

# **Quick Couplings for Oil and Gas Industry**

用于石油和燃气行业的快速接头



For many years and thanks to its two brands **HANSEN** and **COUPLEURS GROMELLE**, **TUTHILL** has been offering a large range of quick couplings for various applications in exploration and production processes in the Oil & Gas Industry. Thanks to its experience and know-how, **TUTHILL** provides recognized technical solutions to its customers confronted with increasing technical and environmental constraints.

汉森和格鲁梅尔两个品牌已有多年的历史。在石油和燃气行业中,泰悉尔针对勘探和生产过程中的各种不同的应用提供了大量的快速接头。面对日益提高的技术和环境要求,泰悉尔根据自身的经验和专业知识可为客户提供经过验证的技术方案。

**TUTHILL** has got two production plants of quick couplings in France and the USA, facilities all over the World and an expanded distribution network which allows us to be close to our customers worldwide. The service provided by **TUTHILL** to its customers thus becomes a key benefit in the Oil & Gas Industry where there is a constant quest for productivity improvements.

在法国和美国,泰悉尔各有一家快速接头生产厂。遍及世界的各种设施和分销网络使我们与客户保持密切联系。



## HKFR Series HKFR 系列

The Fire-Rated Coupling is a quick coupling designed to operate under emergency fire conditions. It exceeds all requirements of API 16D and EUB Directive 36. HKFR Series is available from 1/2" to 1" in steel and in AISI 303 stainless steel for size 1". All sizes have individual Lloyd's Register Certification. Easy to connect / disconnect thanks to its ball lock mechanism, this coupling is ideal for Blow-Out Preventer applications and for building panels where space is limited thanks to its compact design. This series is

designed for applications with 200 & 275 bar / 3,000 & 4,000 psi working pressures. It presents BOP marking and red color coding to help visual identification.

该防火型快速接头是设计用于火灾情形下使用的。它的性能要求超过 API 16D 和 EUB Directive 36。规格从 1/2"到 1"的 HKFR 系列快速接头,其材质为钢,1"的快速接头有 AISI 303 不锈钢材质。所有规格的快速接头都具有单独的 Lloyd's 登记证书。它采用便于连接及断开的球锁机构,是防喷装置的理想选择。它紧凑的设计适用于空间有限的金属建筑嵌板。该设计被用于工作压力为 200 和 275 bar/3,000 和 4,000psi 的场合。它含有 BOP 标记和红色的编码,帮助视觉识别。



#### W-6000 系列 W-6000 Series

Our W-6000 Series is designed for severe pulsating pressures with hose bending, vibrations, hydraulic shocks, etc. These highly robust couplings are available from 1/4" to 2" in steel, F15NM and AISI 316L stainless steel. Working pressures are 300 to 1100 bar / 4,400 to 16,000 psi for steel and F15NM stainless steel and 180 to

500 bar / 2,600 to 7,300 psi for AISI 316L. It can be connected against residual pressure.

W-6000 系列用在由于胶管弯曲、震动及液压波动等使得工作压力产生剧烈脉动的场合。规 格从 1/4"到 2"的高强度的快速接头,其材质为钢、F15NM and AISI 316L 不锈钢。对于钢 和 F15NM 不锈钢材质的快速接头,其工作压力为 300 至 1100 bar/4,400 至 16,000psi,而 对于 AISI 316L 不锈钢材质的快速接头,其工作压力则为 180 至 500 bar/2,600 至 7,300psi。连接时能抵抗残余压力。

Because Oil & Gas applications are very severe, TUTHILL has developed some specific W-6000 couplings to satisfy every hydraulic and environmental constraints:

由于石油和燃气的使用条件较为恶劣,为此泰悉尔开发了一些特制的 W6000 快速接头以满 足要求。

- 1/4" coupling in AISI 316Ti stainless steel for sea seismology exploration, 1/4"AISI 316Ti 不锈钢快速接头可 用于海洋勘探的。
  - 1/4" coupling in F15NM stainless steel, with Autoclave end-connection for subsea tree test application up
  - 具有高压连接端的 1/4" F15NM 不锈钢快速接头可 用于海底树探测。
- 1/4", 3/8" & 1/2" couplings in Sanicro, panel-mounted plug, for underwater well-head application,
  - 由 SANICRO 合金制造、装在面板上的 1/4"、3/8" 和 1/2" 快速接头可 用于水下。
- 3" coupling in AISI 316L for Off-Shore equipment (150 bar / 2,200 psi working pressure). AISI 316L 不锈钢快速接头可用于近海设备(工作压力为 150bar/2,200psi)。



