

海上系泊点装卸输油胶管

OIL SUCTION & DISCHARGE HOSES FOR OFFSHORE MOORINGS



江苏西沙科技有限公司(以"CDSR"为品牌)供应一系列高品质,高性能,完全符合《海上系泊点胶管之制造与采购指南》(GMPHOM 2009)要求的吸排油胶管。CDSR吸排油管有额定压力为15 bar, 19 bar和21 bar或更高的类型,以用于特殊应用或满足特定要求。CDSR输油胶管有两种独特的设计可供选择:

- CDSR单管体(51系列)漂浮型,水下型及悬链型
- CDSR双管体(52系列)漂浮型,水下型及悬链型

Jiangsu CDSR Technology Co., Ltd (with the brand of "CDSR") provides a range of high quality, high performance, oil suction and discharge hoses, which fully comply with the requirements of the "Guide to Manufacturing and Purchasing Hoses for Offshore Moorings" (GMPHOM 2009). The CDSR Oil Suction & Discharge Hoses are available with rated working pressures of 15 bar, 19 bar and 21 bar or higher for special applications or specific client requirements. Two distinctive designs within the CDSR hose range are available:

- CDSR Single Carcass (51 Series) Floating, Submarine & Catenary Hoses
- CDSR Double Carcass (52 Series) Floating, Submarine & Catenary Hoses

CDSR单管体输油管的结构包含三个主要部分:

- (1) 耐受各种碳氢化合物的平滑内胶层;
- (2) 包含多层高强度帘布和嵌入的钢丝螺旋的标准的橡胶管体;
- (3) 耐老化、耐磨、耐天候、耐阳光、耐撕裂、耐油、并且耐海水渗透的,含有纤维增强层的外胶层。

The CDSR Single Carcass Hose construction consists of three main elements:

- (1) smooth bore elastomeric lining resistant to a variety of hydrocarbons,
- (2) a standard elastomer reinforced carcass with multi-layers of high tensile textile cords and embedded steel wire helix,
- (3) a fiber reinforced smooth elastomer cover, resistant to ageing, abrasion, weathering, sunlight, tearing, oil and seawater penetration

在标准管体(即“主管体”)的基础上,CDSR双管体输油管从设计上附加了一层额外的副管体,用来容纳因主管体慢速泄露或突然失效而溢出的输送介质。同时还配置了有效的、坚固可靠的、集成的泄漏侦测指示系统。

In addition to the standard hose carcass (commonly termed 'primary carcass'), CDSR Double Carcass Hose incorporate an additional second carcass designed to contain any product escaping from the primary carcass as a result of a slow leak or sudden failure. An effective, robust and reliable, integrated leak detection and indication system is provided.

CDSR单管体和双管体输油管的产品系列,还包括一系列齐全的配套设备。

The CDSR Single Carcass and Double Carcass hose range is complemented by a comprehensive range of Ancillary Equipment.



CDSR输油管完全符合GMPHOM 2009的要求。
CDSR hoses fully comply with the requirements of the "GMPHOM 2009"



CDSR输油管在符合ISO 9001标准的质量管理体系下设计与制造。
CDSR hoses are designed and manufactured under a quality system in accordance with ISO 9001.



原型软管制造和测试经由法国船级社和挪威船级社见证及认证。
Prototype Hose manufacture and testing witnessed and verified by Bureau Veritas and DNV.

海上系泊点装卸输油胶管

OIL SUCTION & DISCHARGE HOSES FOR OFFSHORE MOORINGS

西沙科技(以"CDSR"为品牌)供应一系列高品质,高性能强化橡胶的,内壁平滑的吸排油胶管。CDSR输油管完全符合GMPHOM 2009要求。

Jiangsu CDSR Technology Co., Ltd (with the brand of "CDSR") provides a range of high-quality, high-performance elastomer reinforced, smooth bore, oil suction and discharge hoses. The CDSR hoses fully comply with the requirements of the "GMPHOM 2009".

