

TODO[®]

For safe fluid handling

TODO-MATIC[®] DRY-BREAK[®] COUPLINGS



We are proud to present the TODO-MATIC[®] range of DRY-BREAK[®] couplings. More than 30 years of expertise has gone into their design and manufacture.

In sizes from 1" to 6" and a wide range of material options, TODO-MATIC[®] DRY-BREAK[®] couplings offer advanced fluid handling solutions for a diverse range of industries.

Major offshore exploration, chemical, pharmaceutical and petro chemical companies rely on TODO-MATIC[®] couplings to safely transfer their most aggressive or valuable products.

Designed for safe and easy use with minimum operator intervention. TODO-MATIC[®] couplings offer an unbeatable combination of technical, safety and performance features.

TODO[®] TODO-MATIC[®] DRY-BREAK[®] COUPLINGS



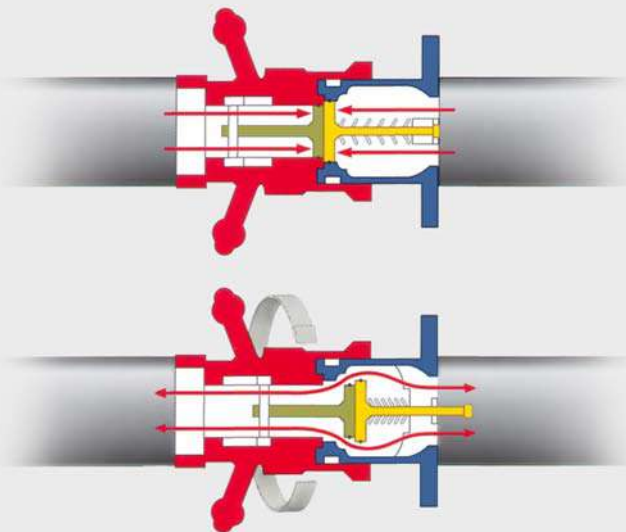


FEATURES

- Valves open and close automatically on connection and disconnection.
- Simple single action operation, no levers or switches to operate.
- Valves are guaranteed closed prior to disconnection.
- Minimal residual loss on disconnection (e.g. maximum 0.35cc for 2" DN50).
- Will connect and disconnect under pressure and flow where necessary.
- Extremely reliable, very few moving parts.
- Robust construction, no external operational components.
- Available with selectivity system to prevent cross contamination.
- Reduces spillages to virtually zero.
- Dramatically improves both operational and fugitive emission performance.
- Reduces the possibility of human error in transfer operations.
- Improves efficiency.

HOW IT WORKS

Turning the hose unit 15° clockwise locks the units together. The valves are still closed and are not opened until a further rotation of 90° has been performed and then the product flow is guaranteed. To close the valve and to unlock the units, reverse the procedure.





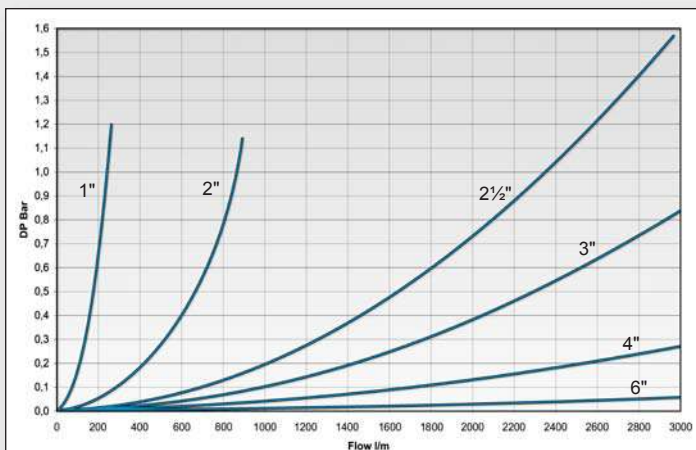
TECHNICAL DETAILS

Sizes:	1" (DN19 - DN32) to 6" (DN150).
Materials:	Aluminium, gunmetal and stainless steel 316L, other on request.
Seals:	FKM (Viton®), NBR (Nitrile), EPDM, Chemraz®, Kalrez®. Other materials on request.
Working pressure:	PN 10 - PN 25.
Test pressure:	Working pressure +50%.
Safety factor:	5:1.
End connections:	BSP- and NPT-threads. DIN-, ASA-, TW- and TTMA-flanges (available for both tank and hose units). Other threads and flanges on request.
Compatibility:	NATO STANAG 3756. Viton® and Kalrez® is registered trademarks of DuPont Performance Elastomers. Chemraz® is a registered trademark of Green-Tweed.

