

Mann
T e k

Sweden



AVIATION

DACouplings®
Dry Aviation Couplings



DDCouplings®
Dry Disconnect Couplings



FFBall Valves
Full Flow Ball Valves

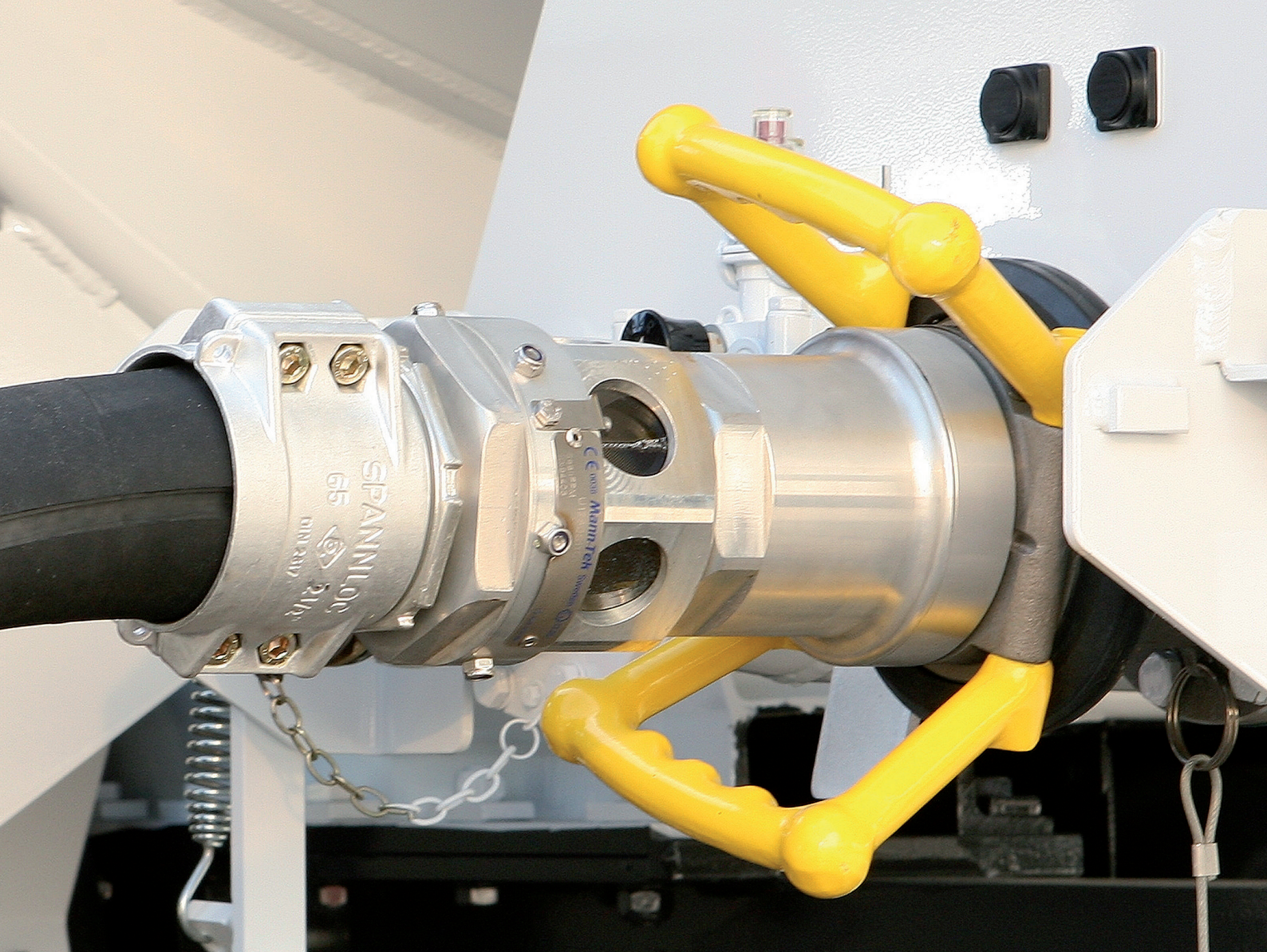


SBCouplings®
Safety Break-away Couplings



Swivels
Swivel Joints





DACouplings®

Dry Aviation Couplings

Dry Aviation Couplings are designed for use in aviation refueling systems. All units can be used as bottom loading or for primary points refuelling vehicles. Mann Tek's DAC is cost effective in many standings and with several benefits; such as light weighted and easy to handle.



