

# DIXON VALVE DRY DISCONNECT FITTINGS - MANN-TEK DESIGN

## Features & Benefits

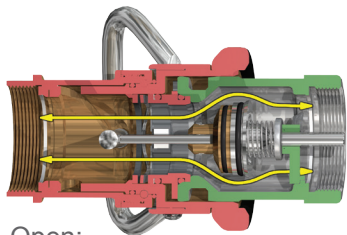
Dry disconnect couplings are designed for the quick and spill free connection and disconnection of hoses and pipelines when transferring expensive hazardous product that is costly to clean up, reprocess or dispose of. Dry disconnects are used by producers of ink, adhesives, fatty acids, pharmaceuticals, liquid soaps, petroleum, chemicals, agricultural and a wide variety of common caustic and specialty acids.



- easy to handle - push and turn - free flow, turn and pull - closed
- time saving - no need to drain hoses or pipe systems
- economical - no loss or spillage of liquids at connection or disconnection
- safety - the valve cannot be opened until the unit is coupled
- environment friendly - accidental spillage eliminated when properly used
- safe and reliable - due to rugged construction
- product life - uncomplicated design and high quality materials ensures long product life
- selectivity - To avoid product contamination, selective versions of the couplers and adapters are available. Contact the factory for further information.
- produced according to NATO standard STANAG 3756 and ATOFINA SGM 2049.TUY.C.
- interchanges with Avery Hardoll and Todo-matic® STANAG 3756
- Working Pressure (at ambient temperature 70°F) -
  - aluminum: **230 PSI** up to 4"
  - brass/ gunmetal \*: **230 PSI** up to 4"
  - stainless steel: **360 PSI**
- Optional seals:
  - EPDM
  - NBR - nitrile
  - FFPM
  - FKM

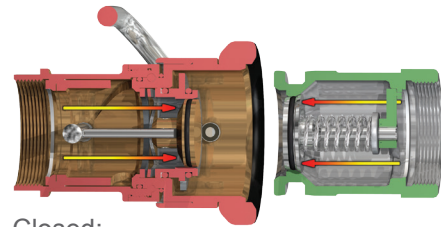
\* produced to U.S. government bronze specification G

## How It Works



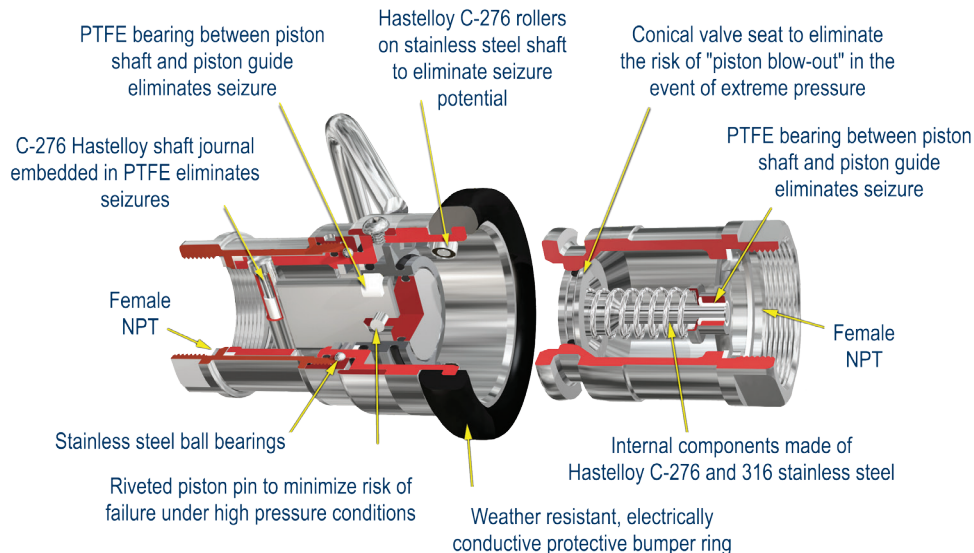
Open:

- Push and turn  
it's coupled - full flow



Closed:

- Turn and pull  
it's released - no spillage



DDC200SS pictured

## Standard Dry Quick Disconnects

### Coupler - Hose Unit

**Features:**

- coupler has built-in swivel
- stainless steel ball bearings
- shaft journal is stainless steel embedded in PTFE to eliminate seizure
- riveted piston pin to minimize the risk for failure under extreme pressure conditions
- the protective ring is a specially formulated, weather resistant and electrically conductive rubber compound
- stainless steel couplers: rollers are Hastelloy C276 on the stainless steel shaft
- aluminum and brass couplers: rollers are aluminum-bronze on the stainless steel shaft
- for information on repair kits visit us on-line at [dixonvalve.com](http://dixonvalve.com)

