Eaton Flat Face Quick Disconnect Couplings
Introducing our redesigned Flat Face couplings

Today, we expect our hydraulic systems to do more than ever: move faster, steer more precisely and lift heavier loads. With growing demand for more powerful and compact machines, system pressure is rising while engine compartments shrink.

To help manufacturers answer the call for high pressure and high impulse pressure solutions, we’ve redesigned our Flat Face (FF) Series Quick Disconnect Couplings to offer even more.

Suitable for mobile applications in a myriad of industries—including agriculture, construction and commercial vehicles—our FF couplings enable outstanding connections for top-performing hydraulic lines. They aren’t just safe and leak-free, they also maximize machine efficiency, performance and uptime.

Supporting pressure and flow rates well beyond ISO 16028 standards, our newly redesigned FF couplings enable powerful machines with lower energy loss and optimized fuel consumption. Meanwhile, improved corrosion protection and simplified connectivity also mean users benefit from greater machine productivity and reliability in even the toughest environments.

Our new Multiplate system further extends all these benefits. Supporting up to six FF couplings simultaneously, our innovative solution makes hose connectivity faster and easier, while offering machine designers greater freedom and a broad range of customization options to meet any application needs.

The FF Series at a glance:

- Exceeds ISO 16028 standards:
  - 60% higher working pressures up to 400 bar
  - Up to 74% higher flow rates, reducing energy loss
- Exceptional corrosion resistance
- Enables design versatility
- Can connect under residual pressure
- New Multiplate system supports two to six couplings
Connect to the benefits of FF Series couplings

Our newly redesigned FF couplings offer many competitive advantages, including:

**Higher working pressures bar:**
Exceeds ISO 16028 standards with a 60% higher operating pressure up to 400 bar

High pressure couplings typically suffer when it comes to flow rates—but ours have a top-performing pressure rating of up to 400 bar for static, steady, or non-pulsed applications and 350 bar for dynamic applications with moderate hydraulic shocks. Combining a high working pressure with a high safety factor, this is a unique solution in today’s market.

**Higher flow rates:**
Up to a 74% greater flow rate than ISO 16028 standards

Thanks to stronger materials and an optimized flow path, our new FF couplings offer top-performing flow rates, up to 74% higher than previous versions. As a result, our redesigned couplings can significantly reduce machine fuel and energy consumption. Higher flow rates also enable greater design flexibility, since smaller hose sizes can be used.

**Next-level corrosion resistance:**
Up to 1000 hours protection with our environmentally-friendly Guardian Seal coating

With up to 3x better protection compared to previous generations of zinc plating, our new coating is proven to protect against red corrosion up to 1000 hours. It’s also safer and better for the environment thanks to being nickel and solvent-free, as well as meeting global RoHS, ELV and REACH requirements.

**Connect under pressure up to 350 bars**

Our alternative FF connect-under-pressure plug design works up to 350 bar, avoiding the need to depressurize the system with specialized tools—since our patented relief valve releases residual pressure. If you have low residual pressure applications, you can also connect-under-pressure up to 50 bar with standard FF couplings.
# The Eaton design difference

As an innovator in fluid conveyance, our FF Series couplings offer superior design, enabling enhanced performance and leak-free operations in a wide variety of applications.

Our comprehensive range of solutions enables limitless possibilities—offering body sizes from 1/4 inch to 2 inches, varied materials, seals, end connections and connect-under-pressure options. All this means we can tailor the ideal solution for your requirements.

All our FF couplings also offer a three-year warranty.

### FF Series design benefits:

- **Valve holder configuration allows excellent flow rates,** further supported by an improved flow path.
- **Designed to meet tough application demands for strength, pressure resistance and reliability,** our couplings are heat treated to ensure good resistance to indentation.
- **Our FF couplings are designed with a simple and highly effective color coding system to avoid line crossing.** Optional color rings are very robust and easy to install with dedicated insert tools.
- **For fast and easy identification,** our FF couplings are marked with a part number, date code and the Eaton logo. Additional labels can be added to your requirements via laser marking.

<table>
<thead>
<tr>
<th>FF Family Part Number</th>
<th>ISO Size</th>
<th>Body Size</th>
<th>Nominal Flow Diameter</th>
<th>Max operating pressure (Connected) Static **</th>
<th>Dynamic **</th>
<th>Rated Flow for 1 bar pressure drop</th>
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*steady or non-pulsed applications

**ISO pressure rating / Dynamic application with moderate hydraulic shocks