CDSR输油管系列包含单管体,双管体结构,并适合水下,悬链及漂浮应用。CDSR输油管在符合ISO9001标准的质量管理体系下设计与制造。

CDSR hose range includes Single Carcass and Double Carcass hose construction for Submarine, Catenary and Floating applications. CDSR hoses are designed and manufactured under a quality system in accordance with ISO 9001.

51100 –单管体漂浮管
Single Carcass Floating Hose



52100 –双管体漂浮管
Double Carcass Floating Hose



51200 –单管体水下管
Single Carcass Submarine Hose



52200 –双管体水下管
Double Carcass Submarine Hose



51300 –单管体悬链管
Single Carcass Catenary Hose



52300 –双管体悬链管
Double Carcass Catenary Hose



单管体漂浮管

Single Carcass Floating Hose

51系列

'51' Series

CDSR

CDSR提供一系列高品质，高性能，吸排油管。CDSR单管体漂浮软管为诸如FPSO，FSO串联卸油配置还有CALM，SALM卸油这些高度集成的水面设施而设计。

CDSR provides a range of high quality, high performance, oil suction and discharge hoses. The CDSR Single Carcass Floating hoses are designed for highly integrated surface installations such as CALM, SALM offloading in addition to FPSO, FSO tandem offloading configurations.

CDSR 输油软管完全符合GMPHOM 2009要求，并且在符合ISO 9001标准的质量管理体系下设计与制造。

The CDSR hoses fully comply with the requirements of the "GMPHOM 2009", and are designed and manufactured under a quality system in accordance with ISO 9001.

51110 FSC

半浮式端部加强型（浮筒端首件管）
End Reinforced Half Floating
(i.e. First off Buoy)



51130 FSC

漂浮式主线型
Main Line Floating



51150 FSC

漂浮式缩径型
Reducing Floating



51160 FSC

漂浮式尾管
Tail Floating



51170 FSC

漂浮式油轮围栏型
Tanker Rail Floating



*可按要求提供其它类型的单管体漂浮管

Other types of Single Carcass Floating Hose on request.

*关于性能特点和规格，请参考“单管体软管规格”。

For performance characteristics and specification, please refer to "Single Carcass Hose Specification"

单管体水下管

Single Carcass Submarine Hose

51系列

'51' Series

CDSR

CDSR提供一系列高品质，高性能，吸排油管。CDSR单管体水下软管为诸如MBM，CALM，SAML配置（即陡'S'式，懒'S'式，灯笼式）这些高度集成的海底设施而设计。

CDSR provides a range of high quality, high performance, oil suction and discharge hoses. The CDSR Single Carcass Submarine hoses are designed for highly integrated sub-sea installations such as MBM, CALM, SALM configurations (i.e. Steep 'S', Lazy 'S', Chinese Lantern).

CDSR 输油软管完全符合GMPHOM 2009要求，并且在符合ISO 9001标准的质量管理体系下设计与制造。
The CDSR hoses fully comply with the requirements of the "GMPHOM 2009", and are designed and manufactured under a quality system in accordance with ISO 9001.

51210 SSC

无挡圈端部加强型（浮筒端/管汇端）
End Reinforced without Float Collars
(i.e. under Buoy / off PLEM)



51220 SSC

无挡圈主线型
Main Line without Float Collars



51310 SSC

含挡圈端部加强型（浮筒端/管汇端）
End Reinforced with Float Collars
(i.e. under Buoy / off PLEM)



51320 SSC

含挡圈主线型
Main Line with Float Collars



*可按要求提供其它类型的单管体水下管

Other types of Single Carcass Submarine Hose on request.

*关于性能特点和规格，请参考“单管体软管规格”。

For performance characteristics and specification, please refer to "Single Carcass Hose Specification"

单管体悬链管

Single Carcass Catenary Hose

51系列

'51' Series

CDSR

CDSR提供一系列高品质, 高性能, 吸排油管。CDSR单管体悬链管为诸如FPSO, FSO串联卸油至运输油轮(即卷绕架, 斜槽, 悬臂吊挂装置)这些高度集成的浮动卸油设施而设计。

CDSR provides a range of high quality, high performance, oil suction and discharge hoses. The CDSR Single Carcass Catenary hoses are designed for highly integrated floating offloading installations such as FPSO, FSO tandem offloading to Shuttle Tankers (i.e. Reel, Chute, Cantilever hang-off arrangements)

CDSR 输油软管完全符合GMPHOM 2009要求, 并且在符合ISO 9001标准的质量管理体系下设计与制造。

The CDSR hoses fully comply with the requirements of the 'GMPHOM 2009', and are designed and manufactured under a quality system in accordance with ISO 9001.