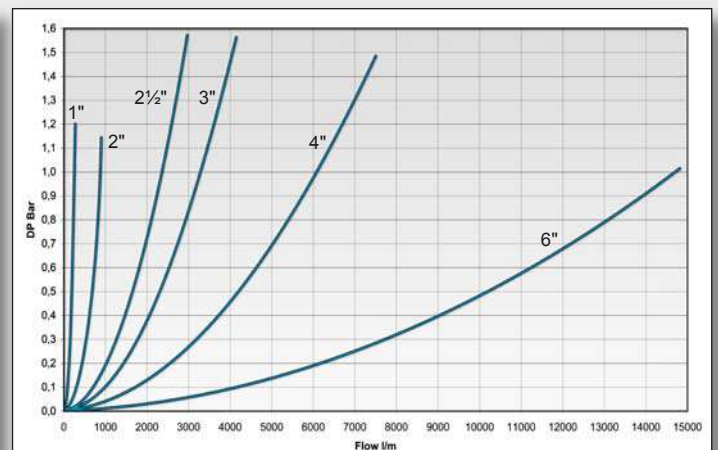
FLOW CAPACITY

TODO-MATIC® DRY-BREAK® couplings offer high flow capacity

Media: water. Temperature: 20°C.



Pressure drop for 1" to 6", scale 0-3000 l/min.



Pressure drop for 1" to 6", scale 0-15000 l/min.

CERTIFICATES / APPROVALS

TODO-MATIC® couplings carry the highest level of certification and approvals available. VdTÜV under test approval mark TÜ.AGG.162-93 towards ADR, RID, IMDG and TA-Luft classifications. European directives 97/23/EC (PED) and 94/9/EC (ATEX) compliant. Manufactured under EN ISO 9001:2000.



TODO-MATIC® SIZE RANGE



1" TODO-MATIC® (DN19 - DN32, Ø56 mm)

TODO-MATIC® DRY-BREAK® couplings in 1" size are designed for smaller bore applications where compact dimensions are required. One handed operation, high flow rate and minimal release on disconnection make TODO-MATIC® perfect for transferring high value or sensitive medias with confidence. The addition of selectivity to prevent product cross contamination expands the operational possibilities in manifold exchange applications.



2" TODO-MATIC® (DN40 - DN50, Ø70 mm)

Our 2" coupling size probably covers the most diverse selection of applications in the TODO-MATIC® family. Available in a range of material and connection configurations, TODO-MATIC® 2" is designed for rapid and safe transfers. Offshore chemical dosing, Pharmaceutical feedstock and aggressive chemical vapour transfer are just some of the challenging applications TODO-MATIC® couplings see on a daily basis.



2½" TODO-MATIC® (DN65 - DN80, Ø105 mm)

The 2½" TODO-MATIC® coupling is generally used in road tanker and aviation applications transferring a variety of liquids and vapours. Just like all TODO-MATIC® couplings, the 2½" is available in a full range of materials to offer compatibility with most applications. A strong integral swivel, ergonomic design and rugged construction ensure TODO-MATIC® couplings are equipped for the real world.



3" TODO-MATIC® (DN80, Ø119 mm)

A true 3" coupling, similar in size to the 2½" but with greater flow. Typically used for road and rail tank loading / discharge, in plant chemical transfers etc. Tough construction, ease of handling, no spillage and high flow made this coupling form the natural choice for N.A.T.O refuelling standardisation.



4" TODO-MATIC® (DN100, Ø164 mm)

Without exception, the most compact, light weight, high flow 4" self sealing coupling system available. Used extensively for offshore ship to rig transfers of fuels and drinking water, aviation fuel bunkering, rail tank loading / discharge, chemicals etc.

Rapid, positive connection and disconnection make TODO-MATIC® the standard for barge to ferry re-fueling and multiple rail tank discharge.



6" TODO-MATIC® (DN150, Ø238 mm)

The same features and method of operation as the rest of the range make 6" TODO-MATIC® the ideal ship / barge to shore connection.

Much faster and safer than any flange coupling means not only environmental standards compliance but real turn around time savings. Full marine construction with rotating lifting loop as standard.

As with all TODO-MATIC® couplings, the 6" is equally suitable for flexible hose or loading arm applications.



