

**DGCouplings<sup>®</sup>**  
**Dry Gas Couplings**

» **Outstanding  
flow rate**



**Product Information**

**KilltheSpill**

## About Mann Tek

Mann Teknik AB is a Swedish company located in Mariestad, Sweden.

Mann Teknik AB produces and markets products for safe and environmentally friendly handling of aggressive fluids for the chemical and petrochemical industries.

The main product is the Dry Disconnect Couplings, DDCouplings®, for spill free liquid handling. The products are marketed through independent representatives in more than 30 countries.

Mann Teknik AB have many years of experience in designing, producing and marketing of DDCouplings® all since 1977.

Mann Teknik AB has shown a high rate of growth during the past years and is now a major player in its specialised field of operation. This is due to a determined expansion into growing markets and recognition by customers of the robust design and reliable quality of the products.

Mann Teknik AB are certified to ISO9001:2000. The products are CE-labeled. The main products are certified to PED, the European Pressure Equipment Directive and ATEX, the European directive for Equipment intended for use in Potentially Explosive Atmospheres.

The products are produced in accordance with several important standards, e.g. the NATO STANAG 3756

# KilltheSpill

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## Mann-Tek Dry Gas Coupling for safe handling of LPG - in liquid or vapor phases

The Dry Gas Coupling has been developed for a safe and **quick connection and disconnection** of hoses and loading arms to tank trucks, rail tankers and tank containers. During connection and after disconnection there is **no spillage**.

**This increases safety in the loading process of hazardous fluids.**

Suitable for handling a range of LPG applications - Propane and Butane but also for other applications with similar requirements the Dry Gas Coupling is useful. The robust design, easy servicing and high level of security assures safe and frequent use on a long term basis. This protects the environment and the media handled, reduces the risk of accidents and saves money.

A modular design with several optional features makes it possible to find individual solutions for your special application.



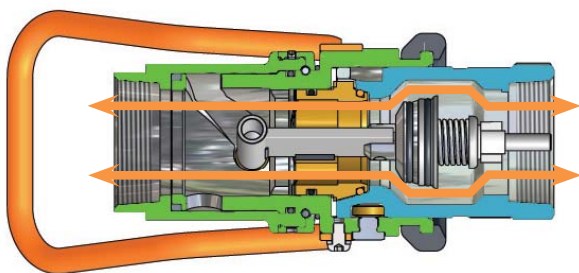
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### GAS (LPG)

Handling of LPG	Application	Size	Equipment
	Heavy vehicle filling	• 1"	Dry Gas Couplings
	Loading/unloading of bobtails	• 2"	Dry Gas Couplings
	Loading/unloading of tank trucks	• 2" - 3"	Dry Gas Couplings
	Loading/unloading of rail cars	• 3"	Dry Gas Couplings
	Loading/unloading ship to shore	• 3" - 8"	Dry Gas Couplings

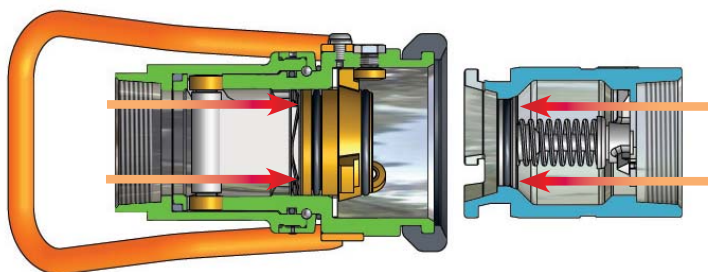


## How the Mann Tek Dry Gas Coupling works



### To connect

Push and turn - it's coupled  
- full flow

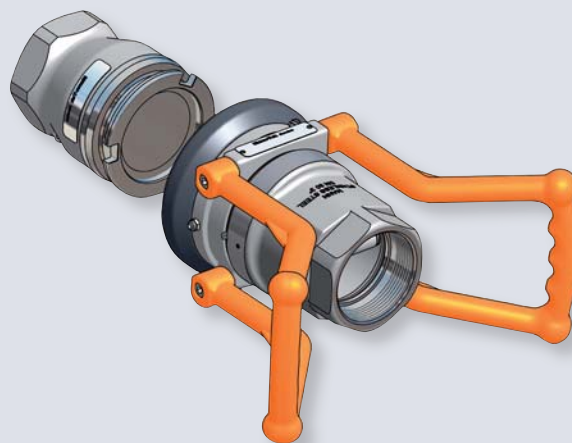


### To disconnect

Turn and pull - it's released  
- no spillage

## Why use the Mann Tek Dry Gas Coupling?

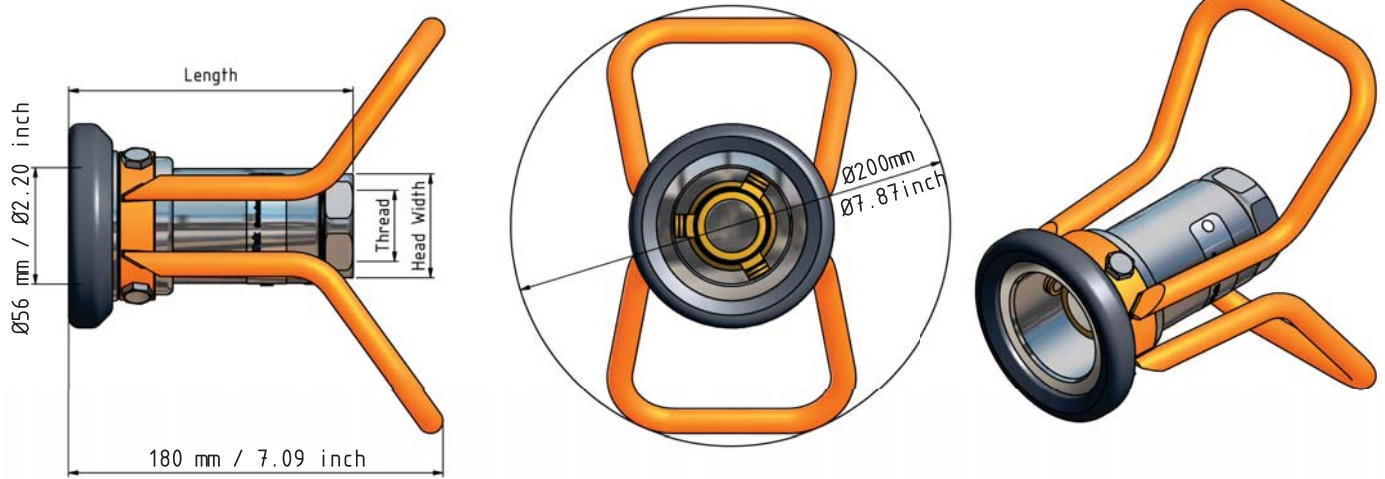
- Spillfree handling for loading and unloading tank trucks, rail tankers and tank containers.
- Minimization spillage and product loss keeps the environment free from Hazardous Vapors and Liquids.
- "Easy to Use" – design saves time and minimizes health risks.
- Reliability and easy servicing saves your investment.
- Approved for safe handling of LPG - Propane (CAS 74-98-6, UN 1978) and Butane (CAS 106-97-8, UN1011). UN-classification 2.1 and similar applications.
- 3" and 4" is compatible with existing Dry Disconnect / Dry Break Couplings according to STANAG 3756.
- The 1" is a heavy duty vehicle filling nozzle according to EN 13760.
- Approvals according to the European Directives PED and ATEX and the international requirements ADR, RID, IMDG and TDT.





## 1" Hose unit / Coupler (socket Ø56 mm / Ø2.20 inch)

With female 3/4" - 1" - 1 1/4" inlet.



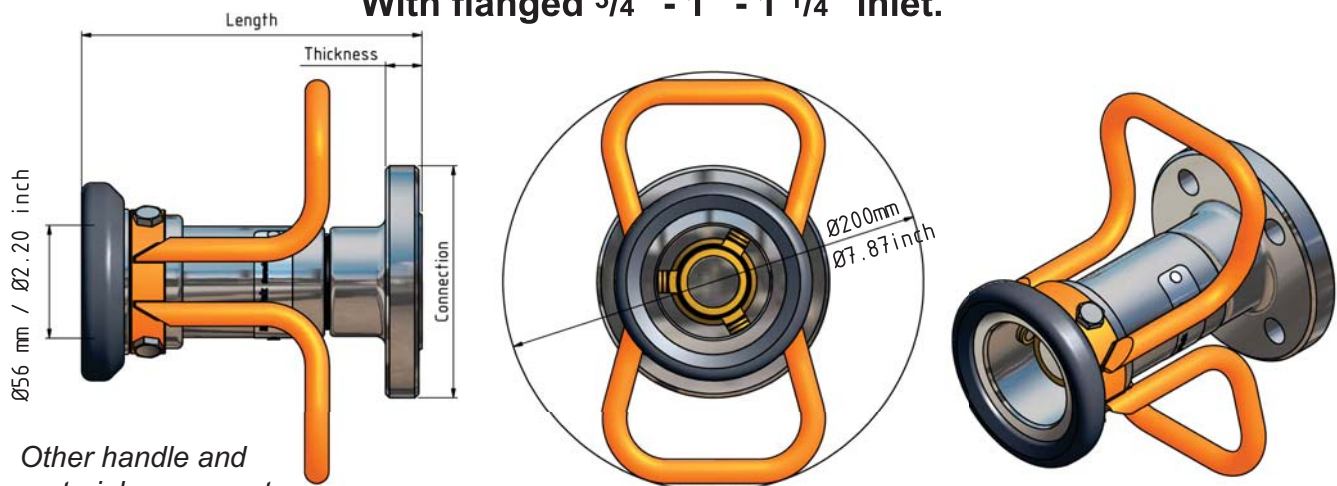
Available with ACME threads for assembling direct on existing connections

Other handle and material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
3/4" BSP	131 / 5.16	50 / 1.97	1,9 / 4.2	M101A4401A
3/4" NPT	135 / 5.31	50 / 1.97	2,0 / 4.4	M102A4401
1" BSP	133 / 5.24	50 / 1.97	1,9 / 4.2	M103A4401A
1" NPT	137 / 5.39	50 / 1.97	2,0 / 4.4	M104A4401
1 1/4" BSP	140 / 5.51	50 / 1.97	1,9 / 4.2	M105A4401A
1 1/4" NPT	144 / 5.67	50 / 1.97	2,0 / 4.4	M106A4401

## 1" Hose unit / Coupler (socket Ø56 mm / Ø2.20 inch)

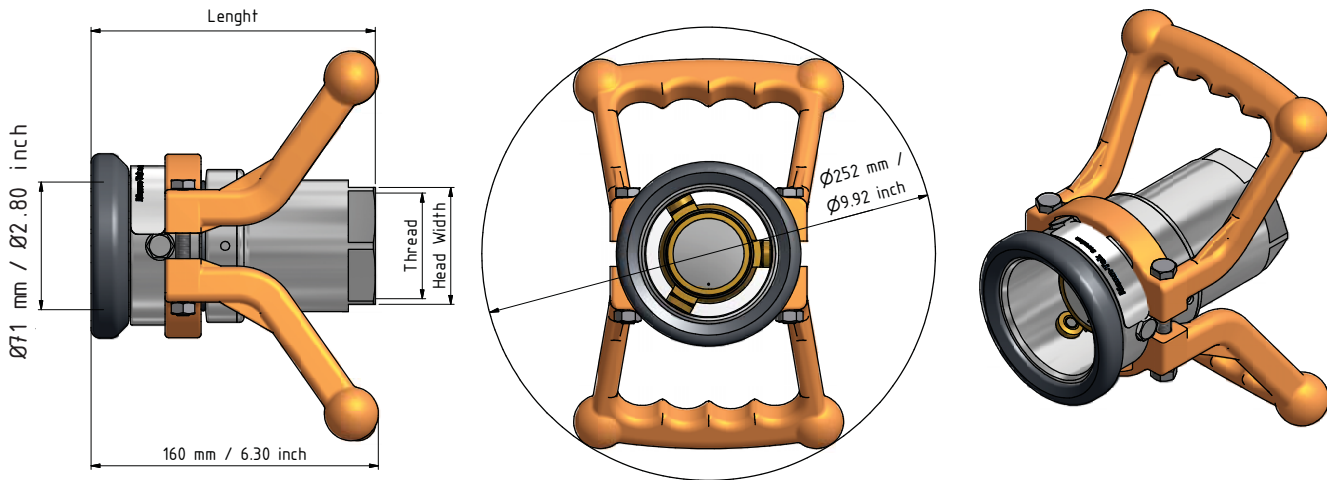
With flanged 3/4" - 1" - 1 1/4" inlet.



