

Floating Marine Hose

Powering Marine Worldwide



GETSAF MARINE
HOSE CATALOGS



OPERATING CONDITION
SURVEY FORM - GETSAF

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公司简介 | Company Profile



盖茨流体科技（日照）有限公司是一家专注于海洋软管研发与智能制造的企业。公司坐落于日照市北经济技术开发区，引进并采用日本 Toyokawa 的海洋软管制造技术及专业生产设备，建立了涵盖产品研发、生产制造、质量检测与销售服务的全链条一体化体系，可为国内外客户提供专业、高效的海洋流体输送解决方案。

公司产品已出口至东南亚、中东、欧洲、非洲及美洲等多个国家和地区，广泛服务于全球石油公司、海洋工程企业及海上运营商。

盖茨流体科技（日照）有限公司隶属于青橡集团，是集团布局海洋软管产业的核心企业。母公司青岛青橡橡胶有限公司创立于2008年，坐落于青岛西海岸新区，是国家高新技术企业，并获评青岛市企业技术中心。集团拥有十余年流体输送软管研发与制造经验，建有占地约130,000平方米的现代化生产基地，员工总数超过700人，并配套建设高标准软管研发与检测中心，具备从原材料检验、产品设计、生产制造到成品测试的全过程质量控制能力。

在技术研发方面，集团与北京科技大学、青岛科技大学持续开展产学研合作，联合推进海洋软管材料、结构及制造工艺的研发与创新；同时在马耳他设立欧洲技术中心，为全球客户提供技术支持与本地化服务。

Getsaf Marine (Rizhao) Co., Ltd. is an enterprise dedicated to the R&D and intelligent manufacturing of marine hoses. Located in the Rizhao North Economic and Technological Development Zone, the company utilizes marine hose manufacturing technology and specialized equipment imported from Japan's Toyokawa. It has established an integrated, full-chain system covering product R&D, manufacturing, quality inspection, and sales services, enabling it to provide professional and efficient marine fluid transfer solutions to domestic and international clients.

The company's products have been exported to numerous countries and regions across Southeast Asia, the Middle East, Europe, Africa, and the Americas, serving global oil companies, marine engineering firms, and offshore operators.

Getsaf Marine (Rizhao) Co., Ltd. is a member of QINGFLEX Group and serves as the Group's core enterprise for marine hose business. Its parent company, Qingdao Qingflex Hose Factory was founded in 2008 and is located in the Qingdao West Coast New Area; it is recognized as a National High-Tech Enterprise and a designated Qingdao Enterprise Technology Center. The Group possesses over a decade of experience in the R&D and manufacturing of fluid transfer hoses. It operates a modern production base covering approximately 130,000 square meters and employs a workforce of over 700 people. Supported by a high-standard hose R&D and testing center, the Group maintains comprehensive quality control capabilities spanning the entire process—from raw material inspection, product design, and manufacturing to finished product testing.

Regarding technical R&D, the Group maintains ongoing industry-academia-research collaborations with the University of Science and Technology Beijing and Qingdao University of Science and Technology to jointly advance innovation in marine hose materials, structures, and manufacturing processes. Additionally, it has established a European Technology Center in Malta to provide technical support and localized services to global customers.

Floating Marine Hose

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FPSO Floating Hose

浮式生产储卸油装置漂浮软管



FPSO（浮式生产储油卸油装置）是海上油气田开发的核心设施，串靠（串联）装载是FPSO向穿梭油轮转运原油的主流作业方式。GETSAF MARINE专为FPSO串靠卸油工况研发的漂浮软管，可在复杂海况下实现安全、高效、连续的液货传输，全面适配各类FPSO/FSO/FSU与穿梭油轮的作业需求。

FPSO (Floating Production Storage and Offloading) is the core facility for offshore oil and gas field development, and tandem loading is one of the mainstream operation methods for FPSO to transfer crude oil to shuttle tankers. GETSAF MARINE's floating hoses, specially developed for FPSO tandem offloading conditions, enable safe, efficient and continuous cargo transfer under complex sea conditions, fully adapting to the operational requirements of various FPSO/FSO/FSU and shuttle tankers.

