

TODO

NEW

TODO® II TANK UNITS

The Next
Generation
of TODO®

THE NUMBER 1 CHOICE FOR
SAFE LIQUID TRANSFER

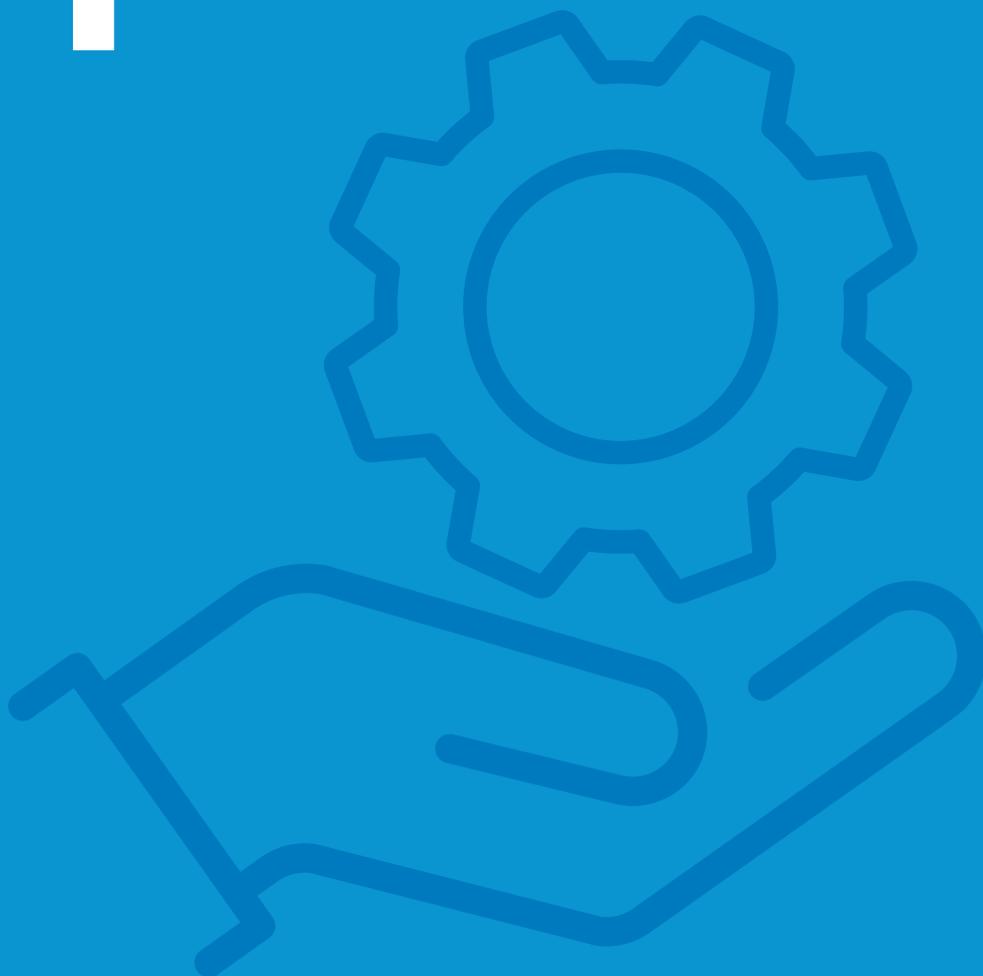
TODO® is the market leader in the DRY-BREAK® industry, trusted by clients around the globe. Our products are designed to handle a huge range of oils, gases and hazardous chemicals. For over four decades TODO® valves have been used in the most challenging conditions.



TODO

01

INTRODUCING



TODO® is extremely proud to announce its new range of STANAG 3756 tank unit adaptors. These new tank units will be replacing the current TODO-MATIC® versions in order to provide the customer with added value in terms of serviceability, pressure drop and design.

TODO® II TANK UNIT

NEW



- Reduced pressure drop – up to **32% reduction** in the time to discharge 500 litres via gravity
- Reduced service time – designed with service in mind – reduced system downtime
- Modularity in design – no design variances between materials – no need for different components in assembly and service
- Weight reduction – **up to 33% reduction in weight**
- TPED – Upgraded certification for greater peace of mind
- Intelligent part numbering – to help understand the product features

NEW FEATURES

Reduced Service Time

The new TODO® II Tank Unit has been designed to reduce the amount of time it takes to assemble and disassemble each unit. The internal components can be removed in one piece, the O-ring replaced, and then re-assembled in three easy steps:

- 1 Compress piston and insert 3D printed retainer clip on shaft
- 2 Remove internal assembly and replace O-ring
- 3 Re-fit internal assembly into the body with new lock ring

Weight Reduction

Up to 33% reduction in weight whilst maintaining the high quality of the product and the 5:1 safety factor – i.e. no removal of wall thickness to meet our goals.