TECHNICAL INFORMATION

Sizes:

2½" (DN65)

Materials:

Aluminium, Stainless steel, others on request.

Seals:

FPM/FKM (Viton®), other materials on request.

Maximum working pressure:

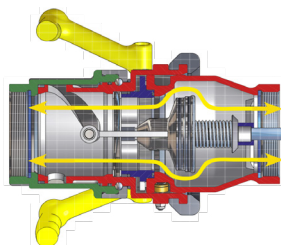
MWP PN 10 bar

MAWP 150 psi

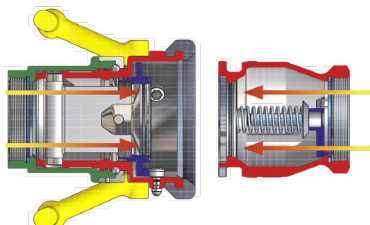
Connections:

Female and Male BSP / NPT, flanged DIN and ANSI. Others on request.

To connect
Push and turn -
it's coupled with
full flow



To disconnect
Turn and pull -
it's released and
no spillage



Advantages

- **No brass or bronze** is in contact with media.
- **Ensures spill free connections** of the media during loading and unloading tank trucks, rail tankers and tank containers.
- **Minimization of spillage and product loss** keeps the environment free from hazardous vapors and liquids.
- **"Easy to Use"** – Quick connections saves time and money.
- **Reliability and easy servicing** saves your investment.
- **Approvals** according to the European Directives PED and ATEX and the international requirements ADR.

Compability

ISO45, MS24484, NATO STANAG 3105,
British Aerospace Specification 2C14

Options

Filter strainer

Simple and safe design with double locking device.



The filter strainer is designed to adapt to the Dry Aviation coupling according to the ISO45 standard. The integrated sight glass makes it easy to determine when the filter needs to be cleaned. Easy servicing is guaranteed by a bayonet connection.

The Filter Strainers are available with 2½" BSP/NPT and 3" BSP/NPT connections.

There are 3 different filter types: 45, 60 or 100 mesh.

Drain connection

Use Mann-Tek ISO45 with Drain connection for easy draining and sampling of your system.



ISO 45 Dry Aviation Coupling

Hose unit with ground connection cable



Hydrant sampling, vent & drain unit



Complete
with pressure
relief and
equalizing
valve

TECHNICAL INFORMATION

Sizes:

1½" - 2" (DN40 & DN50)

Materials:

Tank unit:	Stainless steel and carbon steel
Ball valve:	Stainless steel and carbon steel
Flange:	Stainless Steel

Maximum working pressure:

MWP PN 25 Bar

MAWP 300 psi

Connections:

Flange ANSI and DIN, others on request.

Advantages

- **No brass or bronze** is in contact with media.
- **"Easy to Use"** – design saves time and minimizes health risks.
- **Reliability** and easy servicing saves your investment.
- **Approved** for safe handling by independent "Notified Body".
- **Connection** by 70 mm dry disconnect coupling acc. to STANAG 3756.
- Dry disconnect coupling equipped with **built in pressure relief** and bleeding valve function.

Applications

- **Sampling**
Installed at a convenient point on a riser from the main hydrant line.
- **Venting**
Installed at a high point in the hydrant line.
- **Draining**
Installed at a low point in the hydrant line.

Advantages

- **No brass or bronze** is in contact with media.
- **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.
- **Safe**
The valve cannot be opened until the unit is coupled.
- **Environmentally friendly**
Accidental spillage eliminated.
- **Reliability**
No loss or spillage of liquids at connection or disconnection.

