

DGCouplings® ***Dry Gas Couplings***



Product Information

Table of Content

Approvals	24
Dust Cap for Tank unit / Adapter	17
Dust Plug for Hose unit /Adapter	17
Flange Measurement	20-21
Flow diagram Pressure Drop Curve	22
General info Dry Gas Couplings	3
How does it works	4
Maxiumum Pressure Diagram	23
Options	17-19
Pressure Cap for Tank unit / Adapter	17
Pressure Equalizing valve for Tank units	19
Pressure Drop Measurement - Illustration	22
Spillage diagram	23
Technical Data	22-23
Why use the Mann Tek DGCoupling	3
Your distributor	24

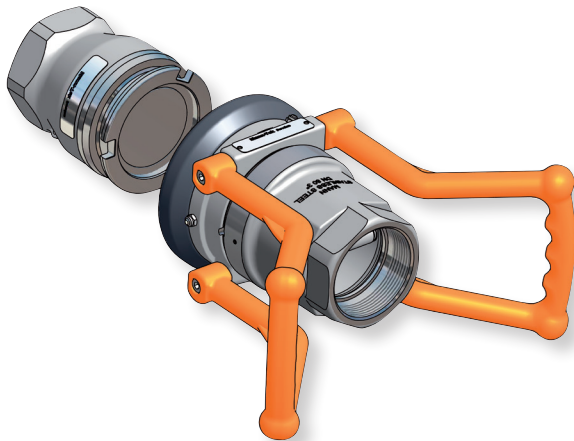
Hose units / Couplers 5-10

1" Hose unit / Coupler (socket Ø56 mm / Ø2.20 inch)	5
2" Hose unit / Coupler (socket Ø71 mm / Ø2.80 inch)	6
3" Hose unit / Coupler (socket Ø119 mm / Ø4.68 inch)	7
4" Hose unit / Coupler (socket Ø164 mm / Ø6.46 inch)	8
6" Hose unit / Coupler (socket Ø238 mm / Ø9.25 inch)	9
8" Hose unit / Coupler (socket Ø272 mm / Ø10.7inch)	10

Tank units / Adapters 11-16

1" Tank unit / Adapter (socket Ø56 mm / Ø2.20 inch)	11
2" Tank unit / Adapter (socket Ø71 mm / Ø2.80 inch)	12
3" Tank unit / Adapter (socket Ø119 mm / Ø4.68 inch)	13
4" Tank unit / Adapter (socket Ø164 mm / Ø6.46 inch)	14
6" Tank unit / Adapter (socket Ø238 mm / Ø9.25inch)	15
8" Tank unit / Adapter (socket Ø238 mm / Ø10.7inch)	16

Why use the Mann Tek Dry Gas Coupling?

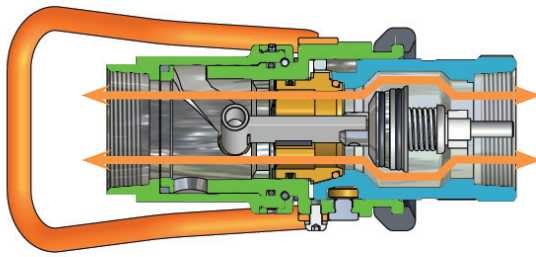


- Spillfree handling for loading and unloading tank trucks, rail tankers and tank containers.
- Minimization spillage and product loss keeps the environment free from Hazardous Vapors and Liquids.
- “Easy to Use” – design saves time and minimises health risks.
- Reliability and easy servicing saves your 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.

Applications

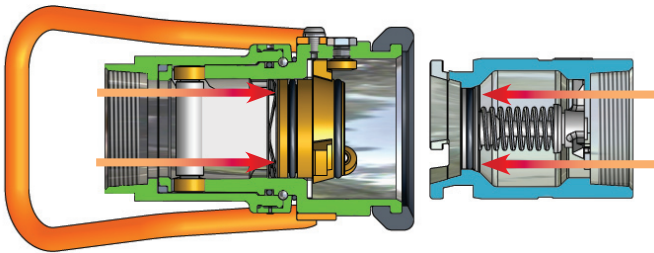
Heavy vehicle filling	• 1"	Dry Gas Couplings
Loading/unloading of bobtails	• 2"	Dry Gas Couplings
Loading/unloading of tank trucks	• 2"- 3"	Dry Gas Couplings
Loading/unloading of rail cars	• 3"	Dry Gas Couplings
Loading/unloading ship to shore	• 3"- 8"	Dry Gas Couplings

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

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

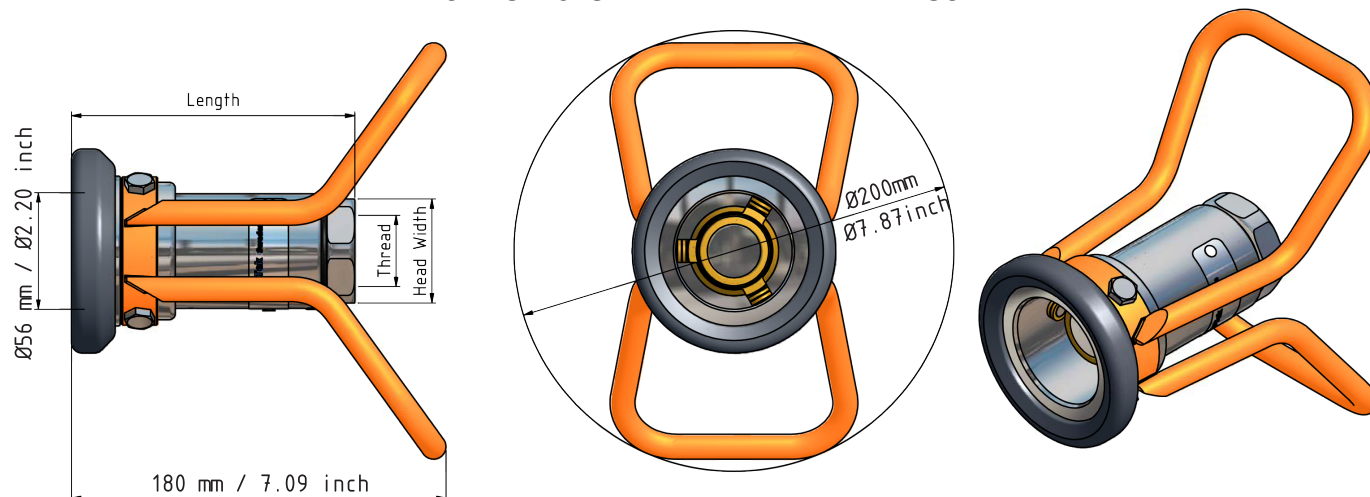
Min. Burst Pressure: 125 bar / 1813 psi

Safety Factor: 5:1

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

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

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



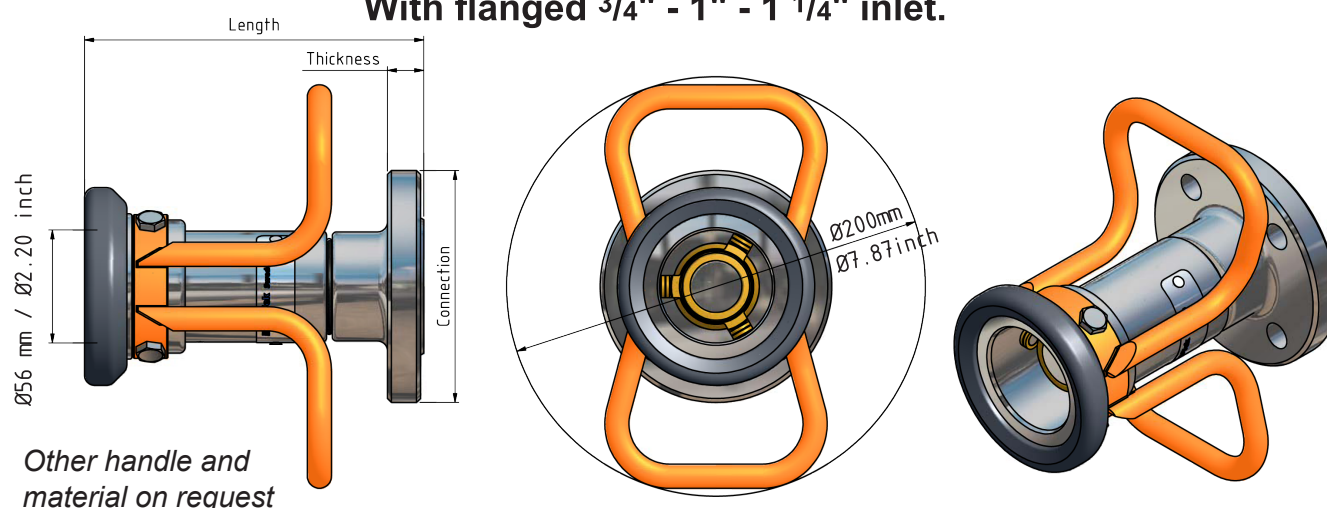
Available with ACME threads for assembling direct on existing connections

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.