Other handle and material on request

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
3/4" ANSI Cl. 300	167 / 6.57	15,9 / 0.63	3,2 / 7.1	M150A4401
DN25 PN25/40	169 / 6.65	18,0 / 0.71	3,4 / 7.5	M124A4401
1" ANSI Cl. 300	168 / 6.61	17,5 / 0.69	3,4 / 7.5	M152A4401
DN32 PN25/40	169 / 6.65	18,0 / 0.71	3,6 / 7.9	M126A4401
1 1/4" ANSI Cl. 300	170 / 6.69	19,0 / 0.75	3,6 / 7.9	M154A4401

## 2" Hose unit / Coupler (socket Ø71 mm / Ø2.80 inch) With female 1 1/2" - 2" inlet

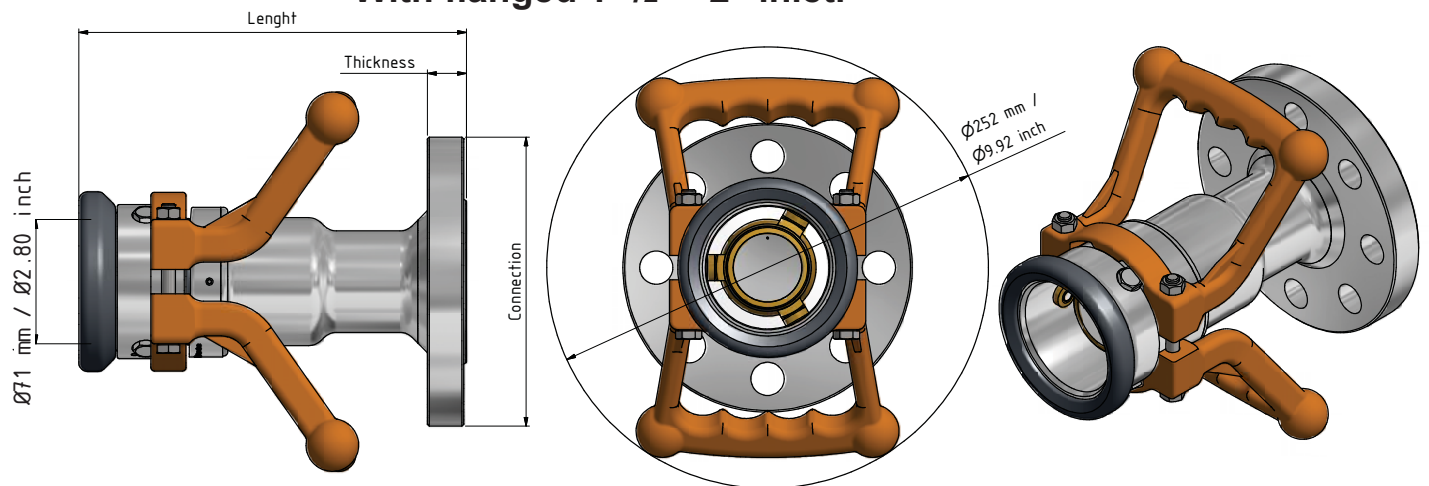


Available with ACME threads for assembling direct on existing connections

Other handle and material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
1 1/2" BSP	152 / 5.98	65 / 2.56	3,1 / 6.8	M207A4401A
1 1/2" NPT	155 / 6.10	65 / 2.56	3,2 / 7.0	M208A4401
2" BSP	155 / 6.10	65 / 2.56	2,9 / 6.4	M210A4401A
2" NPT	156 / 6.10	65 / 2.56	3,0 / 6.6	M211A4401

## 2" Hose unit / Coupler (socket Ø71 mm / Ø2.80 inch) With flanged 1 1/2" - 2" inlet.

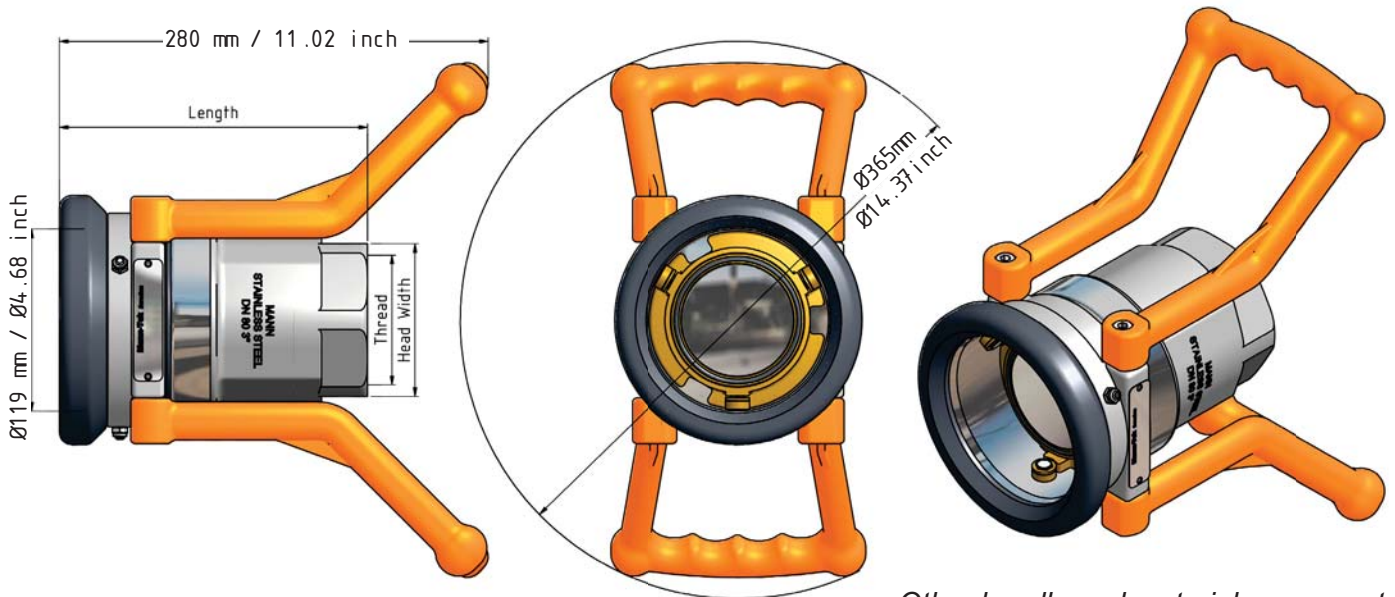


Other handle, flange and material on request

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN40 PN25/40	216 / 8.50	18 / 0.71	5,3 / 11.7	M228A4401
1 1/2" ANSI Cl. 300	218 / 8.58	21 / 0.83	5,7 / 12.6	M256A4401
DN50 PN25/40	218 / 8.58	20 / 0.79	6,0 / 13.2	M231A4401
2" ANSI Cl. 300	220 / 8.66	22 / 0.87	6,1 / 13.4	M258A4401

## 3" Hose unit / Coupler (socket Ø119 mm / Ø4.68 inch)

With female 2 1/2" and 3" inlet.



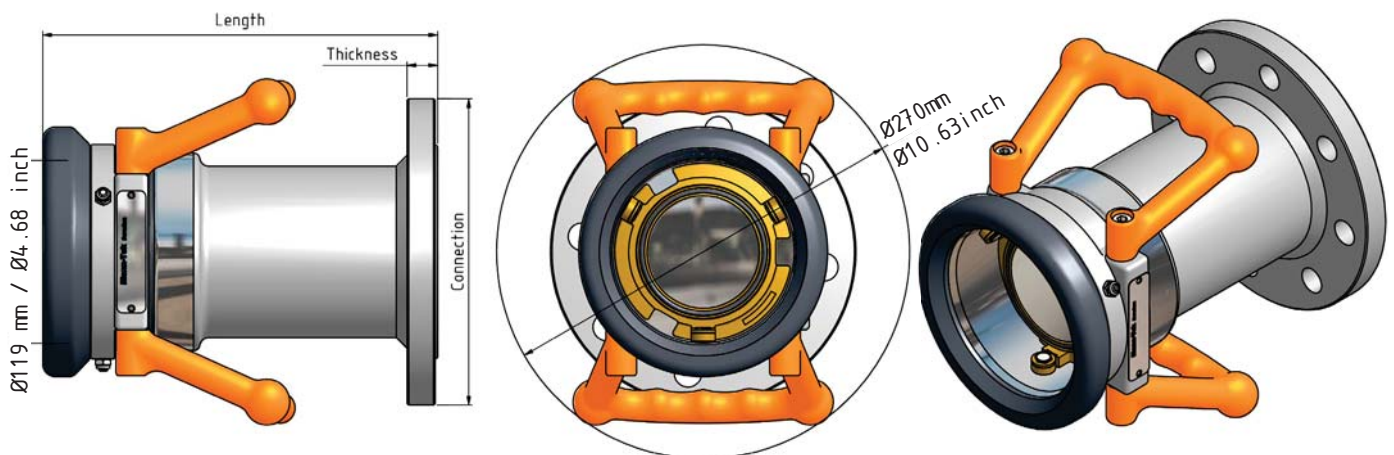
Other handle and material on request

Available with ACME and Witworth threads (ie. W90) for assembling direct on existing connections

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
2 1/2" BSP	192 / 7.56	100 / 3.94	8,8 / 19.4	M412B4401A
2 1/2" NPT	200 / 7.87	100 / 3.94	9,1 / 20.1	M413B4401
3" BSP	194 / 7.64	100 / 3.94	8,1 / 17.9	M414B4401A
3" NPT	202 / 7.95	100 / 3.94	8,4 / 18.5	M415B4401

## 3" Hose unit / Coupler with (socket Ø119 mm / Ø4.68 inch)

With flanged 2 1/2" and 3" inlet.



Other handle, flange and material on request

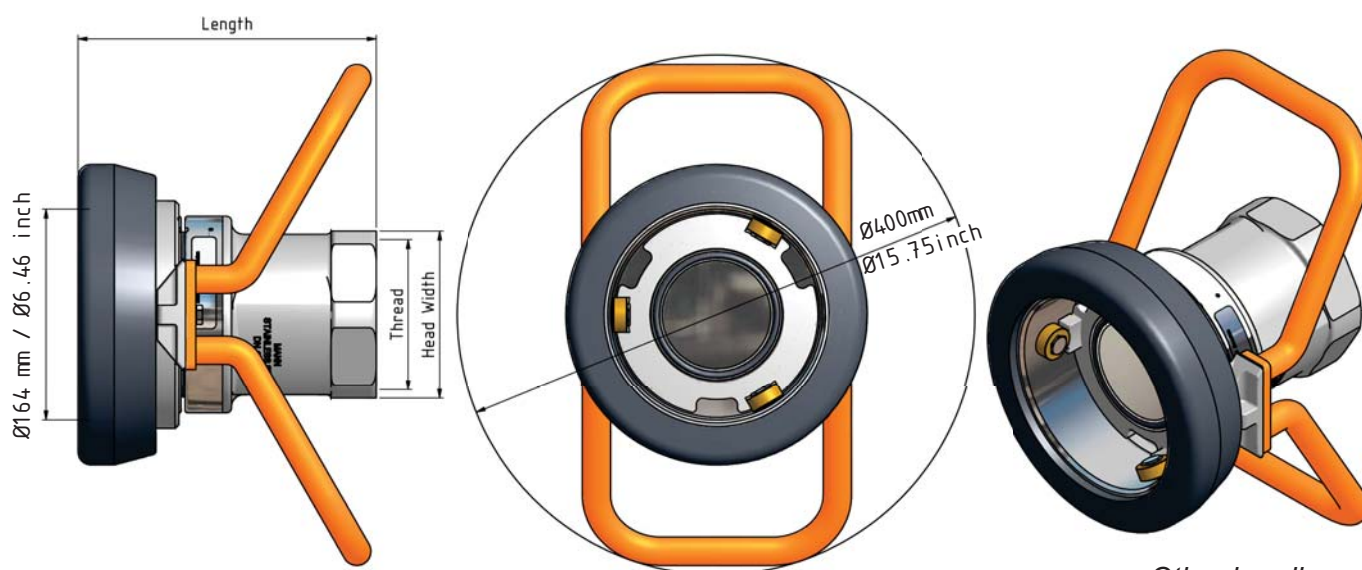
Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN65 PN25/40	260 / 10.24	22,0 / 0.87	12,6 / 27.8	M434B4401
2 1/2" ANSI Cl. 300	264 / 10.39	25,4 / 1.0	13,3 / 29.3	M460B4401
DN80 PN25/40	267 / 10.51	24,0 / 0.94	13,2 / 29.1	M437B4401
3" ANSI Cl. 300	263 / 10.35	28,6 / 1.13	15,1 / 33.3	M462B4401

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## 4" Hose unit / Coupler (socket Ø164 mm / Ø6.46 inch)

With female 4" inlet.

