

1004D3 and the 1005E3

API Bottom Loading Couplers

The 1004D3 and the 1005E3 are the latest generation in API Bottom Loading Couplers from OPW. A proven performer at major oil terminals around the world just got better...

Safer

- **5-Cam Design** - Ensures easy alignment; tight connection to adaptor & resists side forces while loading
- **Fully Interlocked** - Dual interlocks ensure the D3 cannot be opened unless it is properly connected to an API adaptor

Cleaner

- **Superior Sealing** - Simple and reliable smart-seal design consisting of dual high-performance O-rings
- **High-Performance Seals** - Special Fluorocarbon Seal Compound provides compatibility across most products including gasoline, diesel, biodiesel and ethanol.*

Faster

- **Operation** - New stainless steel 'ergo' handle design provides easy, smooth operation
- **Maintenance** - All pins and small threads have been eliminated to provide quick, easy access to all critical components
- Nose seal can be replaced easily without having to remove coupler from rack
- No special tools required
- Can be completely rebuilt in minutes

*Other seals available upon request.



1004D3 (Large Handles)



1005E3 (Small Handles)

1004D3 and 1005E3 API Bottom Loading Couplers

Design Parameters

Max Design Pressure	125 psi (g), 8.6 bar (g)
Max Allowable Working Pressure*	75 psi (g), 5 bar (g)
Max Flow Rate	600 GPM, 135 m ³ /h
Temperature Range	<ul style="list-style-type: none"> • Fluorocarbon -20°F to 400°F (-29°C to 204°C) • Buna-N -20°F to 250°F (-29°C to 121°C) • EPDM -50°F to 225°F (-46°C to 107°C)
Weight:	21 lbs (9.5 kg)
Pressure Drop (At Max Flow Rate)	2-5 psi (g), .24 bar (g)*

*Unit tested to 300 psi in closed position to withstand excessive thermal expansion pressures. Reference API standard RP-1004 for additional information.

Materials

Body, Sleeve, Poppet	Aluminum
Shaft, Cam Arms, Interlocks, Drive Link, Handle	Stainless Steel
Cylinder	Aluminum

Seal Replacement Kits

The 1004D3 SRK (Seal Replacement Kit) includes everything needed to replace all seals in the D3 API Bottom Loading Coupler. Seal replacement kits are always recommended as spare parts.

Seal Material:	Model	Kit Part #
Buna-N	1004D3/1005E3	1004D3SRK - 0401
Fluorocarbon	1004D3/1005E3	1004D3SRK - 0402
EPDM	1004D3/1005E3	1004D3SRK - 0404

Selection Guide

1 0 0 4 D 3 - 0 4 0 2

Seal

01 = Buna-N
02 = Fluorocarbon
04 = EPDM

Size
4" Only

Style

1004D3 (Large Handles)
1005E3 (Small Handles)

Accessories



1004DRN Drain Adaptor

- Allows operator to easily, safely drain loading arm
- Fits any API Bottom Loading Coupler



1004PA Parking Adaptor

- Use to neatly store and secure loading arms while not in use
- Can be provided with standpost and/or proximity switch