SPM-Floating Hose Systems

单点系泊系统漂浮软管

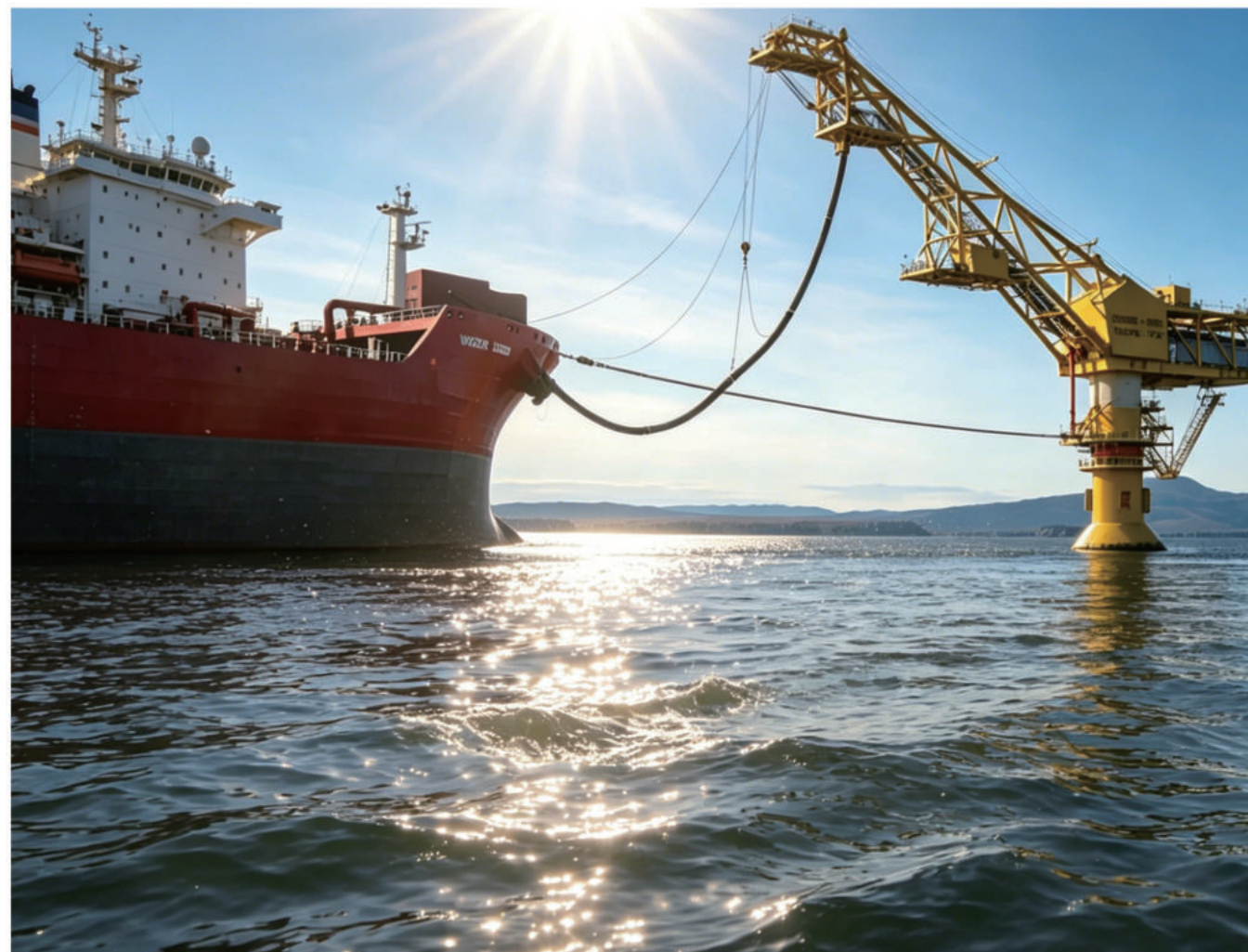


单点系泊（SPM, Single Point Mooring）是离岸油气田开发的核心枢纽，广泛用于 FPSO/FSO/ 储油轮与穿梭油轮之间的液货转运，是深水、远海油田的主流卸油方案。GETSAF MARINE 为 SPM 系统提供全系列漂浮软管与海底软管，覆盖从海床到油轮的完整输油链路，适配 CALM（悬链锚腿系泊）、SALM（单锚腿系泊）等各类 SPM 系统。

Single Point Mooring (SPM) is the core hub of offshore oil and gas field development, widely used for cargo transfer between FPSO/FSO/storage tankers and shuttle tankers, and is the mainstream offloading solution for deep-water and offshore oil fields. GETSAF MARINE provides a full range of floating hoses and submarine hoses for SPM systems, covering the complete oil transmission pipeline from seabed to tanker, adapting to various SPM systems such as CALM (Catenary Anchor Leg Mooring), SALM (Single Anchor Leg Mooring), etc.

SPM Tower Loading System

SPM 塔式悬链装卸系统



SPM 塔式系泊悬链装卸系统是浅水、恶劣海况区域的主流卸油方案，通过固定于海床的钢结构塔架系泊穿梭油轮，替代传统浮筒式 SPM，抗浪性、稳定性更强，尤其适用于近岸、浅水油气田。GETSAF MARINE 专为 SPM Tower 工况研发的卸油软管，完美适配塔式系泊的动态作业需求，实现安全、高效的液货传输。

SPM Tower Mooring System (TMS) is the mainstream offloading solution for shallow water and harsh sea conditions. By mooring shuttle tankers with a steel structure tower fixed on the seabed, it replaces the traditional buoy-type SPM, with stronger wave resistance and stability, especially suitable for nearshore and shallow water oil and gas fields. GETSAF MARINE's offloading hoses, specially developed for SPM Tower working conditions, perfectly adapt to the dynamic operation requirements of tower mooring, achieving safe and efficient cargo transfer.

Reeling Hose

卷轴软管



卷轴软管是GETSAF MARINE专为海上油气高效作业研发的柔性输送设备，依托可卷绕收纳的核心特性，搭配专用卷轴，实现软管的快速部署、回收与规范收纳

The reel hose is a flexible conveying device developed by GETSAF MARINE specifically for efficient offshore oil and gas operations. Leveraging its core feature of being able to be wound and stored, and paired with a dedicated reel, it enables rapid deployment, retrieval, and standardized storage of the hose.