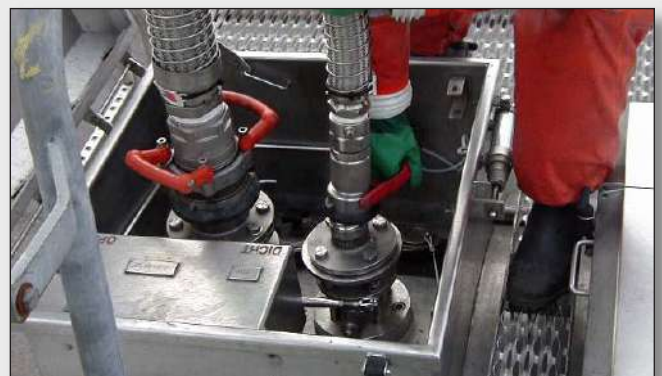
Hose unit with flange

All sizes of the hose unit are also available with flange.



APPLICATIONS

- Road / Rail tanker loading / discharge
- ISO retrofit & new build
- IBC containers
- Offshore rig supply
- Pharmaceutical processing
- Vapour Recovery
- Ship to shore / ship / rig transfer
- Ship manifold exchange
- Bulk loading / discharge
- Paints & inks
- Marine refuelling
- Bitumen transfer
- Brewery
- Food feedstock
- Hazardous waste transfer
- Aviation bunkering
- Exchange manifolds
- Blending pits
- Rail locomotive refuelling
- Tank top / bottom loading
- etc..







SAFETY PRESSURE TIGHT CAP

Designed to enhance operator safety & containment security in chemical & gas transport. Pressure indicator, depressurization, customs / tamper seal feature, automatic locking, certified closure. Manually lockable (with padlock). WP: PN 25. Sizes: 2" - 4".



DUST PLUGS AND DUST CAPS

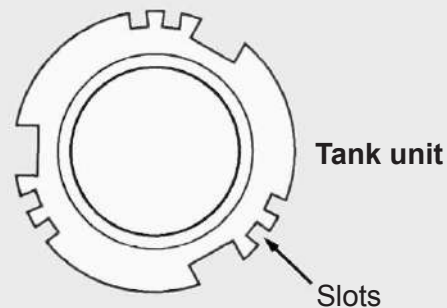
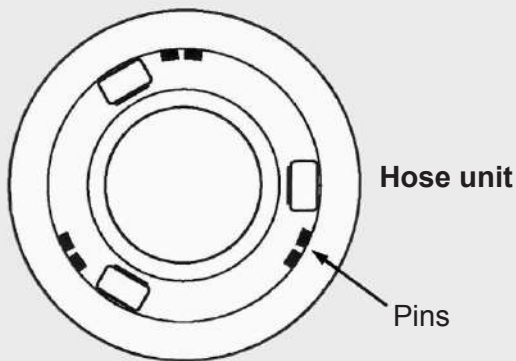
Available in stainless steel, brass / gunmetal and aluminium. There are also versions available in rubber. Dust plugs / caps should be used to prevent ingress of dirt or water. Sizes: 1" - 6".





SELECTIVITY

To avoid cross contamination by connecting a hose unit to the wrong tank unit. Each unit has a number of selective positions, designated by a coded part number according to the coupling size.



SPECIALS / ACCESSORIES



Pressure relief valve, for tank unit

Dissipates trapped fluid pressure into hose unit without spillage, to allow easy connection.



TOD0 4WD

Developed specially for the use of aggressive chemicals and uses a new patented valve mechanism. Easier to connect / disconnect. Less seal wear due to the use of advanced seating and coating technologies. Less total loss of fluid on disconnection. WP: PN 25.



SPECIALS / ACCESSORIES



TODO-MATIC® for extremely corrosive media
Available in Hastelloy, other materials on request.



Tools for draining of hose and tank units



Hose unit with magnetic switch
The switch indicates if the hose unit is fully connected to a standard tank unit. Can be used to start pumps, activation of brakes on road tankers, etc.



Parking device
For safe and convenient storing of hose units.



1" foldable handle



2" foldable handle mounted on the swivel



2" round handle



2½"-3" straight handle



4" round handle



TODO® PRODUCTS OVERVIEW



TODO-MATIC® The first choice for the safe handling of hazardous, valuable or environmentally sensitive media. TODO-MATIC® are available in aluminium, gunmetal and stainless steel 316L with special materials such as hastelloy C276 available to order.
Sizes: 1" (DN 25) to 6" (DN 150).



