Analysis
- › Firerating
- › Built-in bend stiffener





Tailor-made Solutions

Engineering services

Finite Element Analysis – Quasi-static & Dynamic Analysis

Our in-house design software has been improved and refined over many years and is used in conjunction with the most recent finite element analysis (FEA) systems to handle even the most difficult technical demands.

Different FEA solutions allow you to adapt the configuration of your system to a given application and to ensure safe and reliable operation under all conditions:

› Static, quasi-static hose length analysis

Determines the optimal hose length whilst allowing for any surrounding objects that may affect the hose routing.

› Hydrodynamic analysis

Used to simulate the dynamic behaviour of a given configuration when exposed to the expected environmental conditions.

› Survival analysis

Based on the hydrodynamic analysis, the suitability of the hose components is checked against the harshest environmental conditions.

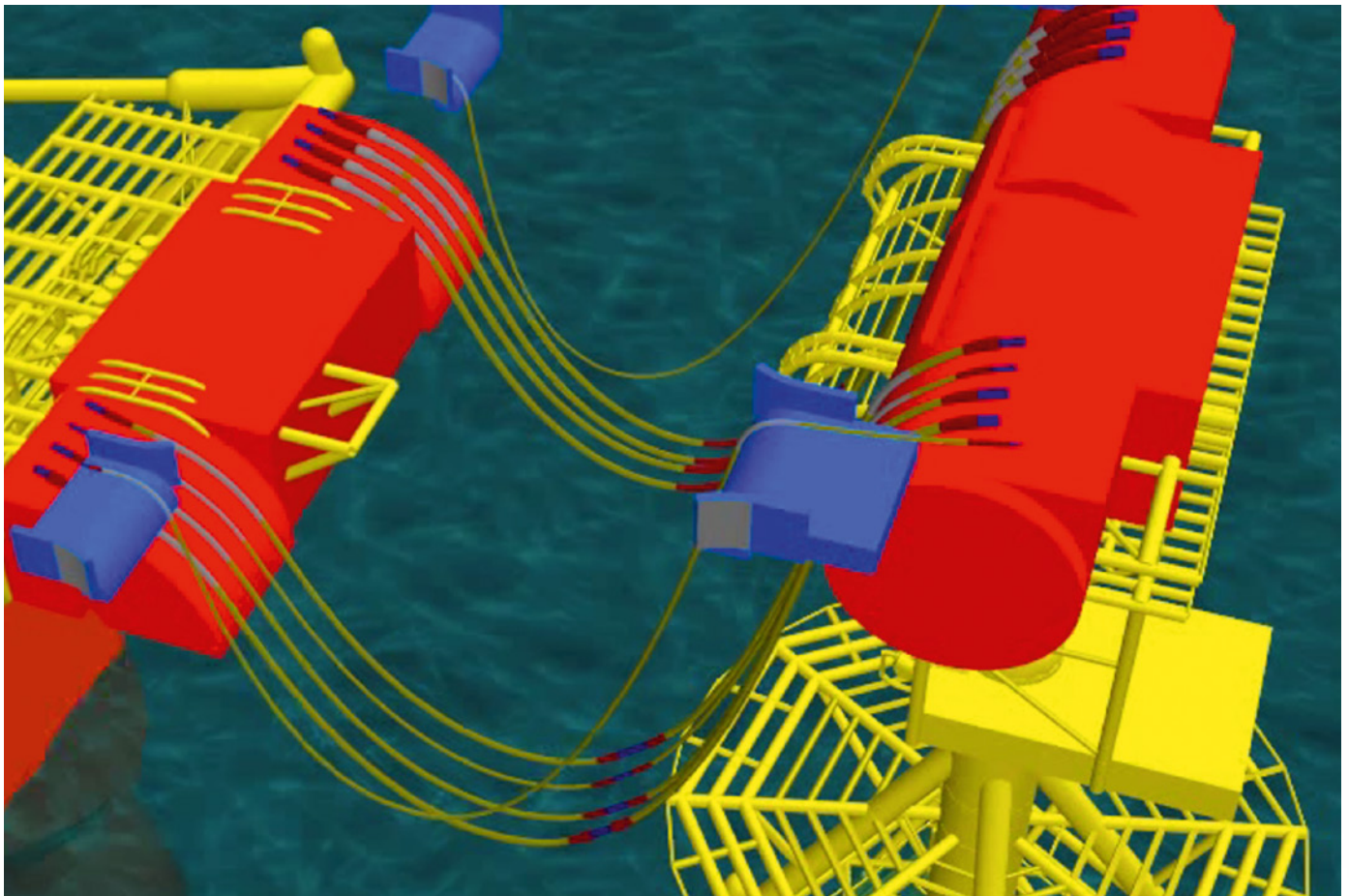


› Fatigue analysis

Based on the hydrodynamic analysis, the minimum design life of a hose can be calculated by accumulating the fatigue of the load bearing metal components.

By their nature, bonded flexible pipes offer a high degree of design freedom: their properties can be designed and adjusted according to the needs of your system – based on the results of the FEA.

OrcaFlex is the world's leading software for the dynamic analysis of offshore marine systems, renowned for its breadth of technical capability.



Continental

Highest quality standards

We as part of the Continental group are committed to quality and respect for the environment. We work closely with customers and approved suppliers to ensure the highest quality standards. The quality management system is in accordance with ISO 9001 and API Spec. Q1.

The system's performance is regularly checked and audited by independent auditors. Currently the Company's Quality Management System is approved and certified by Dekra and API.

Our products fully comply with the latest edition of API Spec. 7K, API Spec. 16C and API Spec. 17K standards. Continental was the first and for many years the only high pressure bonded hose manufacturer certified for all three relevant standards. Hose sizes range from 2" to 16" with pressure ratings up to 20,000 psi.

The environmental thinking of the management and the employees is reflected by their daily activities and documented by the ISO 14001 environmental management system applied in the company.



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 contact-forms/general-contact-form](http://www.continental-industry.com/contact-forms/general-contact-form)

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