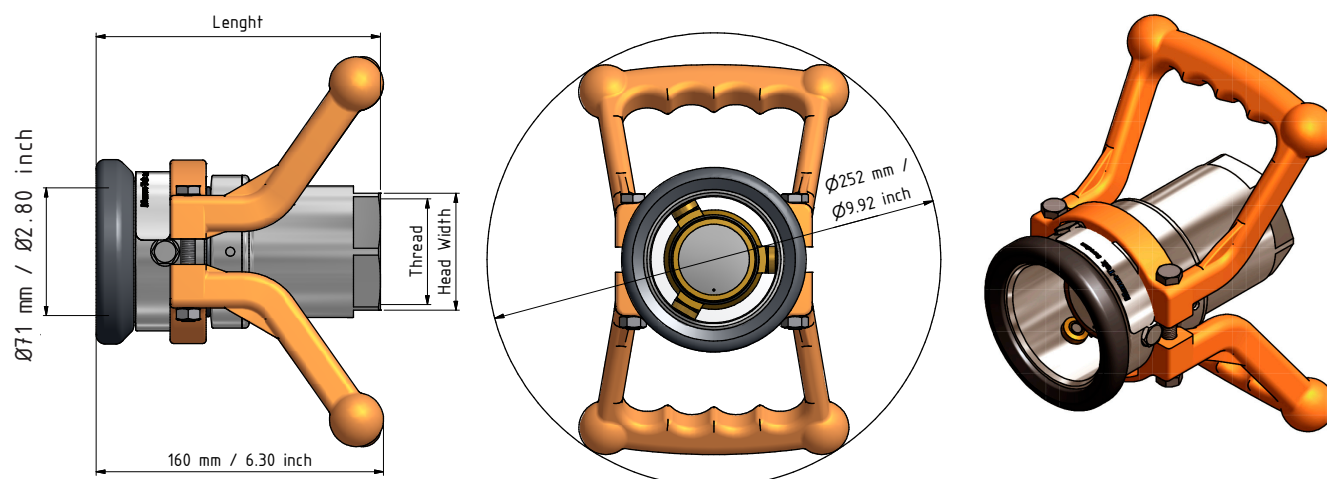


Other handle and material on request

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



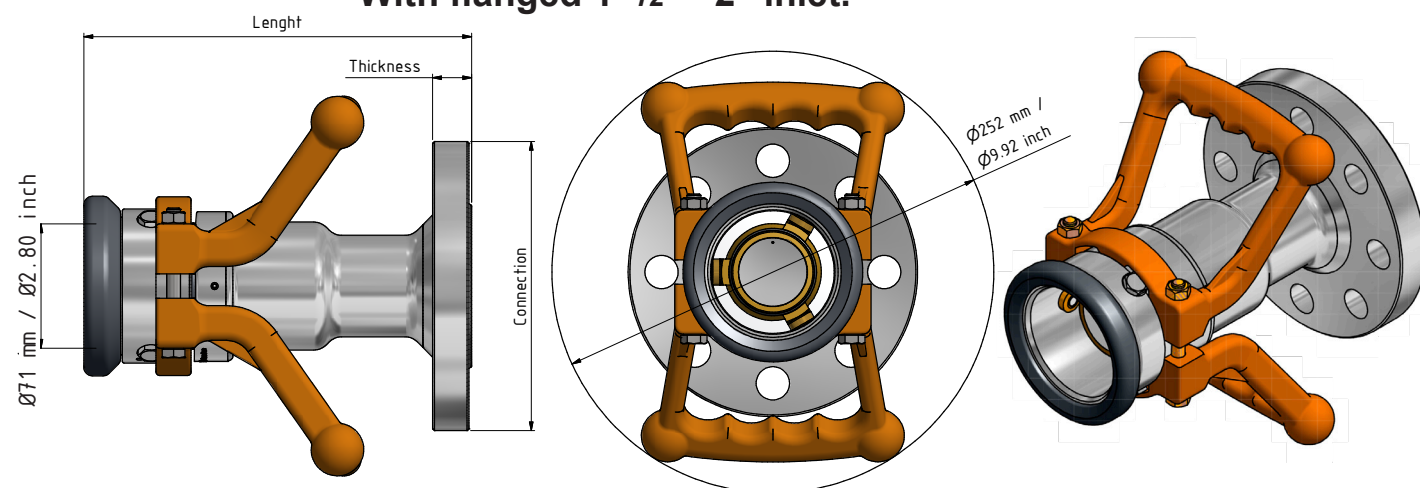
Available with ACME threads for assembling direct on existing connections

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.

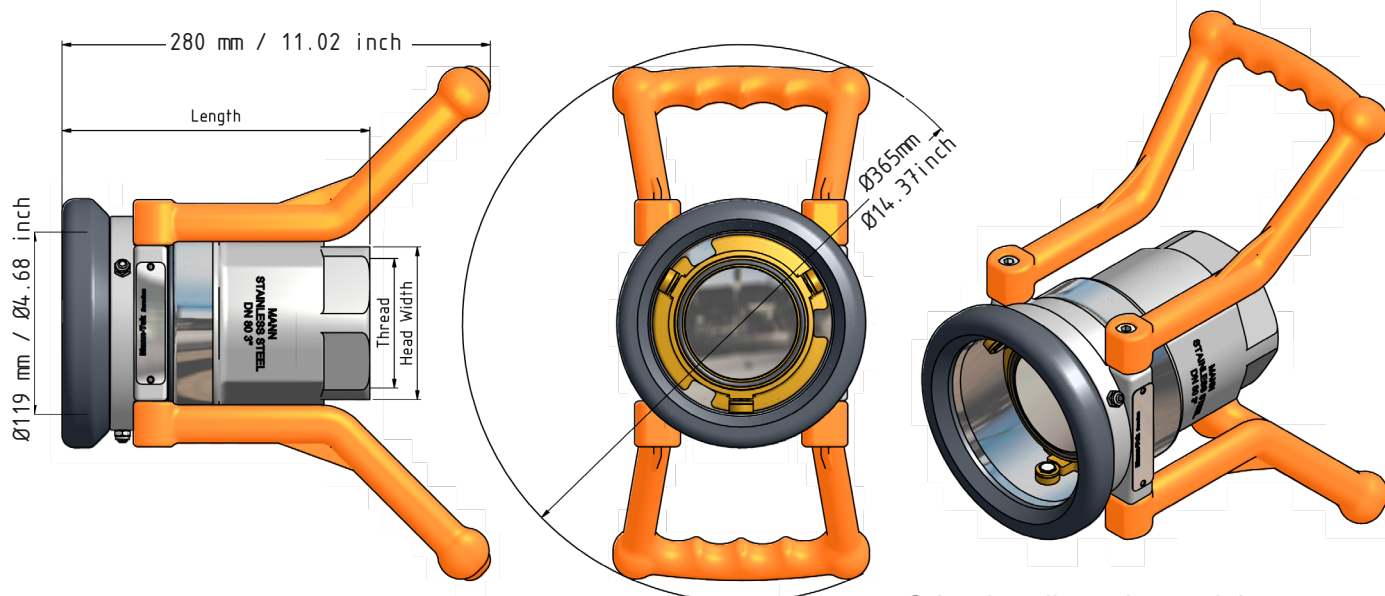


Other handle, flange and material on request

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.



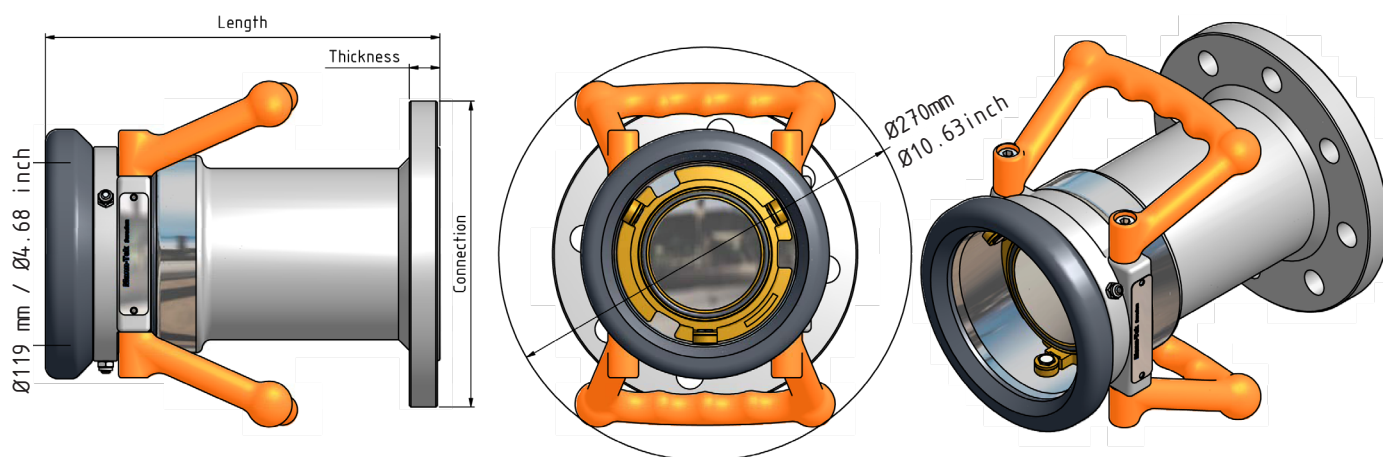
Other handle and material on request

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.



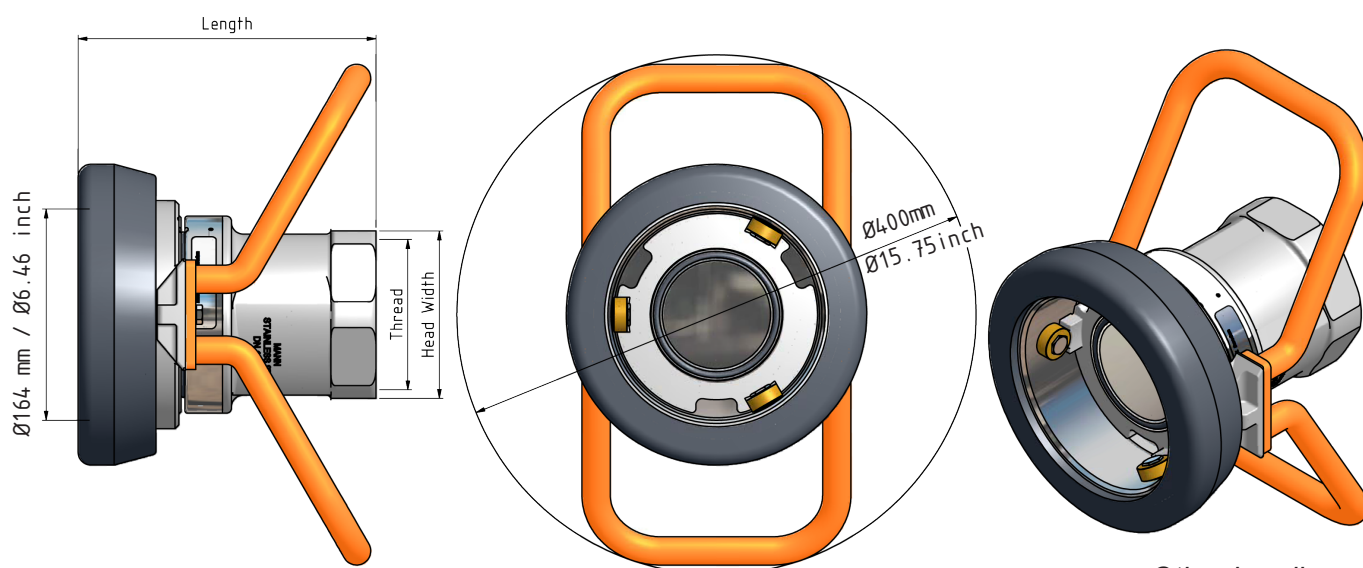
Other handle, flange and material on request

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.

