Quick Connect Couplings for the Exploration and Production Processes within the Demanding Oil & Gas Industry

Eaton’s line of Hansen Quick Connect Couplings are used in various applications in the exploration and production processes for the Oil & Gas Industry. Thanks to our experience and knowledge, we are able to provide viable solutions to customers confronted with increasing technical and environmental constraints. The services provided by Eaton have become a key benefit in the Oil & Gas Industry, where there is a constant need for productivity improvements.
HKFR Series
The Fire-Rated Coupling is a quick connect coupling designed to operate under emergency fire conditions. It exceeds all requirements of API 16D and EUB Directive 36. The HKFR Series is available from \( \frac{1}{2} \) to 1” in steel and 1” in 316 stainless steel. All sizes have individual Lloyd’s Register Certification. This ball locking coupling is easy to connect and disconnect and is ideal for Blow-Out Preventer applications and for building panels where space is limited due to its compact design. Its BOP marking and red color coding provide visual identification. Maximum working pressure (connected) for this series: \( \frac{3}{4} \) is 5000 psi, \( \frac{1}{2} \) is 7000 psi.

5100 Series
The 5100 series brass coupling with steel tubular valve offers minimum air inclusion and fluid loss during disconnection reducing environmental worker and safety hazards. Thread together latch provides connect under pressure capability and vibration resistance. Available in both wing and hex nut configurations. Connect against pressure capability allows connecting of halves even when pressurized up to 500 psi.

W-6000 Series
This hydraulic coupling is designed for severe conditions where hose bending, vibrations or hydraulic shocks are possible. These highly durable couplings are available from \( \frac{1}{4} \) to 2” in steel, F15NM and 316L stainless steel. Working pressures are 4,400 to 16,000 psi for steel and F15NM stainless steel and 2,600 to 7,300 psi for 316L stainless. It can also be connected under pressure.

Because Oil & Gas applications can be very severe, W-6000 couplings satisfy hydraulic and environmental conditions:
- \( \frac{1}{4} \)” coupling in 316Ti stainless steel for sea seismology exploration
- \( \frac{1}{4} \)” coupling in F15NM stainless steel, with Autoclave end-connection for subsea tree test application (up to 20,000 psi)
- \( \frac{1}{4} \)”, \( \frac{3}{8} \) & \( \frac{1}{2} \)” couplings in Sanicro panel-mounted plug for underwater well-head application
- 3” coupling in 316L stainless steel for Off-shore equipment (2,200 psi working pressure)
**TH Series**
The TH Series is designed for use in hydraulic applications and in the handling of many fluids. These extremely durable couplings are for use with working pressures to 6,500 psi (448 bar). The TH series coupling meets the dimensional requirements of MIL-C-5124 and provides superior flow characteristics. TH is available in 1⁄4", 1⁄2", 3⁄4" and 1". TH is available in Zinc-Plated Steel and 316 Stainless Steel.

**HK Series**
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 303 & 316 stainless steel and 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 5,000 psi. A wide variety of options are available, such as sleeve lock, one-way and straight-thru designs and a release clamp with chain. Many drilling situations require increasingly efficient equipment. To meet these new requirements, the 24HK coupling, which is a 3” quick coupling allow high hydraulic flow. Available in steel, its strong design is well-adapted to severe environments. Working pressure is 1,800 psi and flow-rate / pressure drop is 1.45 psi at 396 GPM.

**H-5000 Series**
The H-5000 Series is designed to sustain severe operating conditions such as high pressure, heavy mechanical loads and frequent connection and disconnection. It is available in sizes from 1⁄8" to 2", in brass, steel and 316L stainless steel. Working pressure is up to 14,500 psi.

**FF Series**
The FF Series is a 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 responsibility and cleanliness of the work area. It meets the requirements of ISO 16028. Our range of flat face drybreak couplings has one of the highest working pressures in the industry of up to 5,000 psi. It is available in steel and sizes range from 1⁄4” to 1”. The 1⁄4” size is compatible with ANSI T3.20.15 standard specified by HTMA. Rugged, colored plastic rings are also available for quick identification of circuits.
Additional Hydraulic Products

Eaton also offers a wide range of hydraulic products which include:

**H-15000 Series**

Designed for general purpose hydraulic service. Available in sizes from $\frac{1}{4}$” to 1” in steel, it meets the ISO 7241-1 Series A standard. Working pressure is from 2,900 to 4,600 psi.

**HP3 / W-56000 Series**

High pressure hydraulic screw-to-connect quick coupling designed to operate at pressures up to 10,000 psi. It is used to connect hydraulic pumps, cylinders, etc. It is interchangeable with other makes of couplings with the same design. Available with ball and poppet valving.

**R-4000 Series**

Inline Check Valve available in brass, steel and 316L stainless steel. This Series presents a wide range of working pressures, sizes between $\frac{1}{4}$” to 2” and working pressures up to 10,000 psi.

**Breathing Air Quick Couplings**

When performance is a life and death issue, the safety and reliability of a Eaton Coupling is the solution. Used in a variety of breathing air systems including SCUBA, Breather Boxes and In-Plant connections, our quick connect couplings provide ease of use and the highest degree of safety.

**Pneumatic Quick Couplings**

Eaton offers a large range of pneumatic quick couplings used to connect pneumatic tools and accessories to compressed air supplies. Because safety is not negotiable, Eaton has developed safety quick couplings which meet the ISO 4414 standard. Many profiles and sizes are available.