DIXON VALVE DRY DISCONNECT FITTINGS - MANN-TEK DESIGN

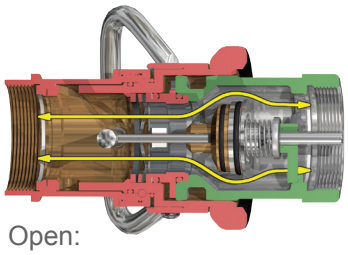
Features & Benefits

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.

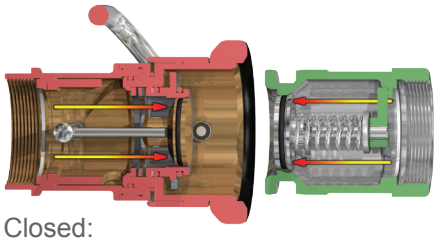
- easy to handle - push and turn - free flow, turn and pull - closed
- time saving - no need to drain hoses or pipe systems
- economical - no loss or spillage of liquids at connection or disconnection
- safety - the valve cannot be opened until the unit is coupled
- environment friendly - accidental 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*

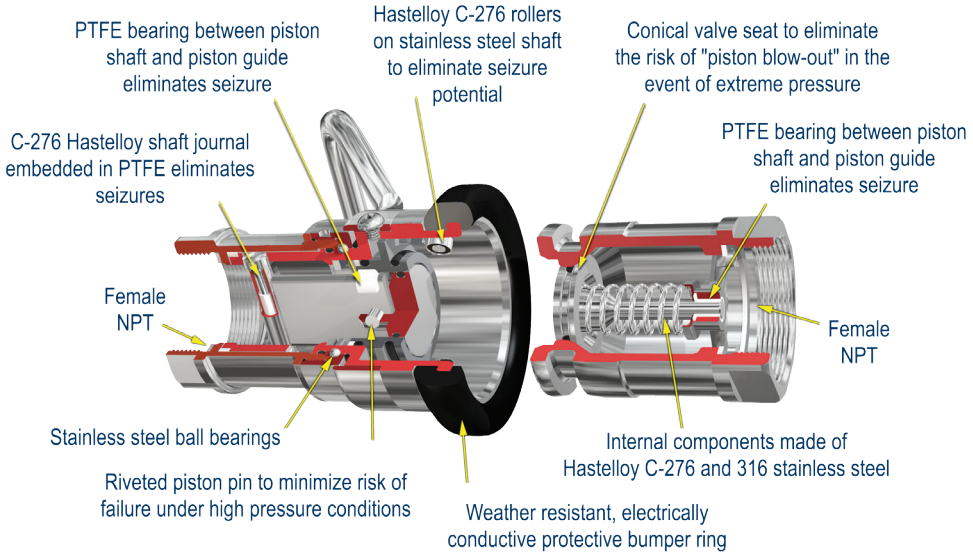
How It Works



Open:
- Push and turn
  it's coupled - full flow



Closed:
- Turn and pull
  it's released - no spillage



DDC200SS pictured

Dry Aviation Couplings

Coupler - Hose Unit

Applications: Dry aviation couplings are designed for use in aviation refueling systems. Manufactured to accept the international standard 2½" point bayonet, hose end refueling nozzles according to: ISO45 / MS24484 / STANAG 3105 / British Aerospace Spec. 2C14. ***They are not configured for under-wing refueling.***

Features:

- body: high strength aluminum
- coupling ring: gunmetal
- bayonet flange and inner parts: stainless steel, aluminum
- all wetted parts are aluminum and stainless steel
- **150 PSI** working pressure
- stainless steel ball bearings
- gunmetal (produced to U.S. government bronze specification G) coupling ring minimizes the risk of seizure
- stainless steel shaft journal embedded in PTFE eliminates seizure
- PTFE bearings between the driving plate and the piston guide eliminate the risk of seizure
- riveted piston pin minimizes the risk of failure under extreme pressure conditions
- the protective ring is a specially formulated, weather resistant and electrically conductive rubber compound

female NPT x coupler - DAC250AL

coupler x female NPT with FKM (FPM) seals

Female NPT	Body Size	*Aluminum*
2½"	ISO 45	***DAC250AL***
3"	ISO 45	***DAC300AL***

