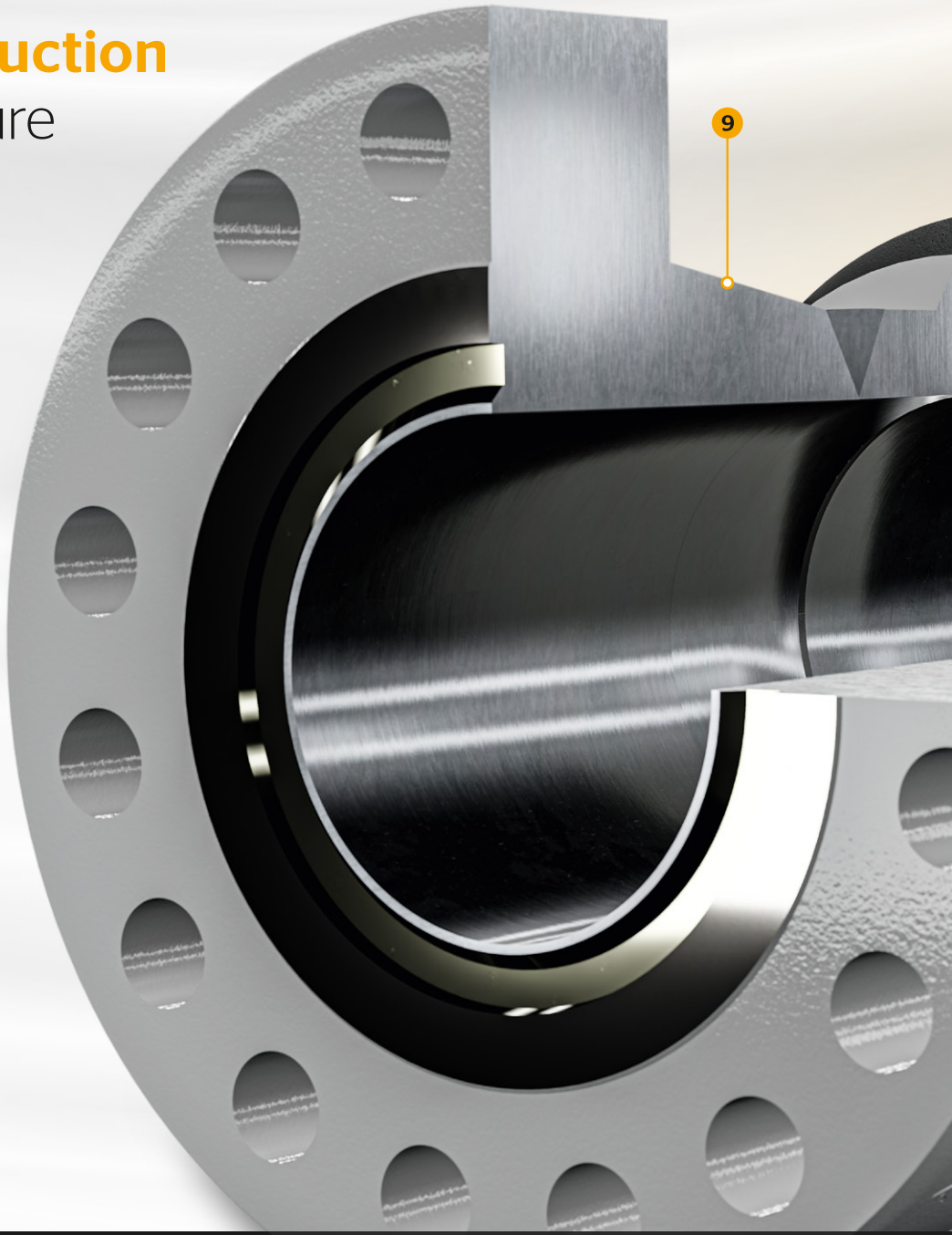
Continental
The Future in Motion

API 17K Gas Transfer Hoses

FSRU and FLNG gas
Import and Export lines

www.continental-industry.com

General construction of a high pressure bonded hose

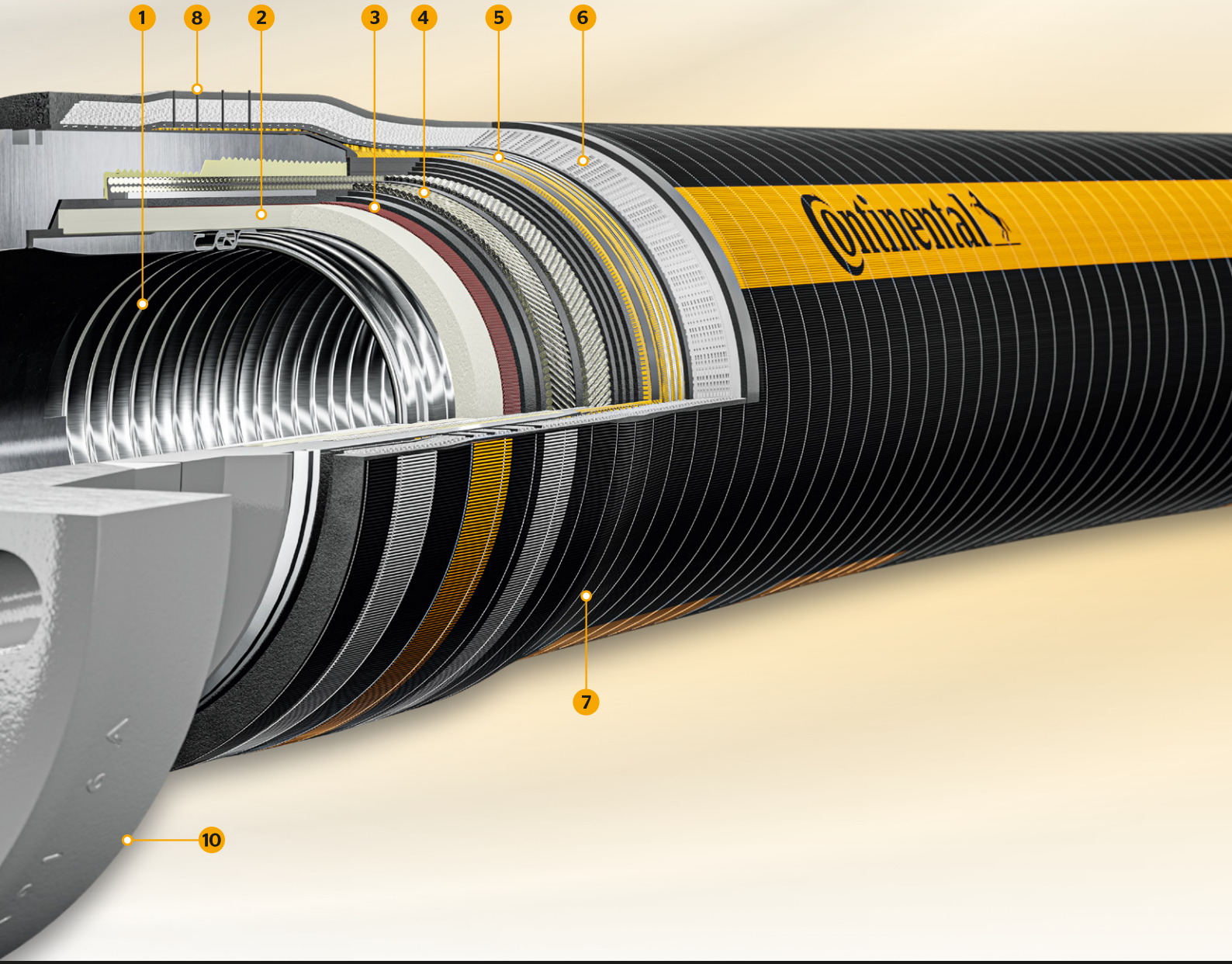


The flexible hose lines are a bonded construction comprising steel and elastomeric materials. The principal characteristic of bonded construction is the build-up of individual layers in the flexible hose wall which are then combined into one unit through vulcanization.

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.

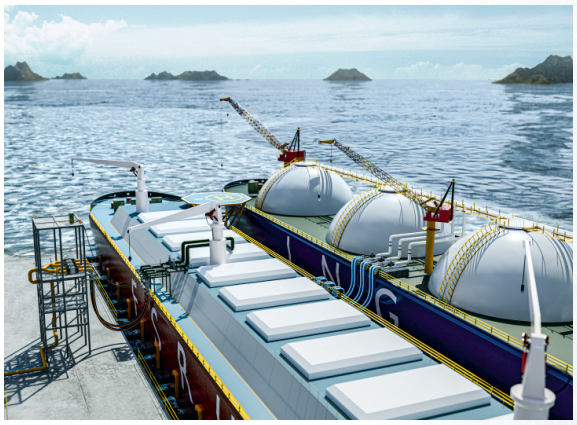
Natural Gas Hoses for FSRU Vessels
Standard API Spec. 17K

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 Liquified 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 (CO_2) 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_2S 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


Continental
HV

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:

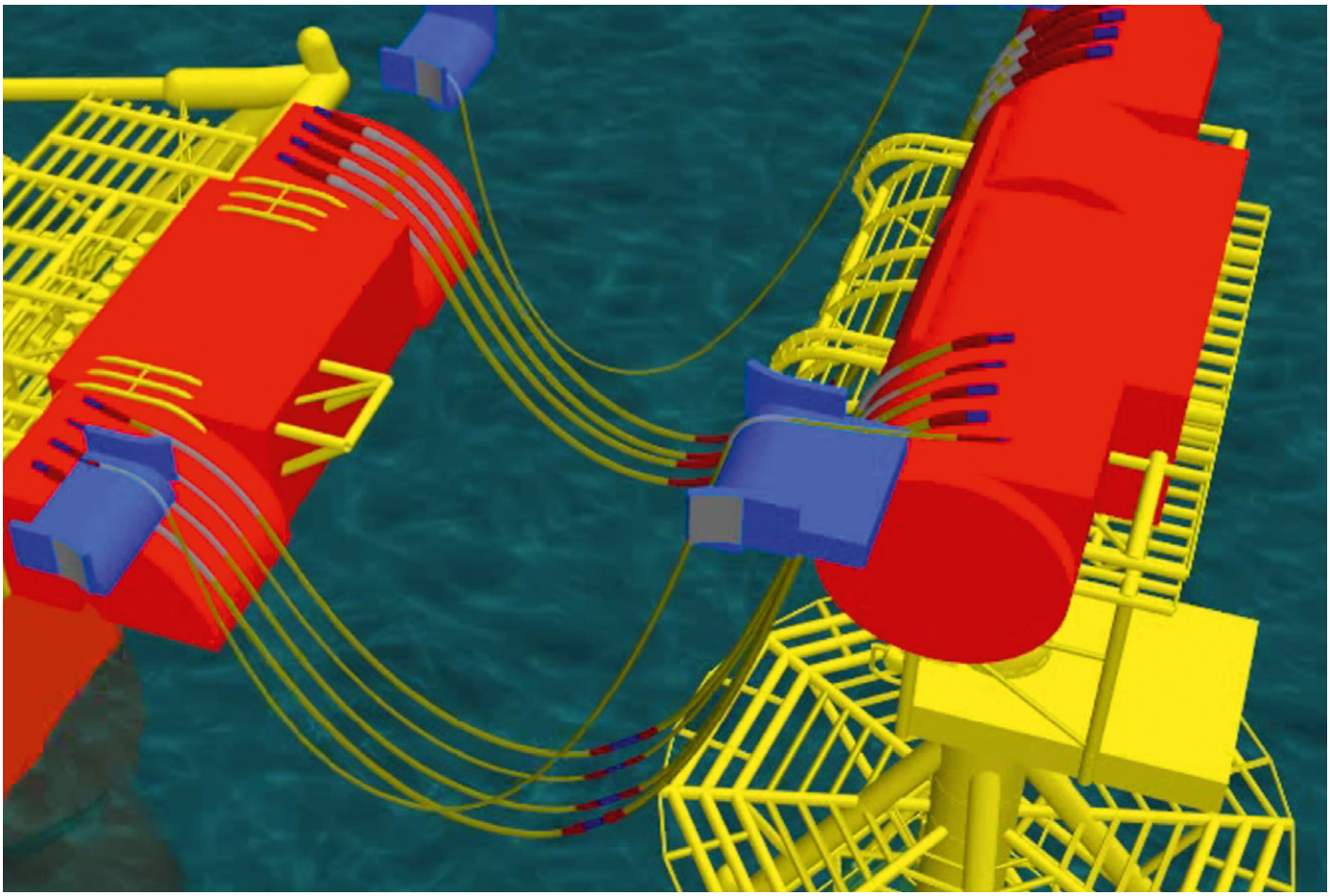
- **Static, quasi-static hose length analysis**
  Determines the optimal hose length whilst allowing for any surrounding objects that may affect the hose routing.
- **Hydrodynamic analysis**
  Used to simulate the dynamic behaviour of a given configuration when exposed to the expected environmental conditions.
- **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.

orcina



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.

Certificate of Authority to use the Official API Monogram

License Number: 17K-0001 **ORIGINAL**

The American Petroleum Institute hereby grants to

CONTITECH RUBBER INDUSTRIAL LTD.
Budapesti ut 10
Szeged
Hungary

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-17K** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: **17K-0001**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Bonded Flexible Pipe

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: OCTOBER 15, 2025
Expiration Date: OCTOBER 15, 2028

To verify the authenticity of this license, go to www.api.org/compositelist.

Senior Vice President of Global Industry Services

American Petroleum Institute

CORPORATE SEAL

2018-151

ContiTech Deutschland GmbH
30173 Hannover, Germany
www.continental-industry.com

Please contact us:
www.continental-industry.com/
contact-forms/general-contact-form

Legal notice
The content of this publication is not legally binding and is provided as information only. The trademarks displayed in this publication are the property of Continental AG and/or its affiliates. Copyright © 2025 ContiTech Deutschland GmbH, Hanover. All rights reserved. For complete information go to:
www.continental-industry.com/discl_en

ContiTech Fluid Oil & Marine
Middle East FZE
PO Box 261406 - Jebel Ali Free Zone
Dubai
Phone +971 (4) 561 5990
E-Mail sales.mea@continental.com

ContiTech Oil & Marine Corp
11535 Brittmore Park Drive
Houston, TX 77041 U.S.A.
Phone +1 832 327 0141
E-Mail sales@fluid.contitech.us

ContiTech Rubber Industrial Kft.
6728 Szeged, Budapesti ut 10
Hungary
Phone +36 62 566 738
E-Mail sales@fluid.contitech.hu

Dunlop Oil & Marine Ltd
Blyth Workspace, Quay Road, Blyth
Northumberland, NE24 3AF, England
E-Mail sales.blyth@fluid.contitech.co.uk

Continental
The Future in Motion

FHS-002-2025-V01-EN-Schr