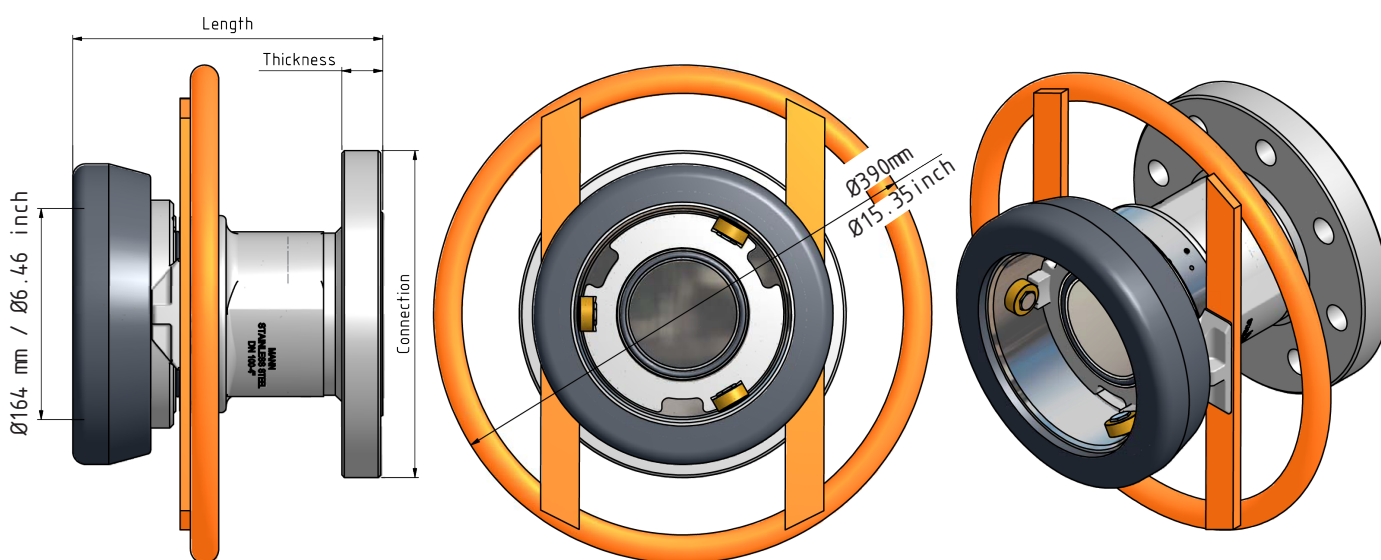


Other handle and material on request

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.

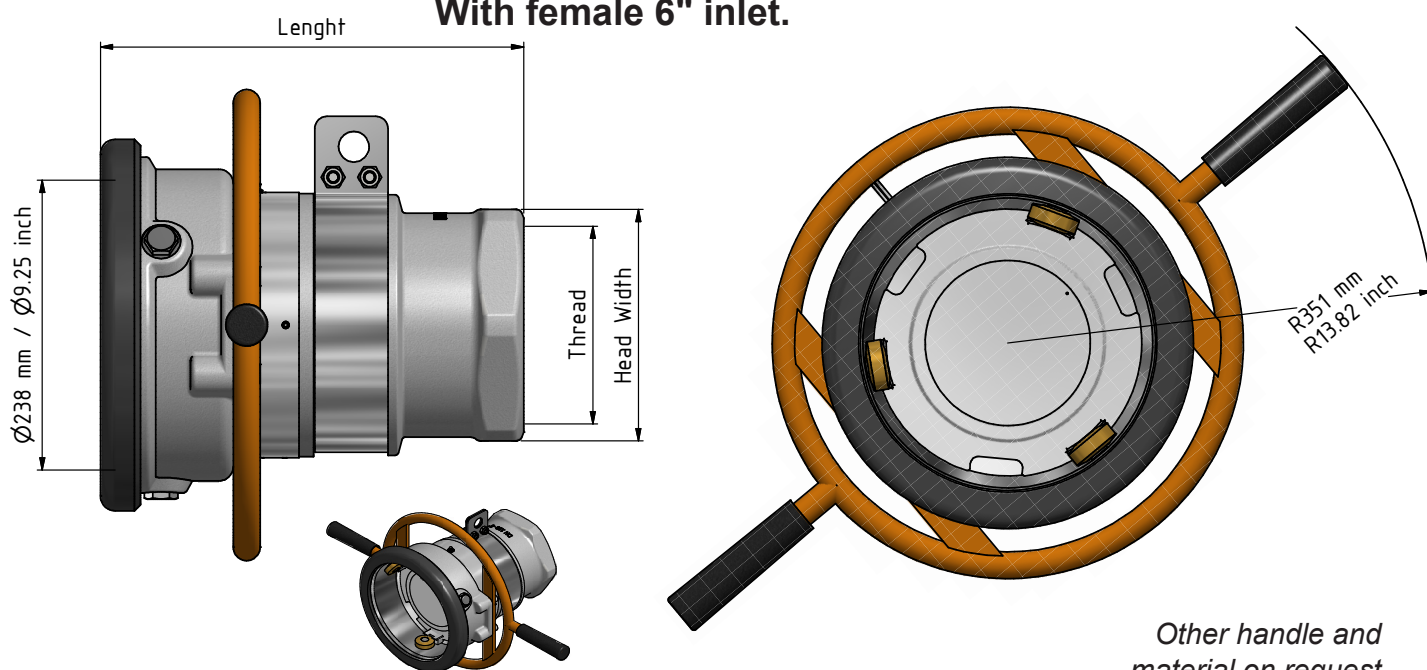


Other handle and material on request

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.

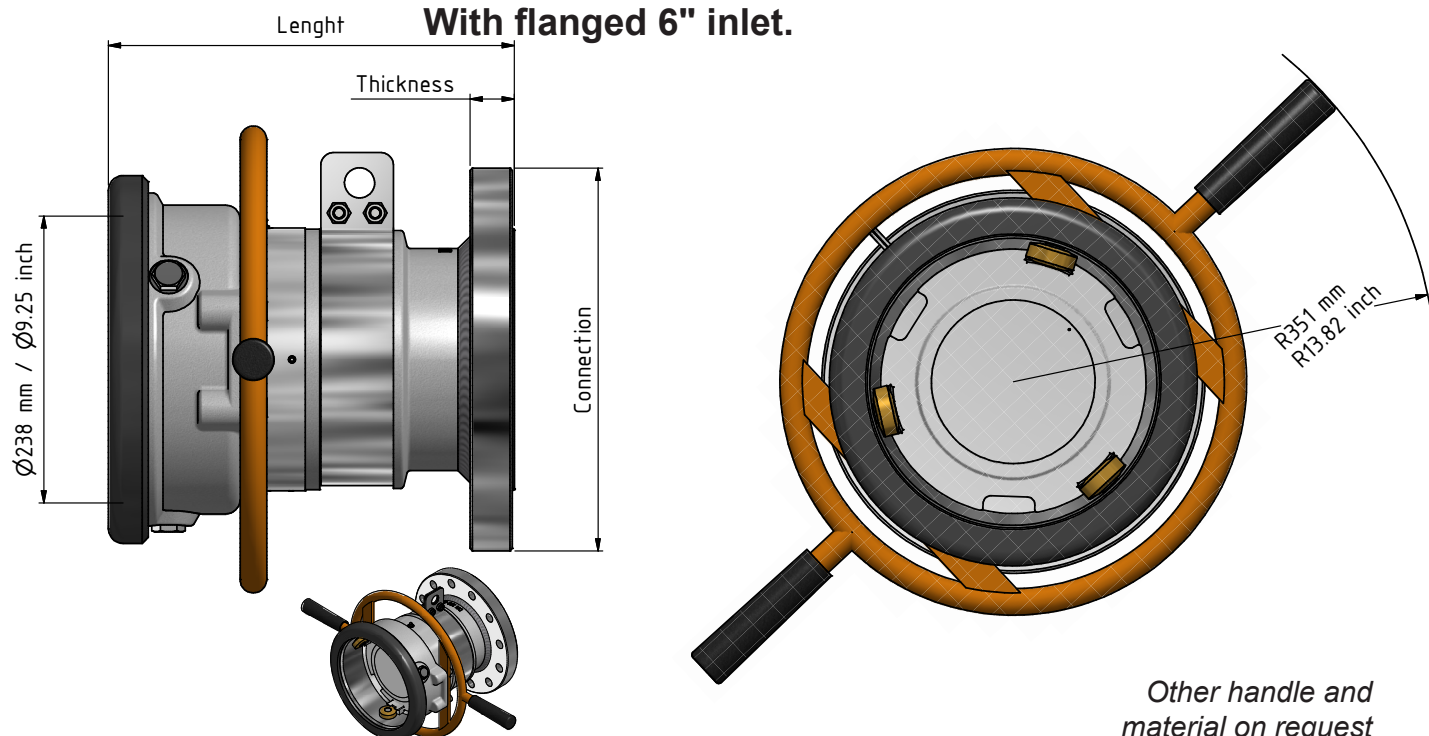


Other handle and material on request

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.