Lantern-style Subsea Configuration

水下灯笼式构型

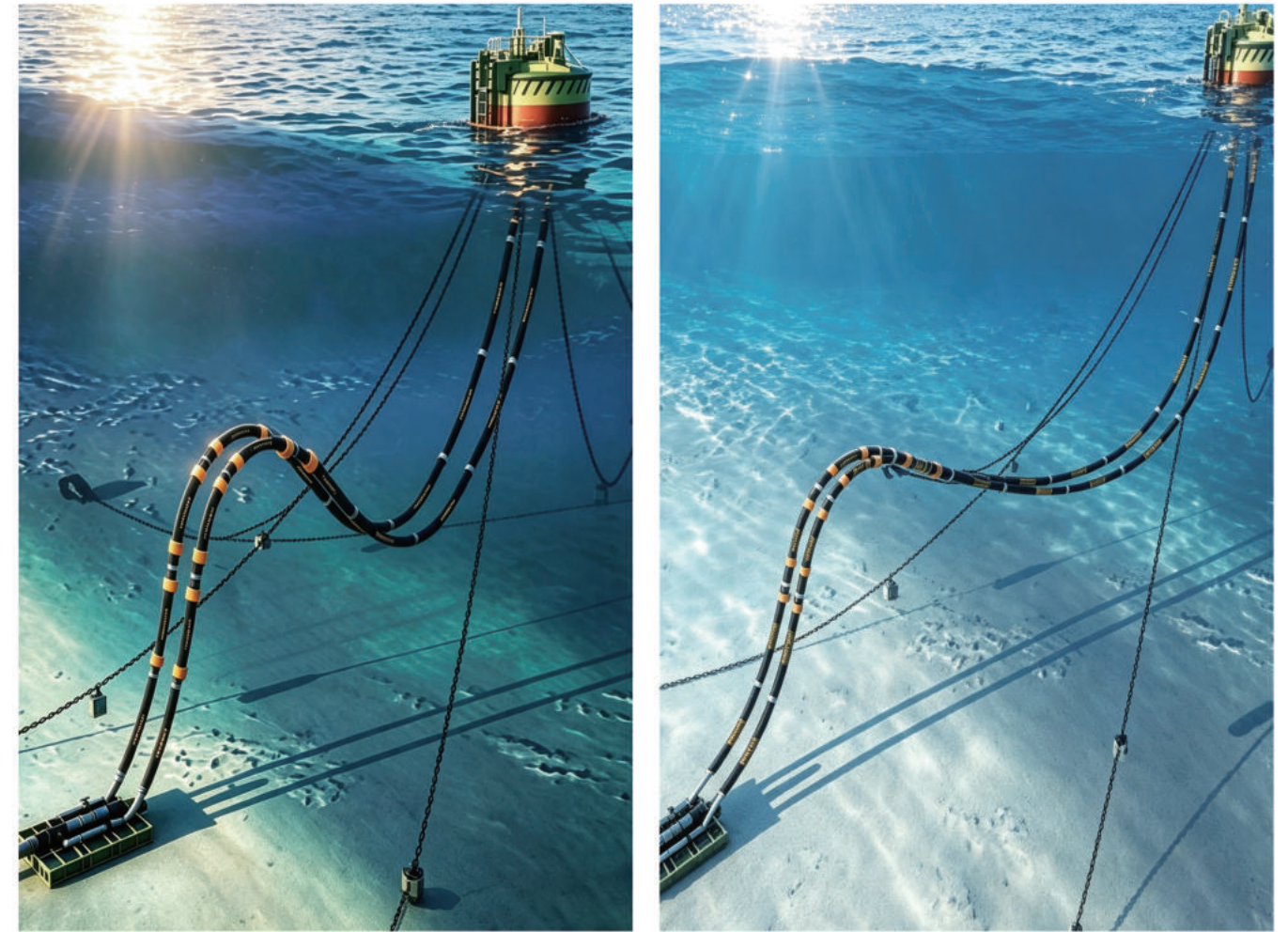


灯笼式水下输油构型是现代单点系泊系统的核心技术，专为深水恶劣海况设计，凭借优异的运动适应性、高可靠性与模块化维护优势，为海底输油提供柔性高效的解决方案，全面适配深水油气开发需求。

The lantern-style subsea configuration is a core technology of modern single point mooring systems, designed for deepwater harsh sea conditions. With excellent motion adaptability, high reliability and modular maintenance advantages, it provides a flexible and efficient solution for subsea oil transfer, fully meeting the needs of deepwater oil & gas development.

Steep S and Lazy S are classic subsea hose

水下陡 S 型与懒 S 型



水下陡 S 型与懒 S 型是单点系泊系统的经典水下软管构型。陡 S 型布局紧凑、抗水平位移能力强，适配深水作业；懒 S 型形态平缓、抗垂直升沉性能优异，适用于中等水深，为不同海况下的海底输油提供可靠解决方案。

Steep S and Lazy S are classic subsea hose configurations for Single Point Mooring (SPM) systems. The Steep S features a compact layout with strong horizontal displacement resistance, ideal for deepwater operations; the Lazy S has a gentle profile with excellent vertical heave adaptability, suitable for medium water depths, delivering reliable solutions for subsea oil transfer under various sea conditions.

GETSAF 海上漂浮式油气输送专用软管

GETSAF Marine Floating Hose for Oil & Gas Transportation

GETSAF漂浮软管严格按照国际GMPHOM 2009标准设计与生产。
针对远洋复杂海况与浮式作业需求，提供定制化流体输送整体解决方案。

Manufactured in full compliance with GMPHOM 2009. We offer tailored fluid transfer solutions for harsh offshore environments.

核心性能优势 | Core Performance Advantages

支持原油、天然气、LPG多介质
稳定输送，覆盖全场景海事作业

Compatible with crude oil,
natural gas and LPG, ideal for
full-scenario marine operations

专用内衬层可抵御高浓度芳
香烃介质 ($\leq 60\%$)

A specialized inner lining layer
provides resistance against
high-concentration aromatic
hydrocarbon media ($\leq 60\%$).

一体式耐油结构设计，无需加装
过渡层，适配各类油性流体

Integrated oil-resistant structure
eliminates the need for transition
layers for oily media

外覆层具备超强抗紫外线、耐
磨损、抗撕裂性能，延长海上
使用寿命

Outer cover features superior
UV, abrasion and tear resistance
for long offshore service life



双骨架安全结构 海事级冗余防护设计

GETSAF提供单骨架与双骨架两大系列漂浮软管，其中双骨架产品采用双重独立承压结构，是高安全等级海事工程的首选方案。

主骨架层发生故障时，次级骨架可瞬间接管全部压力负载，确保输送系统连续运行，彻底杜绝海洋泄漏风险。可选配智能泄漏监测系统，实现故障提前预警。

GETSAF offers floating hoses with single-carriage and double-carriage structures. The double-carriage hose adopts two independent pressure-bearing layers, which is the best choice for high-safety offshore engineering projects.

When the primary carriage layer malfunctions, the secondary carriage layer will instantly bear all system pressure loads. It ensures continuous operation of the transmission system and completely avoids offshore leakage hazards. Customers can equip an intelligent leakage monitoring system to achieve active fault early warning.



GMPHOM
2009

产品严格遵守 **GMPHOM 2009** 国际海洋软管标准生产

Manufactured in strict accordance with GMPHOM 2009 International Standard

GETSAF®
MARINE FLOATING HOSES

海洋漂浮软管-通用配置介绍

Marine Floating Hose - General Configuration Introduction

核心结构配置 | Core Structure Configuration

单双骨架结构：GETSAF 漂浮输油管系列包含单骨架和双骨架结构，适用于水下，悬链及漂浮。

Single and Double Carcass Structures: GETSAF floating oil hoses features both single-carcass and double-carcass structures, suitable for subsea, catenary, and floating applications.

