

MAKE THE RIGHT CONNECTION



SAFER. CLEANER. FASTER.

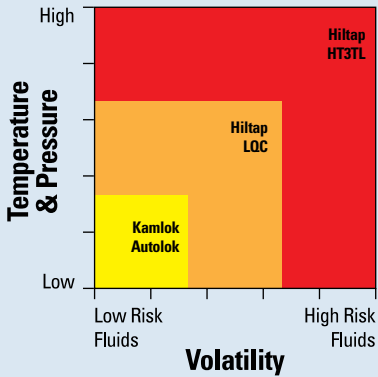
**DRY DISCONNECTS
QUICK DISCONNECT FITTINGS**

OPW Engineered Systems, part of the OPW Fluid Transfer Group, provides expert solutions for the safe handling, transfer, monitoring, measuring and protection of hazardous bulk products worldwide.

OPW Engineered Systems Helps You Make the Right Connection:

Quick Disconnects for Non-Hazardous Fluid *(Spilling a few drops isn't critical)*

Selection Chart



Kamlok®
The world's most popular cam and groove. The industry standard for safety and ease of use. The name is synonymous with "quick disconnects."



Autolok®
Utilizes a unique, patented self-locking mechanism to provide an additional level of safety. Snaps shut and locks with one smooth motion. No pins, clips or buttons.



Hiltap™ LQC
Upgrade severe service cam and groove couplings with this unique rapid-engaging 1/4 twist connection with safety locking feature. Ensures easy connection and prevents uncoupling while under pressure.



Hiltap™ HT3TL
For some of the most demanding high and low temperature and pressure applications. Replaces flanged connections.

The OPW Engineered Systems Family of

A Connection for Every Application

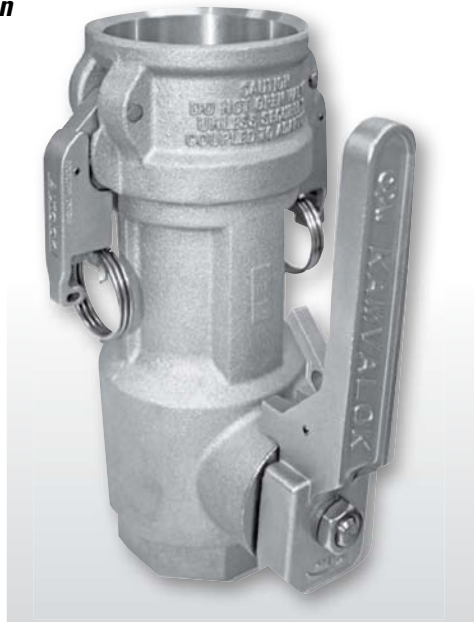
OPW Engineered Systems offers the most comprehensive line of dry disconnects in the industry, suitable for a wide variety of hazardous liquid applications. World-class fittings backed by more than 60 years of experience in a wide range of applications.

- Reduces Emissions
- Increases Personal Safety
- Reduces Possible Injury
- Assures Automatic Closure
- Prevents Accidental Disconnect
- Odor Prevention & Control
- Time Savings
- Improves Ergonomics
- Eliminates Human Error

Innovative technology and proven durability in demanding loading, unloading and transfer applications. For toxic, corrosive or hazardous fluids, every drop counts!



There are approximately 20 drops in one milliliter. A teaspoon holds approximately 5 ml, or the equivalent of 5 eyedroppers. How much fluid can you afford to spill?



Kamvalok®

Designed to automatically shut off during accidental disconnection. The Kamvalok® is a rugged, highly durable dry disconnect for loading and unloading rack installations.

- Economical
- Easy to maintain
- To 150# psi (10.3 bar)
- To 350° F (176° C)
- Avg. fluid loss*: 4.4 ml (less than a tsp.)
- 1-1/2", 2", 3" sizes
- Aluminum, 316 Stainless Steel
- NPT, BSP, ANSI flanged



Drylok™

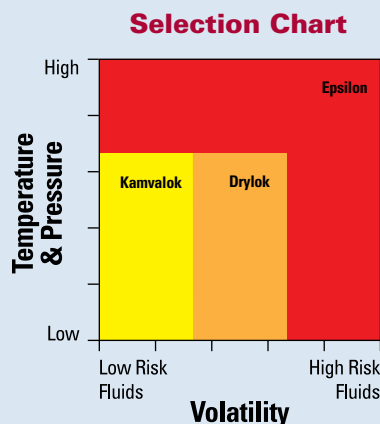
Rugged design for tough loading situations, yet one of the driest disconnects in the industry, meeting or exceeding stringent safety requirements set by OSHA and EPA.

