

# Dry Breaks

## OPW

### 1700D SERIES COUPLERS

OPW Kamvalok® Dry Disconnect Couplings are considered the standard of the industry. Used at liquid transfer points where product loss could occur, OPW Kamvaloks® provide a reliable solution to prevent spillage during connection or disconnection.

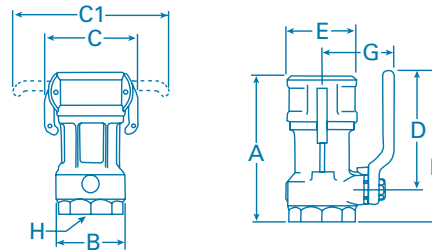
OPW Kamvalok® Dry Disconnect Couplings are used by manufacturers of paint, lacquers, inks, adhesives, fatty acids, pharmaceuticals, liquid soaps, and many other liquid products. They are particularly well suited for handling petroleum products, solvents, ag-chemicals, vegetable oils, detergents and many acids and caustics.

#### Benefits

- **Spill Protection** – Helps to reduce the hazards involved in the connection/disconnection process of transferring hazardous materials.
- **Provides For Total Closed-Loop Loading Capabilities** – When used with the OPW 2173N Vapor Recovery Dry Disconnect coupling protects people and property from dangerous and potentially costly exposure by keeping hazardous liquids and vapors in-line and out of the environment.
- **Dual Protection** – OPW Kamvaloks® provide automatic closure from both directions – the coupler and the adaptor.
- **Ease of Use** – The simple connection and disconnection design and lever actuated internal poppet configuration makes this the first choice for liquid transfer operations.

#### Features

- **Manufactured in compliance with the highest quality standards of design, materials and construction.**
- **Cam and Groove Design** – The cam and groove design makes connection and disconnection smooth and easy.
- **Lever Actuation** – The open/close lever action helps to ensure that liquid flow can only begin once the coupling and adaptor are securely coupled. The lever provides for smooth opening and closing even for high pressure applications.
- **360° Orientation** – The coupling can be connected in any orientation onto the adaptor.



#### Dimensions

SIZE IN INCHES (Nominal)	3/4"	1 1/2"	2"	3"
<b>A</b> Length of Body	5-3/8"	6-25/32"	7-9/32"	9-3/4"
<b>B</b> Diameter of Body	1-7/8"	2-15/16"	3-33/64"	5-1/2"
<b>C</b> Distance across Cam Arms – closed	2-3/4"	3-15/16"	4-5/16"	7-21/32"
<b>C1</b> Distance across Cam Arms – open	4-7/8"	8-1/16"	8-9/16"	15-1/4"
<b>D</b> Centerline of Stem to end of Lever	3-1/8"	6"	6-1/16"	7-1/4"
<b>E</b> Diameter of Coupler End	1-7/8"	2-15/16"	3-1/8"	5-1/2"
<b>F</b> Length, Pipe End to end of Lever	NA	7-1/2"	7-11/16"	9-3/4"
<b>G</b> Centerline of Coupler to outside of Lever	2-1/8"	3-17/32"	3-17/32"	5-3/8"
<b>H</b> Pipe Thread (NPT)	3/4"	1-1/2"	2"	3"

#### Ordering Specifications

COUPLER	CONFIGURATION	O-RING SEAL	COUPLER TYPE	CONSTRUCTION MATERIAL	SIZE	STYLE
SERIES 17	1 – Aluminum Body, Plated Steel Internals 6 – Aluminum Body, Stainless Steel Internals, 7 – Stainless Steel Body, Stainless Steel Internals	1 – Buna-N 2 – Viton®-A 3 – TFE/Silicone Core/Chemraz® 4 – EPT 6 – Chemraz® 7 – TFE/Viton® Core/Chemraz® 9 – Viton®-B	D	AL – Aluminum Body SS – Stainless Steel	15-1 1/2" FNPT 20-2" FNPT 30-3" FNPT	A – 150 lb. Flange GL – Greaseless KG – Krytox Grease KL – Keylok P – Sanitary Triclamp T – 300 lb. Flange

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EXAMPLE: **1711D - AL 15 - A**

## 1711ES & 1712ES SERIES COUPLERS

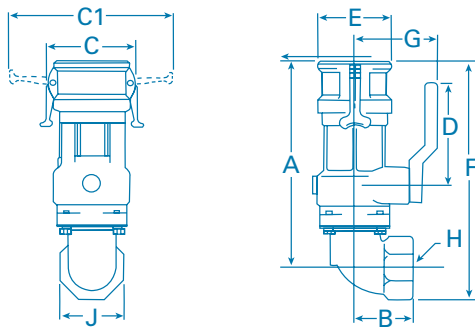
OPW Transport Series Dry Disconnect Couplings are used on multi-compartment petroleum, solvent and chemical product delivery trucks with an on-board pumping unit.