产品分类应用 | Product Classification



漂浮软管（水上应用）Floating Hoses

- 围栏管

Tanker Rail Hose
- 尾管

Tail Hose
- 变径管

Reducer Hose
- 主管

Mainline Hose
- 外覆聚氨酯涂层软管

Polyurethane-Coated Hose
- 一端增强半漂浮管

One End Reinforced Half Floating Hose
- 卷轴软管

Reel Hose
- 悬链软管

SPM Tower Loading Hose



水下软管（海底应用）Submarine Hoses

- 带浮体环一端增强管

One End Reinforced with Float Collar
- 不带浮体环一段增强管

One End Reinforced without Float Collar
- 带浮体环主管

Mainline Hose with Float Collar
- 不带浮体环主管

Mainline Hose without Float Collar
- 全增强管

Fully Reinforced Hose
- 灯笼式/懒S型/陡S型

Lantern / Lazy-S / Steep-S

标准规格参数 | Standard Specifications

内径 Inner diameter		额定工作压力 Rated working pressure	长度 Length	安全系数 Safety factor
inch	mm	bar	m	x: x
6	150	15/19/21	9.1/10.7/11.8/12.2	5: 1
8	200			5: 1
10	250			5: 1
12	300			5: 1
16	400			5: 1
20	500			5: 1
24	600			5: 1

操作压力 Allowable Operating Pressure	-0.85 bar (25 HG) 真空 -0.85 bar (25 HG) Vacuum
最小弯曲半径 Minimum Bending Radius	漂浮管（围栏管除外）：内径的6倍 Floating Hose (Except for tanker rail hose): 6xNominal Diameter
最小弯曲半径 Minimum Bending Radius	水下管和围栏管：内径的4倍 Submarine Hose&Tanker Rail Hose: 4xNominal Diameter
流速 Flow Velocity	≤21m/s (70ft/s) ≤21m/s (70ft/s)
介质 Fluid	原油、气态天然气、液态石油产品 Crude Oil,Natural Gas,liquid petroleum products
最大芳香烃含量 Maximum Aromatic Content	60% 60%
介质温度 Fluid Temperature	-20°C~+82°C (-4°F~+180°F) -20°C~+82°C (-4°F~+180°F)
环境温度 Ambient Temperature	-29°C~+52°C (-20°F~+125°F) -29°C~+52°C (-20°F~+125°F)
对接头和法兰的外露内表面和外表面，包括法兰面的保护 Protection of the exposed internal and external surfaces of joints and flanges, including the flange faces.	热镀锌 Galvanizing
接头和法兰质检的焊缝检查 Weld Inspection for Joints and Flanges (Quality Control)	按照GMPHOM 2009进行射线检测 Perform radiographic testing in accordance with GMPHOM 2009.

海上LPG漂浮/水下软管
Offshore LPG Floating & Submarine Hose

GMPHOM 2009 Compliant Solution for Offshore LPG Transfer Systems



OFFSHORE LPG TRANSFER SYSTEM

产品概述 | Product Overview

GETSAF 海上 LPG

漂浮及水下软管面向海上液化石油气转运工况开发，适用于 LPG 终端、浮式储存单元、船对船、船岸及 SPM/CALM 浮筒管线系统。

软管采用耐 LPG

内衬、低渗透结构、动态增强层和阻燃外胶层设计，兼顾介质兼容性、气体渗透控制、弯曲疲劳、端部载荷和长期海况运行可靠性。

GETSAF Offshore LPG Floating & Submarine Hose is engineered for offshore LPG transfer duties, including LPG terminals, floating storage units, STS, ship-to-shore and SPM/CALM hose strings.

The construction combines an LPG-resistant liner, low-permeation layers, dynamic reinforcement and a flame-retardant cover to support medium compatibility, gas-permeation control, bending fatigue resistance, end-load performance and long-term marine reliability.

产品特点 | Product Features

LPG耐气内胶层 LPG Resistant Liner	阻燃外胶层设计 Flame-Retardant Cover
适配丙烷、丁烷、丙烯及 LPG 混合物，降低气体渗透。 Compatible with propane, butane, propylene and LPG mixtures with reduced gas permeation.	外层阻燃橡胶兼顾海水、臭氧、紫外和甲板暴露环境。 Flame-retardant cover resists seawater, ozone, UV and deck exposure.
低渗透结构 Low-Permeation Design	海上动态适应 Offshore Dynamic Performance
帮助降低层间气体聚集风险，提升长期稳定性。 Helps reduce gas accumulation inside hose layers for stable service.	适应波浪、船舶运动、端部拉力和循环弯曲。 Designed for wave motion, vessel movement, end loads and cyclic bending.

技术参数 | Technical Parameters

软管类型Hose Type	漂浮/水下LPG管Floating / Submarine Offshore LPG Hose
内径Inside Diameter	6" - 24"
额定工作压力Working Pressure	额定压力最高 50 bar；更高压力按项目设计和软管内径确定 Rated pressure up to 50 bar; higher pressure rating by project design and hose diameter
温度范围Temperature	约 -50 deg C 至 +70 deg C Approx. -50 deg C to +70 deg C
骨架类型Carcass Type	单骨架/双骨架 Single Carcass / Double Carcass
长度Length	最高可达12.2米（40英尺）Up to 12.2 m (40 ft)
电气连续性Electrical Continuity	根据要求提供 Available according to requirement
输送介质Service Medium	LPG/丙烷/丁烷/液化石油气混合物 LPG / Propane / Butane / LPG Mixture

海上NG漂浮/水下软管
Offshore NG Floating & Submarine Hose

Flexible Hose Solution for Offshore NG Transfer



OFFSHORE NG TRANSFER SYSTEM

产品概述 | Product Overview

GETSAF 海上 NG漂浮/水下软管面向海上气态天然气输送工况开发，适用于 FSRU再气化天然气外输、海上接收设施及近岸/海上管线连。

软管基于大口径海洋软管技术，采用天然气耐介质内衬、增强管体和项目化漂浮/水下配置，可适应 FSRU运动、波浪流载荷及动态运行条。

GETSAF Offshore NG Floating & Submarine Hose is engineered for gaseous natural gas transfer in offshore environments, including regasified natural gas export from FSRUs and offshore gas receiving connections.

