Mann DDCouplings® Kill the spill



- Expensive to clean up
- Expensive to reprocess or dispose
- Hazardous to workers or the environment
- Prone to accidental spillage and product loss
 Use Mann Dry Disconnect Couplings for
 connecting and disconnecting hoses and
 pipelines quickly and without spillage





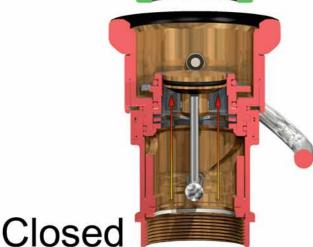
Benefits

- · 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.
- · Environmentally: Accidental spillage eliminated.
- Safety and reliability: Due to the rugged construction.
- Selectivity: optional selectivity for preventing contamination due to incorrect and cross-coupling.
- Product life: Low number of moving parts, uncomplicated design and high quality materials ensures longer product life.

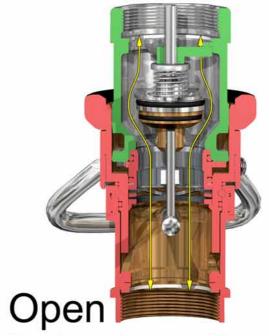
How it works

The principle of operation is identical for all sizes of couplings





Turn and pull - it's released - no spillage



Push and turn - it's coupled - full flow



Advantages Stainless Steel Version

The Stainless Steel construction, has all moving parts pivoted in selflubricated bearings, the coupling function has been optimated for non-lubricating medias.

Our DDCoupling in Stainless Steel gives you the most positive, seal safe connections you can find anywhere.

The Tank unit is supplied with parallel BSP threads and flat sealing surface. This allows the use of the full thread length for screwed-on parts. Also available with flange, tapered internal NPT threads and parallel S60X6 threads.

Inner parts in Stainless Steel AISI 316. PTFE (Teflon®) bearing between the piston shaft and the piston guide to eliminate the risk for seizure.

Conical valve seat to eliminate the risk of "piston blow out" when extreme pressure is used.

Rollers in Hastelloy C 276 on the Stainless Steel shaft to minimize the risk of seizure.

PTFE (Teflon®) bearings between the driving plate and the piston guide to eliminate the risk of seizure.

Protecting ring in weather resistant rubber.
Electrically conductive.

Riveted piston pin to minimize the risk of failure under extreme pressure conditions.

Ball bearings in stainless steel.

Shaft journal in Stainless Steel embedded in PTFE (Teflon®) to eliminate seizure.

The Tank unit is supplied with parallel BSP threads and flat sealing surface. This allows the use of the full thread length for screwed-on parts. Also available with flange, tapered internal NPT threads and parallel S60X6 threads.

Standards

The DDCouplings are produced according to NATO Standard STANAG 3756 and ATOFINA SGM 2049. TUY.C.

Compatible with other existing brands.



DDCoupling product line

1" DDCouplings (Socket 56 mm):

Used in a diverse range of applications from Pharmaceutical processing to Auto gas vehicle fueling, perfume dosing to freon gas transfer.



2" DDCouplings (Socket 70 mm): The 2" DDCoupling probably covers

the widest selection of applications

in the DDCoupling® range.

Ex: Diesel locomotive refueling, Pharmaceutical processing, Blending pits.





DDCoupling product line

2½" DDCouplings (Socket 105 mm):

Used extensively for road tanker bottom loading, aviation fuel bunkering (AVGAS), acid transfer, and lubrication oil blending.



3" DDCouplings (Socket 119 mm):

A true 3" coupling, similar in size to the 2 1/2" but with greater flow.

Typically used for road and rail tank loading/discharge, in plant chemical transfers etc.





DDCoupling product line

4" DDCouplings (Socket 164 mm):

Used extensively for offshore ship to rig transfers of fuels and drinking water, aviation fuel bunkering, rail tank loading/discharge etc.