316Ti version

316L & Autoclave version



Sanicro version



For further details, please contact us. 如需了解进一步的详情,请联系我们。



# 96 Series 96 系列

Series 96 is a heavy-duty wing nut coupling designed for use in hydraulic lines where dry break and minimum air inclusion are required. It is a connect / disconnect under pressure coupling. Body sizes are 3/4", 1" and 1"1/4 and the materials are in brass and steel for corrosion resistance and durability. The working pressure is up

to 200 bar / 3,000 psi. These couplings are used in many hydraulic applications in the Oil & Gas industry

96 系列是一种负载力强的翼形螺母连接接头,应用于需要干式截流和最少的空气残留的液压线路。它能在压力环境下连接或断开。主体尺寸为 3/4"、1"和 1 1/4"。材料为抗腐蚀和耐久性好铜和钢。工作压力可达 200bar/3,000psi。这种接头被广泛用于石油和燃气行业。



# HK Series HK 系列

The HK Series is designed for general purpose hydraulic service in stationary and mobile Oil & Gas applications. It is available in sizes from 1/8" to 3", in brass, steel and AISI 303 & AISI 316 stainless steels. It meets the ISO 7241-1 Series B standard. A High-Impulse version which gives increased resistance to brinelling is also available. The working pressure is up to 345 bar / 5,000 psi. A wide variety of options is available like sleeve lock, one-way and

straight-thru designs, release clamp with chain, etc.

HK 系列接头设计用于一般用途的液压服务(静止的和流动的石油和燃气)。主体尺寸从 1/8"到 3",材料为铜、钢和 AISI 316 不锈钢。它满足 ISO 7241-1 系列 B 标准。高的耐冲击性能抵抗海水冲力。工作压力可达 345bar/5,000psi。选择范围广,如套筒锁、单向关断、直通式及带链条的释放夹等。

The actual drilling constraints require ever more efficient equipments. To meet this new technical requirement, **TUTHILL** has developed a 24HK coupling which is a 3" quick coupling allowing high hydraulic flow. Available in steel, its strong design is well-adapted to severe environment. Working pressure is 120 bar /1,800 psi and flow-rate / pressure drop is 1 bar at 1500 l/min, 1.45 psi at 396 GPM US.



在实际使用中,要求效率更高的配备。为了满足新的技术要求,泰悉尔开发了 24HK 系列 3" 快速接头,它能应用于大流量。材料为钢。优良的设计对恶劣的环境有很强的适应性。工作

压力为 120bar/1,800psi。压降为 1bar 时,流量为 1500l/min。

For further details, please contact us. 如需了解进一步的详情,请联系我们。



## H-5000 Series H-5000 系列

Our H-5000 Series is designed for high pressure applications and is well-adapted to resist hydraulic and mechanical constraints. It is available in sizes from 1/8" to 2", in brass, steel and AISI 316L stainless steel. Working pressure is up to 1000 bar / 14,500 psi.

H-5000 系列接头设计用于高压流体。不受液压和机械条件的限制。主体尺寸从 1/8"到 2",材料为铜、钢和 AISI 316L 不锈钢。工作压力可达 1000bar/14,500psi。



## FF Series FF 系列

The FF Series is flat face quick coupling used in all applications where there is a risk of contamination of hydraulic circuits, as well as requirements for safety, environmental and

cleanliness of the work area. It meets the requirements of ISO 16028 and presents a wide choice of end connections. Our range of FF drybreak couplings is one the most performing due

to its working pressures up to 350 bar / 5,000 psi. It is available in steel and sizes from 1/4" to 1". 3/8" is compatible with ANSI T3.20.15 Standard specified by HTMA. Rugged color plastic rings are also available for quick identification of the circuits.