51410 CSC

端部加强型

End Reinforced



51420 CSC

主线型

Main Line



51430 CSC

控制浮力型

Controlled Buoyancy



*可按要求提供其它类型的单管体悬链管

Other types of Single Carcass Catenary Hose on request.

*关于性能特点和规格, 请参考“单管体软管规格”。

For performance characteristics and specification, please refer to "Single Carcass Hose Specification"

性能特点与结构

Performance Characteristics & Specification

公称口径: Nominal Bore:	150mm (6"), 200 mm (8"), 250 mm (10"), 300 mm (12"), 400 mm (16"), 500 mm (20"), 600 mm (24")
标准长度: Standard Length:	9.1m (30'), 10.7m (35'), 12.2m (40') (也可提供小于12.2m的非标长度 non-standard less than 12.2m also available)
软管结构: Hose Construction:	<ul style="list-style-type: none"> • 内衬-以丁腈橡胶为主, 耐受芳烃含量高达60%的碳氢化合物。 Liner Tube –NBR based Rubber, resistant to hydrocarbons with aromatic content up to 60%. • 主管体-含多层高强度帘线和内嵌钢丝螺旋的弹性体。 Main Carcass – Elastomer reinforced with multi-layers of high tensile textile cords and embedded steel wire helix • 浮体材料(仅限漂浮式软管) –闭孔泡沫 Floatation Material (Floating Hoses only)–Closed Cell Foam • 外层-耐老化、耐磨、耐天候、耐阳光、耐撕裂、耐油、并且耐海水渗透的, 含有纤维增强层的平滑外胶层。 Outer Cover – Fiber reinforced smooth elastomer cover, resistant to ageing, abrasion, weathering, sunlight, tearing and oil and seawater penetration.
法兰: Flanges:	ANSI B16.5 150级或300级, 平面型(FF), 热浸镀锌。(凸面型(RF)法兰可选) ANSI B16.5 Class 150 or 300 Flat Face (FF), Hot Dip Galvanized, (Raised Face(RF) flange face on request)
压力等级: Pressure Rating:	15 bar 19 bar, 21 bar (更高的压力等级可选 higher pressure ratings on request)
最小爆破压力: Minimum Burst Pressure:	75 bar, 95 bar, 105 bar
流速: Flow Velocity:	最高21米/秒 Maximum of 21m/s
输送介质: Fluid Product:	原油和液化石油产品(液化石油气和液化天然气除外) Crude Oil and Liquid Petroleum Products (other than liquefied petroleum gases and liquefied natural gases)
温度范围: Temperature Range:	流体温度: -20°C至82°C Fluid Temperature from -20°C to 82°C. 环境温度: -29°C至52°C Ambient Temperature from -29°C to 52°C.
最小弯曲半径: Minimum Bend Radius:	水下管 -公称口径的4倍。 Submarine Hose – 4 x hose Nominal Bore Diameter. 漂浮管 -公称口径的6倍 Floating Hose – 6 x hose Nominal Bore Diameter.
电连续性: Electrical Continuity:	按要求导电或不导电 Electrically Continuous or Discontinuous as required.

CDSR 输油软管完全符合GMPHOM 2009要求, 并且在符合ISO 9001标准的质量管理体系下设计与制造。

The CDSR hoses fully comply with the requirements of the "GMPHOM 2009", and are designed and manufactured under a quality system in accordance with ISO 9001.

原型软管制造和测试经由法国船级社和挪威船级社见证及认证。

Prototype Hose manufacture and testing witnessed and verified by Bureau Veritas and DNV.