Reduced Pressure Drop

The new TODO® II Tank Unit features majorly enhanced flow rates due to:

- Reduced flow turbulence through piston design
- Computer simulated flow in the design of components
- Physically tested flow rates for best in class results

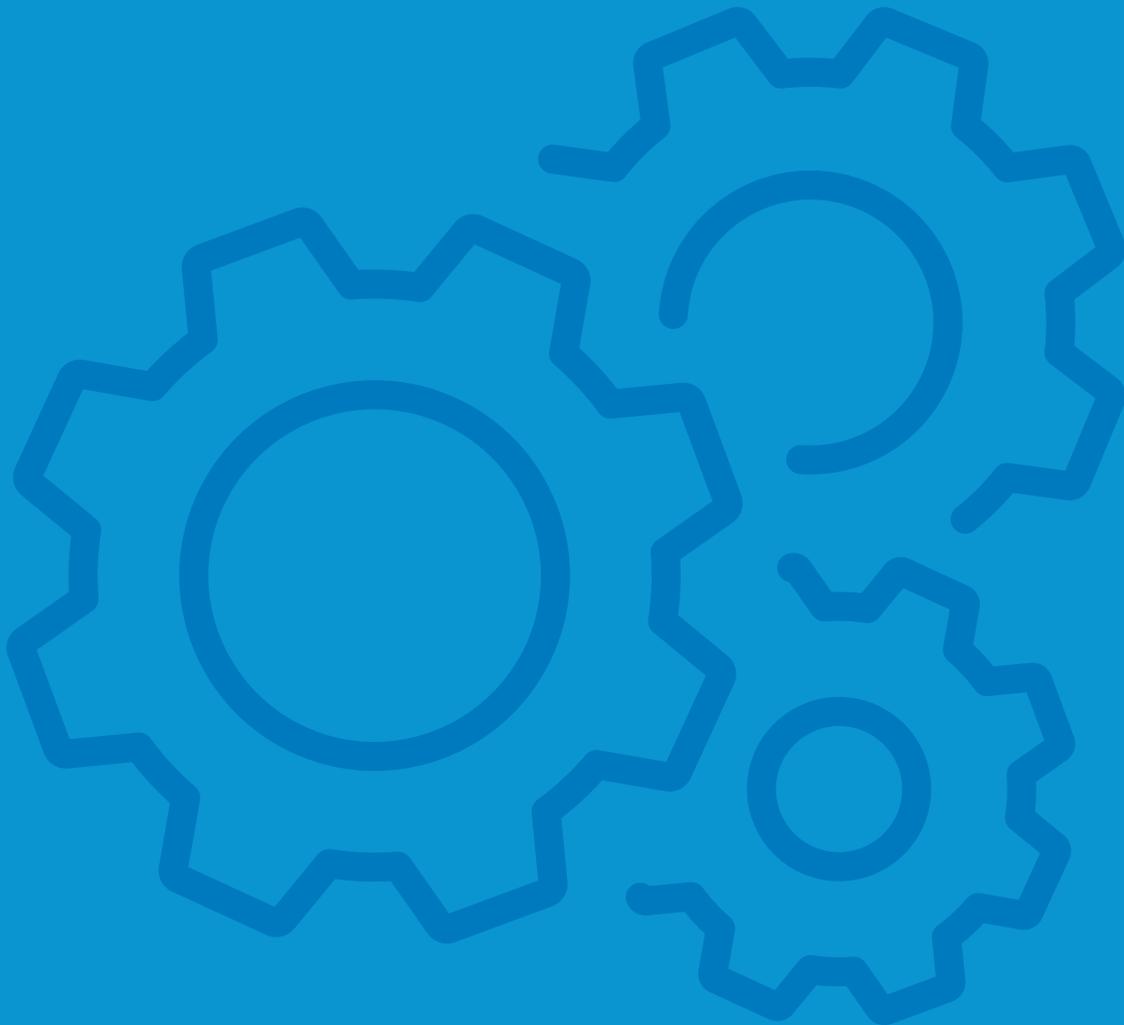
Upgraded Certification - TPED II

Not only have we carried over the high standards of PED certification from the TODO-MATIC® design – we've added TPED to our list of approvals – you'll see a Pi mark on our new TODO® II Tank Unit labels.