Dustplugs and Dustcaps

Plugs and caps:

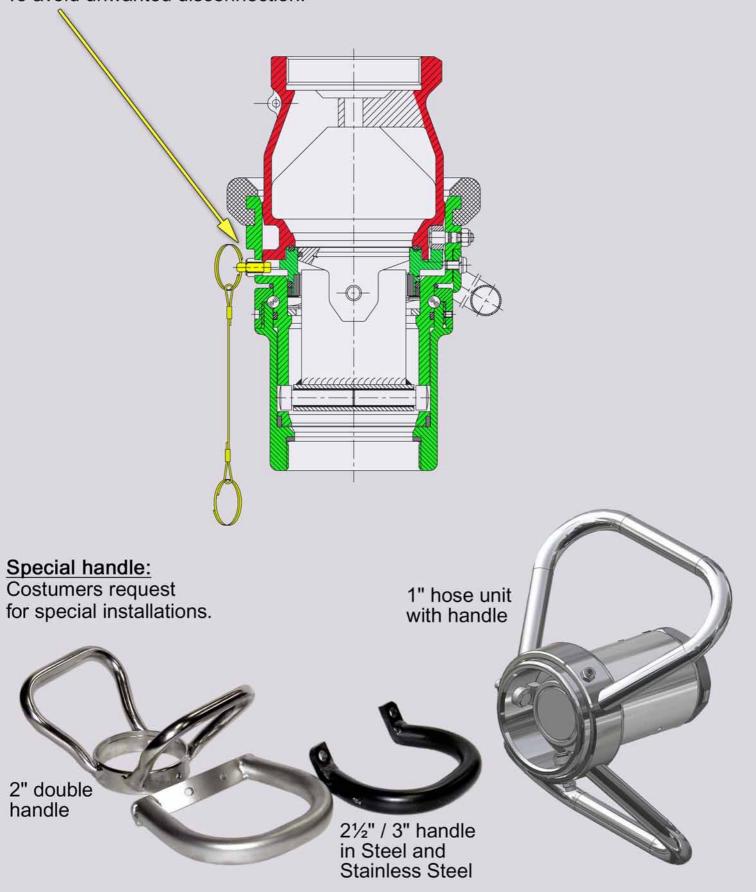
Available in Stainless Steel and Composite material. Other material on request.



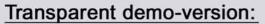


Locking device:

To avoid unwanted disconnection.





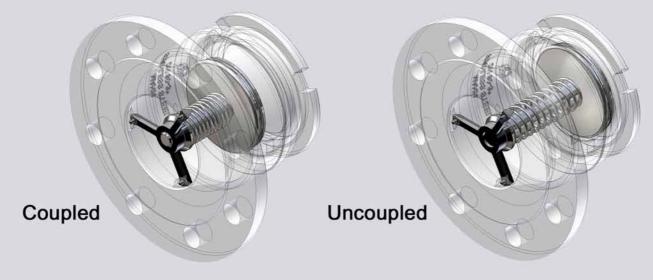


DDCouplings are available in a special transparent version, for demo purposes.



Non projecting piston spindle:

Tankunits with no parts projecting from the coupling in connected position. For mounting directly on ballvalves, etc.



<u>Tank unit with excentric flange:</u> For drainage of pipe systems.





Corrosive liquids:
DDCouplings are available in PEEK, a high resistant plastic material for corrosive liquids, or Hastelloy. Inner parts are of Hastelloy, seals of FPM, FFPM,

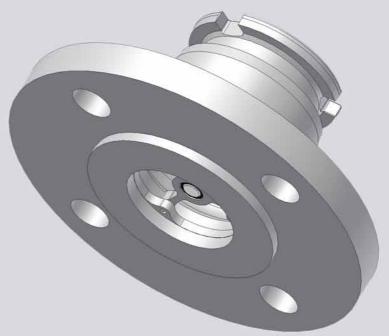
CHEMRAZ® or Kalrez®.



PN 25 for gases:

DDCouplings in Stainless Steel have been approved and certified by APRAGAZ in pressure stage PN 25 bar for gaseous media, e.g. LPG, ethylene oxide and propylene oxide. Tank unit with a thick flange.

EN 1092-1:2001 Type E:Spigot.





High safety:

DDCouplings with integrated breakaway. (Cable and bolt series).



DDCouplings correspond to NATO standard STANAG 3756, and are marked accordingly. The couplings are used by armed forces e.g. for tank refuelling in the field. On request they can be supplied with an olive-green varnish.

Hose unit with flange:

For installation on loading arms.