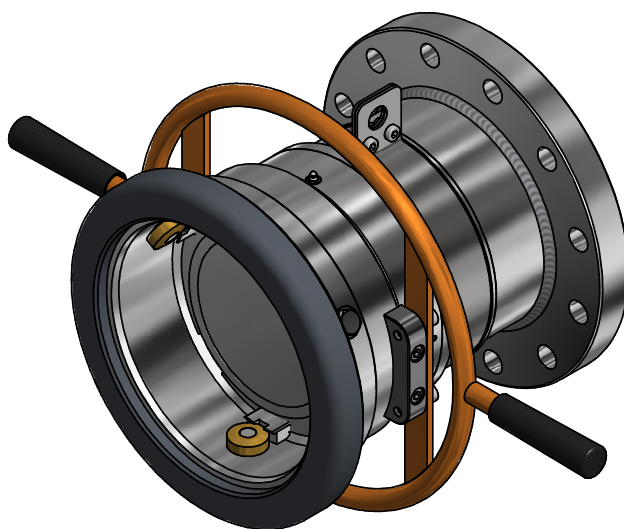
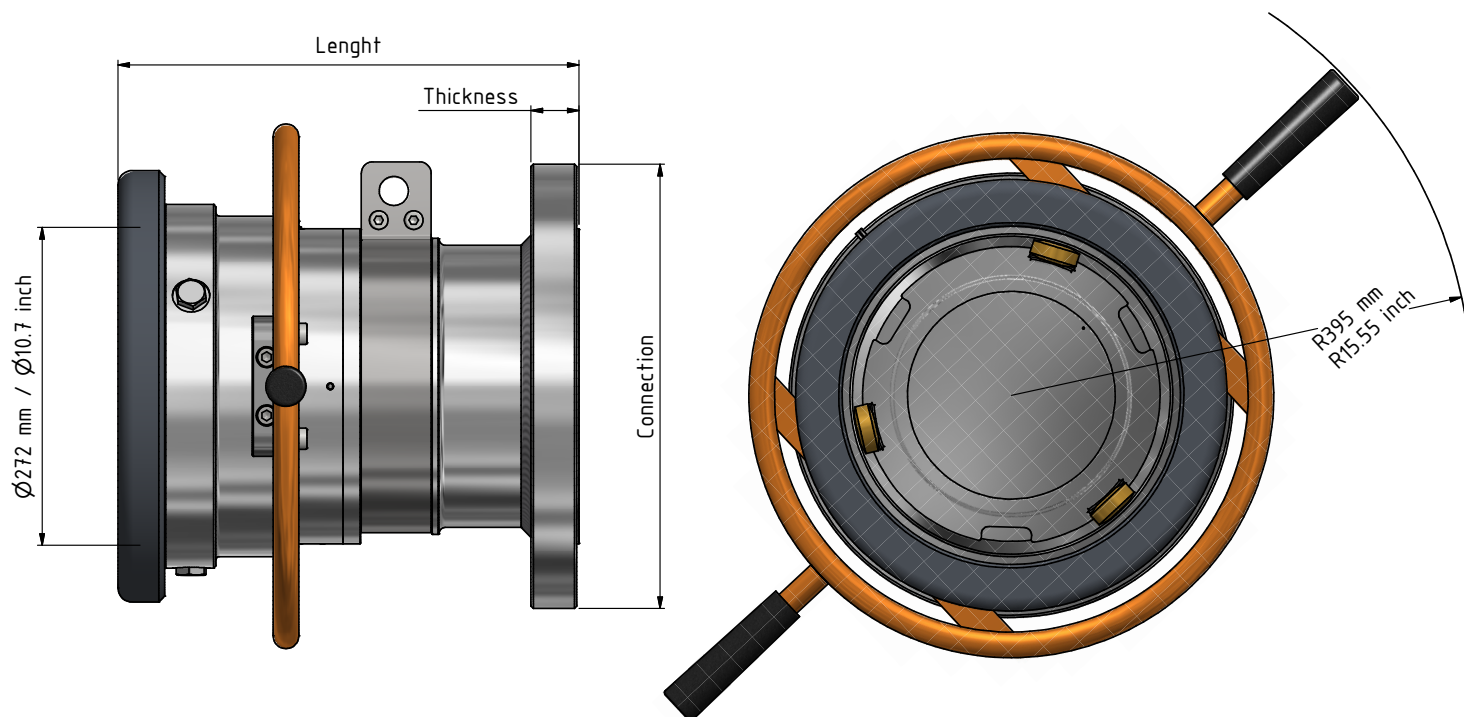


Other handle and material on request

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

8" Hose unit / Coupler (socket Ø272 mm / Ø10.7 inch)

With flanged 8" inlet.

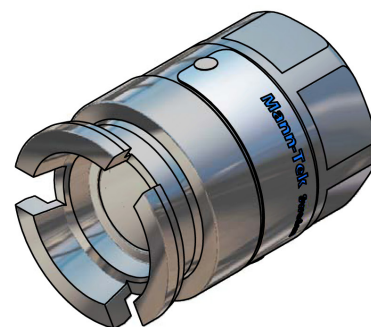
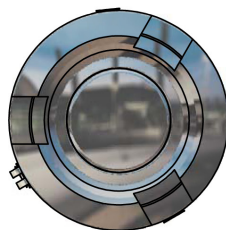
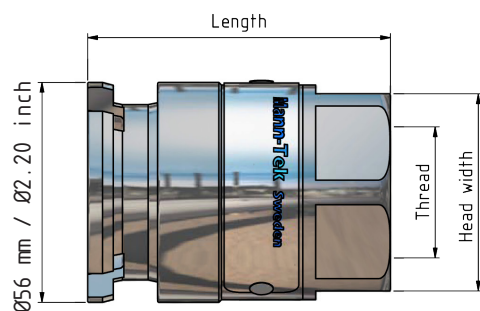


Other handle and material on request

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.



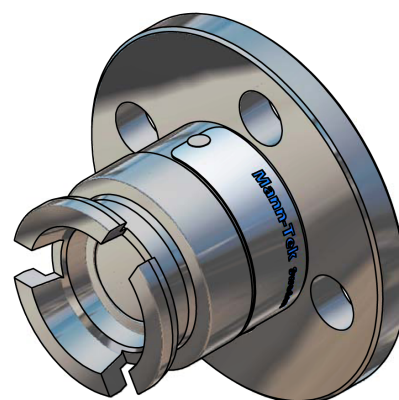
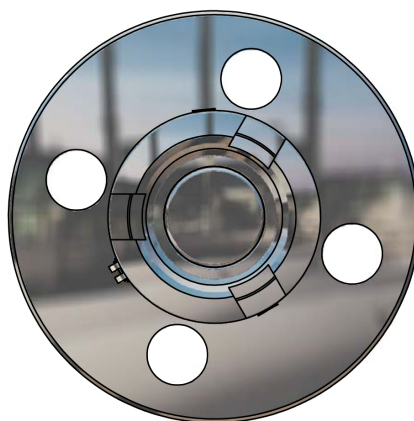
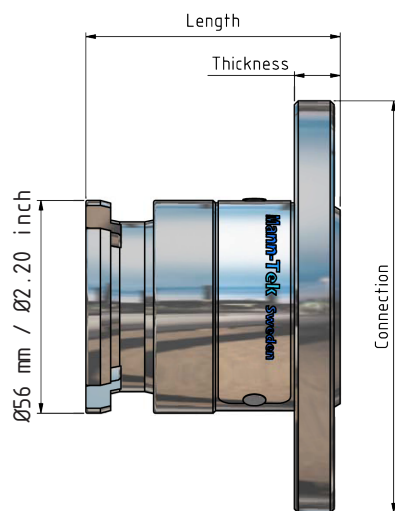
Available with ACME for assembling direct on existing connections

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.

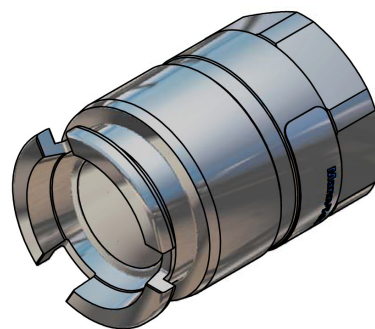
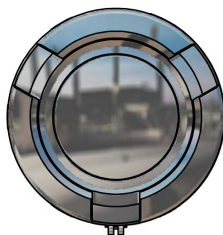
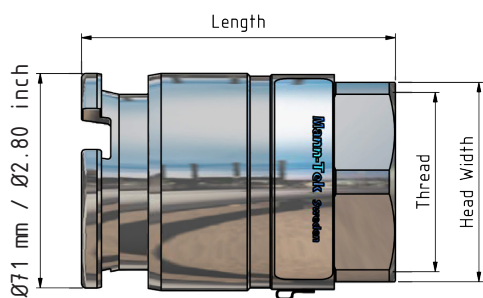


Other flange and material on request

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

2" Tank unit / Adapter (socket Ø71 mm / Ø 2.80 inch)

With female 1 1/2" - 2" inlet



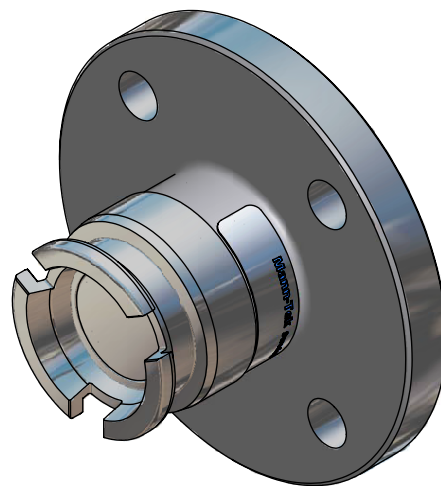
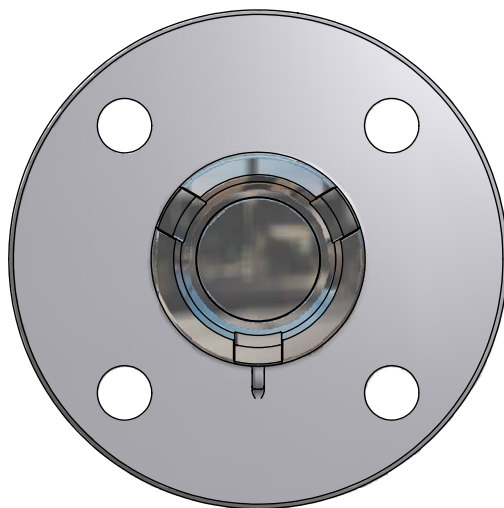
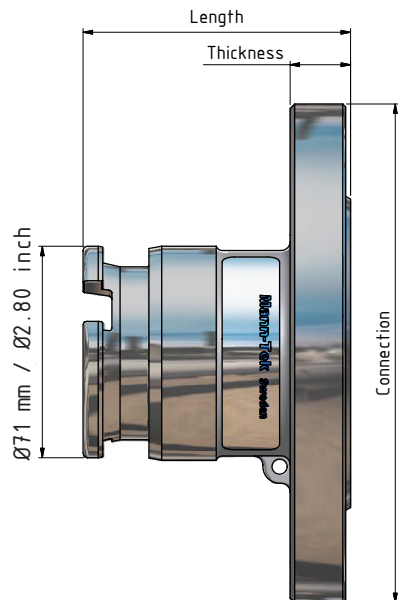
Available with ACME for assembling direct on existing connections

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.