DDCouplings® **Dry Disconnect Couplings**

Mann Teks Dry Disconnect Couplings® are designed for a safe and spill free handling. We know the importance of reliability, safety and the priority of eliminating unwanted leakage and product loss in these harsh environments. With a standardized connection, our couplings protect other equipment as well as the environment and operator.



TECHNICAL INFORMATION

Size:

3/4" (DN 20) to 8" (DN200).

Materials:

Aluminium, Brass/Gunmetal, Stainless Steel, Hastelloy C and PEEK. Other materials on request.

Seals:

FPM (Viton®), EPDM, FFKM (Chemraz®, Kalrez®), HNBR & NBR (Nitrile). Other materials on request.

Maximum working pressure:

MWP PN 10 / 16 / 25.

MAWP 150 / 300 psi

Connections:

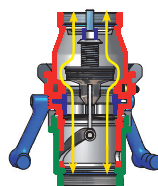
Female and male BSP/ NPT, metric or S60x6 thread. Flanged connections EN1092 (DIN), ANSI, TW and TTMA. Integrated break-away, pressure relief valve or other on request.

Electrical conductivity:

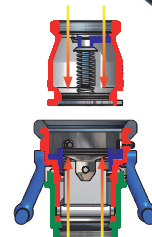
All DDCouplings® have electrical conductivity (<10 ohms).

Interchangeability:

Compatibility with other existing brands according to NATO STANAG 3756.



To connect
Push and turn -
it's coupled with full flow



To disconnect
Turn and pull -
it's released and no spillage





Options



Mann Tek's Dry Disconnect Couplings 2" (70 mm), 2,5" (105 mm) and 3" (119 mm) are used in Anti-icing and De-icing systems.

De- & anti-icing

The anti- and de-icing process is using dry or liquid chemicals, for example salts, salt solutions, alcohol or glycols and Mann Tek DDCouplings is specifically designed to handle this type of chemicals. We provide a quick and spill free handling, as wanted and recommended in these tough and demanding environments.

SBCouplings®

Safety Break-away Couplings

Mann Teks Safety breakaway couplings® are used to prevent pull away and drift away accidents in harsh environments. In case of a pull away incident, the two coupling halves will separate and immediately close the flow in both directions and therefor prevent accidents and unwanted spillage of any product.



TECHNICAL INFORMATION

Sizes:

1" (DN25) to 12" (DN300)

Materials:

Aluminium, Brass, Stainless steel, Hastelloy, Titanium. Others on request.

Seals:

FPM/FKM (Viton®), EPDM, FFKM (Chemraz®, Kalrez®). HNBR & NBR (Nitrile). Other materials on request.

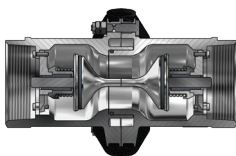
Maximum working pressure:

MWP PN 10 / 16 / 25.

MAWP 150 / 300 psi

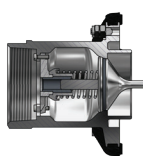
Connections:

Female and Male BSP / NPT, flanged EN1092 (DIN), ANSI, TW and TTMA. Other on request.



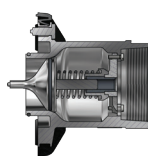
In service

The SBCoupling consists of two halves, each with a valve.



Released

After an emergency disconnection the SBCoupling separates and both vaults close immediately.



Industrial Break-away couplings

Are used in all industrial product transfer installations.

They are specifically designed to be able to activate with a tensile force being applied at an angle to the plane of the coupling housing, up to 90 degrees.

Typically installed into loading arm and hose assemblies, where at least one side of the coupling is attached to a rigid and a fixed point.

Advantages

- **No brass or bronze** is in contact with media.
- **Passive security** against situations where a hose or loading arm could be subjected to inadvertent excessive loads.
- Design features are a **simple mechanism** and no loose components which could be lost after release.
- **Operates independently** of shut off safety system and does not require an external power source.
- **Easy** to reset on site with one person
- **High flowrate** / low pressure drop
- **Very low loss**, positive shut-off of both coupling halves results in minimum product loss.
- **Lightweight** and robust design.