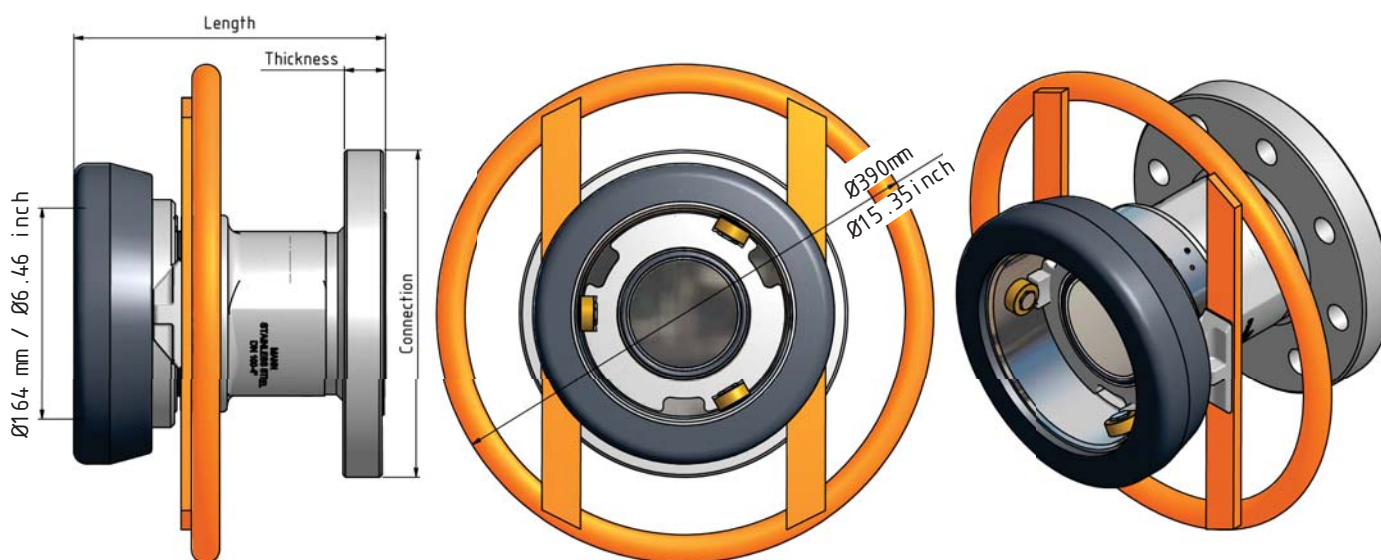


Other handle and material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
4" BSP	223 / 8.78	130 / 5.12	15,7 / 34.6	M516B4401A
4" NPT	232 / 9.13	130 / 5.12	16,0 / 35.3	M517B4401

## 4" Hose unit / Coupler (socket Ø164 mm / Ø6.46 inch)

With flanged 4" inlet.



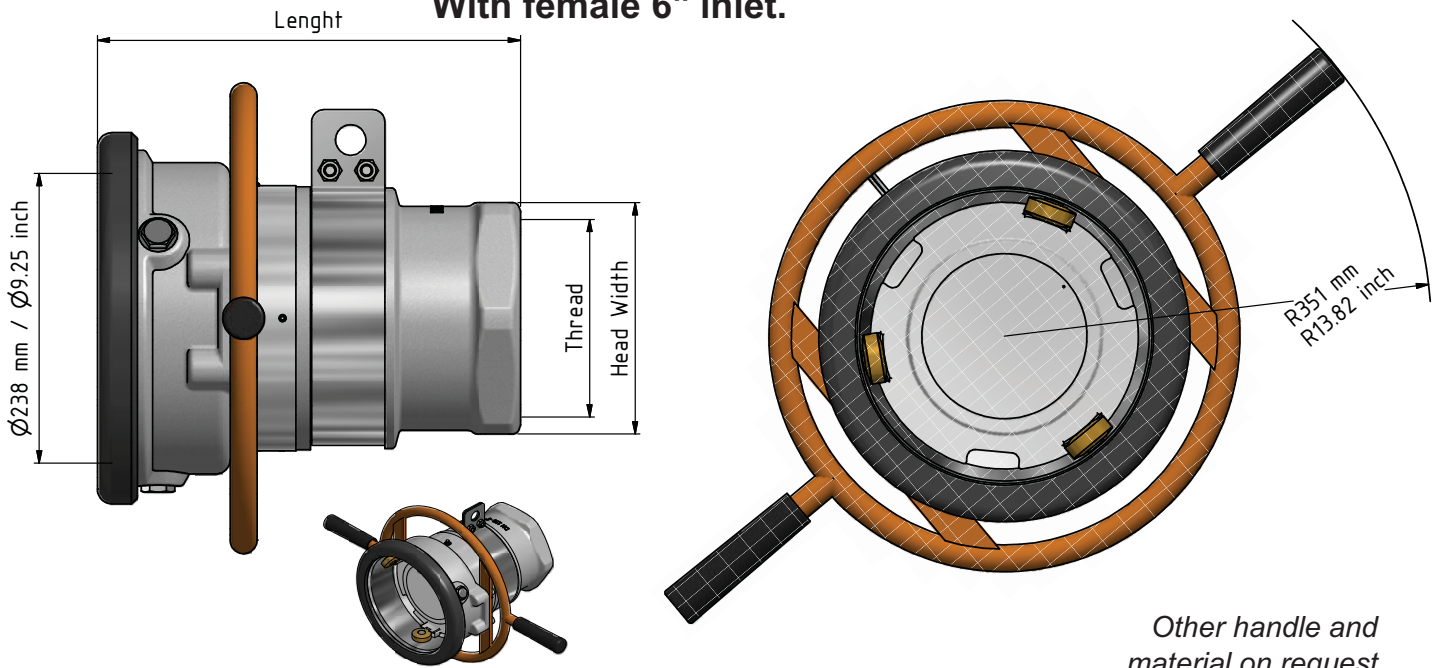
Other handle and material on request

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN100 PN25/40	233 / 9.17	24,0 / 0.94	20,8 / 45.9	M540B4401
4" ANSI Cl. 300	241 / 9.49	31,7 / 1.25	24,3 / 53.6	M564B4401



## 6" Hose unit / Coupler (socket Ø238mm / Ø9.25 inch)

With female 6" inlet.

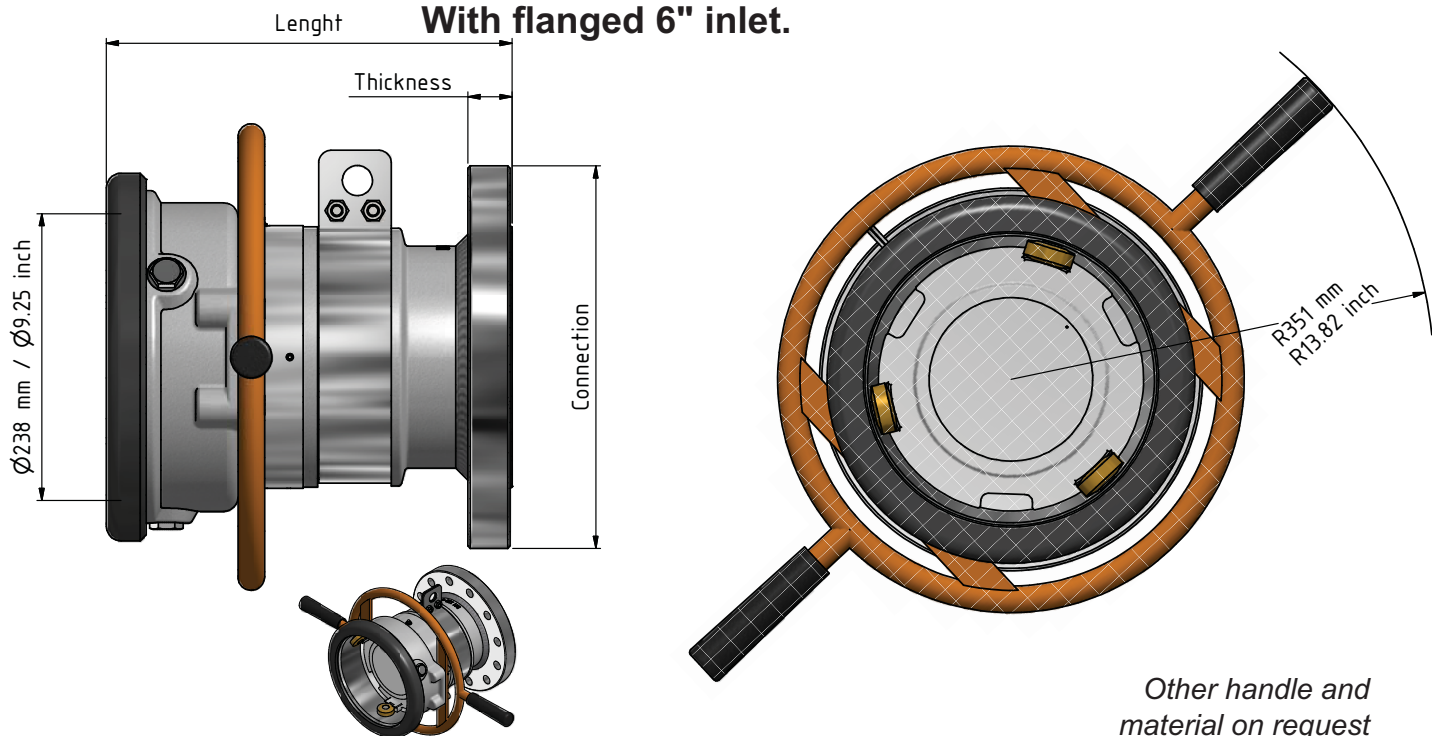


Other handle and material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
6" BSP	343 / 13.5	190 / 7.48	49 / 108	M6110B4401A
6" NPT	349 / 13.74	190 / 7.48	49,5 / 109.1	M6111B4401

## 6" Hose unit / Coupler (socket Ø238 mm / Ø9.25 inch)

With flanged 6" inlet.