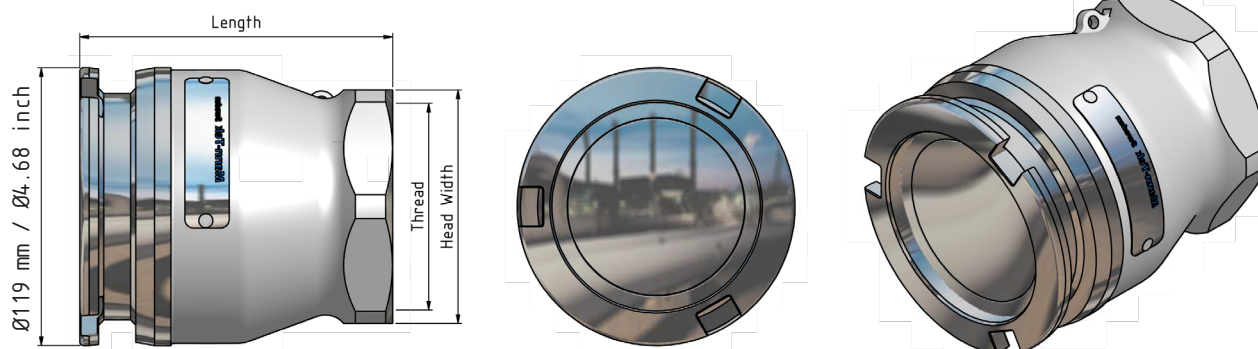


Other flange and material on request

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

3" Tank unit / Adapter (socket Ø119 mm / Ø4.68 inch)

With female 3" inlet.



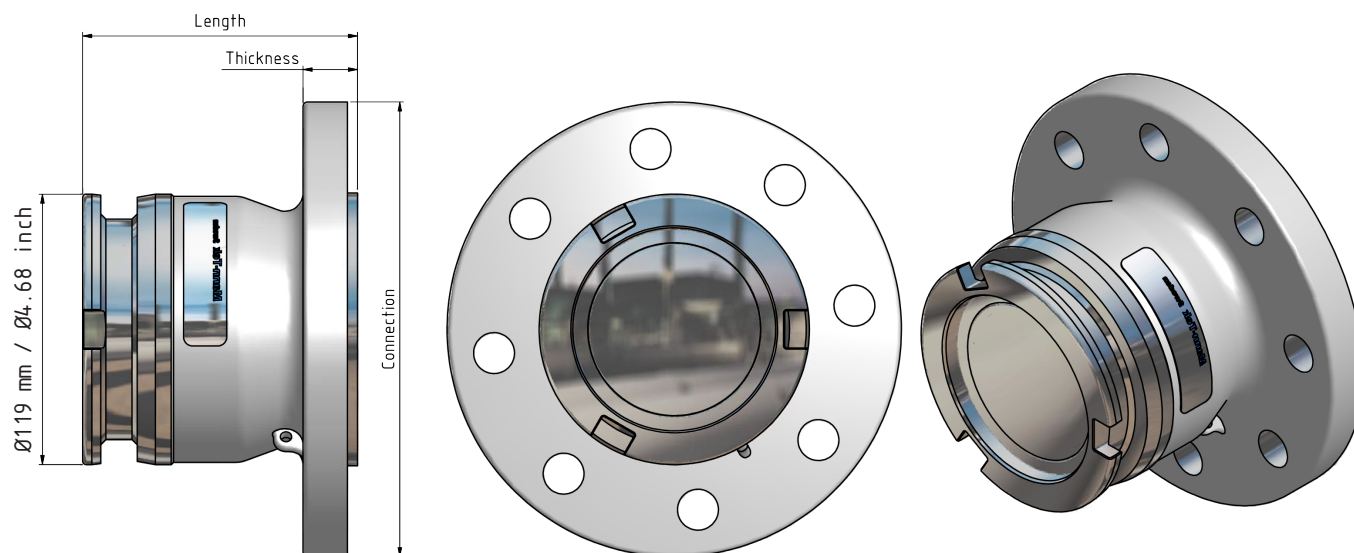
Available with ACME and Witworth threads (ie. W90)
for assembling direct on existing connections

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.



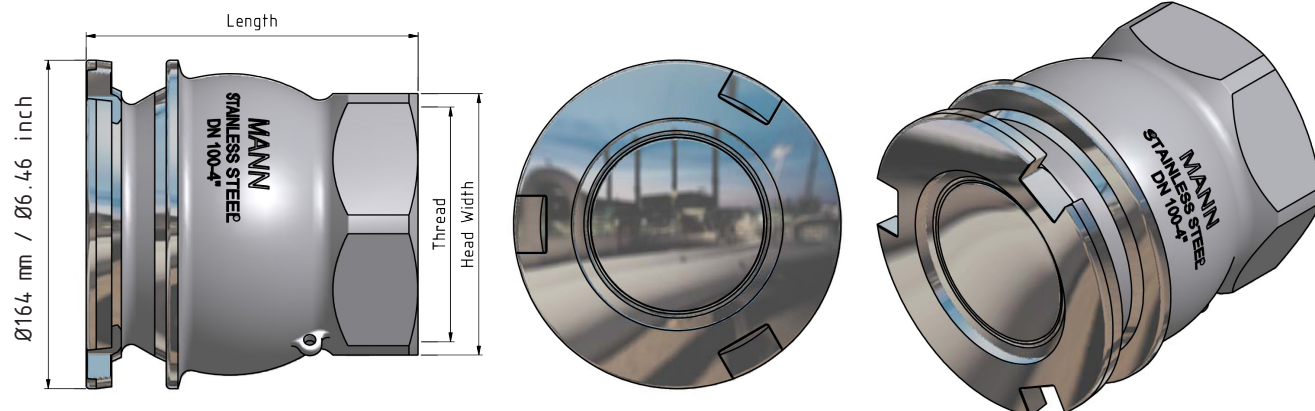
*Other flange and
material on request*

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.

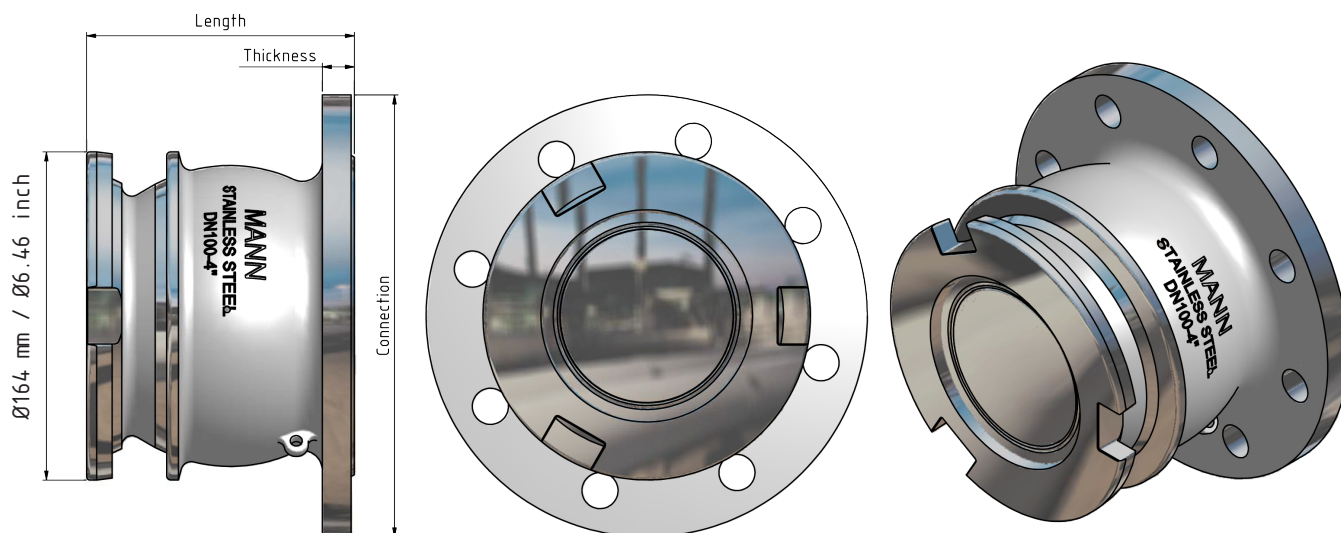


Other material on request

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

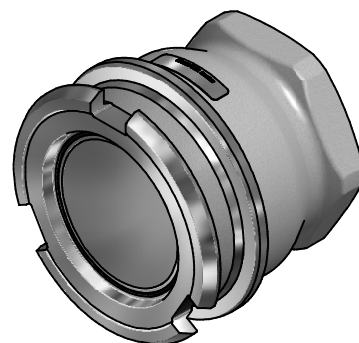
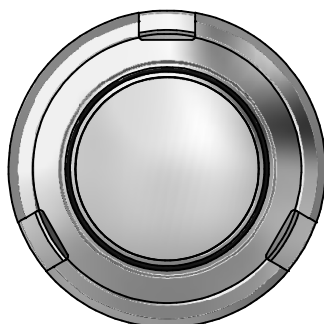
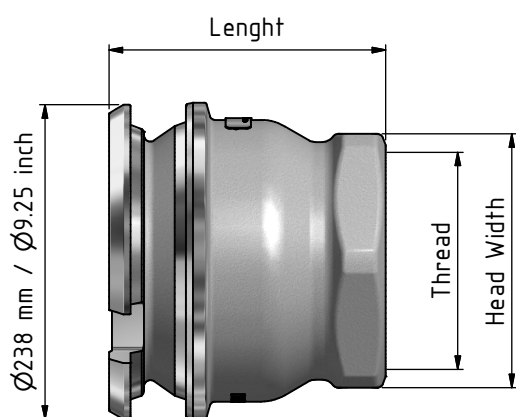
Connection	Length mm/inch	Thickness mm/inch	Weight kg/lbs	Code Nr.
DN100 PN25/40	134 / 5.28	16 (24)* / 0.63 (0.94)*	9,3 / 20.5	L540B4401
4" ANSI Cl. 300	134 / 5.28	16 (24)* / 0.63 (0.94)*	9,3 / 20.5	L564B4401

* values in brackets also available on special request

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

With female 6" inlet.