FF 系列是平面快速接头,用于有污染的液压管路以及有安全、环境和清洁要求的工作区域。它满足 ISO 16028 标准并有多种尾端连接方式可供选择。FF 干式接头的工作压力可达 350bar/5,000psi。材料为钢,主体尺寸从 1/4"到 1"。3/8"的接头符合 HTMA 指定的 ANSI T3.20.15 标准。

粗糙的彩色塑料环可用来快速鉴别各环线。

# Additional hydraulic products 其它的液压产品

**TUTHILL** also offers a wide range of hydraulic products among which:

泰悉尔还提供大量其它的液压产品:

H-15000 Series which is designed for general purpose hydraulic service. Available in sizes from 1/4" to 1", in steel, it meets the ISO 7241-1 Series A standard. Working pressure is from 200 to 315 bar / 2,900 to 4,600 psi.

H-15000 系列是通用的液压接头。主体尺寸从 1/4"到 1", 材料为钢。它满足 ISO 7241-1 系列 A 标准。工作压力从 200 到 315bar/2,900 到 4,600psi。



HP3 / W-56000 Series which is high pressure hydraulic screw-to-connect quick couplings designed to operate at pressures up to 700 bar / 10,000 psi. It is used to connect hydraulic pump, cylinders, etc. It is

interchangeable with other makes of couplings with the same design. Available with ball and poppet valving.

HP3 / W-56000 系列是由螺纹连接的高压液压接头,设计用于在压力高达 700bar/10.000psi 的高压环境中工作。它被用于连接泵、油缸等。它具有互换性。HP3 采用 球形阀, W-56000 采用锥形阀。

R-4000 Series which is Inline Check Valve products available in brass, steel and AISI 316L stainless steel. This Series presents a wide range of crack pressures, sizes between 1/8" to 2" and working pressures up to 700 bar / 10,000 psi.

R-4000 系列是在线止回阀,材料有铜、钢和 AISI 316L 不锈钢。该系列有高的强度。主体 尺寸从 1/8"到 2"。工作压力高达 700bar/10,000psi。

For further details, please consult our web site http://coupling.tuthill.com/ or contact us. 如需了解进一步的详情,请查阅我们的网站 http://coupling.tuthill.com/ 或联系我们。

#### Breathing air quick couplings 空气耦合快速接头

When performance is a life and death issue, the safety and reliability of a TUTHILL Coupling is the solution. Used in various forms of breathing air systems including SCUBA, Breather Boxes and In Plant connections, our guick disconnect couplings provide ease of use and the highest degree of safety.

生死问题为当务之急时,安全可靠的泰悉尔接头是一个解决方案。使用各种形式的空气耦合 系统(包括隔离服、呼吸器箱和在工厂中的连接点),我们的快速断开接头使用方便且高度 安全。

如需了解进一步的详情,请联系我们。



# Pneumatic quick couplings 气动快速接头

**TUTHILL** offers a large range of pneumatic quick couplings used to connect pneumatic tools and accessories to compressed air supplies. Because safety is not negotiable, TUTHILL has developed safety quick couplings which meet ISO 4414 Standard.

Many profiles and sizes are available.

泰悉尔提供将各种将气动工具和附件连接到气源的气动快速接头。由于安全问题不容质疑, 泰悉尔已经开发出了满足 ISO 4414 标准的安全快速接头。有多种规格尺寸。

For further details, please consult our web site http://coupling.tuthill.com/ or contact us. 如需了解进一步的详情,请查阅我们的网站 http://coupling.tuthill.com/或联系我们。



# Specific quick couplings 专用快速接头

TUTHILL is specialized in developing made-to-measure solutions and can offer quick couplings in different superior materials as Inconel or Uranus B6, to resist offshore environment. TUTHILL is ISO 9001-certified and works with various international Standards such as the European Directives PED,

TPED. Product qualifications according to Oil & Gas Standards is also possible when required.

泰悉尔精通于给出专用的设计方案并能提供各种优良材质(镍钴合金 Inconel 或

Uranus B6)的快速接头,以抵抗近海的环境。泰悉尔具有 ISO

9001 证书并与各国标准化组织(如欧洲 Directives PED、TPED)一起工作。如有需要,符合石油和燃气标准的产品品质也可得到。

For a specific request, **TUTHILL** has developed multi-couplings in AISI 316L (size 1/2") and F15NM (size 1"1/2) fire-tested and certified Lloyd's OSG 1000/499. Working pressure is up to 210 bar / 3,100 psi.