双管体漂浮管

Double Carcass Floating Hose '52' Series

CDSR

CDSR提供一系列高品质, 高性能, 吸排油管。CDSR双管体漂浮软管为诸如FPSO,FSO串联卸油配置还有CALM, SALM卸油这些高度集成的水面设施而设计。

CDSR provides a range of high quality, high performance, oil suction and discharge hoses. The CDSR Double Carcass Floating hoses are designed for high integrity surface installations such as CALM, SALM offloading in addition to FPSO, FSO tandem offloading configurations.

在标准管体(即“主管体”)的基础上, CDSR双管体输油管从设计上附加了一层额外的副管体, 用来容纳因主管体慢速泄露或突然失效而溢出的输送介质。同时还配置了有效的、坚固可靠的、集成的泄漏侦测指示系统。

In addition to the standard hose carcass (commonly termed 'primary carcass'), the CDSR Double Carcass Hose incorporate an additional second carcass designed to contain any product escaping from the primary carcass as a result of a slow leak or sudden failure. An effective, robust and reliable, integrated leak detection and indication system is provided.

CDSR 输油软管完全符合GMPHOM 2009要求, 并且在符合ISO 9001标准的质量管理体系下设计与制造。
The CDSR hoses fully comply with the requirements of the "GMPHOM 2009", and are designed and manufactured under a quality system in accordance with ISO 9001

52110 FDC

半浮式端部加强型 (浮筒端首件管)
End Reinforced Half Floating
(i.e. First off Buoy)



52130 FDC

漂浮式主线型
Main Line Floating



52150 FDC

漂浮式缩径型
Reducing Floating



52160 FDC

漂浮式尾管
Tail Floating



52170 FDC

漂浮式油轮围栏型
Tanker Rail Floating



*可按要求提供其它类型的双管体漂浮管
Other types of Double Carcass Floating Hose on request.

*关于性能特点和规格, 请参考“双管体软管规格”。
For performance characteristics and specification, please refer to "Double Carcass Hose Specification"

双管体水下管

Double Carcass Submarine Hose

52系列

'52' Series

CDSR

CDSR提供一系列高品质，高性能，吸排油管。CDSR双管体水下软管为诸如MBM，CALM，SAML配置（即陡S'式，懒S'式，灯笼式）这些高度集成的海底设施而设计。

CDSR provides a range of high quality, high performance, oil suction and discharge hoses. The CDSR Double Carcass Submarine hoses are designed for highly integrated sub-sea installations such as MBM, CALM, SALM configurations (i.e. Steep 'S', Lazy 'S', Chinese Lantern).

在标准管体（即“主管体”）的基础上，CDSR双管体输油管从设计上附加了一层额外的副管体，用来容纳因主管体慢速泄露或突然失效而溢出的输送介质。同时还配置了有效的、坚固可靠的、集成的泄漏侦测指示系统。

In addition to the standard hose carcass (commonly termed 'primary carcass'), the CDSR Double Carcass Hose incorporate an additional second carcass designed to contain any product escaping from the primary carcass as a result of a slow leak or sudden failure. An effective, robust and reliable, integrated leak detection and indication system is provided.

CDSR 输油软管完全符合GMPHOM 2009要求，并且在符合ISO 9001标准的质量管理体系下设计与制造。

The CDSR hoses fully comply with the requirements of the "GMPHOM 2009", and are designed and manufactured under a quality system in accordance with ISO 9001.

52210 SDC

无挡圈端部加强型（浮筒端/管汇端）
End Reinforced without Float Collars
(i.e. under Buoy / off PLEM)



52220 SDC

无挡圈主线型
Main Line without Float Collars



52310 SDC

含挡圈端部加强型（浮筒端/管汇端）
End Reinforced with Float Collars
(i.e. under Buoy / off PLEM)



52320 SDC

含挡圈主线型
Main Line with Float Collars



*可按要求提供其它类型的双管体水下管
Other types of Double Carcass Submarine Hose on request.