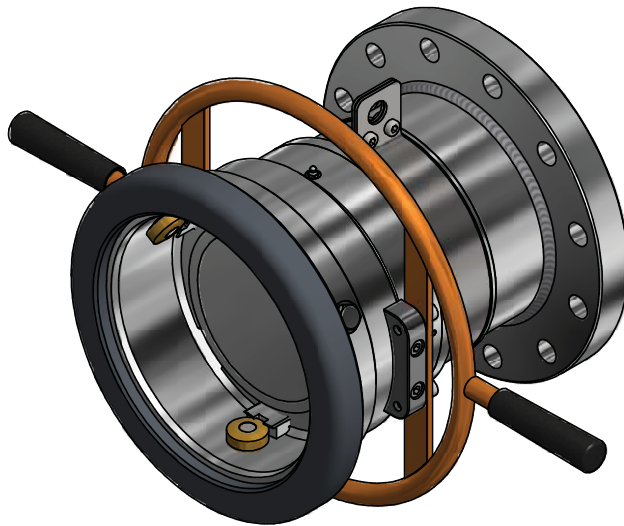
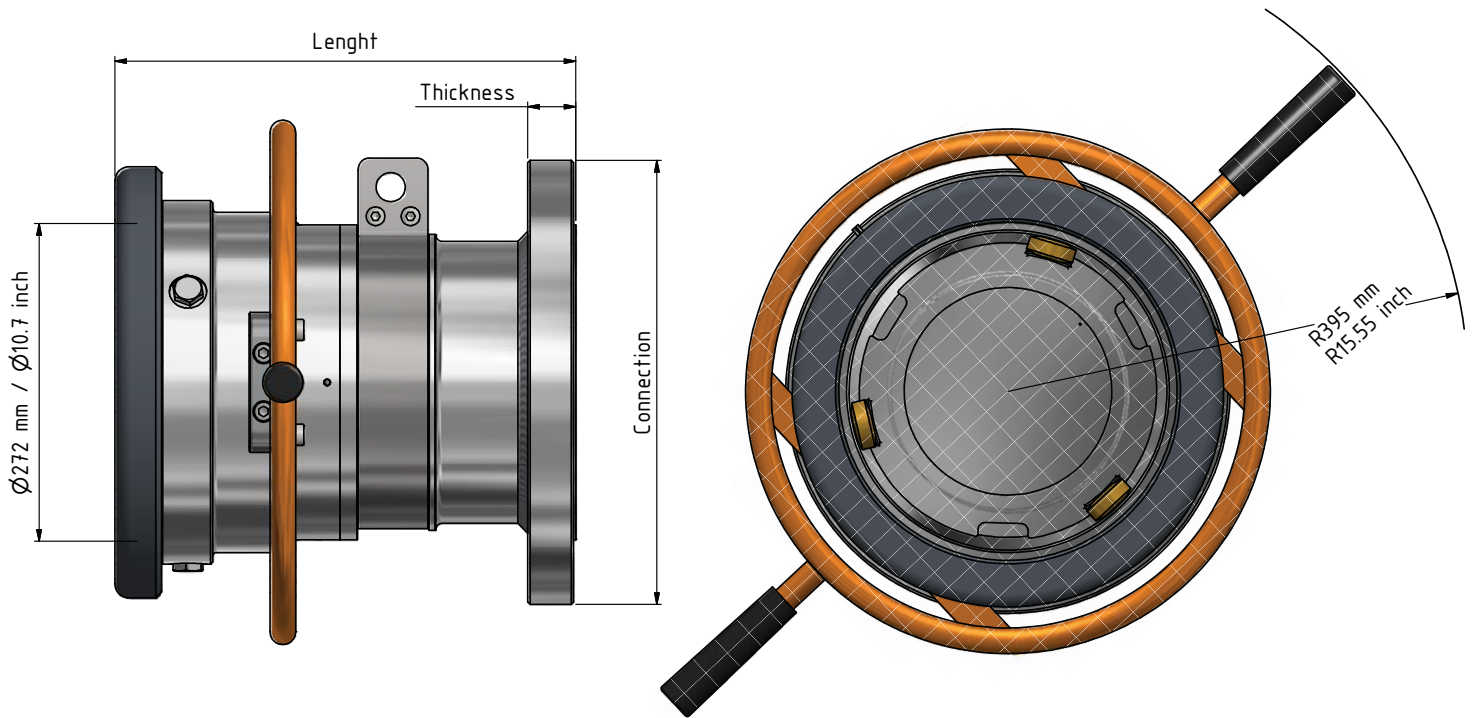
Other handle and material on request

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN150 PN25/40	327,5 / 12.89	28,0 / 1.1	56,5 / 124.6	M646B4401
6" ANSI Cl.300	336 / 13.23	36,5 / 1.44	63 / 138.9	M6101B4401

# Dry Gas Coupling - 8" Hose unit/coupler

8" Hose unit / Coupler (socket  $\text{\O}272$  mm /  $\text{\O}10.7$  inch)

With flanged 8" inlet.



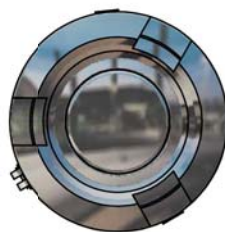
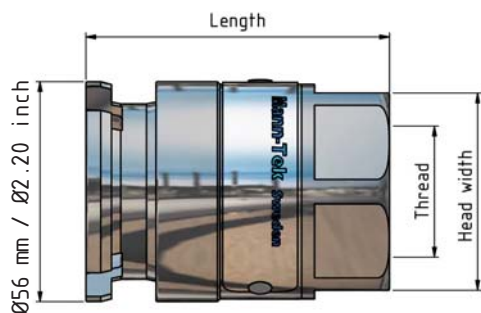
*Other handle and material on request*

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Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN200 PN25	384 / 15.12	30,0 / 1.18	101,5 / 223.8	M8104B4401
8" ANSI Cl.300	395 / 15.55	41,3 / 1.63	107,0 / 235.9	M8106B4401

## 1" Tank unit / Adapter (socket Ø56 mm / Ø2.20 inch)

With female 3/4" - 1" - 1 1/4" inlet.



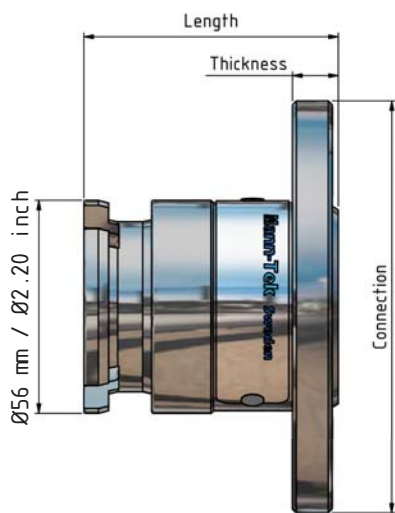
Available with ACME for assembling direct on existing connections

Other material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
3/4" BSP	69 / 2.72	50 / 1.97	0,7 / 1.5	L101A4401A
3/4" NPT	74 / 2.91	50 / 1.97	0,8 / 1.8	L102A4401
1" BSP	70 / 2.76	50 / 1.97	0,7 / 1.5	L103A4401A
1" NPT	77 / 3.03	50 / 1.97	0,8 / 1.8	L104A4401
1 1/4" BSP	70 / 2.76	50 / 1.97	0,7 / 1.5	L105A4401A
1 1/4" NPT	78 / 3.07	50 / 1.97	0,8 / 1.8	L106A4401

## 1" Tank unit / Adapter (socket Ø56 mm / Ø2.20 inch)

With flanged 3/4" - 1" - 1 1/4" inlet.



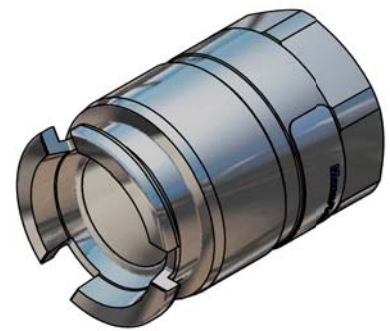
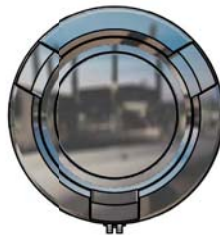
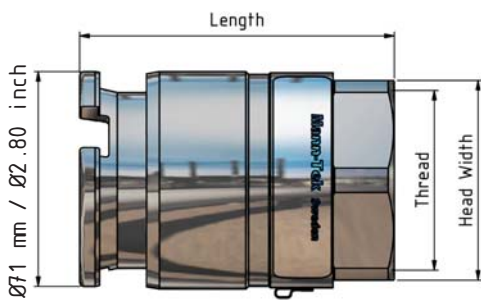
Other flange and material on request

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
3/4" ANSI Cl. 300	70 / 2.76	15,9 / 0.63	1,3 / 2.9	L150A4401
DN25 PN25/40	73 / 2.87	18,0 / 0.71	1,4 / 3.1	L124A4401
1" ANSI Cl. 300	72 / 2.83	17,5 / 0.69	1,5 / 3.3	L152A4401
DN32 PN25/40	73 / 2.87	18,0 / 0.71	1,5 / 3.3	L126A4401
1 1/4" ANSI Cl. 300	74 / 2.91	19,0 / 0.75	1,5 / 3.3	L154A4401

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## 2" Tank unit / Adapter (socket Ø71 mm / Ø 2.80 inch) With female 1 1/2" - 2" inlet

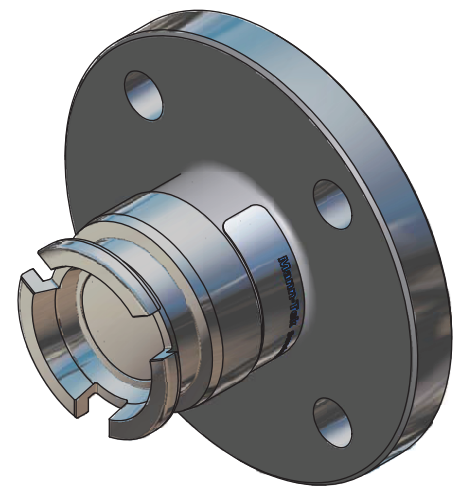
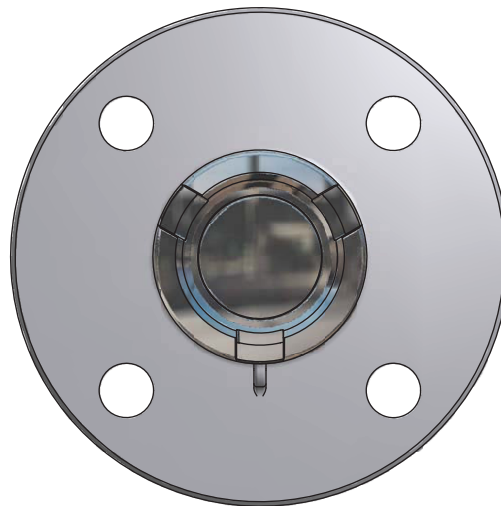
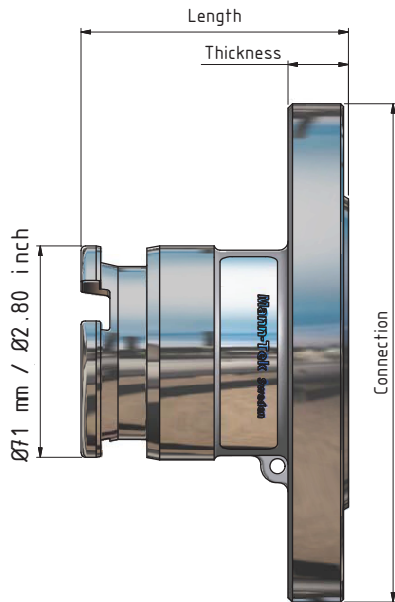


Available with ACME for assembling direct on existing connections

Other material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
1 1/2" BSP	99 / 3.90	65 / 2.56	1,5 / 3.3	L207A4401A
1 1/2" NPT	102 / 4.02	65 / 2.56	1,6 / 3.5	L208A4401
2" BSP	101 / 3.98	65 / 2.56	1,2 / 2.6	L210A4401A
2" NPT	102 / 4.02	65 / 2.56	1,3 / 2.9	L211A4401