#### coupler x female NPT with FKM (FPM) seals

Female NPT	Body Size	316 Stainless Steel	Aluminum	Brass / Gunmetal <sup>1</sup>
¾"	56 mm	<b>DDC075SS</b>	<b>DDC075AL</b>	<b>DDC075BR</b>
1"	56 mm	<b>DDC100SS</b>	<b>DDC100AL</b>	<b>DDC100BR</b>
1½"	70 mm	<b>DDC150SS</b>	<b>DDC150AL</b>	<b>DDC150BR</b>
2"	70 mm	<b>DDC200SS</b>	<b>DDC200AL</b>	<b>DDC200BR</b>
3"	105 mm	<b>DDC300SS105</b>	<b>DDC300AL105</b>	<b>DDC300GM105</b>
3"	119 mm	<b>DDC300SS</b>	<b>DDC300AL</b>	<b>DDC300GM</b>
4"	164 mm	<b>DDC400SS</b>	<b>DDC400AL</b>	<b>DDC400GM</b>
6"	238 mm	<b>DDC600SS</b>	<b>DDC600AL</b>	---

<sup>1</sup> produced to U.S. government bronze specification G

#### coupler x 150# ASA flange with FKM (FPM) seals

150# Flange	Body Size	316 Stainless Steel
2"	70 mm	<b>DDC200SSFL</b>
3"	119 mm	<b>DDC300SSFL</b>
4"	164 mm	<b>DDC400SSFL</b>
6"	238 mm	<b>DDC600SSFL</b>
8"	272 mm	<b>DDC800SSFL</b>

#### coupler x TTMA flange with FKM (FPM) seals

TTMA Flange	Body Size	Aluminum
4"	164 mm	<b>DDC400AL164TTMA</b>



female NPT x coupler - aluminum  
¾" and 1" design



female NPT x coupler - brass  
1½" and 2" design



female NPT x coupler - stainless steel  
3" design



female NPT x coupler - aluminum  
4" design



female NPT x coupler - aluminum  
6" design



150# ASA flange x coupler - stainless steel  
2" design



150# ASA flange x coupler - stainless steel  
3" design



TTMA flange x coupler - aluminum  
4" design



composite plug

### Dust Plugs for Couplers

**Feature:**

- Composite (Polyeten PE-HD 300) plugs provide good protection against corrosion and withstands hot and cold environments.

#### dust plugs

Size	Body Size	Polyeten PE-HD 300
¾" and 1"	56 mm	<b>DDDP075</b>
1½" and 2"	70 mm	<b>DDDP150</b>
3"	105 mm	<b>DDDP300105</b>
3"	119 mm	<b>DDDP300</b>
4"	164 mm	<b>DDDP400</b>
6"	238 mm	<b>DDDP600</b> <sup>2</sup>

<sup>2</sup> 6" dust plug is aluminum

## Standard Dry Quick Disconnects Adapter - Tank Unit

**Features:**

- adapter is usually installed on the tank or manifold
- conical valve seat reduces the risk for "piston blow out"
- PTFE bearings between the piston shaft and the piston guide eliminate the risk for seizure
- for information on repair kits visit us on-line at dixonvalve.com
- aluminum adapter - aluminum poppet, stainless steel internal parts
- stainless steel adapter - stainless steel poppet, stainless steel internal parts
- brass / gunmetal \* adapter - brass poppet, brass and stainless steel internal parts

**adapter x female NPT with FKM (FPM) seals**

Female NPT	Body Size	316 Stainless Steel	Aluminum	Brass / Gunmetal <sup>1</sup>
¾"	56 mm	<b>DDA075SS</b>	<b>DDA075AL</b>	<b>DDA075BR</b>
1"	56 mm	<b>DDA100SS</b>	<b>DDA100AL</b>	<b>DDA100BR</b>
1½"	70 mm	<b>DDA150SS</b>	<b>DDA150AL</b>	<b>DDA150BR</b>
2"	70 mm	<b>DDA200SS</b>	<b>DDA200AL</b>	<b>DDA200BR</b>
3"	105 mm	<b>DDA300SS105</b>	<b>DDA300AL105</b>	<b>DDA300GM105</b>
3"	119 mm	<b>DDA300SS</b>	<b>DDA300AL</b>	<b>DDA300GM</b>
4"	164 mm	<b>DDA400SS</b>	<b>DDA400AL</b>	<b>DDA400GM</b>
6"	238 mm	<b>DDA600SS</b>	<b>DDA600AL</b>	---