*关于性能特点和规格，请参考“双管体软管规格”。
For performance characteristics and specification, please refer to "Double Carcass Hose Specification"

双管体悬链管

Double Carcass Catenary Hose '52' Series

CDSR

CDSR提供一系列高品质, 高性能, 吸排油管。CDSR双管体悬链管为诸如FPSO, FSO串联卸油至运输油轮(即卷绕架, 斜槽, 悬臂吊挂装置)这些高度集成的浮动卸油设施而设计。

CDSR provide a range of high-quality, high-performance, oil suction and discharge hoses. The CDSR Double Carcass Catenary hoses are designed for highly integrated floating offloading installations such as FPSO, FSO tandem offloading to Shuttle Tankers (i.e. Reel, Chute, Cantilever hang-off arrangements).

在标准管体(即“主管体”)的基础上, CDSR双管体输油管从设计上附加了一层额外的副管体, 用来容纳因主管体慢速泄露或突然失效而溢出的输送介质。同时还配置了有效的、坚固可靠的、集成的泄漏侦测指示系统。

In addition to the standard hose carcass (commonly termed 'primary carcass'), the CDSR Double Carcass Hose incorporate an additional second carcass designed to contain any product escaping from the primary carcass as a result of a slow leak or sudden failure. An effective, robust and reliable, integrated leak detection and indication system is provided.

CDSR 输油软管完全符合GMPHOM 2009要求, 并且在符合ISO 9001标准的质量管理体系下设计与制造。

The CDSR hoses fully comply with the requirements of the "GMPHOM 2009", and are designed and manufactured under a quality system in accordance with ISO 9001.

52410 CDC

端部加强型
End Reinforced



52420 CDC

主线型
Main Line



52430 CDC

控制浮力型
Controlled Buoyancy



*可按要求提供其它类型的双管体悬链管
Other types of Double Carcass Catenary Hose on request.

*关于性能特点和规格, 请参考“双管体软管规格”。
For performance characteristics and specification, please refer to "Double Carcass Hose Specification"

性能特点与结构

Performance Characteristics & Specification

公称口径: Nominal Bore:	150mm (6"), 200 mm (8"), 250 mm (10"), 300 mm (12"), 400 mm (16"), 500 mm (20"), 600 mm (24")
标准长度: Standard Length:	9.1m (30'), 10.7m (35'), 12.2m (40') (也可提供小于12.2m的非标长度 non-standard less than 12.2m also available)
软管结构: Hose Construction:	<ul style="list-style-type: none"> • 内衬-以丁腈橡胶为主, 耐受芳烃含量高达60%的碳氢化合物。 Liner Tube – NBR based Rubber, resistant to hydrocarbons with aromatic content up to 60%. • 主管体-含多层高强度帘线和内嵌钢丝螺旋的弹性体。 Primary Carcass – Elastomer reinforced with multi-layers of high tensile textile cords and embedded steel wire helix • 副管体-含多层高强度帘线的弹性体。 Secondary Carcass – Elastomer reinforced with multi-layers of high tensile textile cords. • 浮体材料(仅限漂浮式软管) – 闭孔泡沫 Floatation Material (Floating Hoses only) – Closed Cell Foam. • 外层-耐老化、耐磨、耐天候、耐阳光、耐撕裂、耐油、并且耐海水渗透的, 含有纤维增强层的平滑外胶层 Outer Cover – Fiber reinforced smooth elastomer cover, resistant to ageing, abrasion, weathering, sunlight, tearing and oil and seawater penetration.
法兰: Flanges:	ANSI B16.5 150级或300级, 平面型(FF), 热浸镀锌。(凸面型(RF)法兰可选) ANSI B16.5 Class 150 or 300 Flat Face (FF), Hot Dip Galvanized, (Raised Face(RF) flange face on request)
压力等级: Pressure Rating:	15 bar, 19 bar, 21 bar (更高的压力等级可选 higher pressure ratings on request)
最小爆破压力: Minimum Burst Pressure:	主管体(Primary Carcass) –75 bar, 95 bar, 105 bar 副管体(Secondary Carcass)–30 bar, 38 bar, 42 bar
流速: Flow Velocity:	最高21米/秒 Maximum of 21 m/s
输送介质: Fluid Product:	原油和液化石油产品(液化石油气和液化天然气除外) Crude Oil and Liquid Petroleum Products (other than liquefied petroleum gases and liquefied natural gases).
温度范围: Temperature Range:	流体温度: -20°C至82°C Fluid Temperature from -20°C to 82°C. 环境温度: -29°C至52°C Ambient Temperature from -29°C to 52°C.
最小弯曲半径: Minimum Bend Radius:	水下管-公称口径的4倍 Submarine Hose – 4 x hose Nominal Bore Diameter. 漂浮管-公称口径的6倍 Floating Hose – 6 x hose Nominal Bore Diameter.
电连续性: Electrical Continuity:	按要求导电或不导电 Electrically Continuous or Discontinuous as required.
泄漏检测: Leak Detection:	压力补偿式的泄漏检测系统, 适用于漂浮式, 水下式和悬链式的应用 Pressure compensated leak detection system for Floating, Submarine & Catenary applications.