Based on large-bore marine hose technology, the hose combines a gas-resistant liner, reinforced hose body and project-specific floating/submarine configuration to accommodate FSRU motion and demanding offshore conditions.

产品特点 | Product Features

天然气耐介质内衬 Natural Gas Resistant Liner	单/双骨架结构 Single / Double Carcass
适配气态天然气、再气化天然气和富甲烷气体，降低气体渗透。 Compatible with gaseous natural gas, regasified natural gas and methane-rich gas.	增强管体可承受内压、拉伸、弯曲及海上循环载荷。 Reinforced hose body withstands pressure, tensile loading, bending and cyclic loads.
漂浮/水下配置 Floating / Submarine Configuration	渗透与减压控制 Permeation & Decompression Control
可按 FSRU 外输、近岸接收和海上管线连接布置管串。 Configurable for FSRU export, nearshore receiving and offshore pipeline connection.	降低气体渗透和快速减压导致的材料损伤风险。 Designed to reduce gas permeation and rapid gas decompression damage risk.

技术参数 | Technical Parameters

输送介质 Medium	气态天然气 / 再气化天然气 / 富甲烷气体 Gaseous Natural Gas / Regasified Natural Gas / Methane-rich Gas
应用 Application	FSRU 外输 / 海上天然气输送 FSRU / Offshore Natural Gas Transfer
软管类型 Hose Type	漂浮 / 水下 NG 软管 Floating / Submarine NG Hose
内径 Inner Diameter	6" - 24"
工作压力 Working Pressure	额定压力最高 50 bar；更高压力按项目设计和软管内径确定 Rated pressure up to 50 bar; higher pressure rating by project design and hose diameter
骨架类型 Carcass Type	单骨架 / 双骨架 Single Carcass / Double Carcass

Note: Natural gas here refers to gaseous or regasified natural gas service; cryogenic LNG transfer requires a separate qualified hose design.

油轮围栏管 | Tanker Rail Hose



单管体油轮围栏管 GS81115
Single Carcass GS81115



双管体油轮围栏管 GS82115
Double Carcass GS82115

油轮甲板围栏连接 | Tanker Deck Rail Connection

产品概述 | Product Overview

油轮围栏管用于连接油轮甲板围栏与码头管道系统，在船舶靠泊和装卸作业过程中承受动态载荷和海浪冲击。GETSAF油轮围栏管采用高强度骨架结构，具有优异的耐疲劳性能。

Tanker hose lines are used to connect a tanker's deck manifold to the terminal's pipeline system, enduring dynamic loads and wave impacts during berthing and cargo transfer operations. GETSAF tanker hose lines feature a high-strength skeletal structure, offering superior fatigue resistance.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81115 (单骨架) / GS82115 (双骨架)
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
最小爆破压力Min Burst Pressure	单管体漂浮管 (Single Carcass) : 75bar, 95bar, 105bar 双管体漂浮管 (Double Carcass) : -主管体 (Primary Carcass) : 75bar, 95bar, 105bar -副管体 (Secondary Carcass) : 30bar, 38bar, 41bar
最小弯曲半径Min Bend Radius	4×DN(Floating)
温度范围Temperature	介质Media:-20°C~+82°C
端部连接Flange	ASME B 16.5 Class 150/300

尾管 | Tail Hose



单管体尾管 GS81114
Single Carcass GS81114



双管体尾管 GS82114
Double Carcass GS82114

软管系统末端连接 | Hose String End Connection

产品概述 | Product Overview

尾管是CALM/SPM软管系统的末端组件，连接最后一节软管与船舶或码头管道。GS81114/GS82114尾管采用特殊加强结构，可承受较大的弯曲应力和端部载荷。

The tail hose is the terminal component of a CALM/SPM hose system, connecting the final hose section to the vessel or terminal piping. The GS81114/GS82114 tail hose features a specially reinforced structure designed to withstand significant bending stresses and end loads.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81114 (单骨架) / GS82114 (双骨架)
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
最小爆破压力Min Burst Pressure	单管体漂浮管 (Single Carcass) : 75bar, 95bar, 105bar 双管体漂浮管 (Double Carcass) : -主管体 (Primary Carcass) : 75bar, 95bar, 105bar -副管体 (Secondary Carcass) : 30bar, 38bar, 41bar
最小弯曲半径Min Bend Radius	6×DN(Floating)
吊装耳板Lifting Lugs	12"=100kN/ 16"=150kN/ 20"=200kN
标准长度Standard Length	9.1m/ 10.7m/ 12.2m

变径管 | Reducer Hose



单管体变径管 GS81113
Single Carcass GS81113



双管体变径管 GS82113
Double Carcass GS82113

不同管径连接 | Different Diameter Connection

产品概述 | Product Overview

变径管用于连接不同内径的管道系统，实现流量的平滑过渡。GETSAF变径管采用锥形加强结构设计，确保在变径区域的强度和密封性能。

Reducers are used to connect piping systems with differing internal diameters, facilitating a smooth transition of flow. GETSAF reducers feature a tapered reinforced structural design, ensuring exceptional strength and sealing performance within the transition zone.