对于特定的要求,泰悉尔已开发出材料为 AISI 316L 不锈钢(主体尺寸 1/2")、材料为 F15NM 不锈钢(主体尺寸 1 1/2")、的接头组(已通过 Lloyd's OSG 1000/499 证书及消防试验)。工作压力达 210bar/3,000psi。

Whatever your application, your needs, please consult us. 无论你有什么应用,请咨询我们。

# HKFR Series: Enhanced Design for BOP (Blow-out Preventer) Service



Eaton's HKFR Series is a quick disconnect, hydraulic coupling, that is designed for hazardous BOP (Blow-Out Preventer) service in the Oil & Gas Industry. It meets or exceeds the ISO 7241-1 Series B standard.

#### **Features**

- Easy visual verification: The BOP designation is clearly marked on the socket and plug. Plus, a distinctive red socket sleeve and red plug wrench flats make it simple to identify.
- Dependable: Equipped with ball-locking technology that provides a consistent, positive connection.
- Compact Design: Ideal for building panels where space is limited.
- Easy to Use: Connect and disconnect quickly without tools and no risk of cross threading.
- Safe: Sleeve lock is standard which prevents accidental disconnects.
- Environmental Protection: Two-way valve design minimizes fluid spillage.

## **Applications**

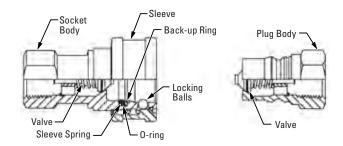
Oil & Gas Industry

### Lloyd's Register Certification

- Individual Certification on 1/2", 3/4" and 1" sizes
- Certified to 700°C /1300°F
- Exceeds API 16D and EUB Directive 36 Requirements



# HKFR Series BOP Safety Couplings





Part Number	4HFR26	4KFR26	
Description	Socket	Plug	
Body Size	1/2" (12.7 mm)		
Material	Steel		
Maximum Working Pressure (Connected)	7000 PSI / 482 BAR		
Minimum Burst Pressure (Connected)	28,000 PSI / 1,931 B	AR	



Part Number	6HFR31	6KFR31	
Description	Socket	Plug	
Body Size	3/4" (19.0 mm)		
Material	Steel		
Maximum Working Pressure (Connected)	5000 PSI / 344 BAR		
Minimum Burst Pressure (Connected)	18,150 PSI / 1,251 BAR		



Part Number	8HFR36	8KFR36	
Description	Socket	Plug	
Body Size	1" (25.4 mm)		
Material	Steel		
Maximum Working Pressure (Connected)	5000 PSI / 344 BAR		
Minimum Burst Pressure (Connected)	20,000 PSI / 1,379 BAR		



Part Number	ML8HFR36	ML8KFR36	
Description	Socket	Plug	
Body Size	1" (25.4 mm)		
Material	Stainless Steel		
Maximum Working Pressure (Connected)	5000 PSI / 344 BAR		
Minimum Burst Pressure (Connected)	20,000 PSI / 1,379 BAR		

## **A** WARNING

Over-pressurization could result in a sudden failure of the coupling causing severe bodily injury or death. Be sure to select the proper coupling for your application and use it only within the specified service pressure range.



Couplings do wear out. In order to avoid severe bodily injury or death, couplings must be routinely checked for condition and replaced if necessary.

### Lloyd's Register Certification

All of the above items carry a Lloyd's Registry Certificate for fire conditions stated in API 16D and EUB Directive 35. These parts met the requirements that state couplings shall be capable of maintaining pressure when exposed to a 700° C (1,300° F) temperature for a five-minute period. Testing for this certification was conducted at the following pressures in the connected condition.

4HFR26 / 4KFR26: 3,000 PSI / 206 BAR 6HFR31 / 6KFR31: 3,000 PSI / 206 BAR 8HFR36 / 8KFR36: 4,000 PSI / 275 BAR ML8HFR36 / ML8KFR36: 4,000 PSI / 275 BAR



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