

IndiLok Quick-Disconnect Couplings

Parker Aerospace Stratoflex IndiLok™ quick disconnect (QD) couplings provide a proven solution for fluid conveyance systems when envelope, weight, and performance are critical. Using many of the same features as the SlideLok™ design, IndiLok provides reliable performance in cooling, fuel, hydraulic, and pneumatic systems across a wide range of temperatures and pressures.

Parker Stratoflex IndiLok QDs use proven engineering and design experience to provide a push-pull style connection with a visual confirmation of proper coupling to improve both time and safety. The IndiLok design incorporates two pop-up buttons which extend when the coupling halves are pushed together and fully connected.

When the buttons pop-up in the fully connected position, they provide a secondary locking feature for added safety and security. To disconnect, the two buttons are depressed and the outer actuating sleeve pulled back, releasing the locking mechanism.

IndiLok couplings use an efficient self-sealing valve that permits fluid flow with minimum pressure loss and turbulence. A flush-faced design minimizes air inclusion or spillage during coupling or uncoupling. The design allows for simple one-handed operation to connect (push) or disconnect (pull) the coupling halves during installation or maintenance on the fluid system. As the coupling halves are pushed together, the fluid flow path opens and when in the fully open position, the coupling halves are locked together using Parker Aerospace's reliable and high-strength collet-style locking mechanism.

This style of locking mechanism features significant surface contact and load carrying capability compared with most push-to-connect quick-disconnect designs which use some form of ball locking with limited point contact. Typical installations use the coupler half with latching mechanism on the hose or tube side and the nipple half installed on a panel or in a manifold.

The IndiLok quick disconnect requires linear movement to connect and disconnect along with room to access the outer, actuating ring by hand in order to pull back the ring and disconnect the two halves.

Standard QD end fittings include:

- SAE AS33656, AS33657 male flared fitting
- SAE AS33514, AS33515 male flareless fitting



Product Features

- Push-to-connect with positive visual and touch indication of fully-connected and latched position
- Meets performance requirements of SAE specification AS1709
- Small and very efficient size and flow rate combination, ideal for cooling system applications
- Light-weight design
- Low pressure drop based on streamlined valve design
- Simple, one-hand connect and disconnect operation for ease of use
- Range of end-fitting styles and fluid compatibility options available
- Stainless steel construction meets typical electrical bonding requirements
- IndiLok QD coupler uses the same male QD half as the slideLok QD coupler

Applications

Parker Aerospace IndiLok quick disconnect couplings are used on a variety of aerospace and related applications where positive indication of latching is important — along with a small size, lightweight, and high reliability. They are currently used on such programs as AWACS, the A-10, F-22, CH-47, V-22, and C-17; commercial jet brake systems; and with a wide range of cooling system fluids (PAO, EGW, PGW).

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Attributes

- Provides critical safety function of preventing loss of fluid from system in the event of system failure
- Designed to protect system integrity without restricting fluid flow rate or operation
- Engineered, tested, and constructed to provide long-term reliable service for both high-rate cycling systems and continuous flow systems
- Protects key components and sub-systems within fluid conveyance systems

Optional Features

Standard configuration is available in stainless steel body construction. Component materials include stainless steel and other materials compatible with specific fluid applications. Contact the Stratoflex Products Division for any other specific material information.

The IndiLok quick disconnect series has been proven over years of service and a history of reliability both in the air on the ground. The baseline qualification for this product is based on the applicable requirements of industry standard SAE AS1709 specification.

In some cases, qualification is based on or may be required for specific platform installation and performance requirements. Contact the Stratoflex Products Division with interface and performance requirements to determine if this product is the best choice for an installation and application.

For specific applications where high vibration, shock, and impulse load environments exist, Parker Aerospace recommends the ThreadLok™ quick disconnect coupling series. The mechanical advantage of connecting the coupling halves with a thread-together design often provide the most robust performance in systems including engines, landing gear, and brake systems.

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