CDSR 输油软管完全符合GMPHOM 2009要求, 并且在符合ISO 9001标准的质量管理体系下设计与制造。

The CDSR hoses fully comply with the requirements of the "GMPHOM 2009", and are designed and manufactured under a quality system in accordance with ISO 9001.

原型软管制造和测试经由法国船级社和挪威船级社见证及认证。

Prototype Hose manufacture and testing witnessed and verified by Bureau Veritas and DNV.

CDSR单管体和双管体输油管系列不仅配有用于运输、处理和测试的设备，还配有一系列的配套设备。

The CDSR Single Carcass and Double Carcass hose range is complemented by a range of Ancillary Equipment in addition to equipment to aid Transportation, Handling and Testing.

法兰连接 Flange Jointing

53511
螺栓和螺母
Studs and Nuts



53512
垫片
Gaskets



锚链组件 Chain Assemblies

53521
拾取链
Pick-up Chain



53522
缓冲拖链
Snubbing Chain



软管端部接头 Hose End Fittings

53531
蝶阀
Butterfly Valve



53532
提拉短节
Lifting Spool Piece



53533
快速接头
Camlock Coupling



53534
轻便盲板
Lightweight Blind Flange

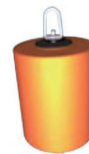


CDSR单管体和双管体输油管系列不仅配有用于运输、处理和测试的设备，还配有一系列的配套设备。

The CDSR Single Carcass and Double Carcass hose range is complemented by a range of Ancillary Equipment in addition to equipment to aid Transportation, Handling and Testing.

浮力设备 Buoyancy Equipment

53541
拾取浮标
Pick-up Buoy



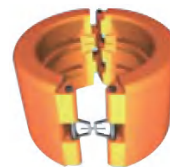
53542
漂浮式同心异径管
Floating Concentric Reducer