## 2" Tank unit / Adapter (socket Ø71 mm / Ø 2.80 inch) With flanged 1 1/2" - 2" inlet.

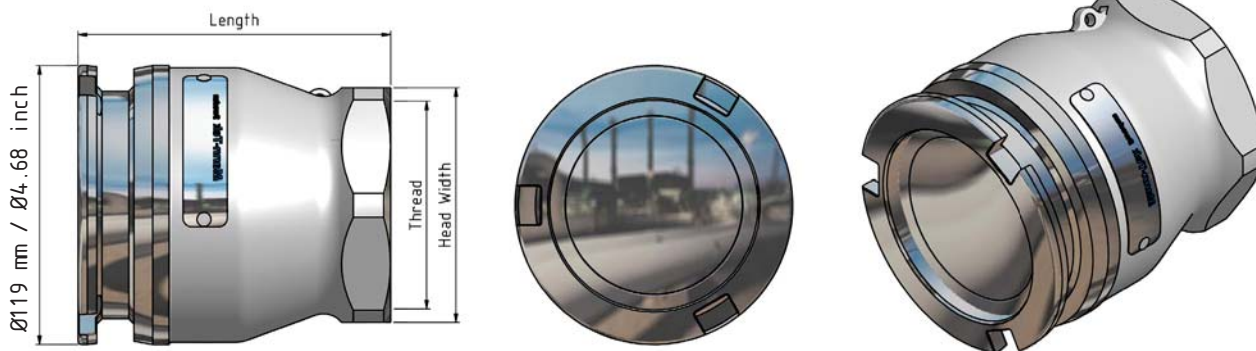


Other flange and material on request

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN40 PN25/40	86,5 / 3.41	18 / 0.71	2,8 / 6.2	L228A4401
1 1/2" ANSI Cl. 300	88,5 / 3.41	20 / 0.79	3,2 / 7.1	L256A4401
DN50 PN25/40	88,5 / 3.41	20 / 0.79	3,5 / 7.7	L231A4401
2" ANSI Cl. 300	88,5 / 3.41	20 / 0.79	3,5 / 7.7	L258A4401

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## 3" Tank unit / Adapter (socket Ø119 mm / Ø4.68 inch) With female 3" inlet.

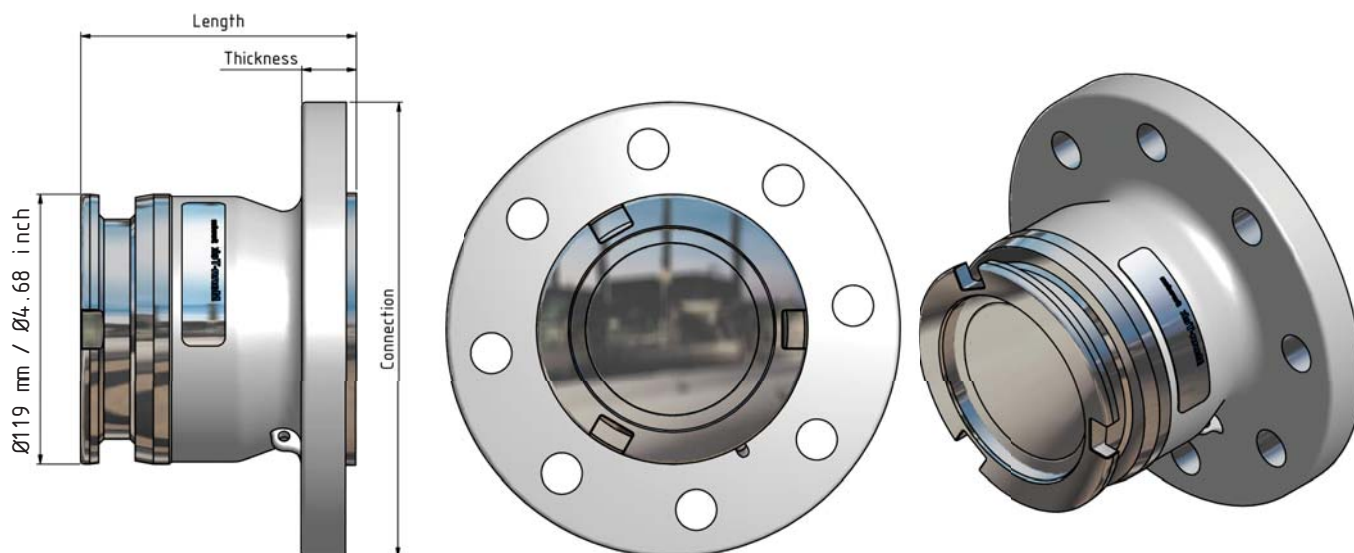


Available with ACME and Witworth threads (ie. W90)  
for assembling direct on existing connections

*Other material on request*

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
3" BSP	134 / 5.28	100 / 3.94	3,0 / 6.6	L414B4401A
3" NPT	144 / 5.67	100 / 3.94	3,0 / 6.6	L415B4401

## 3" Tank unit / Adapter (socket Ø119 mm / Ø4.68 inch) With flanged 2 1/2" or 3" inlet.



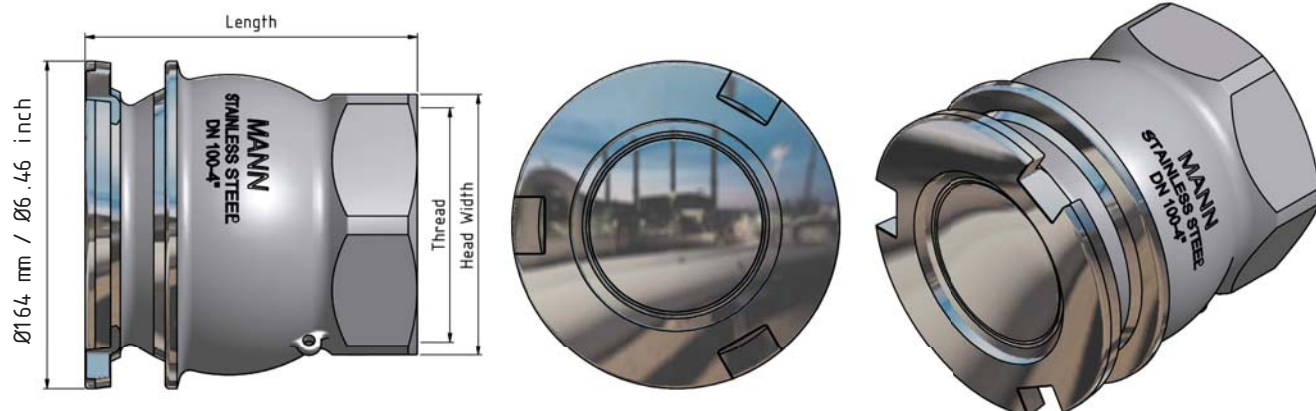
*Other flange and  
material on request*

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN65 PN25/40	112 / 4.41	15 (22)* / 0.59 (0.87)*	5,0 / 11.0	L434B4401
2 1/2" ANSI Cl. 300	112 / 4.41	15 (24)* / 0.59 (0.94)*	5,0 / 11.0	L460B4401
DN80 PN25/40	112 / 4.41	15 (24)* / 0.59 (0.94)*	5,5 / 12.1	L437B4401
3" ANSI Cl. 300	112 / 4.41	15 (24)* / 0.59 (0.94)*	5,5 / 12.1	L462B4401

\* values in brackets also available on special request

## 4" Tank unit / Adapter (socket Ø164 mm / Ø6.46 inch)

With female 4" inlet.

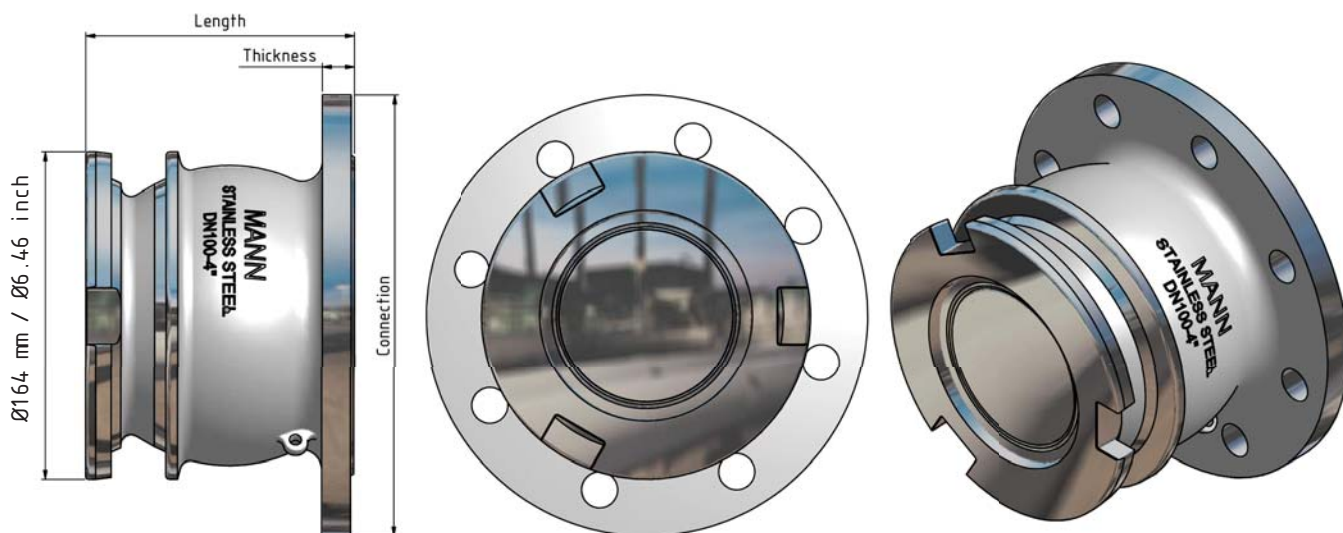


Other material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
4" BSP	156 / 6.14	125 / 4.92	6,1 / 13.4	L516B4401A
4" NPT	166 / 6.54	125 / 4.92	6,3 / 13.9	L517B4401

## 4" Tank unit / Adapter (socket Ø164 mm / Ø6.46 inch)

With flanged 4" inlet.



Other flange and material on request

Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN100 PN25/40	134 / 5.28	16 (24)* / 0.63 (0.94)*	9,3 / 20.5	L540B4401
4" ANSI Cl. 300	134 / 5.28	16 (24)* / 0.63 (0.94)*	9,3 / 20.5	L564B4401

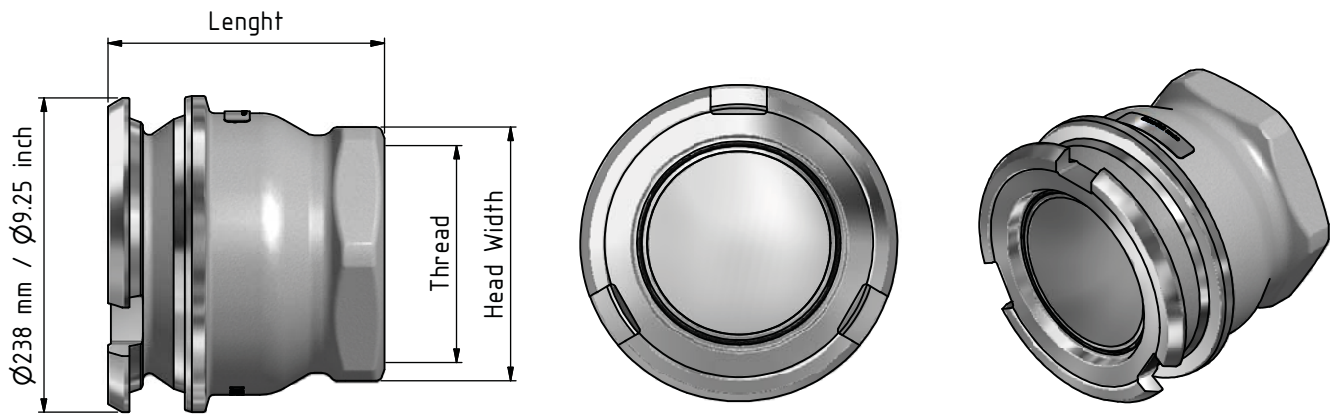
\* values in brackets also available on special request

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## 6" Tank unit / Adapter (socket Ø238mm / Ø9.25inch)

With female 6" inlet.