<sup>1</sup> produced to U.S. government bronze specification G

**adapter x 150# ASA flange with FKM (FPM) seals**

150# ASA	Body Size	316 Stainless Steel	Aluminum	Brass / Gunmetal <sup>1</sup>
¾"	56 mm	<b>DDA075SSFL</b>	---	---
1"	56 mm	<b>DDA100SSFL</b>	<b>DDA100ALFL</b>	<b>DDA100BRFL</b>
1½"	70 mm	<b>DDA150SSFL</b>	<b>DDA150ALFL</b>	<b>DDA150BRFL</b>
2"	70 mm	<b>DDA200SSFL</b>	<b>DDA200ALFL</b>	<b>DDA200BRFL</b>
3"	105 mm	<b>DDA300SS105FL</b>	<b>DDA300AL105FL</b>	<b>DDA300GM105FL</b>
3"	119 mm	<b>DDA300SSFL</b>	<b>DDA300ALFL</b>	<b>DDA300GMFL</b>
4"	164 mm	<b>DDA400SSFL</b>	<b>DDA400ALFL</b>	<b>DDA400GMFL</b>
6"	238 mm	<b>DDA600SSFL</b>	<b>DDA600ALFL</b>	---
8"	272 mm	<b>DDA800SSFL</b>	---	---

<sup>1</sup> produced to U.S. government bronze specification G

**adapter x TTMA flange with FKM (FPM) seals**

TTMA	Body Size	Aluminum
3"	105 mm	<b>DDA300AL105TTMA</b>
3"	119 mm	<b>DDA300AL119TTMA</b>
4"	164 mm	<b>DDA400AL164TTMA</b>

**Feature:**

- Composite (Polyeten PE-HD 300) caps provide good protection against corrosion and withstands hot and cold environments.
- FKM (FPM) gaskets standard on polyeten caps

**dust caps**

Size	Body Size	Polyeten PE-HD 300	Rubber
¾" and 1"	56 mm	<b>DDDC075</b>	---
1½" and 2"	70 mm	<b>DDDC150</b>	<b>DGDC200</b>
3"	105 mm	<b>DDDC300105</b>	---
3"	119 mm	<b>DDDC300</b>	<b>DGDC300</b>
4"	164 mm	<b>DDDC400</b>	---
6"	238 mm	<b>DDDC600</b> <sup>2</sup>	---

