

## 3" (Ø 119 mm) Technical Information

### Tank Unit (Adapter) and Hose Unit (Coupler)



### According to NATO STANAG 3756

Material	Maximum Working Pressure	Test Pressure	Minimum Burst Pressure
Aluminium	10 bar / 145 psi	15 bar / 218 psi	50 bar / 726 psi
Brass/Gunmetal	16 bar / 232 psi	24 bar / 348 psi	80 bar / 1160 psi
Stainless Steel	25 bar / 363 psi	37,5 bar / 544 psi	125 bar / 1813 psi
Titan	25 bar / 363 psi	37,5 bar / 544 psi	125 bar / 1813 psi
Hastelloy	25 bar / 363 psi	37,5 bar / 544 psi	125 bar / 1813 psi
PEEK	6 bar / 87 psi	9 bar / 131 psi	30 bar / 435 psi

### Connections

3" in BSP, NPT and flanged inlet.

### Applications

For road, rail tanker loading/unloading, filling of tanks and containers, refuelling and loading/unloading bunker boats (marine tankers) and small ships. Also suitable for other applications where high loading rates are required and product contamination and spillage needs to be minimized.

### Media

**Petroleum products:** gasoline, diesel, oil etc.

**Chemical products:** ethylene oxide, propylene oxide, acrylonitrile, butadiene, ammonia, vinyl chloride, toluene, xylene, sulphuric acid, phenol etc.

**Gas:** vapor recovery/balance systems

**Dry powder.**

### Material of Body

Aluminium, brass/gunmetal, stainless steel, Hastelloy and PEEK. Other materials on request.

### Seals

Standard seals FPM (Viton®), EPDM, FFKM (Chemraz®, Kalrez®), NBR. Other on request.

### High Flow Rates / Low Pressure Drop

Allows maximum product transfer with minimal losses.

### Recommended Maximum Flow Rates

2000 litres/minute (fuel)

### Selectivity

- avoid mixing products

To avoid product contamination caused by connecting a hose unit to the wrong tank unit, selective versions of the hose and tank units are available.

Each unit has a number of selective positions, designated by a coded part number according to the coupling size – specify when placing order.

### Interchangeability

Compatible with couplings of other manufacturers.

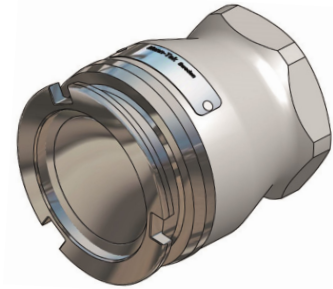
### Hose Unit with Integrated Swivel

All hose units are supplied with an integrated swivel.

### 3" (Ø 119 mm) Tank Unit (Adapter) – Female Thread

Connection <sup>1)</sup> Inch/DN	Body Material <sup>2)</sup>	Seal		Weight ≈		Mann Tek Code No.	
		O-Ring <sup>3)</sup>	Thread Seal	kg	lbs		
F 3" BSP	Al	Standard: FPM/FKM (Viton®)	PUR	1,2	2,7	T414D1101B	
F 3" BSP				1,3	2,9	T414K1101B <sup>*)</sup>	
F 3" NPT				1,2	2,7	T415D1101	
F 3" BSP	GM		PUR	3,2	7,1	T414D2201B	
F 3" NPT				3,5	7,7	T415D2201	
F 3" BSP			PUR	1,3	2,9	T414K2201B <sup>*)</sup>	
F 3" BSP	Br		Other on request.	PTFE	3,1	6,8	T414B4401A
F 3" NPT						3,4	7,5
F 3" BSP	Hastelloy	PTFE				T414A7701A	
F 3" NPT							T415A7701
F 3" BSP	PVDF/Hastelloy	PTFE		3,6	7,9	T414A8701A	
F 3" BSP				PEEK	PTFE		
F 3" NPT							