53543
漂浮式Y型接头
Floating 'Y' Piece



53544
软管浮体
Hose Floats



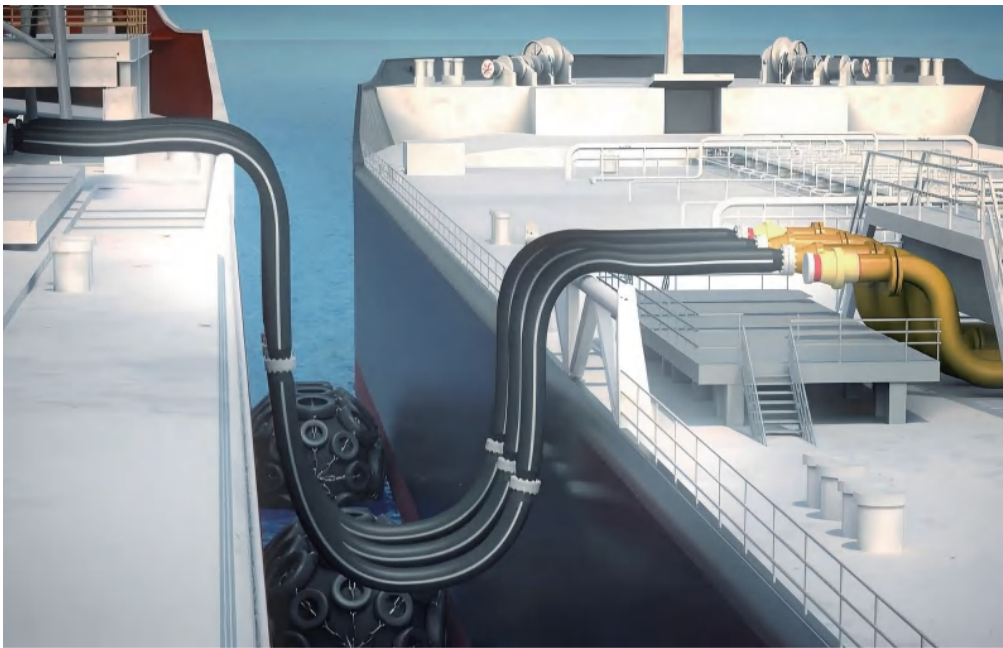
软管标志灯 Hose Marker Lights

53551
闪光灯
Winker Light



西沙科技(以"CDSR"为品牌)供应一系列高品质,高性能强化橡胶的,内壁平滑的吸排油胶管,符合GMPHOM 2009和EN 1765规范要求。CDSR生产的船对船软管作为船对船(STS)安全转运作业的配套产品,专为海上作业设计,CDSR充分听取了熟悉作业条件和产品需求的船长们的专业建议。

Jiangsu CDSR Technology Co., Ltd (with the brand of "CDSR") provides a range of high-quality, high-performance elastomer reinforced, smooth bore, oil suction and discharge hoses, which comply with the requirements of the GMPHOM 2009 and EN 1765. As a support product for safe ship-to-ship (STS) transfer operation, CDSR Ship-to-Ship Hose is specifically designed for offshore operations, and CDSR has fully incorporated the professional advice of captains familiar with operating conditions and product requirements.



CDSR船对船软管的设计理念旨在满足海上作业安全需求,其具体设计如下:

- (1) 重型设计——耐压强度安全系数超过工作压力的五倍;
- (2) 无永久变形——螺旋钢丝结构的软管在操作过程中遭受粗暴弯曲或真空,也不会产生永久性形变。

The design concept of CDSR Ship-to-Ship Hoses is aimed at meeting the safety requirements of offshore operations, and its specific design is as follows:

- (1) Heavy duty design – Safety factor of pressure strength is more than five times of the working pressure.
- (2) No permanent deformation – hose with helix wire construction will not undergo permanent deformation even when subjected to rough bending or vacuum during operation.



公称直径 Nominal Diameter	实际直径 Actual Diameter	管体直径 Hose Diameter		空气中重量 Weight in Air			
		管体最粗部分 Thickest part of hose body	中部 Middle	L=30'	L=10m	L=35'	L=11.8m
12"	300 mm	400 mm	380 mm	835 kg	917 kg	980 kg	1100 kg
10"	250 mm	375 mm	360 mm	636 kg	701 kg	749 kg	840 kg
8"	200 mm	310 mm	270 mm	533 kg	585 kg	630 kg	703 kg
6"	152 mm	250 mm	230 mm	335 kg	367 kg	393 kg	440 kg

* 可提供订制规格

Customized specifications on request.

备注

- (1) 长度
软管长度有9.1米、10米、10.7米和11.8米，也可提供小于12米的其它长度。
- (2) 芳烃含量
适用于输送芳烃含量不超过60%的液态石油产品。
- (3) 法兰等级
法兰等级通常为ANSI B 16.5 150级，也可根据要求提供300级法兰。
- (4) 法兰面
法兰面通常为平面，但也可根据要求提供凸面。

Remarks

- (1) Length
Hose lengths are available in 9.1 m, 10 m, 10.7 m, and 11.8 m; other lengths under 12m are also available.
- (2) Aromatic Content
Suitable for conveying liquefied petroleum products with an aromatic content not greater than 60%.
- (3) Flange Rating
Flanges are typically ANSI B 16.5 class 150, and class 300 is also available upon request.
- (4) Flange Face
Flange face is typically FLAT FACE, but the RAISED FACE is also available upon request.