TODO-GAS® The TODO-GAS® couplings are designed especially for the transfer of LPG in both liquid and vapour phases. The couplings are available in stainless steel and brass / gunmetal with thread or flange connection. Handling and operation are as simple as for the TODO-MATIC® DRY-BREAK® coupling.
Sizes: 1" (DN 25), 2" (DN 50) and 3" (DN 80).



TODO® SAFETY BREAK AWAY couplings Designed specifically to minimise spillage and damage associated with drive / pull away incidents. Also allows rapid removal of the mobile tankage in emergency situations. The coupling automatically senses an excessive load, closes its valves and then permits disconnection. Very high flow rate / low pressure drop. *Sizes: 2" (DN 50) and 3" (DN 80).*



TODO-45 aviation couplings An ISO 45 standard ground unit from TODO® and a special version of the TODO-MATIC® 2½" coupling available for connection to ground units conforming to standard ISO 45. This gives, for the first time, an economical alternative to ISO 45 standard hose couplers for aviation fuel transfers.



PTC - Safety Pressure Tight Cap The TODO® PTC is specifically designed to enhance operator safety and containment security in chemical and gas transport. Designed in close collaboration with leading chemical and gas companies, the PTC offers safety and operational benefits beyond those offered by existing closure technologies. *Sizes: 2" (DN 50) to 4" (DN 100).*



BALL VALVES These lightweight ball valves were the first products to be developed by TODO®. This valve offers obvious weight saving benefits for the road tanker industry but can also be used in a variety of plant applications. A wide selection of end connectors are available and valve changeover is rapid due to the simple sandwich design. All sizes are available with pneumatic actuation in either single or double acting form. *Sizes: 2" (DN 50) to 4" (DN 100).*



FUEL NOZZLES The TODO® fuel delivery nozzles are specifically designed to deliver high volumes with total security. Rugged cast aluminium alloy body, high strength swivel and robust handle all help this nozzle to offer reliable long term performance.
Size: 1½" (DN 40).



API couplings TODO® API hose couplers and tank adaptors are interchangeable with other products manufactured to standard API RP 1004. The TODO® hose coupler is a high pressure design with five claw closure connection for strength and two interlocks for security and safety. The moulded lipseal configuration is used for long leak-free performance. TODO® API tank adaptors are available with or without operating handles or sightglasses.
Size 4" (DN 100).



SWIVELS Developed originally as part of the TODO-MATIC® coupling construction then subsequently as a stand alone product, the TODO® swivel has proved itself in the toughest applications for over 20 years. Used mainly to allow free hose movement without imparting torque stresses to the assembly (one of the biggest causes of premature hose failure). *Sizes: ¾" (DN 19) to 4" (DN 100).*

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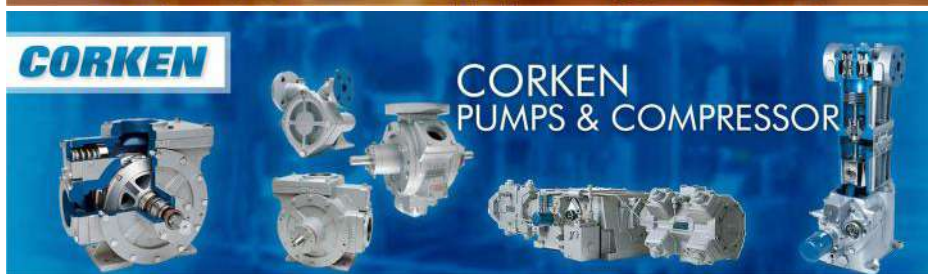
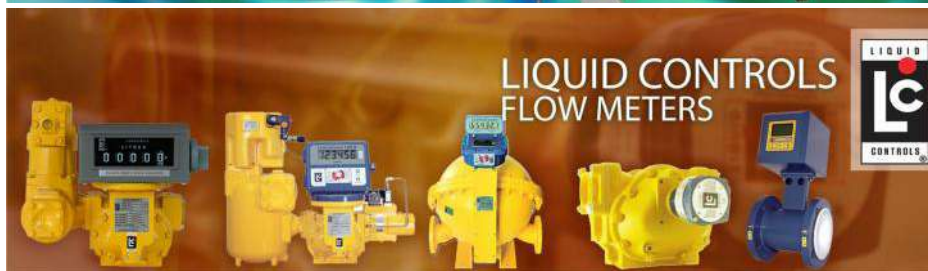
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