- Easy to maintain
- Low cost to maintain
- To 150# psi (10.3 bar)
- To 350° F (176° C)
- Avg. fluid loss*: .46 ml (less than 1/10th of a tsp.)
- 1", 2", 3" sizes
- 316 Stainless Steel, Alloy 20®, Hastelloy® C
- NPT, BSP, ANSI flanged, BW, SW

* Based on forward flow water of 100 GPM in a 2" disconnect

It All Depends on the Fluid, the Temperature and the Pressure

Dry Disconnects for High Value, Hazardous Fluids *(Spilling must be minimized and controlled)*



Kamvalok®
Economical, reliable, and rugged, built to withstand tough loading applications with minimal fluid loss.



Drylok™
One of the driest disconnects available, this tough dry disconnect stands up to abuse, but maintains high flow rates with very low restriction and fluid loss.



Epsilon®
The elegant design features a double ball valve system to prevent chemical spills and fugitive gas emissions.

Dry Disconnects



Epsilon®

Commonly found in process facilities for in-plant chemical transfer. The EPSILON® Coupling System is designed to handle higher pressure and temperature applications, yet with the lowest pressure drop (low restriction) and the lowest spill rate.

- Unrestricted flow path
- Easy to maintain
- To 435# psi (30 bar)
- To 450° F (230° C)
- Avg. fluid loss**: .38 ml (less than 1/10th of a teaspoon)
- 3/4", 1", 1-1/2", 2", 3" sizes
- 316 Stainless Steel, Hastelloy® C
- NPT, BSP, ANSI flanged, BW, Sanitary Tri-Clamp

** Using Low Spill Seal Option



Success Story: Texas Petrochemicals

Houston-based Texas Petrochemicals, LP (TPC), upgraded its fleet of 600 butadiene railcars with OPW Drylok™ Dry Disconnects. As a result, the Drylok has allowed TPC to virtually eliminate fugitive emissions and reduce the loading arm connection time from 35-40 minutes to only 35-40 SECONDS, while also reducing worker fatigue and providing tamper-resistant connections with zero emissions.

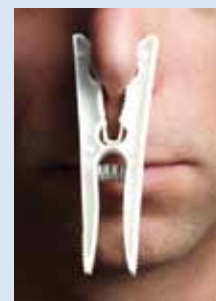
Shortly after the upgrade, two of TPC's railcars carrying butadiene derailed in a train accident. Thanks to the OPW Drylok™ Dry Disconnect system, emergency responders were able to safely and quickly transfer the product to replacement railcars. For the complete story on how TPC successfully upgraded their coupler systems, visit www.opw-es.com.

What's That Smell?

Walk into any chemical or transfer facility and what is the first thing you notice? The smell. One thing most chemical facilities have in common, whether it's a bulk storage plant, in-plant processing, reactor units, or tank and rail car loading racks, is the pungent smell of chemicals. That's not acceptable. Why? Because it represents an **open connection**.

The Top 3 Ways responsible companies are cleaning up that smell:

1. Eliminate all Cam & Groove Connections
2. Eliminate all Flanged/Threaded Connections
3. Eliminate Open Dome Truck/Rail Loading



The Solution

Dry Disconnect Connections (and OPW Vapor Recovery Loading Arms)

The Goal

No Open Connections - Closed Loop Systems

Make Your Connections...
SAFER. CLEANER. FASTER.

NTS-PU Series Breakaway

(Pull-Away) Breakaway Coupling

Safer

Protect loading rack facilities, hoses and personnel by preventing damage and spills during a pull-away incident.

Cleaner

High-value fluid and gas transfer is protected by two spring-loaded valves for maximum protection with a minimum of fluid loss.

Faster

Immediate separation occurs at individually determined straight or angular pulling force. This non-destructive separation allows easy reassembly, with no shear pins, tools or spare parts required.

- **Protect loading-arm components**
- **Protect loading facility and personnel**
- **Prevent spills**
- **Reconnectable**



See a video featuring the NTS-PU Series Breakaway Couplings in action on our YouTube channel:

www.YouTube.com/user/opwFTG



Innovation You Can Count On

High-performance couplings and connections offer safety and reliability. It's what we stand for at OPW Engineered Systems. Our products help keep employees out of harm's way, as well as contain fugitive emissions. We offer products that provide safer, cleaner, faster connections. It's a responsible way to do business.

Quick Disconnects



Kamlok®

Twin-Kam™ design prevents unintentional arm release. Spring-Ring™ prevents rings from getting trapped under arms.



Autolok®

Self-locking coupler mechanism allows a simple snap to shut the locking arms in one smooth motion for added safety.



Hiltap™

Engineered for the most demanding high-pressure, high-temperature, high-value or hazardous fluid applications, Hiltap™ and the RapidLOK™ family of products are suited for the toughest transfer situations.

Experience You Can Count On, Service and Support Beyond Compare



OPW Engineered Systems is a time-tested industry leader that provides highly personalized, professional service, site evaluations, design and applications engineering expertise. Our innovative products are meticulously engineered, exceptionally built, and ensure your complete satisfaction.

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