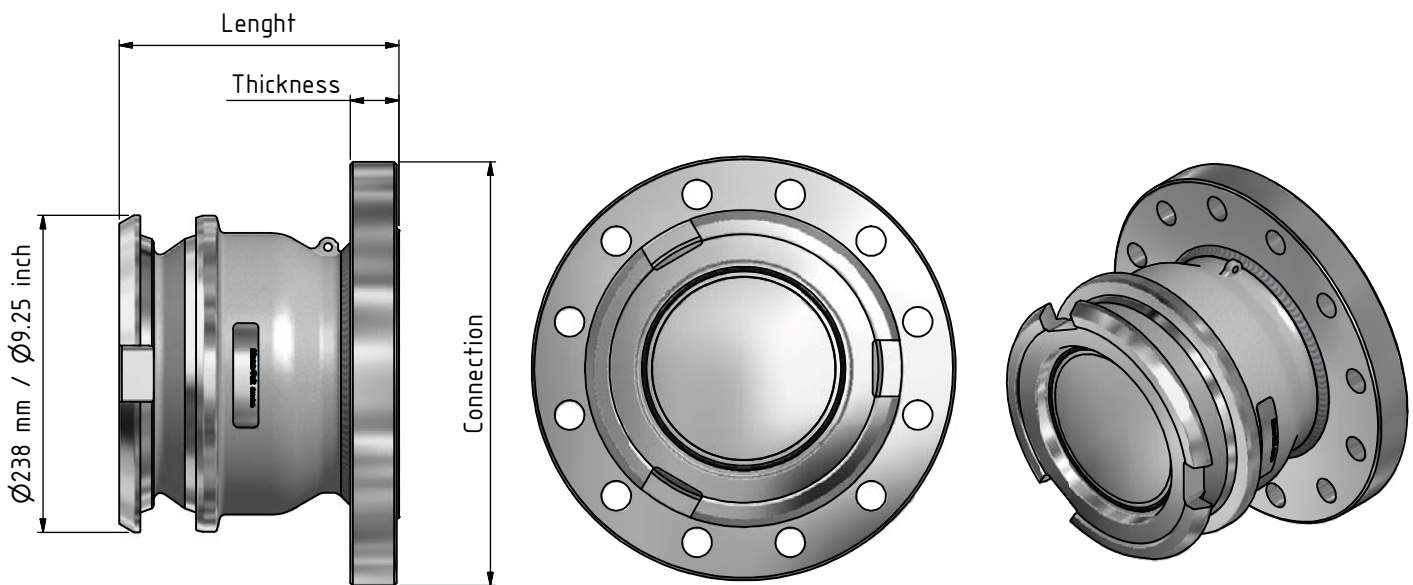


Other material on request

Thread	Length mm/inch	Head Width mm/inch	Weight kg/lbs	Code Nr.
6" BSP	201 / 7.91	190 / 7.48	17 / 37.5	L6110B4401A
6" NPT	207 / 8.15	190 / 7.48	17,3 / 38.1	L6111B4401

## 6" Tank unit / Adapter (socket Ø238 mm / Ø9.25 inch)

With flanged 6" inlet.



Other flange and material on request

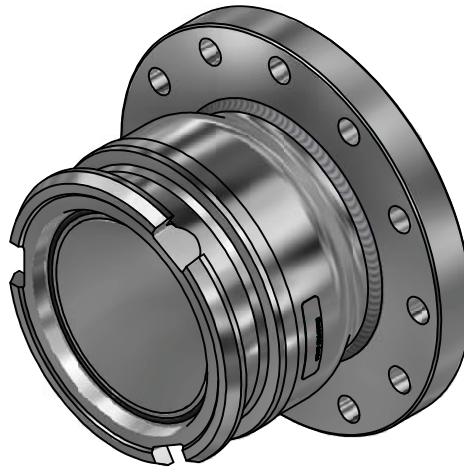
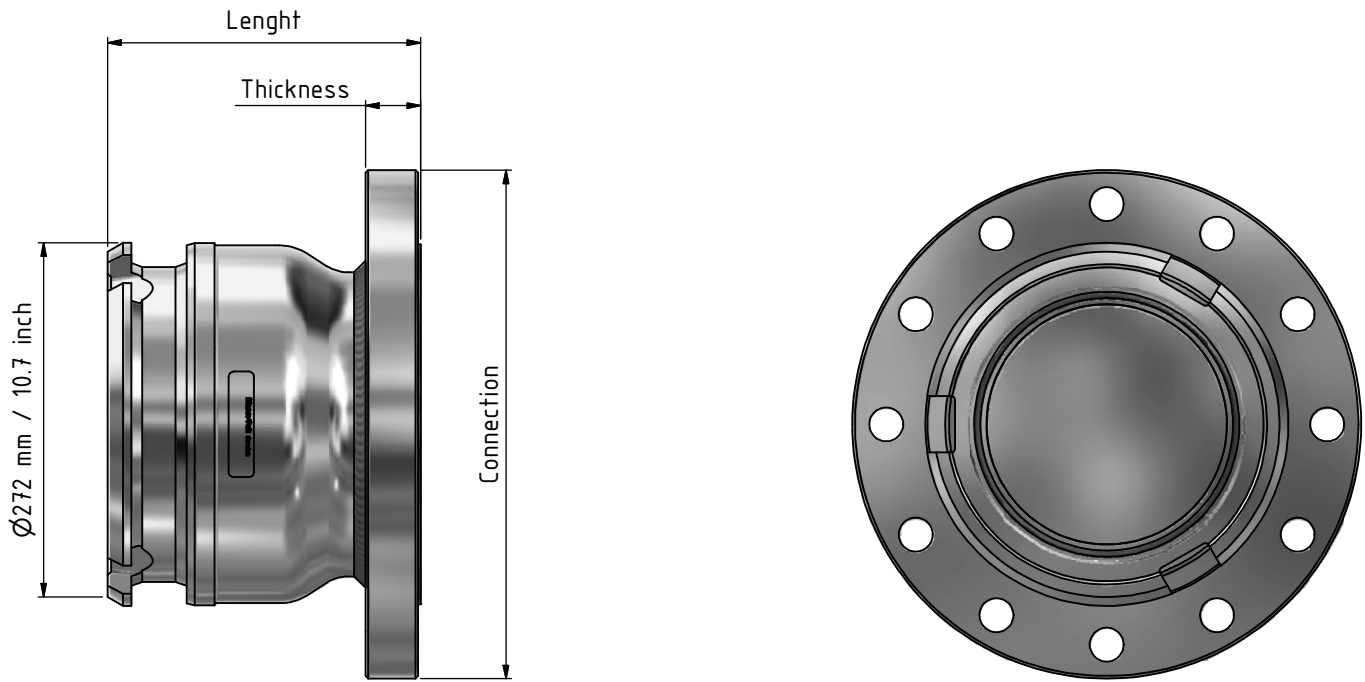
Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN150 PN25/40	205 / 8.07	28 / 1.1	24,5 / 54.0	L646B4401
6" ANSI Cl.300	213,5 / 8.41	36,5 / 1.44	31 / 68.3	L6101B4401

\* values in brackets also available on special request

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## 8" Tank unit / Adapter (socket Ø272 mm / Ø10.7 inch)

With flanged 8" inlet.



*Other flange and material on request*

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Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN200 PN25	223 / 8.78	30 / 1.18	47,5 / 104.7	L8104A4401
8" ANSI Cl. 300	234 / 9.21	41,3 / 1.63	53 / 116.8	L8106A4401

## Dust Cap for Tank unit / Adapter

### Dust protection in rubber

A Dust Cap gives very good protection against corrosion, and withstands both hot and cold environments.

### Dust Cap for increased safety

It's only possible to remove the cap from the Tank unit /Adapter after pulling the securing stiff and at the same time twisting the cap. The Dust Cap is manually lockable with padlock.



Standard Caps in Composite. It covers the widest range of chemical and petroleum products.

Size	Code Nr.	Material
1" (Ø56mm)	CG100D2201	Composite
2" (Ø71mm)	C200D1300	Rubber
3" (Ø119mm)	C400D1300	Rubber
3" (Ø119mm)	C400A1101	Aluminium
3" (Ø119mm)	C400E2202	Composite
3" (Ø119mm)	C400C4401	Stainless Steel
4" (Ø164mm)	C500B1101	Aluminium

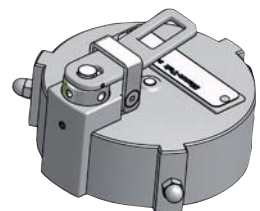
Size	Code Nr.	Material
4" (Ø164mm)	C500E2202	Composite
4" (Ø164mm)	C500C4401	Stainless Steel
6" (Ø238mm)	C600A1101	Aluminium
6" (Ø238mm)	C600A2202	Composite
6" (Ø238mm)	C600A4401	Stainless Steel
8" (Ø272mm)	C800B1101	Aluminium
8" (Ø272mm)	C800B4401	Stainless Steel

## Pressure Cap - Working Pressure PN 25 bar / 363 psi

### 3rd closure (valve) on Rail tankers, Containers and Tank trucks

The pressure caps are allowed by ADR/RID regulations as 3rd closure on Rail tankers, Containers and Tank trucks. Meaning that the Pressure Cap can be used instead of the traditional Ball Valves.

The Mann Tek Pressure Cap for Tank units / Adapters is designed to maximize operator safety and containment safety.



### Features

- Pressure indicator
- Depressurization
- Customs / tamper seal feature
- Automatic locking
- Manually lockable (with padlock)

Size	Code Nr.	Material
2" (Ø71mm)	RG200A4401	Stainless Steel
3" (Ø119mm)	RG400A4401	Stainless Steel

## Dust Plug for Hose unit / Coupler

Use the Mann Tek Dust Plug to prevent ingress of dirt and water in the couplings. The material in the Dust Plug is composite.

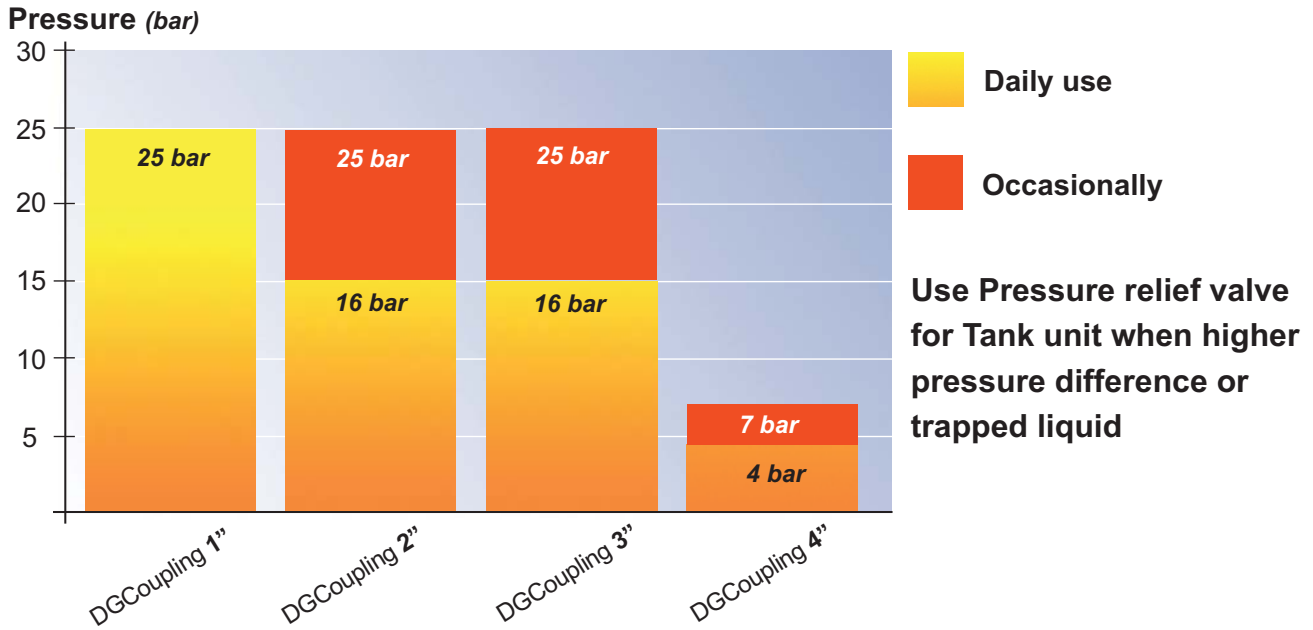
Other material on request



Size	Code Nr.	Material
1" (Ø56mm)	V100A2201	Composite
2" (Ø71mm)	V200A2201	Composite
3" (Ø119mm)	V400A2201	Composite
4" (Ø164mm)	V500A2201	Composite
6" (Ø238mm)	V600A2201	Composite
8" (Ø272mm)	V800A2201	Composite