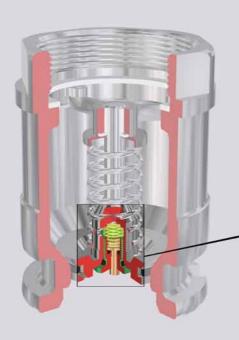


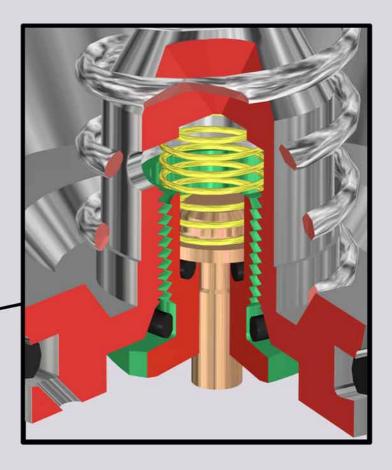


Tank unit with pressure relief valve:

The tank unit with integrated pressure relief valve.

This system dissipates trapped fluid pressure into hose coupler without spillage, to allow easy connection.





Coloured Handles

The DDCoupling handles can be in the following colours: blue, green, yellow, red, black.





Applications - for DDCouplings















Applications - for DDCouplings











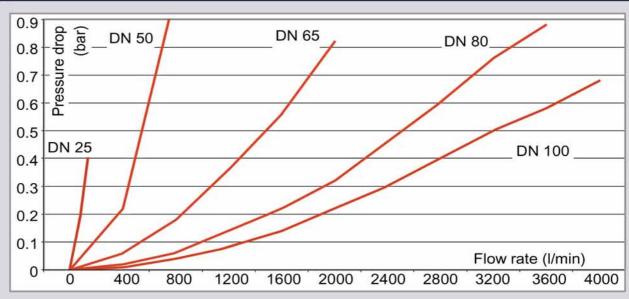




Flow diagram

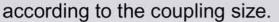
Flow rate

Media: water. Temp: 16° C.



Selectivity

To avoid product contamination caused by connecting a hose unit to the wrong tank unit, selective versions of the hose and the tank units are available. Each unit has a number of selective positions, designated by a coded part number





Hose unit Pins

Selection of applications

Chemical & Oil:

Bulk / loading / discharge
Tanker top / bottom loading
Loading arms
Exchange manifolds
Blending pits
Bunkering
Rail car outlets
Rail shore side loading
Paints & inks
Improcess products transfer
Rail locomotive refueling

Marine:

Ship to ship transfer Ship to shore transfer Ship to rig transfer Rig gas exchange Rig temporary vent lines Ship manifold exchange Marine refueling

Specialized:

Bulk powder transfer
Natural gas
Aviation bunkering
Brewery finished product
Food feedstock
Pharmaceutical feedstock
Hazardous waste transfer
IBC container outlets
Bitumen transfer
ISO retrofit & new build



Approvals

TÜV, Veritas, Apragaz, TDT, etc.



Technical specification

Sizes: DN 20 - ¾", to DN 100 - 4". Connections: Thread BSP or NPT. Flanges: DIN, ASA, TW, TTMA, EN 1092-1:2001 Type E:Spigot.

Material: Aluminium, Brass/Gunmetall, Stainless Steel AISI 316,

Hastelloy and PEEK, other on request.

Sealing material: Standard FPM (Viton®), EPDM, HNBR, NBR (Nitril), Kalrez®,

CHEMRAZ®, and FFPM, other on request.

Flat seal for female BSP-threads: PUR / Polyurethan or PTFE (Teflon®).

Working pressure: Aluminium: PN 16,

Brass / Gunmetall: PN 25, Stainless Steel: PN 25. Test pressure: WP + 50%.

Minimum burst pressure: safety factor 5:1.



Products



DDCoupling®

Dry Disconnect Coupling. 3/4" to 4", PN 16 - PN 25. Material: Aluminium, Brass-Gunmetal, Stainless Steel and PEEK. Other materials on request. According to NATO standard STANAG 3756.



Break away, breaking pins

Aluminium, Brass, Stainless Steel, PN 16. 1½" to 4", female threads, with breaking pins.



Break away, cable release

Stainless Steel, PN25. 1½" to 4", female threads. 6" to 8", flanged connection.



Swivel joints

3/4" to 4", PN 10 - PN 25.

Materials: Aluminium, Brass-Gunmetall,

Stainless Steel.

Other materials on request. Connection: BSP, NPT.



Full Flow - Ballvalves

2" to 4", PN 10, Aluminium. Ballvalve and 2-way Ballvalve. Made for Petroleum Tank Trucks. Variations of flange connections.

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