技术参数 | Technical Parameters

型号Code	变径规格ID Range	工作压力WP
GS81113	8"→6"/ 10"→8"/ 12"→10"	15/ 19/ 21bar
GS82113	8"→6"~16"→12"	15/ 19/ 21bar
GS81113-HD	20"→16"/ 24"→20"	15bar
GS82113-HD	20"→16"/ 24"→20"	15bar
最小爆破压力Min Burst Pressure	单管体漂浮管 (Single Carcass) : 75bar, 95bar, 105bar 双管体漂浮管 (Double Carcass) : -主管体 (Primary Carcass) : 75bar, 95bar, 105bar -副管体 (Secondary Carcass) : 30bar, 38bar, 41bar	
浮力储备BuoyancyReserve	≥20%(Min)	
电气性能Electrical	连续导电/ ContinuousConductivity	

主管 | Mainline Hose



单管体漂浮主管 GS81112
Single Carcass GS81112



双管体漂浮主管 GS82112
Double Carcass GS82112

软管系统主干管路 | Hose String Main Pipeline

产品概述 | Product Overview

主管是CALM/SPM软管系统的主干管路，承担主要的油品输送任务。GS81112/GS82112采用高强度骨架设计，具有优异的耐压性能和抗疲劳特性，适用于各种海况条件。

The main hose serves as the backbone of the CALM/SPM hose system, undertaking the primary task of transporting oil products. The GS81112/GS82112 features a high-strength skeletal design, offering superior pressure resistance and fatigue resistance, making it suitable for operation under a wide range of sea conditions.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81112 (单骨架) / GS82112 (双骨架)
内径InsideDiameter	6"(150mm)-24"(600mm)
工作压力WorkingPressure	15bar/ 19bar/ 21bar
最小爆破压力Min Burst Pressure	单管体漂浮管 (Single Carcass) : 75bar, 95bar, 105bar 双管体漂浮管 (Double Carcass) : -主管体 (Primary Carcass) : 75bar, 95bar, 105bar -副管体 (Secondary Carcass) : 30bar, 38bar, 41bar
最小弯曲半径MinBendRadius	6×DN(Floating)
浮力材料Buoyancy	闭孔泡沫Closed-cellFoam
标准长度StandardLength	9.1m/ 10.7m/ 12.2m

一端增强半漂浮管 | One End Reinforced Half Floating Hose



单管体一端增强半漂浮管 GS81111
Single Carcass Half Floating GS81111

双管体一端增强半漂浮管 GS82111
Double Carcass Half Floating GS82111

半漂浮式设计 | Half Floating Design

产品概述 | Product Overview

一端增强半漂浮管一端配备加强结构，另一端为标准端部连接。这种设计可减少弯折应力，延长软管在动态载荷条件下的使用寿命。

The single-end reinforced semi-floating hose features a reinforced structure at one end, while the other end utilizes a standard connection. This design reduces bending stress and extends the service life of the hose under dynamic load conditions.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81111 (单骨架) / GS82111 (双骨架)
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
最小爆破压力Min Burst Pressure	单管体漂浮管 (Single Carcass) : 75bar, 95bar, 105bar 双管体漂浮管 (Double Carcass) : -主管体 (Primary Carcass) : 75bar, 95bar, 105bar -副管体 (Secondary Carcass) : 30bar, 38bar, 41bar
增强端位置Reinforced End	船舶端ShipEnd
浮力材料Buoyancy	半漂浮HalfFloating
标准长度Standard Length	9.1m/ 10.7m/ 12.2m

聚氨酯涂层软管 | Polyurethane-Coated Hose



聚氨酯涂层软管 GS82112-PU
PU Coating Mainline GS82112-PU

外覆黄色聚氨酯防腐层 | Yellow PU External Coating

产品概述 | Product Overview

聚氨酯涂层软管外覆黄色聚氨酯层，有效抵抗海水中盐分、微生物和海洋生物的腐蚀，大幅延长使用寿命。

The polyurethane-coated hose features an outer layer of yellow polyurethane, which effectively resists corrosion caused by seawater salinity, microorganisms, and marine life, thereby significantly extending its service life.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS82112-PU
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
聚氨酯层厚度PU Layer Thickness	≥3mm
涂层颜色Coating Color	高可视橙色High-Visibility Bright Orange

卷轴软管 | Reeling Hose



单管卷轴软管 GS81112-REEL

Single Carcass Reeling GS81112-REEL

双管卷轴软管 GS82112-REEL

Double Carcass Reeling GS82112-REEL

卷筒式收放软管 | Reel-Type Hose System

产品概述 | Product Overview

卷轴软管专为卷筒式收放系统设计，可实现快速部署和回收。GS81112-REEL/GS82112-REEL 采用特殊加强结构，适应频繁的卷绕和展开操作。

These reel-mounted hoses are specifically designed for reel-based deployment and retrieval systems, enabling rapid deployment and retraction. The GS81112-REEL and GS82112-REEL models feature a specialized reinforced structure to withstand frequent winding and unwinding operations.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81112-REEL/ GS82112-REEL
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
适用卷筒Reel Type	液压驱动/手动Hydraulic/Manual
内衬材料Liner	NBR耐油橡胶Oil-resistant NBR
标准长度Standard Length	按卷筒规格As per reel spec

带浮体环一端增强管 | One End Reinforced with Float Collar



单管体带浮体环一端增强管 GS81211-FC

Single Carcass FC GS81211-FC

双管体带浮体环一端增强管 GS82211-FC

Double Carcass FC GS82211-FC

半漂浮式设计 | Half Floating Design

产品概述 | Product Overview

带浮体环一端增强管在一端配备浮体环，另一端为加强结构。浮体环提供额外浮力支撑，适用于浅水区域的CALM系统。

The Enhanced Pipe with Floating Ring is equipped with a floating ring at one end, while the other end features a reinforced structure. The floating ring provides additional buoyant support, making it suitable for CALM systems deployed in shallow-water regions.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81211-FC (单骨架) / GS82211-FC (双骨架)
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
适用水深Water Depth	≤50m (Shallow Water)
标准长度Standard Length	9.1m/ 10.7m/ 12.2m

不带浮体环一端增强管 | One End Reinforced without Float Collar



单管不带浮体环一端增强管 GS81211-NFC 双管不带浮体环一段增强管 GS82211-NFC
Single Carcass NFC GS81211-NFC Double Carcass NFC GS82211-NFC