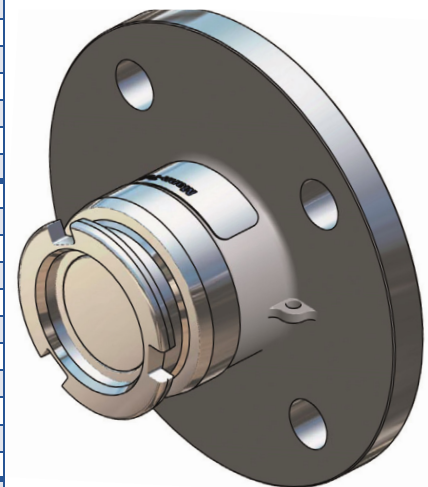
According to  
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### 3" (Ø 119 mm) Tank Unit (Adapter)– Flanged Inlet

Flange <sup>1B)</sup>	Body Material <sup>2)</sup>	Seal <sup>3)</sup>	Weight ≈		Mann Tek Code No.
		O-Ring	kg	lbs	
undrilled Ø 210 mm	Al	Standard: <b>FPM/FKM</b> (Viton®)  Other on request.	2,0	4.4	<b>T420D1101</b>
DN 65 PN 10 / 16 Type A					<b>T433D1101</b>
DN 80 PN 10/16 Type A			2,0	4.4	<b>T436D1101</b>
3" ASA 150			1,8	4.0	<b>T461D1101</b>
DIN 28459 'TW 1' / DN 80			1,4	3.1	<b>T465D1101</b>
DIN 28459 'TW 3' / DN 100			1,6	3.5	<b>T466D1101</b>
3" TTMA			1,8	4.0	<b>T467D1101</b>
4" TTMA			1,5	3.3	<b>T468D1101</b>
undrilled Ø 210 mm	GM		6,2	13.7	<b>T320D2201</b>
DN 65 PN 10/16 Type B			4,9	10.8	<b>T433D2201</b>
DN 65 PN 25/40 Type B					<b>T434D2201</b>
DN 80 PN 10/16 Type B			5,2	11.5	<b>T436D2201</b>
DN 80 PN 25/40 Type B					<b>T437D2201</b>
3" ASA 150			4,9	10.8	<b>T461D2201</b>
3" ASA 300					<b>T462D2201</b>
DIN 28459 'TW 1' / DN 80			4,1	9.0	<b>T465D2201</b>
DIN 28459 'TW 3' / DN 100			4,7	10.4	<b>T466D2201</b>
3" TTMA					<b>T467D2201</b>
4" TTMA			4,6	10.1	<b>T468D2201</b>
undrilled Ø 210 mm	SS				<b>T420B4401</b>
undrilled Ø 210 mm***)					<b>T420B4401F</b>
DN 65 PN 10/16 Type B					<b>T433B4401</b>
DN 65 PN 10/16 Type B***)					<b>T433B4401F</b>
DN 65 PN 25/40 Type B					<b>T434B4401</b>
DN 65 PN 25/40 Type B***)					<b>T434B4401F</b>
DN 80 PN 25/40 Type E**)					<b>T435B4401F</b>
DN 80 PN 10/16 Type B			5,1	11.2	<b>T436B4401</b>
DN 80 PN 10/16 Type B***)					<b>T436B4401F</b>
DN 80 PN 25/40 Type B			5,1	11.2	<b>T437B4401</b>
DN 80 PN 25/40 Type B***)					<b>T437B4401F</b>
3" ASA 150			4,9	10.8	<b>T461B4401</b>
3" ASA 150***)				14.1	<b>T461B4401F</b>
3" ASA 300			4,9	10.8	<b>T462B4401</b>
3" ASA 300***)					<b>T462B4401F</b>
DIN 28459 'TW 1' / DN 80			3,9	8.6	<b>T465B4401</b>
DIN 28459 'TW 3' / DN 100					<b>T466B4401</b>
3" TTMA					<b>T467B4401</b>
4" TTMA					<b>T468B4401</b>
undrilled Ø 210 mm			PEEK		
DN 80 PN 10/16 Type B					<b>T436A9901</b>
3" ASA 150					<b>T461A9901</b>
3" TTMA					<b>T467A9901</b>
4" TTMA					<b>T468A9901</b>

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\*) shortened version for tight installation  
situations

\*\*) Type E (with spigot),  
EN 1092-1, see page 44

\*\*\*) Flange with standard thickness

<sup>1A)</sup> F = Female thread, BSP = EN ISO 228,  
NPT = ANSI B1.20.1

<sup>1B)</sup> PN 10/16/25/40 = EN 1092  
(types see page 44),  
ASA = ANSI B16.5 (150 o. 300 psi),  
DIN 28459 = old standard TW, 10 bar.  
TTMA = Truck Trailer Manufacturers Association