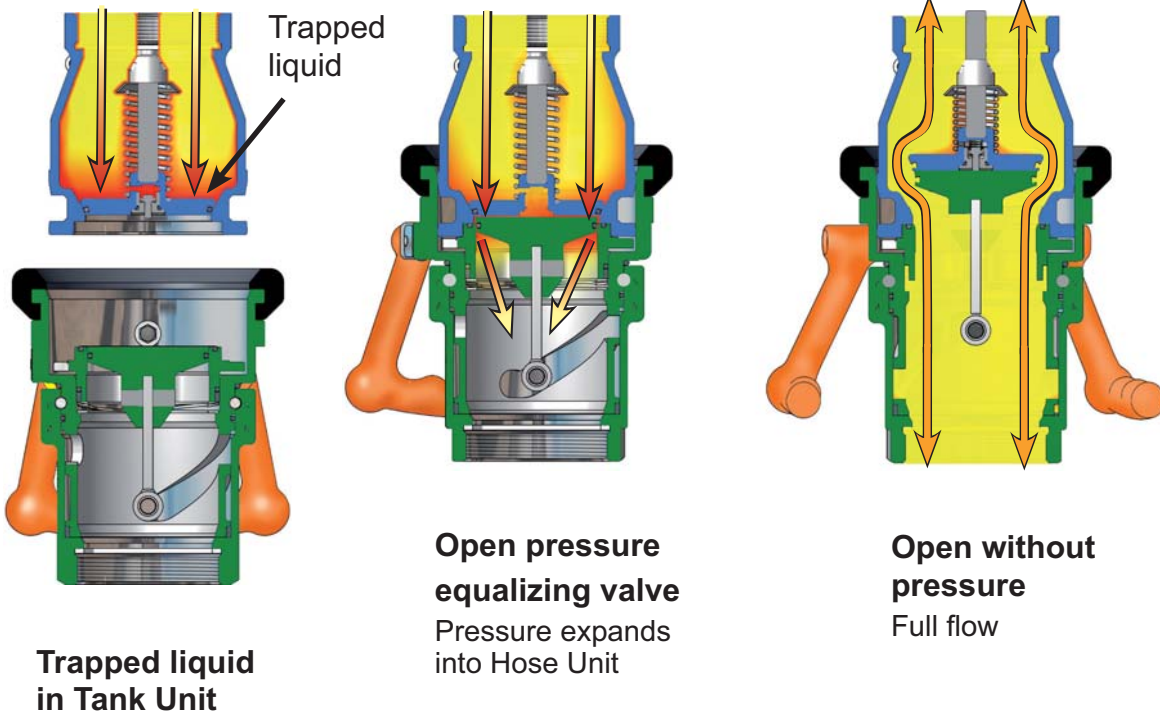


## Connection / disconnection under pressure - maximum pressure



## Pressure equalizing valve for Tank units

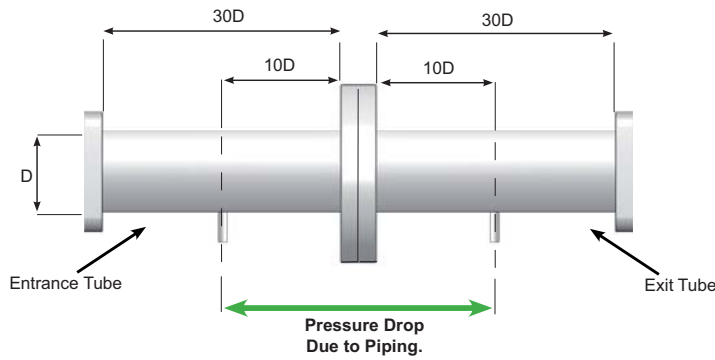
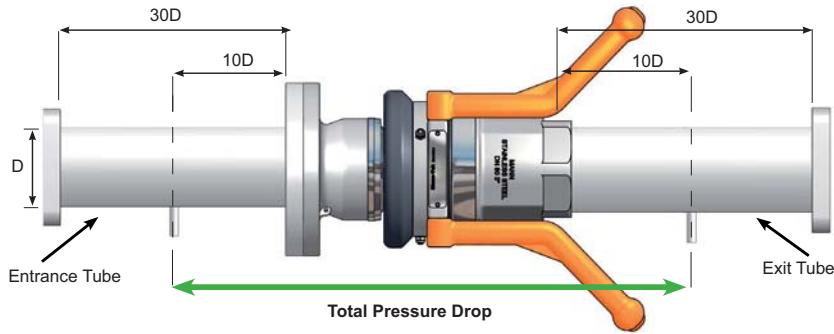
This system dissipates trapped fluid pressure into hose coupler without spillage, to allow easy connection.



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## Pressure Drop Measurement - Illustration

Illustration Pressure Drop Measurement  
According to NATO STANAG 3756, Annex E

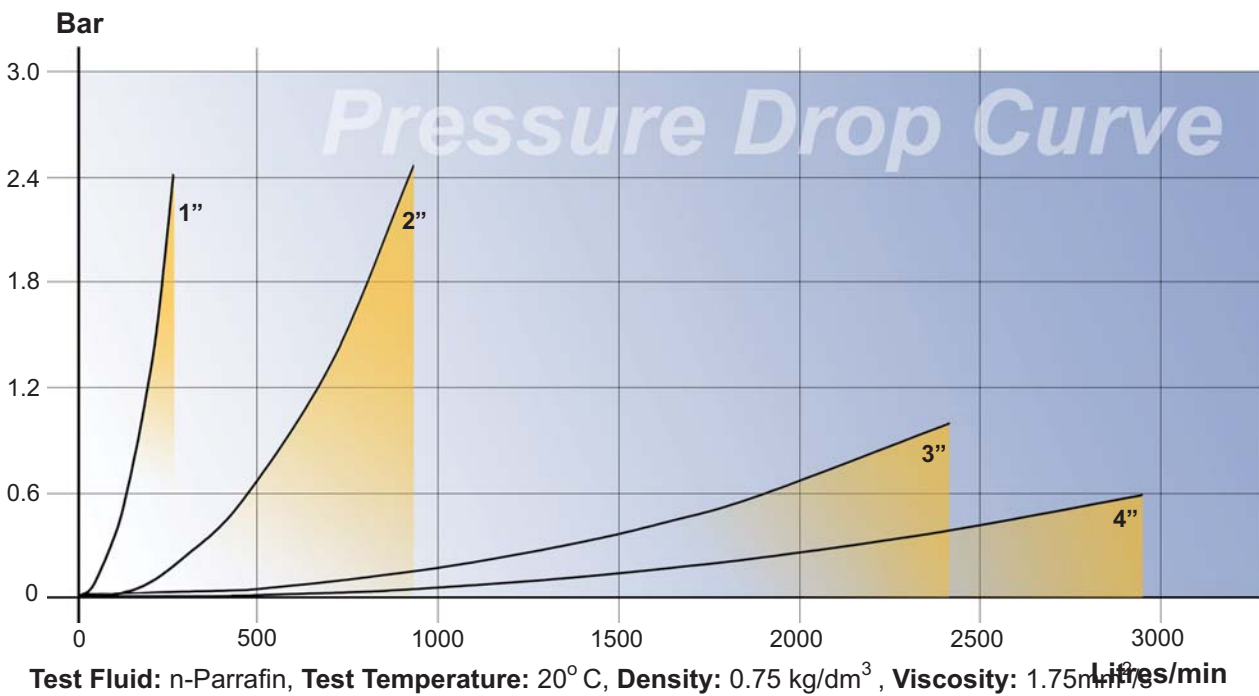


Pressure Drop Mann Tek DGCoupling = Total Pressure Drop - Pressure Drop Due to Piping

Pressure Drop DGCoupling =  $\Delta P$

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## Flow diagram Pressure Drop Curve:





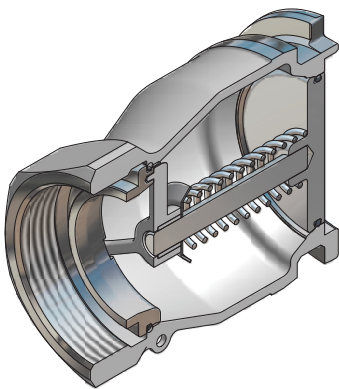
## DGCoupling Hose unit with "stop before disconnect"

The Hose unit with "stop before disconnect" is a feature for detecting leakage in the Tank unit.

After stop and control for leakage the user must manually unlock the hose coupling before disconnection.

---

## DGCouplings with ACME and Witworth threads



DGCouplings Tank units and Hose units are available with ACME and Witworth threads for assembling direct on existing connections.

Open threaded ACME couplings has been used for a long time on the rail tank resulting in high product losses, environmental effects and health risks.

---

## Non projecting piston spindle



Tank units with no parts protruding from the coupling in connected position.

For mounting directly on ball-valves, etc.

*On request!*

---

## Option - Hose unit with Break-away integrated



Where there is a risk of excessive force on the hose due to unexpected movement between the loading and unloading station, combining the Dry Gas Coupling with a Safety Break Away coupling.

*On request!*



## Technical Data

**Size:** 1" (Ø56 mm), 2" (Ø71 mm), 3" (Ø119 mm), 4" (Ø164 mm)  
6" (Ø238 mm) and 8" (Ø272 mm)

**Materials:** Gunmetal / Brass and Stainless Steel 316L  
SS-EN 10 272-1.4404+AT

**Seal:** **Standard material:** FPM (Viton) or NBR (Nitrile) according to EN549 B2/H3

**On request:** EPDM, Kalrez, NBR Low temp, Perfluorelastomer (FFPM), Fluorsilicone rubber (MFQ), Chemraz and Viton GF.

**Temperature range:** -20°C (-4°F) to 80°C (176°F) (larger temperature range from -50°C (-58°F) up to +200°C (392 °F) is possible, depending on Seal material)