### Benefits

- **Spill Protection** – Helps to reduce the hazard potential of spilled liquid during the connection/disconnection process. Special automatic shut-off design minimizes product loss in the event of an accidental disconnection.
- **Ease Of Use** – The built-in elbow/swivel design provides freedom of movement when used with a hose on tank trucks.

### Features

- **Built-In Elbow/Swivel** – Provides freedom of movement when used with a hose on tank trucks.
- **Swivel** - 2" female NPT.
- **Poppeted Adaptor and Coupler** – Closes both ends of process during routine disconnect.
- **Built-In Valve** – For reliability of functionality. No additional valves required.
- **Quick Disconnect Cam and Groove Design** – Provides for smooth, easy connection/disconnection action.
- **360° Orientation** – The coupling can be connected in any orientation onto the adaptor.
- **Automatic Shut-Off Device** – Minimizes product loss in the event of accidental disconnection.
- **Lever Actuation** – For easy open/closing.
- **Manufactured in compliance with the highest quality standards of design, material, and construction.**
- **Available in Aluminum Plated Steel Internals with Buna-N Seals or Viton®.**



### Dimensions

SIZE IN INCHES (Nominal)	2"
<b>A</b> Top of Body to Centerline of Elbow	9-9/16"
<b>B</b> Centerline of Elbow to End of Elbow	2-3/4"
<b>C</b> Distance across Cam Arms when closed	4-3/8"
<b>C1</b> Distance across Cam Arms when open	8"
<b>D</b> Centerline of Stem to end of Lever	4-5/8"
<b>E</b> Diameter of Coupler End	3-33/64"
<b>F</b> Length of Unit	11-3/16"
<b>G</b> Centerline of Coupler to outside of Lever	3-5/8"
<b>H</b> Pipe Thread (NPT)	2"
<b>J</b> Distance across Flats of Octagon	3"

### Ordering Specifications

PRODUCT NO.	PRODUCT	SIZE	CONSTRUCTION	SEALS
1711ES-0200	90° Elbow/Swivel Coupler	2"	Aluminum, Acetal	Buna-N
1712ES-0200	90° Elbow/Swivel Coupler	2"	Aluminum, Acetal	Viton®

## OPW

### 1600AN

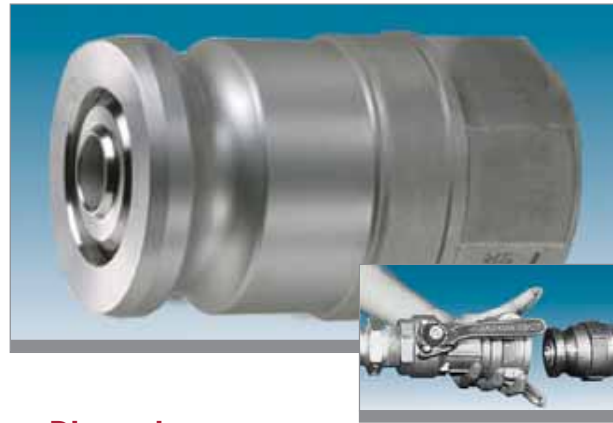
The 1600AN Series Adaptor is specifically designed to mate with OPW Kamvalok® Couplings to help prevent liquid spillage during the connection/disconnection process. The adaptor contains a spring-loaded poppet to assure fast closing and tight seal.

#### Benefits

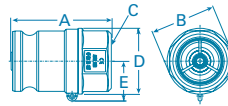
- **Single Piece Design** – Eliminates a possible leak path
- **Spill Prevention** – Poppet-actuated design can only be opened with a ® coupling; designed to provide a tight seal when closed.
- **Reliability of Operation** – The simple spring-loaded poppet design and heavy-duty construction provide for reliable, long-life operation.
- **Optimum Flow Rate** – Even flow and low pressure drop are achieved by a built-in deflector that reduces turbulence.

#### Features

- **Heavy-Duty Construction** – Available in aluminum, and 316 stainless steel construction.
- **Female Threads** – Can be fitted to either a male pipe end or to a hose fitting.
- **Flanged End** – Available for specific operations, including in-plant and transportation.
- **Spring-Loaded Poppet Design** – Assures fast closing and tight seal.
- **Wide Range of Seals** – Available in Buna-N, Viton®, Teflon®, EPT, Chemraz®.