<sup>2)</sup> Material: Al = Aluminium, GM = Gunmetal,  
SS = Stainless Steel

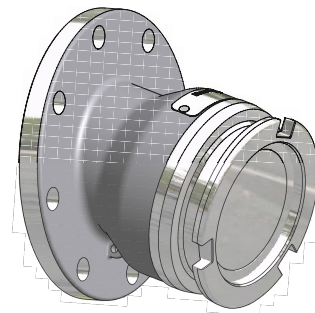
<sup>3)</sup> Standard seal FPM/FKM. Alternative  
materials, e.g. EPDM, Chemraz®, Kalrez®,  
NBR or HNBR on request

Viton® is a registered trademark  
of DuPont, DuPont Elastomers.

## 3" (Ø 119 mm) Dropped Tank Unit (Adapter) with Flange Connection

Flange <sup>1)</sup>	Body Material <sup>2)</sup>	Seal <sup>3)</sup>	Weight ≈		Mann Tek Code No.
		O-Ring	kg	lbs	
DIN 28459 'TW 1' / DN 80	Al	Standard: <b>FPM/FKM</b> (Viton®)	1,6	3.5	<b>T465I1101</b>
DIN 28459 'TW 3' / DN 100			1,6	3.5	<b>T466I1101</b>
3" TTMA		Other on request.			<b>T467I1101</b>
4" TTMA					<b>T468I1101</b>

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**15° dropped Tank unit** with flange connection makes it easier to connect when installed in high position and reduces hose wear.

<sup>1)</sup> DIN 28459 = old standard TW, 10 bar. TTMA = Truck Trailer Manufacturers Association

<sup>2)</sup> Material: Al = Aluminium

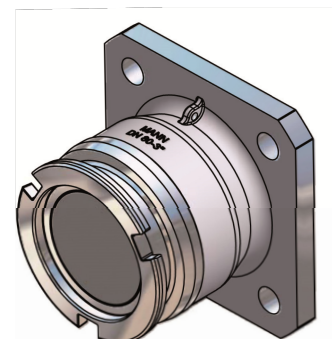
<sup>3)</sup> Standard seal FPM/FKM. Alternative materials, e.g. EPDM, Chemraz®, Kalrez®, NBR or HNBR on request

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## 3" (Ø 119 mm) Tank Unit (Adapter) with Square Flange Connection

Flange <sup>1)</sup>	Body Material <sup>2)</sup>	Seal <sup>3)</sup>	Weight ≈		Mann Tek Code No.
		O-Ring	kg	lbs	
Normec (120x120 mm)	Al	Standard: <b>FPM/FKM</b> (Viton®)			<b>T4107D1101</b>
Normec (120x120 mm)	GM				<b>T4107D2201</b>

According to  
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<sup>1)</sup> Normec = with drilling for Italian road tanker connection

<sup>2)</sup> Material: Al = Aluminium, GM = Gunmetal

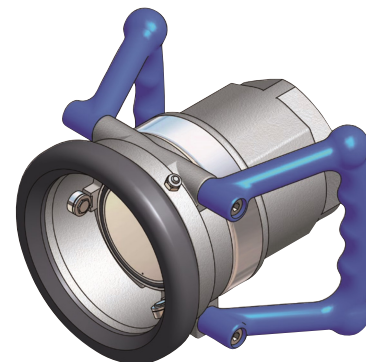
<sup>3)</sup> Standard seal FPM/FKM. Alternative materials, e.g. EPDM, Chemraz®, Kalrez®, NBR or HNBR on request

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### 3" (Ø 119 mm) Hose Unit (Coupler) – Female Thread

Connection <sup>1)</sup> Inch/DN	Body Material <sup>2)</sup>	Seal <sup>3)</sup>		Weight ≈		Mann Tek Code No.
		O-Ring	Thread Seal	kg	lbs	
F 3" BSP	Al	Standard: FPM/FKM (Viton®)	PUR	3,8	8.4	S414B1101B
F 3" NPT			—	3,9	8.6	S415B1101
F 3" BSP	GM		PUR	8,4	18.5	S414B2201B
F 3" NPT			—	9,0	19.8	S415B2201
F 3" BSP	SS		PTFE	8,4	18.5	S414B4401A
F 3" NPT			—	8,7	19.2	S415B4401
F 3" BSP	Hastelloy		PTFE			S414A7701B
F 3" NPT			—	8,1	17.7	S415A7701
F 3" BSP	PVDF/Hastelloy		PTFE			S414A8701B
F 3" BSP	PEEK		PTFE			S414A9901B
F 3" NPT		—			S415A9901	