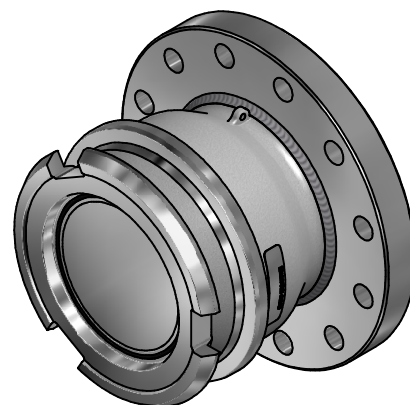
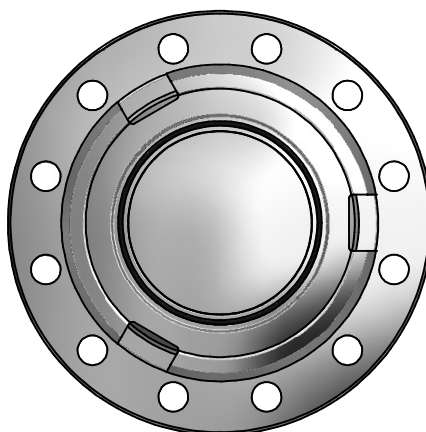
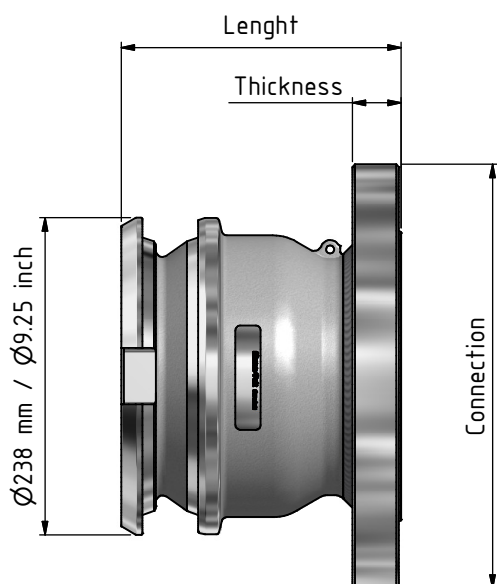


Other material on request

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.



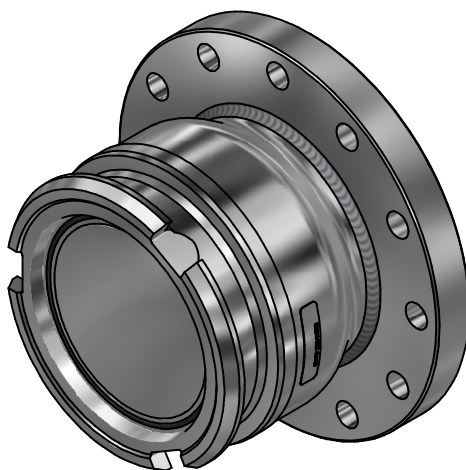
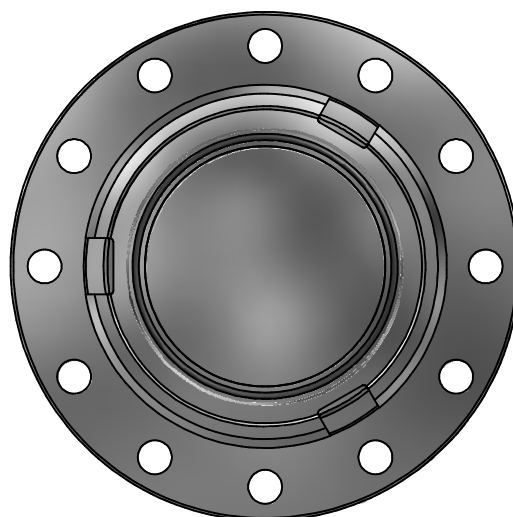
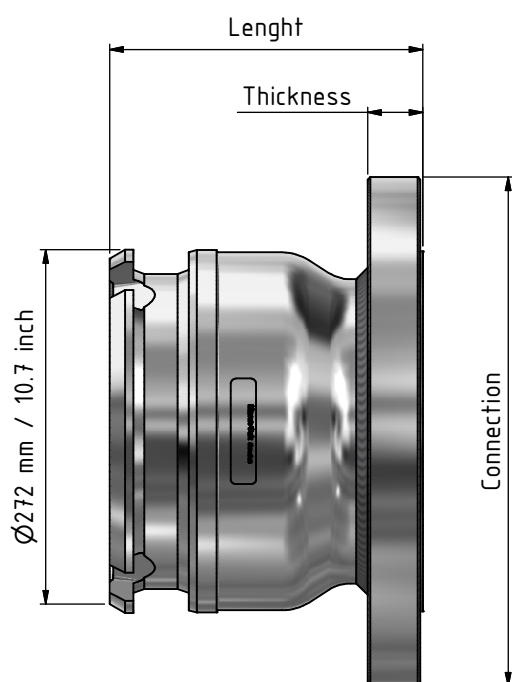
Other flange and material on request

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

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

With flanged 8" inlet.



*Other flange and
material on request*

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 stift 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.

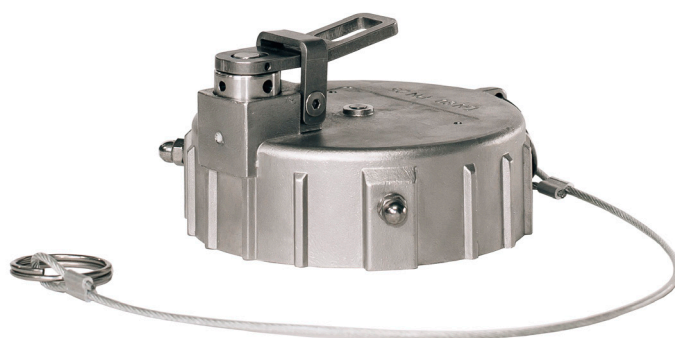
Size	Code Nr.	Material
1" (Ø56mm)	CG100D2201	Composite
2" (Ø71mm)	C200D1300	Rubber
3" (Ø119mm)	C400D1300	Rubber
3" (Ø119mm)	C400A1101	Aluminium
3" (Ø119mm)	C400E2202	Composite
3" (Ø119mm)	C400C4401	Stainless Steel
4" (Ø164mm)	C500B1101	Aluminium

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

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.

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.

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





DGCoupling Hose unit with "stop before disconnect"

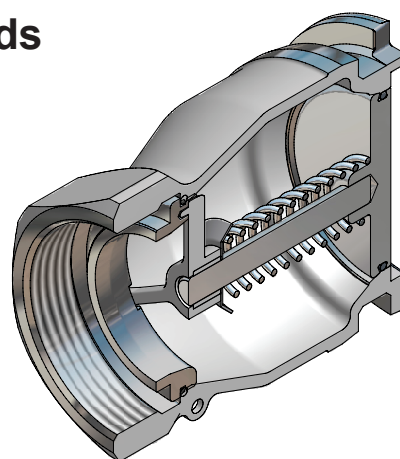
The Hose unit with "stop before disconnect" is a feature for detecting leakage in the Tank unit.

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

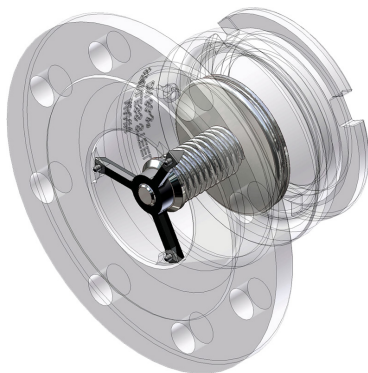
DGCouplings with ACME and Witworth threads

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.