无浮体环配置 | No Float Collar Configuration

产品概述 | Product Overview

不带浮体环一端增强管适用于深水作业环境，无需额外的浮力支撑。这种配置可减少水下负载和安装成本，适合水深超过50米的应用。

The enhanced pipe—featuring a non-buoyant end—is suitable for deep-water operational environments, requiring no additional buoyancy support. This configuration reduces underwater loads and installation costs, making it ideal for applications in water depths exceeding 50 meters.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81211-NFC (单骨架) / GS82211-NFC (双骨架)
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
最小爆破压力Min Burst Pressure	单管体漂浮管 (Single Carcass) : 75bar, 95bar, 105bar 双管体漂浮管 (Double Carcass) : -主管体 (Primary Carcass) : 75bar, 95bar, 105bar -副管体 (Secondary Carcass) : 30bar, 38bar, 41bar
最小弯曲半径Min Bend Radius	4×DN(Submerged)
适用水深Water Depth	>50m(Deep Water)
安装方式Installation	水下Submerged

带浮体环主管 | Mainline with Float Collar



单管体带浮体环主管 GS81212-FC 双管体带浮体环主管 GS82212-FC
Single Carcass Mainline FC GS81212-FC Double Carcass Mainline FC GS82212-FC

主管浮体环系统 | Mainline Float Collar System

产品概述 | Product Overview

带浮体环主管在标准主管基础上配备浮体环，提供额外的浮力支撑。这种配置广泛应用于浅水CALM系统，确保软管串在海面保持正确姿态。

The main hose equipped with flotation collars features flotation rings added to a standard main hose, providing additional buoyant support. This configuration is widely utilized in shallow-water CALM systems, ensuring that the hose string maintains the correct attitude at the sea surface.

技术参数 | Technical Parameters

参数Parameter	规格Specification
型号Model	GS81212-FC (单骨架) / GS82212-FC (双骨架)
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
浮体环规格Float Collar Spec	直径根据软管规格Perhosespec
适用水深Water Depth	≤50m(Shallow Water)
标准长度Standard Length	9.1m/ 10.7m/ 12.2m

不带浮体环主管 | Mainline without Float Collar



单管不带浮体环主管 GS81212-NFC

Single Carcass Mainline NFC GS81212-NFC

双管不带浮体环主管 GS82212-NFC

Double Carcass Mainline NFC GS82212-NFC

标准主管配置 | Standard Mainline Configuration

产品概述 | Product Overview

不带浮体环主管是深水应用的标准配置，适用于水深超过50米的FPSO和浮式装置软管系统。这种配置减少了水下负载和安装复杂度。

Main hoses without flotation collars represent the standard configuration for deepwater applications, suitable for hose systems on FPSOs and floating installations situated in water depths exceeding 50 meters. This configuration reduces both the underwater load and installation complexity.

技术参数 | Technical Parameters

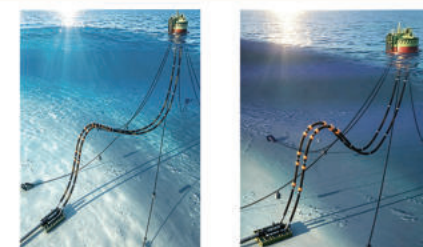
参数Parameter	规格Specification
型号Model	GS81212-NFC (单骨架) / GS82212-NFC (双骨架)
内径Inside Diameter	6"(150mm)-24"(600mm)
工作压力Working Pressure	15bar/ 19bar/ 21bar
最小爆破压力Min Burst Pressure	单管体漂浮管 (Single Carcass) : 75bar, 95bar, 105bar 双管体漂浮管 (Double Carcass) : -主管体 (Primary Carcass) : 75bar, 95bar, 105bar -副管体 (Secondary Carcass) : 30bar, 38bar, 41bar
最小弯曲半径Min Bend Radius	4×DN(Submerged)
适用水深Water Depth	>50m(Deep Water)

灯笼式/懒S型/陡S型软管 | Lantern/Lazy-S/Steep-S Hose



灯笼式软管 GS84212-LT

Lantern Hose GS84112-LT



懒S型/陡S型软管 GS84212-Ls/SS

Lazy-S / Steep-S GS84112-Ls/SS

特殊形态软管 | Special Shape Hose

产品概述 | Product Overview

灯笼式、懒S型和陡S型软管是特殊形态的软管配置，用于适应特定的安装空间和运动补偿需求。这些软管在有限的垂直空间内提供必要的位移补偿能力。

Lantern-style, "Lazy S" and "Steep S" hoses are specialized hose configurations designed to accommodate specific installation spaces and motion compensation requirements. These hoses provide the necessary displacement compensation capabilities within limited vertical spaces.

技术参数 | Technical Parameters

类型Type	型号Code	应用Application
灯笼式Lantern	GS84112-LT	垂直位移补偿Vertical Movement
懒S型Lazy-S	GS84112-LS	水平位移补偿Horizontal
陡S型Steep-S	GS84112-SS	大角度偏转Large Angle
内径Inside Diameter	6"(150mm)-24"(600mm)	
工作压力Working Pressure	15bar/ 19bar/ 21bar	
爆破压力Burst Pressure	≥5×WP	
标准长度Length	9.1m/ 10.7m/ 12.2m	

STS输油管 | STS Loading Hose



船对船输油管 GS86212-STS
Ship-to-Ship Loading GS86212-STS

船对船输油| Ship-to-Ship Oil Transfer

产品概述 | Product Overview

STS (Ship-to-Ship) 输油管用于两船之间的原油或产品油转运作业。GS86212-STS/ GS86122-STS符合EN1765和OCIMF船对船操作指南要求。

STS (Ship-to-Ship) oil transfer hoses are used for the transfer of crude oil or refined products between two vessels. Models GS86212-STS and GS86122-STS comply with the requirements of EN1765 and the OCIMF Ship-to-Ship Transfer Guide.