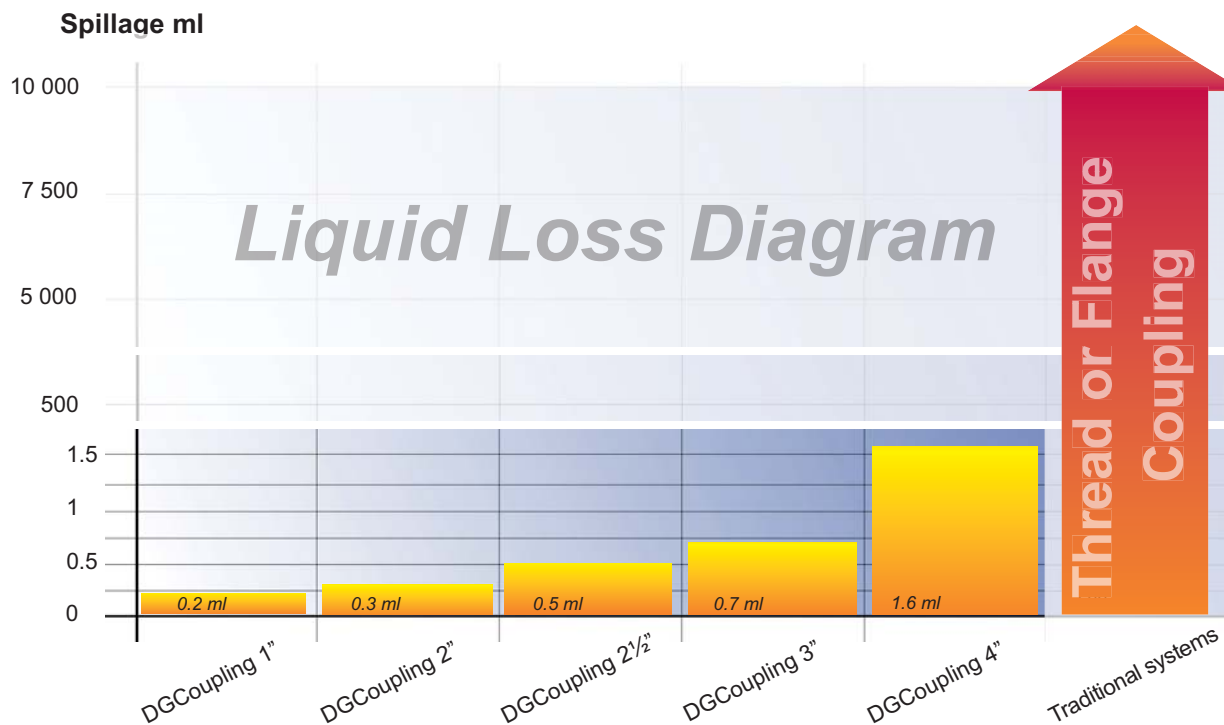
**Max Working Pressure:** MWP 25 bar / MAWP 300 psi

**Min. Burst Pressure:** 125 bar / 1813 psi

**Safety Factor:** 5:1

**End Connections:** BSP-, NPT-, ACME- and Witworth threads, DIN- and ASA-flanges. Other connections on request.

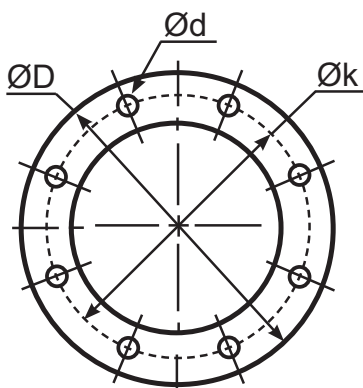
## Spillage diagram:



Comparasion of liquid loss during disconnection for Dry Gas Couplings and traditional systems using open threaded couplings, or flange to flange connections. The diagram shows that liquid loss for traditional systems may be as much as 10.000 times more than when using Dry Gas Couplings.

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## Flange Measurement - 1/2



- Ø D = Diameter
- Ø k = Centre diameter
- n = Numer of holes
- Ø d = Hole diameter

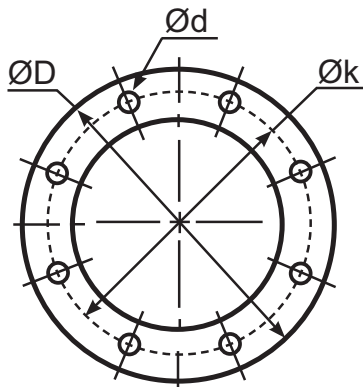
ANSI (ASA) B 16,5									
INCH		150 psi				300 psi			
		ØD	Øk	n	Ød	ØD	Øk	n	Ød
3/4"	mm	98,4	69,8	4	15,9	117,5	82,5	4	19
	inch	3 7/8	2 3/4		5/8	4 5/8	3 1/4		3/4
1"	mm	107,7	79,4	4	15,9	123,8	88,9	4	19
	inch	4 1/4	3 1/8		5/8	4 7/8	3 1/2		3/4
1 1/4"	mm	117,5	88,9	4	15,9	133,3	98,4	4	19
	inch	4 5/8	3 1/2		5/8	5 1/4	3 7/8		3/4
1 1/2"	mm	127	98,4	4	15,9	155,6	114,3	4	22,2
	inch	5	3 7/8		5/8	6 1/8	4 1/2		7/8
2"	mm	152,4	120,6	4	19	165,1	127	8	19
	inch	6	4 3/4		3/4	6 1/2	5		3/4
2 1/2"	mm	177,8	139,7	4	19	190,5	149,2	8	22,2
	inch	7	5 1/2		3/4	7 1/2	5 7/8		7/8
3"	mm	190,5	152,4	4	19	209,5	168,3	8	22,2
	inch	7 1/2	6		3/4	8 1/4	6 5/8		7/8
4"	mm	228,5	190,5	8	19	254	200	8	22,2
	inch	9	7 1/2		3/4	10	7 7/8		7/8
5"	mm	254	215,9	8	22,2	279,4	234,9	8	22,2
	inch	10	8 1/2		7/8	11	9 1/4		7/8
6"	mm	279,4	241,3	8	22,2	317,5	269,9	12	22,2
	inch	11	9 1/2		7/8	12 1/2	10 5/8		7/8
8"	mm	342,9	298,4	8	22,2	381	330,2	12	25,4
	inch	13 1/2	11 3/4		7/8	15	13		1
10"	mm	406,4	361,9	12	25,4	444,5	387,3	16	28,6
	inch	16	14 1/4		1	17 1/2	15 1/4		1 1/8
12"	mm	482,6	431,8	12	25,4	520,7	450,8	16	31,7
	inch	19	17		1	20 1/2	17 3/4		1 1/4

TW DIN 28459						
	DN	ØD	Øk	n	Ød	
TW1	50	mm	154	130	8	11
		inch	6.06	5.12		0.43
TW1	80	mm	154	130	8	11
		inch	6.06	5.12		0.43
TW3	100	mm	174	150	8	14
		inch	6.85	5.91		0.55
TW5	125	mm	204	176	8	14
		inch	8.03	6.93		0.55
TW7	150	mm	240	210	12	14
		inch	9.45	8.27		0.55

T.T.M.A					
INCH		ØD	Øk	n	Ød
2"	mm	114,3	95,3	6	11,1
	inch	4.50	3.75		0.44
3"	mm	142,9	123,8	8	11,1
	inch	5.63	4.87		0.44
4"	mm	168,3	149,2	8	11,1
	inch	6.63	5.87		0.44
5"	mm	196,9	177,8	12	11,1
	inch	7.75	7.00		0.44
6"	mm	228,6	206,4	12	11,1
	inch	9.00	8.13		0.44
8"	mm	276,2	257,2	16	11,1
	inch	10.87	10.13		0.44

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## Flange Measurement - 2/2



- Ø D = Diameter
- Ø k = Centre diameter
- n = Number of holes
- Ø d = Hole diameter

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INCH		ANSI (ASA) B 16,5							
		150 psi		300 psi					
		ØD	Øk	n	Ød	ØD	Øk	n	Ød
3/4"	mm	98,4	69,8	4	15,9	117,5	82,5	4	19
	inch	3 7/8	2 3/4		5/8	4 5/8	3 1/4		3/4
1"	mm	107,7	79,4	4	15,9	123,8	88,9	4	19
	inch	4 1/4	3 1/8		5/8	4 7/8	3 1/2		3/4
1 1/4"	mm	117,5	88,9	4	15,9	133,3	98,4	4	19
	inch	4 5/8	3 1/2		5/8	5 1/4	3 7/8		3/4
1 1/2"	mm	127	98,4	4	15,9	155,6	114,3	4	22,2
	inch	5	3 7/8		5/8	6 1/8	4 1/2		7/8
2"	mm	152,4	120,6	4	19	165,1	127	8	19
	inch	6	4 3/4		3/4	6 1/2	5		3/4
2 1/2"	mm	177,8	139,7	4	19	190,5	149,2	8	22,2
	inch	7	5 1/2		3/4	7 1/2	5 7/8		7/8
3"	mm	190,5	152,4	4	19	209,5	168,3	8	22,2
	inch	7 1/2	6		3/4	8 1/4	6 5/8		7/8
4"	mm	228,5	190,5	8	19	254	200	8	22,2
	inch	9	7 1/2		3/4	10	7 7/8		7/8
5"	mm	254	215,9	8	22,2	279,4	234,9	8	22,2
	inch	10	8 1/2		7/8	11	9 1/4		7/8
6"	mm	279,4	241,3	8	22,2	317,5	269,9	12	22,2
	inch	11	9 1/2		7/8	12 1/2	10 5/8		7/8
8"	mm	342,9	298,4	8	22,2	381	330,2	12	25,4
	inch	13 1/2	11 3/4		7/8	15	13		1
10"	mm	406,4	361,9	12	25,4	444,5	387,3	16	28,6
	inch	16	14 1/4		1	17 1/2	15 1/4		1 1/8
12"	mm	482,6	431,8	12	25,4	520,7	450,8	16	31,7
	inch	19	17		1	20 1/2	17 3/4		1 1/4

		TW DIN 28459				
		DN	ØD	Øk	n	Ød
TW1	50	mm	154	130	8	11
		inch	6.06	5.12		0.43
TW1	80	mm	154	130	8	11
		inch	6.06	5.12		0.43
TW3	100	mm	174	150	8	14
		inch	6.85	5.91		0.55
TW5	125	mm	204	176	8	14
		inch	8.03	6.93		0.55
TW7	150	mm	240	210	12	14
		inch	9.45	8.27		0.55

		T.T.M.A			
INCH		ØD	Øk	n	Ød
2"	mm	114,3	95,3	6	11,1
	inch	4.50	3.75		0.44
3"	mm	142,9	123,8	8	11,1
	inch	5.63	4.87		0.44
4"	mm	168,3	149,2	8	11,1
	inch	6.63	5.87		0.44
5"	mm	196,9	177,8	12	11,1
	inch	7.75	7.00		0.44
6"	mm	228,6	206,4	12	11,1
	inch	9.00	8.13		0.44
8"	mm	276,2	257,2	16	11,1
	inch	10.87	10.13		0.44



## Product Information



**DDCouplings®**  
Dry Disconnect Coupling.  
1" to 8", PN 16 - PN 25. Aluminium, Brass-Gunmetal, Stainless Steel and PEEK. Other materials on request. According to NATO standard STANAG 3756.



**DGCouplings®**  
Dry Gas Coupling.  
1" to 8", PN25. Stainless steel. Other materials on request.



**DACouplings,**  
Dry Aviation Coupling.  
2½", PN 10. Main body in Aluminium.  
**Standards:** ISO 45, MS 24484, NATO STANAG 3105, British Aerospace Spec. 2C14.



**Sampling, Vent or Drain unit**  
Stainless Steel SS-EN 10 088-1.4404+AT (AISI 316L). Ball Valve in 1.0619 and 1.4301



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



**Swivel joints**  
¾" to 10", PN 10 - PN 25.  
Aluminium, Brass-Gunmetal, Stainless Steel.  
Other materials on request.  
Connection: BSP, NPT, Flanged connection (DIN, ANSI/ASA e.t.c)



**SBCouplings, bolt series**  
**Industrial and Marine Safety Break-away, breaking bolts,**  
Aluminium, Brass, Stainless Steel, 1" to 12", female/male threads and with flanges, with breaking bolts.  
**Safety Break-away, cable release**  
Stainless Steel, PN10 / PN 25. 2" to 4", female threads. 6" to 12", flanged connection

## Business Segment Information



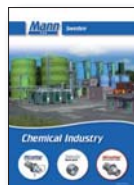
Offshore & Marine



Gas (LPG)



Rail tankers



Chemical industry



Tank trucks



Military



Container



Cryogenic Couplings

## Company Information



General Information about Mann Tek, products and Business Segments



Quality, Health, Safety and Environment Policy. Quality Approvals, Product Approvals and Declaration of Conformity

## Service



Service instructions and operation manuals

## Your distributor

Your distributor:

### Contact Mann Tek for your local distributor

**Phone:** +46 501 39 32 00  
**Fax:** +46 501 39 32 09  
**Email:** sales@mann-tek.com  
**Web site:** www.mann-tek.com

**Address:** Mann Teknik AB  
Strandvägen 16  
SE-542 31 Mariestad  
Sweden