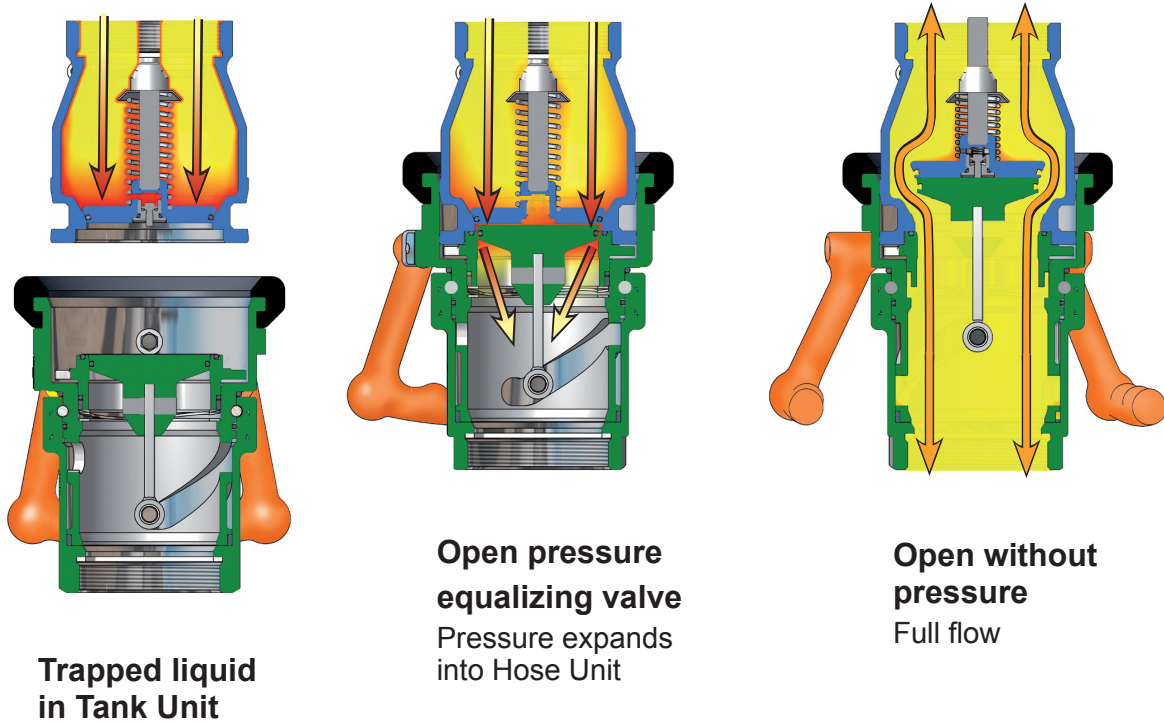
On request!



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Pressure equalizing valve for Tank units

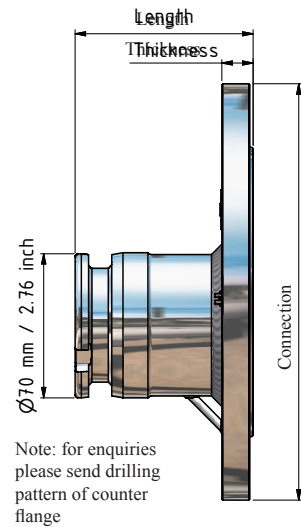
This system dissipates trapped fluid pressure into hose coupler without spillage, to allow easy connection.



Tank Unit (Adapter) – Excentrical Flange

Tank unit (adapter) with excentrical flang available in sizes from 1" to 6".

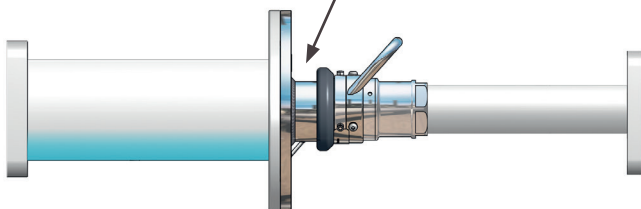
Example 2" (Ø 70 mm) tank unit with excentrical flange 4" ASA 150, Mann Tek Code-Nr.: T263A4401Z



Traditional Flange

Liquid left in the tube

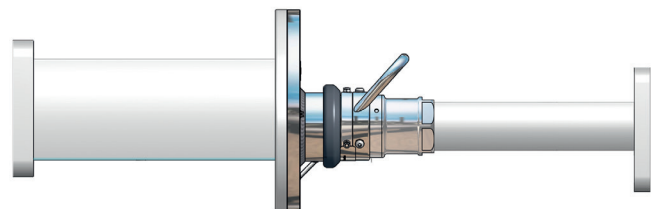
Tank unit with traditional flange



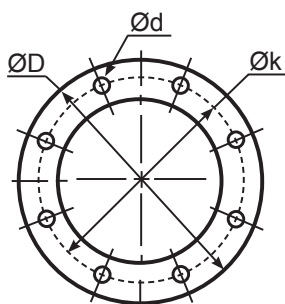
Excentrical Flange

No Liquid left in the tube

Tank unit with excentrical flange



Flange Measurement - 1/2



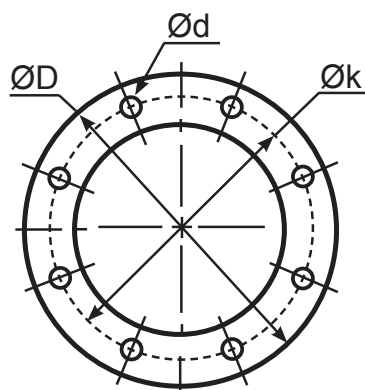
$\varnothing D$ = Diameter
 $\varnothing k$ = Centre diameter
 n = Number of holes
 $\varnothing d$ = Number of holes

EN 1092-1																	
DN		PN 10				PN 16				PN 25				PN 40			
		ØD	Øk	n	Ød	ØD	Øk	n	Ød	ØD	Øk	n	Ød	ØD	Øk	n	Ød
20	mm	105	75	4	14	105	75	4	14	105	75	4	14	105	75	4	14
	inch	4.13	2.95		0.55	4.13	2.95		0.55	4.13	2.95		0.55	4.13	2.95		0.55
25	mm	115	85	4	14	115	85	4	14	115	85	4	14	115	85	4	14
	inch	4.53	3.35		0.55	4.53	3.35		0.55	4.53	3.35		0.55	4.53	3.35		0.55
32	mm	140	100	4	18	140	100	4	18	140	100	4	18	140	100	4	18
	inch	5.51	3.94		0.71	5.51	3.94		0.71	5.51	3.94		0.71	5.51	3.94		0.71
40	mm	150	110	4	18	150	110	4	18	150	110	4	18	150	110	4	18
	inch	5.91	4.33		0.71	5.91	4.33		0.71	5.91	4.33		0.71	5.91	4.33		0.71
50	mm	165	125	4	18	165	125	4	18	165	125	4	18	165	125	4	18
	inch	6.50	4.92		0.71	6.50	4.92		0.71	6.50	4.92		0.71	6.50	4.92		0.71
65	mm	185	145	4	18	185	145	4	18	185	145	8	18	185	145	8	18
	inch	7.28	5.71		0.71	7.28	5.71		0.71	7.28	5.71		0.71	7.28	5.71		0.71
80	mm	200	160	8	18	200	160	8	18	200	160	8	18	200	160	8	18
	inch	7.87	6.30		0.71	7.87	6.30		0.71	7.87	6.30		0.71	7.87	6.30		0.71
100	mm	220	180	8	18	220	180	8	18	235	190	8	22	235	190	8	22
	inch	8.66	7.09		0.71	8.66	7.09		0.71	9.25	7.48		0.87	9.25	7.48		0.87
125	mm	250	210	8	18	250	210	8	18	270	220	8	26	270	220	8	26
	inch	9.84	8.27		0.71	9.84	8.27		0.71	10.63	8.66		1.02	10.63	8.66		1.02
150	mm	285	240	8	22	285	240	8	22	300	250	8	26	300	250	8	26
	inch	11.22	9.45		0.87	11.22	9.45		0.87	11.81	9.84		1.02	11.81	9.84		1.02
200	mm	340	295	8	22	340	295	12	22	360	310	12	26	375	320	12	30
	inch	13.39	11.61		0.87	13.39	11.61		0.87	14.17	12.20		1.02	14.76	12.60		1.18
250	mm	395	355	12	22	405	355	12	26	425	370	12	30	450	385	12	33
	inch	15.55	13.98		0.87	15.94	13.98		1.02	16.73	14.57		1.18	17.72	15.16		1.30
300	mm	445	400	12	22	460	410	12	26	485	430	16	30	515	450	16	33
	inch	17.52	15.75		0.87	18.11	16.14		1.02	19.09	16.93		1.18	20.28	17.65		1.30

Flange translation EN 1092 ---- DIN

EN 1092-1	DIN
EN 1092-1 PN 6	DIN 2631
EN 1092-1 PN 10	DIN 2632
EN 1092-1 PN 16	DIN 2633
EN 1092-1 PN 25	DIN 2634
EN 1092-1 PN 40	DIN 2635
EN 1092-1 Type B Raised Face	DIN 2526 Form C
EN 1092-1 Type C Tongue	DIN 2512 Form F
EN 1092-1 Type D Groove	DIN 2512 Form N
EN 1092-1 Type E Spigot	DIN 2513 Form V
EN 1092-1 Type F Recess	DIN 2513 Form R

Flange Measurement - 2/2



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

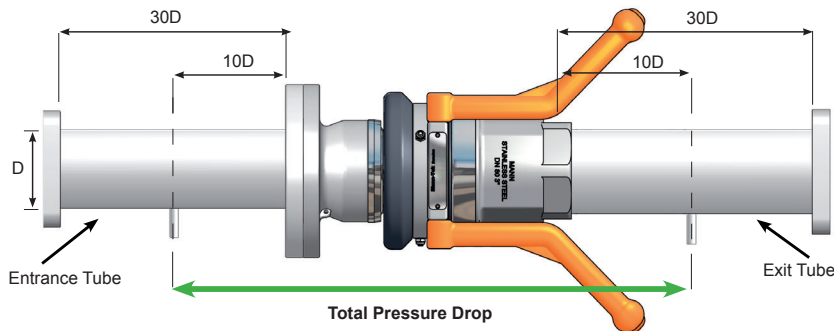
ANSI (ASA) B 16,5									
INCH		150 psi				300 psi			
		ØD	Øk	n	Ød	ØD	Øk	n	Ød
3/4"	mm	98,4	69,8	4	15,9	117,5	82,5	4	19
	inch	3 7/8	2 3/4		5/8	4 5/8	3 1/4		3/4
1"	mm	107,7	79,4	4	15,9	123,8	88,9	4	19
	inch	4 1/4	3 1/8		5/8	4 7/8	3 1/2		3/4
1 1/4"	mm	117,5	88,9	4	15,9	133,3	98,4	4	19
	inch	4 5/8	3 1/2		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