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<sup>1)</sup> F = Female thread, BSP = EN ISO 228, NPT = ANSI B1.20.1

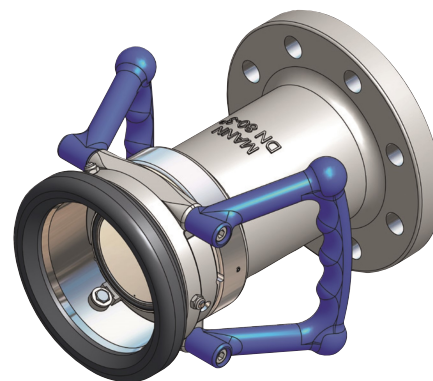
<sup>2)</sup> Material: Al = Aluminium, GM = Gunmetal, SS = Stainless Steel

<sup>3)</sup> Standard seal FPM/FKM. Alternative materials, e.g. EPDM, Chemraz®, Kalrez®, NBR or HNBR on request

### 3" (Ø 119 mm) Coupler – Flanged Inlet

Flange <sup>1)</sup>	Body Material <sup>2)</sup>	Seal <sup>3)</sup>	Weight ≈		Mann Tek Code No.
		O-Ring	kg	lbs	
undrilled Ø 210 mm	AI	Standard: FPM/FKM (Viton®)  Other on request.			S420B1101
DN 80 PN 10 / 16 Type A					S436B1101
3" ASA 150			5,5	12.1	S461B1101
DIN 28459 'TW 1' / DN 80					S465B1101
DIN 28459 'TW 3' / DN 100					S466B1101
3" TTMA					S467B1101
4" TTMA			5,5	12.1	S468B1101
undrilled Ø 210 mm	GM				S320B2201
DN 80 PN 10/16 Type B					S436B2201
DN 80 PN 25/40 Type B					S437B2201
3" ASA 150					S461B2201
3" ASA 300					S462B2201
DIN 28459 'TW 1' / DN 80					S465B2201
DIN 28459 'TW 3' / DN 100					S466B2201
3" TTMA					S467B2201
4" TTMA					S468B2201
undrilled Ø 210 mm	SS				S420B4401
o. Bohrungen Ø 210 mm**)					S420B4401F
DN 80 PN 10/ 6 Type B		12,7	28.0	S436B4401	
DN 80 PN 10/16 Type B**)				S436B4401F	
DN 80 PN 25/40 Type B				S437B4401	
DN 80 PN 25/40 Type B**)				S437B4401F	
DN 80 PN 25/40 Type E				S435B4401F	
3" ASA 150		13,2	29.1	S461B4401	
3" ASA 150**)		13,2	29.1	S461B4401F	
3" ASA 300				S462B4401	
3" ASA 300**)		14,6	32.2	S462B4401F	
DIN 28459 'TW 1' / DN 80				S465B4401	
DIN 28459 'TW 3' / DN 100				S466B4401	
3" TTMA				S467B4401	
4" TTMA				S468B4401	
undrilled Ø 210 mm		PEEK			S420B9901
DN 80 PN 10/16 Type B				S436B9901	
3" ASA 150				S461B9901	

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<sup>\*)</sup> Type E (with spigot),  
EN 1092-1, see page 44

<sup>\*\*)</sup> Flange with standard thickness

<sup>1)</sup> PN 10/16/25/40 = EN 1092  
(types see page 44),  
ASA = ANSI B16.5 (150 o. 300 psi),  
DIN 28459 = old standard TW, 10 bar.  
TTMA = Truck Trailer Manufacturers Association

<sup>2)</sup> Material: Al = Aluminium, GM = Gunmetal,  
SS = Stainless Steel

<sup>3)</sup> Standard seal FPM/FKM. Alternative  
materials, e.g. EPDM, Chemraz®, Kalrez®,  
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