Advantages

- **No brass or bronze** is in contact with media.
- Unflattened flanges do not affect the balls torque.
- **Low pressure drop.**
- **Easy to serve:** The spindle can easily be dismantled, even if the ball valve is installed.
- The valve is assembled as **one unit** - not kept together by the flanges.
- **Inbuilt measurements** as common standard.

Applications

- Petroleum Tank trucks
- Tank trucks for solvents
- Dispenser and Tank trucks for aircraft refueling
- Stationary and mobil equipment for aircraft refuelling
- Loading Aviation refueller

FFBall Valves

Full Flow Ball Valves

Mann Teks Full flow ball valves with one way or two way ball valves are specially designed for handling different types of fuels in tank trucks. The product is made out of aluminium which offer a weight saving benefits to the road tanker industry and assembled as one product with built in measurement as common standard.

All valves are available with pneumatic actuation in either single or double acting form.



TECHNICAL INFORMATION

Sizes:

2" (DN 50) to 4" (DN 100)

Materials:

Body:	Aluminium
Ball:	Aluminium
Spindle:	Stainless Steel

Seals:

EPDM, FFKM (Chemraz®, Kalrez®), HNBR, NBR (Nitrile) and EFDM. Other materials on request.

Maximum working pressure:

MWP PN 10 bar

MAWP 150 psi

Connections:

Female and Male BSP / NPT, flanged EN1092 (DIN), ANSI, TW, TTMA and welding ends. Flanges are available in aluminium, stainless steel and carbon steel. Other on request.

Swivels

Swivel Joints

Mann Teks Swivels are used wherever a rotating system between two equipment parts is needed. The swivels enables free and slow rotation of hoses, nozzles and other fittings under the influence of internal pressure and/ or external stress such as traction and bending forces.



TECHNICAL INFORMATION

Sizes:

3/4" (DN20) to 10" (DN250)

Materials:

Aluminium, Brass, Stainless steel, Hastelloy, Titanium. Others on request.

Seals:

FPM/FKM (Viton®), PUR (Vulkollan®) & PTFE (Teflon®). Other materials on request.

Maximum working pressure:

MWP PN 10-25 bar

MAWP 150-360 psi

Connections:

Female and Male BSP / NPT, flanged EN1092 (DIN), ANSI, TW and TTMA. Other on request.



Heavy Duty Swivels -
double ball race

Advantages

- **No brass or bronze** is in contact with media.
- **Low maintenance**
Each unit consist of two body halves. Stainless Steel balls and a single spring assisted O-ring seal.
- **Compact external dimensions**
- **High flow rate / low pressure drop**
- **Full range of sizes, materials, seals and connections**
- **Minimal maintenance requirements**
- **Safety**
The swivel function allows the hose to relax to it's natural rest position whilst allowing freedom of movement without imparting torque stress at the point of connection - Torque stress is the largest single cause of composite, PTFE and Stainless steel convoluted hose failure.
- **Economical**
Cost effective solution to prolong lifetime of hoseselines.

Applications

- Offshore hose reels ship-to-shore
- Oil platform loading rigs
- Marine and industrial loading arms
- Hoses for road and rail tanker
- Chemical and petrochemical liquids and liquefied gases

About

Mann Tek is a Swedish manufacturer and supplier of Dry Aviation couplings with experience of the industry for more than 20 years. We supply modern, easy to use, safe and time saving products. A environmentally safe system for both staff and its surroundings, which prevents a variety of hazards. Our products are the obvious choice in harsh and demanding environments and where there's a need of a safe and spill free handling of fluids, gases and bulk powders.

With more than twenty years of knowledge and experience in the offshore industry it has accumulated extensive expertise about applications in many types of variations in which our couplings have been, and can be used, with excellent results.



We constantly strive to develop and improve the performance and design of our products, to meet changes, new market demands and standards. Which, today, is what made us market leading.

Our couplings are the obvious choice when certifications and product approvals are required, anywhere in the world.

Mann Tek is certified to ISO9001:2008 and the products are produced in accordance with several important standards, e.g. the ISO 45 / MS24484 / NATO STANAG 3105 / British Aerospace specification 2C14, NATO STANAG 3756.

Company Approvals



Mann-Tek is a certified ISO9001-company.

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