技术参数 | Technical Parameters

参数Parameter		规格Specification
型号Model		GS86212-STS/ GS86122-STS
内径Inside Diameter		4"(100mm)-12"(300mm)
工作压力Working Pressure		15bar/19bar/21bar
设计标准Standard		EN1765/ OCIMF GMPHOM 2009
最大流速Max Flow Velocity		21m/s
内径 (ID)		最大生产长度
Inch	mm	Max length (m)
4"	102	60
6"	150	60
8"	200	50
10"	250	50
12"	300	12.2

码头专用输油管 | Port Loading Hose



码头专用输油管 GS86212-PLT
Port Loading Standard GS86212-PLT



重型码头专用输油管 GS86215-PLT
Port Loading Heavy Duty GS86215-PLT

码头装卸作业| PortLoading/UnloadingOperations

产品概述 | Product Overview

码头专用输油管是连接码头管道与船舶接口的关键设备，承受频繁的连接操作和动态载荷。GS86212-PLT/GS86215-PLT具有优异的耐疲劳性能，符合EN1765标准。

Dedicated marine oil transfer hoses serve as critical components connecting terminal piping to vessel interfaces, enduring frequent connection operations and dynamic loads. The GS86212-PLT and GS86215-PLT models exhibit exceptional fatigue resistance and comply with the EN1765 standard.

技术参数 | Technical Parameters

参数Parameter		规格Specification
型号Model		GS86212-PLT/ GS86215-PLT
内径Inside Diameter		4"(100mm)-12"(300mm)
工作压力Working Pressure		15bar/19bar/21bar
端部连接Flange		ANSI B16.5 Class 150/300
适用标准Standard		EN1765/ OCIMF MEG 4
内衬材料Liner		NBR耐油橡胶
认证Certification		ABS/ BV/ CCS
内径 (ID)		最大生产长度
Inch	mm	Max length (m)
4"	102	60
6"	150	60
8"	200	50
10"	250	50
12"	300	12.2

StorageAndTransportationOperationSpecification

Note: A customised pallet design may be provided for fork lift handling. Such pallets will be appropriately identified. Otherwise do not lift pallets using forklift trucks.

Use the hose "quarterpoints" if a 2 point lift is operationally unavoidable.



·禁止在不平地面拖拽软管（会损坏胶管外层和法兰）DO NOT drag the hose over unsuitable surfaces(damage cover or end flanges)

On an area of solid, level ground, with separate protection against the environment.



Fork lift trucks with specialised attachments

General rubber degradation (cracks)

工况信息采集 Information Collection Form

Please provide as much as you can for the best hose design.
为了更好的胶管设计,请尽可能全面的填写如下信息:

1. Customer info(客户信息):

2. Port and application field(港口以及应用领域):

3. Location(位置):

4. Application(应用系统):

☐ SALM ☐ CMBM ☐ SBM ☐ OTHER'S(其他)

5. Environment Conditions(环境因素):

5.1 Sea depth(水深): 5.2 Tidal range(潮汐变化): 5.3 Operational conditions(使用工况): (a) Wave height(波高): (b) Wave period(波周期): (c) Wind speed(风速):

6. Purpose(用途):

☐ Loading(吸排) ☐ Unloading(排)

7. Medium(介质):

7.1 Medium type 介质种类:

☐ Crude oil(原油) ☐ Liquid petroleum products(液化石油产品) ☐ Natural gas(天然气)7.2 Specific gravity(密度) 7.3 Maximum aromatic hydrocarbon content (最大芳香烃含量):

8. Operating Pressure(工作压力):

8.1 Operating pressure at buoy(浮标端工作压力): 8.2 Operating pressure at tanker(油轮端工作压力): 8.3 Maximum working pressure(最大工作压力):

9. Temperature (温度)

Fluid temperature(介质温度): Ambient temperature(环境温度):

10. Flow rate (流速):

11. Hose string (软管串)

11.1 Quantity(数量):

11.2 Floating hose type,size,and quantity(漂浮管类型,尺寸和数量):

11.3 Submarine hose type,size,and quantity(水下管类型,尺寸和数量):

11.4 Submarine hose Configuration 水下管组态:

☐ Chinese Lantern 中国灯笼 ☐ Lazy-S 懒S型 ☐ Steep S 陡S型 ☐ others 其他

12. Vessel 油船

12.1 Maximum Dead Weight Ton(最大载重吨位): 12.2 Average Dead Weight Ton(平均载重吨位): 12.3 Minimum Dead Weight Ton(最小载重吨位): 12.4 Operation frequency(操作频率):

Please complete as fully as possible to allow prompt quotation
请尽可能完整地填写如下信息，以便及时报价：

Customer(客户信息)

Date of Inquiry(询价日期):

Required date of quotation (报价日期):

Required of delivery(交货期):

Destination (交货地):

Conditions条款:

☐ EXW With TAX ☐ FOB Qingdao ☐ CIF(Port (目的港):)

Currency支付方式:

☐ US Dollar美金 ☐ Chinese RMB元 ☐ Others 其他

1. Hose 胶管

1.1 Specification行业标准:

☐ GMPHOM2009 ☐ Customer's Spec (客户要求)

1.2 Raifed Pressure工作压力:

☐ 15Bar ☐ 19Bar ☐ 21Bars

1.3 Fluid介质:

☐ Crude oil(原油) ☐ Liquid Petroleum products (液态柴汽油) ☐ Nature gas (天然气) ☐ Others其他()

1.4 Flange Standard 法兰标准:

☐ ANSI 150 ☐ ANSI 300

1.5 Flange Face法兰面:

☐ Flat face(FE)平面 ☐ Raised face(RF)凸面

1.6 Third Party Inspection第三方检测：

☐ Not Required(Manufacture's test certificates for each hose to be submitted)不需要第三方检测(仅提供每条胶管的工厂检测证书)

☐ Required需要第三方检测

☐ All hose(同一批所有胶管) ☐ Random test (抽检)

☐ At Customer's account (买家支付第三方检测费用) ☐ At Manufacturer's account (工厂支付第三方检测费用)

1.7 Package(包装):

1.8 Drawing (图纸):

☐ Required with BID (随招标书一起提交) ☐ Required when ordered (下订单时候需要)

1.9 Logo商标:

☐ GETSAF (工厂品牌) ☐ Customer's Brand (客户商标)

1.10 Details胶管详情:

No	Description胶管描述	Size尺寸	Length长度	Quantity数量	Remarks备注
1					
2					
3					