<sup>2</sup> 6" dust cap is aluminum



adapter x female NPT - DDA100BR



adapter x 150# ASA flange - DDA200SSFL



adapter x TTMA flange - DDA300AL119TTMA

### Dust Caps for Adapters



composite cap

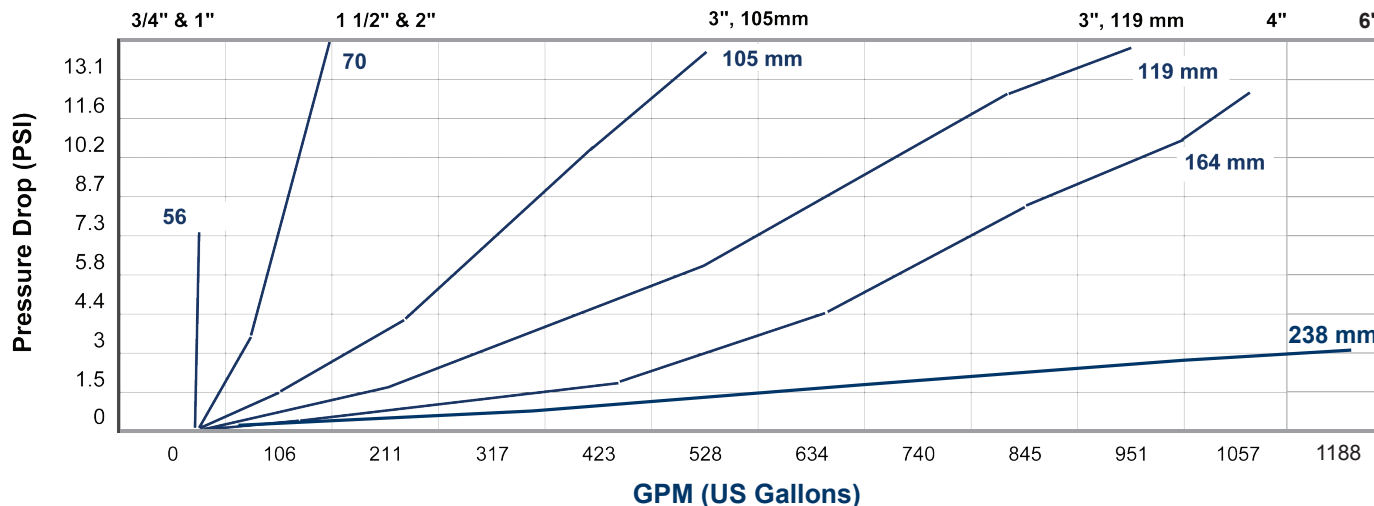


rubber cap

**Dry Disconnect Couplings**

**DRY DISCONNECTS**

Flow Rate  
Media: Water Temp: 60° F



**Spillage on Disconnection**

The test was made by coupling and uncoupling 10 times under pressures between one (1) and ten (10) bars. The result we got is a total spillage over 10 coupling cycles and an average spillage on each coupling cycle. The test was carried out with water under ambient temperature.

Size	Socket diameter	Total spill 10 cycles	Average spill 1 cycle
1" – DN 25	56 mm	1 ml	0.1 ml
2" – DN 50	70 mm	3 ml	0.3 ml
2½" – DN 65	105 mm	8 ml	0.8 ml
3" – DN 80	119 mm	10 ml	1.0 ml
4" – DN 100	164 mm	35 ml	3.5 ml

**Options for Hose and Tank Units**

**Electronic Sensors**

**Electronic Sensors** detect the position of the driving plate inside of the hose unit.

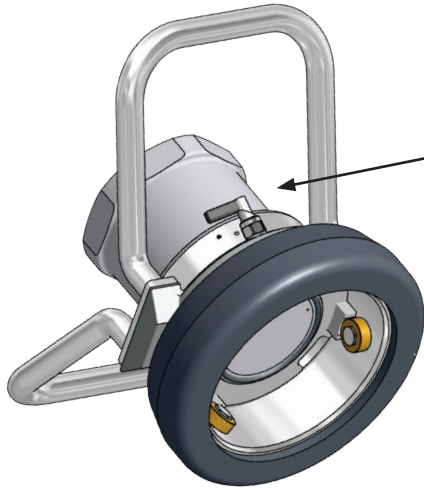
No modification on the tank is required. This makes it possible to identify if the hose unit is connected to a tank unit and if they are in an open position.



### Dry Disconnect Couplings Options for Hose and Tank Units

### DRY DISCONNECTS

#### Locking Devices



4" Hose unit with locking device

**Locking Devices** eliminate the unintentional disconnection when subjected to vibration from transfer pumps



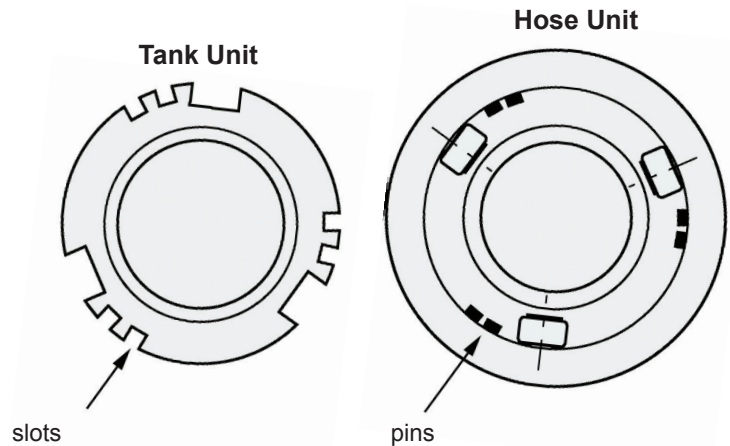
2" Hose unit with locking device

#### Selectivity Options

**Selectivity** versions of Hose and Tank units are available to prevent the accidental mixing of media.

The Tank units are furnished with slots and the Hose unit with pins that interlock upon connection.

A number of selectivity options are possible depending on coupling size.



#### Handle Options

Optional handles are available for 1"- 4" Hose couplers. 2" Hose unit shown.