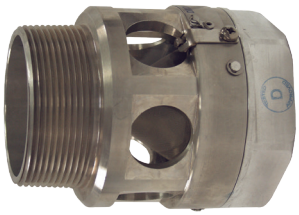
coupler x female BSP with FKM (FPM) seals

Female BSP	Body Size	*Aluminum*
2½"	ISO 45	***DAC250ALBSP***
3"	ISO 45	***DAC300ALBSP***

Sight Flow Indicators

Features:

- filter / screen can be inspected through the sight glass
- filter / screen is easily removed if cleaning is required
- screen is 100 mesh



sight flow indicator - ASFI25T25B

aviation sight flow indicator with filter / screen

Female Thread	Male Thread	*Aluminum*
2½" NPT	2½" BSP	***ASFI25T25B***
3" NPT	3" BSP	***ASFI30T30B***
2½" NPT	2½" NPT	***ASFI25T25T***
3" NPT	3" NPT	***ASFI30T30T***

Dust Plug for Couplers

Feature:

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

composite plug

composite dust plug

Size	Body Size	*Polyeten PE-HD 300*
2½"	ISO 45	***DADP250***

Dry Aviation Couplings

Adapter - Tank Unit

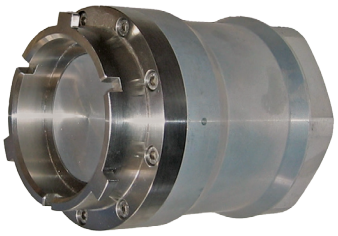
Applications: Dry aviation couplings are designed for use in aviation refueling systems. Manufactured to accept the international standard 2½" point bayonet, hose end refueling nozzles according to: ISO45 / MS24484 / STANAG 3105 / British Aerospace Spec. 2C14. ***They are not configured for under-wing refueling.***

Features:

- gunmetal coupling ring minimizes the risk of seizure
- PTFE bearings between the piston shaft and the piston guide eliminate the risk of seizure
- conical valve seat eliminates the risk of "piston blow out" when extreme pressure is used
- body: high strength aluminum
- bayonet flange and inner parts: stainless steel, aluminum
- all wetted parts are aluminum and stainless steel
- coupling ring: gunmetal
- **150 PSI** working pressure at ambient temperature (70°F)

adapter x female NPT with FKM (FPM) seals

Female NPT	Body Size	*Aluminum*
2½"	ISO 45	***DAA250AL***
3"	ISO 45	***DAA300AL***



adapter x female NPT - DAA250AL

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

Female BSP	Body Size	*Aluminum*
2½"	ISO 45	***DAA250ALFL***
3"	ISO 45	***DAA300ALFL***

adapter x 150# ASA flange - DAA250ALFL

Dust Cap for Adapter

Feature:

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

composite dust caps for adapters

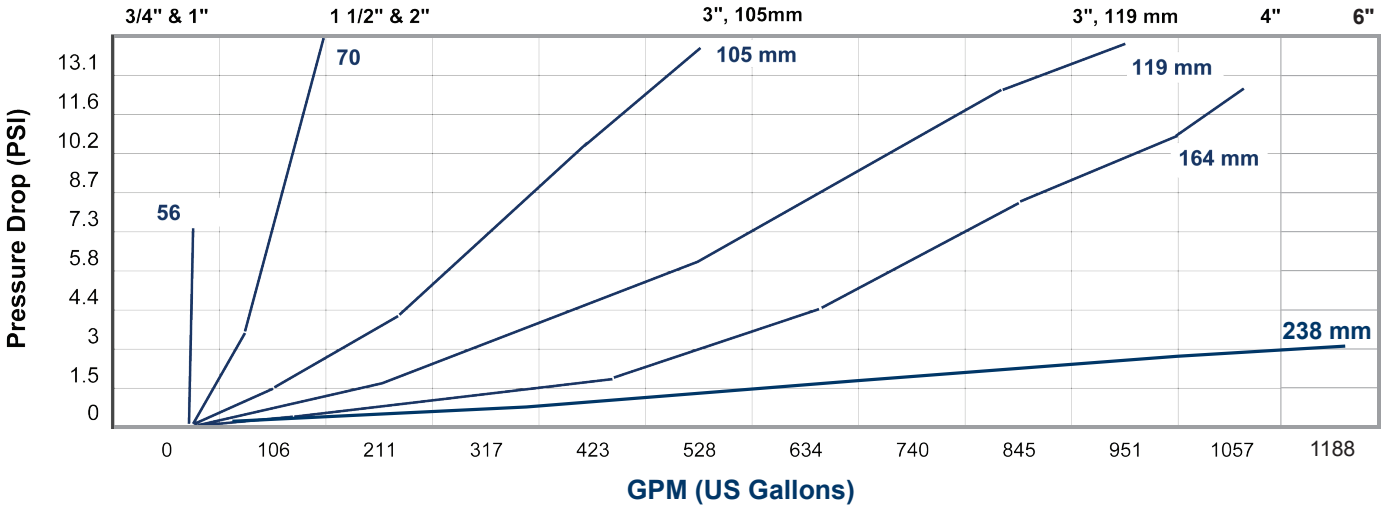
Size	Body Size	*Polyeten PE-HD 300*
2½"	ISO 45	***DADC250***

composite 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

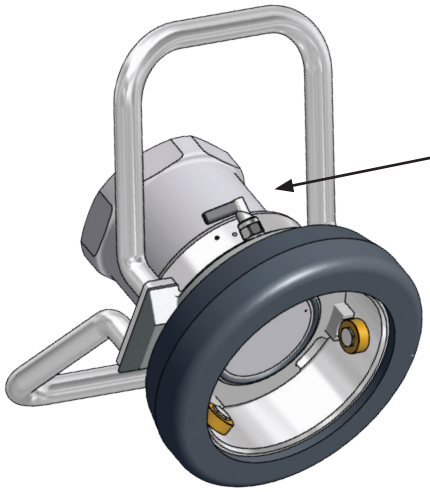
Electronic Sensors detect the position of the driving plate inside of the hose unit.

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

Locking Devices



4" Hose unit with locking device

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

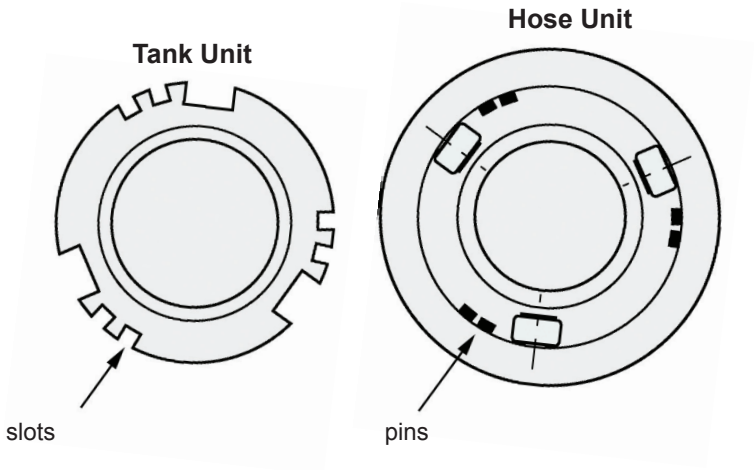
2" Hose unit with locking device

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.*