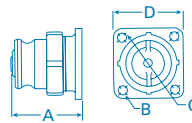
#### Dimensions



1611AN - 1679AN

#### SIZE IN INCHES (Nominal)

	1 1/2"	2"	3"
<b>A</b>	4-3/4"	4-15/16"	6-17/32"
<b>B</b>	2-1/2"	3-1/4"	4-1/2"
<b>C</b>	1-1/2"	2"	3"
<b>D</b>	2-21/32"	3-1/4"	4-7/8"



1661SFN

#### SIZE IN INCHES (Nominal)

	2"
<b>A</b> Overall Length	4-1/4"
<b>B</b> Diameter of Bolt Holes	9/16"
<b>C</b> Bolt Circle	4-1/2"
<b>D</b> Square Flange	4-1/4"

### Ordering Specifications

#### Stainless Steel Adaptors - Female NPT

Prod. No.	Size/Description
1671AN-SS15	1-1/2" Buna Seal, Stainless Steel
1671AN-SS20	2" Buna Seal, Stainless Steel
1671AN-SS30	3" Buna Seal, Stainless Steel
1672AN-SS15	1-1/2" Viton® Seal, Stainless Steel
1672AN-SS20	2" Viton® Seal, Stainless Steel
1672AN-SS30	3" Viton® Seal, Stainless Steel
1673AN-SS15	1-1/2" Teflon® Silicone Seal, Stainless Steel
1673AN-SS20	2" Teflon® Silicone Seal, Stainless Steel
1673AN-SS30	3" Teflon® Silicone Seal, Stainless Steel
1674AN-SS15	1-1/2" EPT Seal, Stainless Steel
1674AN-SS20	2" EPT Seal, Stainless Steel
1674AN-SS30	3" EPT Seal, Stainless Steel
1676AN-SS15	1-1/2" Chemraz® Seal, Stainless Steel
1676AN-SS20	2" Chemraz® Seal, Stainless Steel
1676AN-SS30	3" Chemraz® Seal, Stainless Steel
1677AN-SS15	1-1/2" Teflon®-Viton® Seal, Stainless Steel
1677AN-SS20	2" Teflon®-Viton® Seal, Stainless Steel
1677AN-SS30	3" Teflon®-Viton® Seal, Stainless Steel
1679AN-SS15	1-1/2" Viton®-B Seal, Stainless Steel
1679AN-SS20	2" Viton®-B Seal, Stainless Steel
1679AN-SS30	3" Viton®-B Seal, Stainless Steel

#### Aluminum Adaptors - Female NPT

Prod. No.	Size/Description
1611AN-AL15	1-1/2" Buna Seal, Alum. & Stainless Steel
1611AN-AL20	2" Buna Seal, Alum. & Stainless Steel
1611AN-AL30	3" Buna Seal, Alum. & Stainless Steel
1612AN-AL15	1-1/2" Viton® Seal, Alum. & Stainless Steel
1612AN-AL20	2" Viton® Seal, Alum. & Stainless Steel
1612AN-AL30	3" Viton® Seal, Alum. & Stainless Steel
1612A-AL07	3/4" Viton® Seal, Alum. & Stainless Steel
1613AN-AL15	1-1/2" Teflon® Seal, Alum. & Stainless Steel
1613AN-AL20	2" Teflon® Seal, Alum. & Stainless Steel
1613AN-AL30	3" Teflon® Seal, Alum. & Stainless Steel
1614AN-AL15	1-1/2" EPT Seal, Alum. & Stainless Steel
1614AN-AL20	2" EPT Seal, Alum. & Stainless Steel
1614AN-AL30	3" EPT Seal, Alum. & Stainless Steel
1616AN-AL15	1-1/2" Chemraz® Seal, Alum. & Stainless Steel
1616AN-AL20	2" Chemraz® Seal, Alum. & Stainless Steel
1616AN-AL30	3" Chemraz® Seal, Alum. & Stainless Steel
1619A-AL07	3/4" Viton®-B Seal, Alum.
1619AN-AL15	1-1/2" Viton®-B Seal, Alum.
1619AN-AL20	2" Viton®-B Seal, Alum.
1619AN-AL30	3" Viton®-B Seal, Alum.

**Repair Kits:****Couplers**

1711DTRK2 - 2" Straight coupler buna seals

1711DTRK3 - 3" Straight coupler buna seals

1711ERK2 - 2" Elbow coupler buna seals

1712DTRK2 - 2" Straight coupler viton seals

**Adapters**

1611ANRK2 - 2" adapter buna seal o-ring style

1611RK2 - 2" adapter buna seals flat seat style

**OPW 2173AVN**

The OPW 2173AVN Vapor Recovery Dry Disconnect Coupling provides for easy access in recovering vapors for either top or bottom loading/unloading tank truck operations.

The OPW 2173AVN installs onto the QRB valve on tank trailers and can provide a dry disconnect connection for emergency evacuation of hazardous liquids in the case of roll-over.