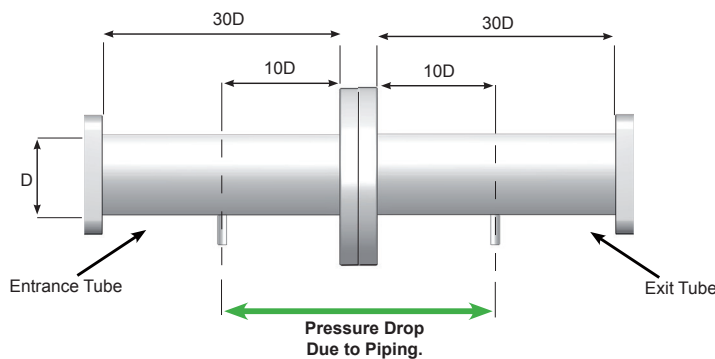
T.T.M.A					
INCH		ØD	Øk	n	Ød
2"	mm	114,3	95,3	6	11,1
	inch	4.50	3.75		0.44
3"	mm	142,9	123,8	8	11,1
	inch	5.63	4.87		0.44
4"	mm	168,3	149,2	8	11,1
	inch	6.63	5.87		0.44
5"	mm	196,9	177,8	12	11,1
	inch	7.75	7.00		0.44
6"	mm	228,6	206,4	12	11,1
	inch	9.00	8.13		0.44
8"	mm	276,2	257,2	16	11,1
	inch	10.87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

Pressure Drop Measurement - Illustration

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



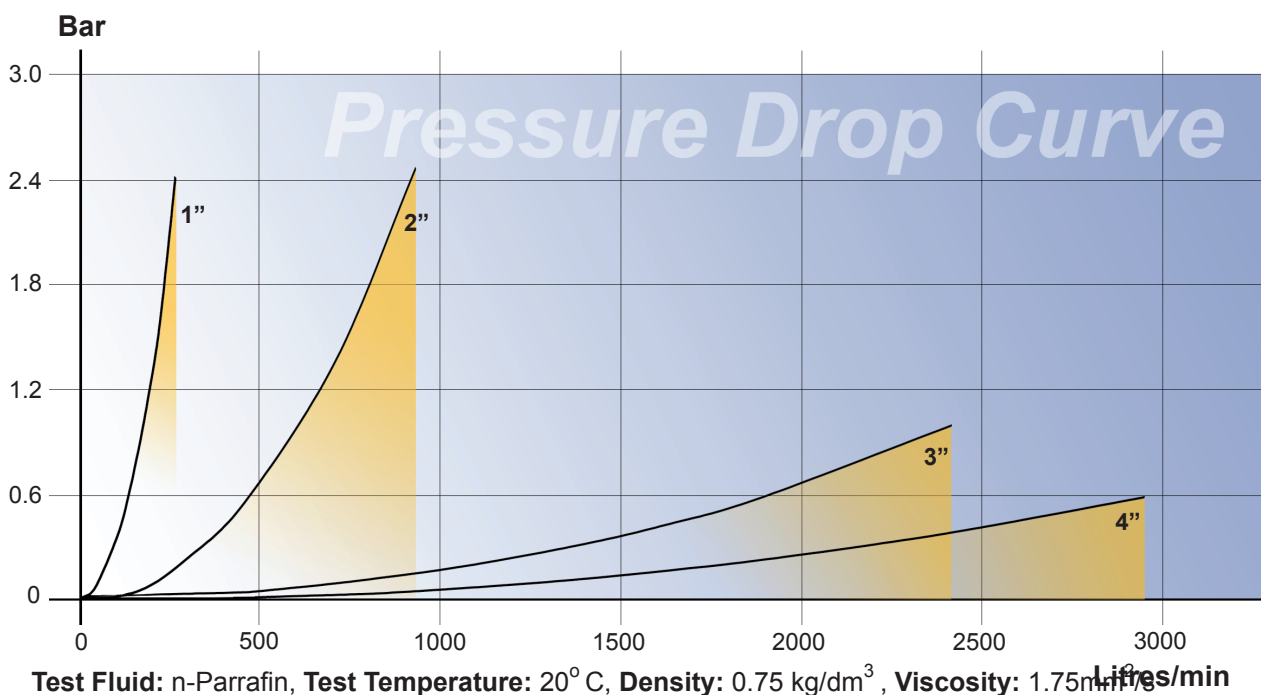
FLOW DIRECTION



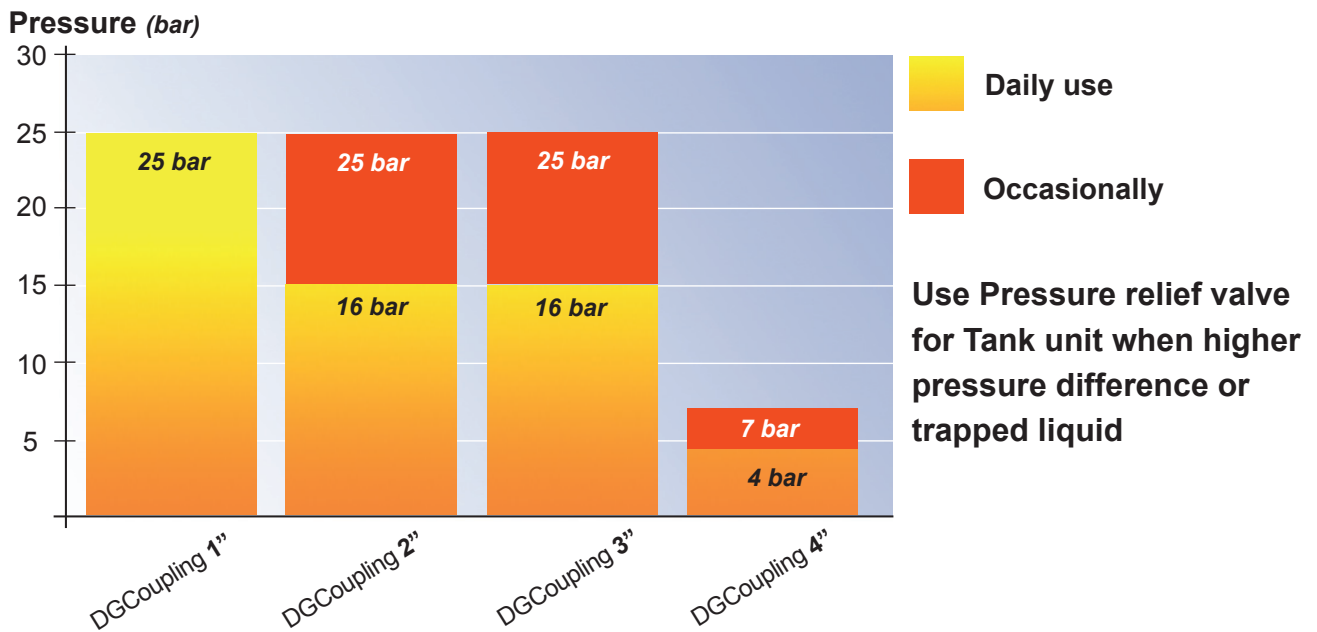
Pressure Drop Mann Tek DGCoupling = Total Pressure Drop - Pressure Drop Due to Piping

Pressure Drop DGCoupling = ΔP

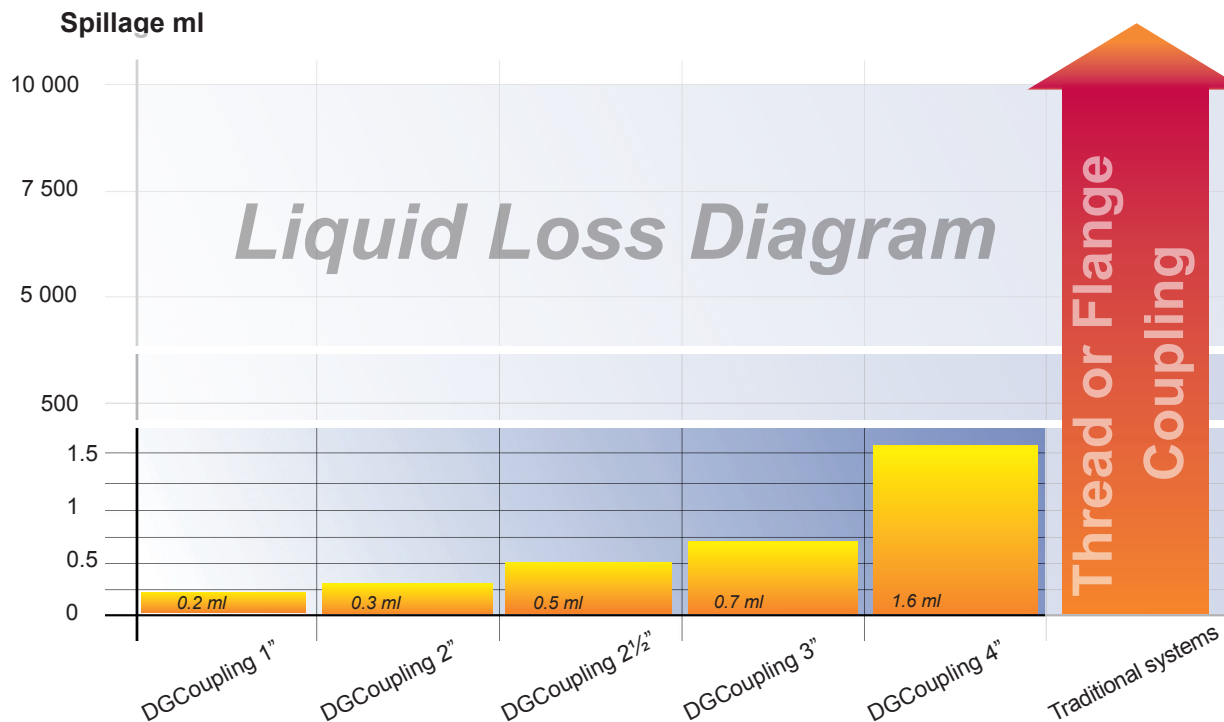
Flow diagram Pressure Drop Curve:



Connection / disconnection under pressure - maximum pressure



Spillage diagram:



Comparison 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.