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FUNCTIONALITY

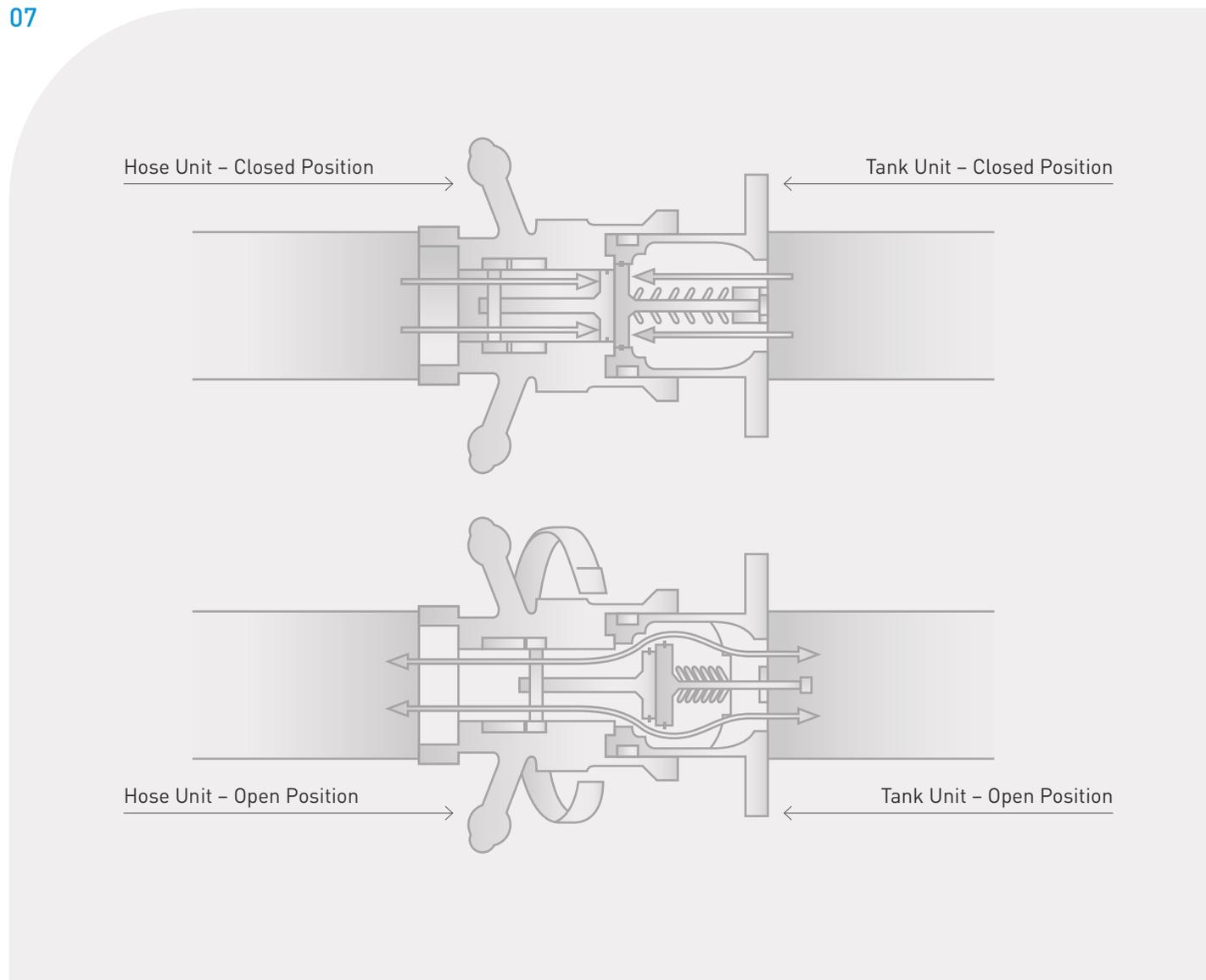


TODO® II TANK UNITS

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**KEY BENEFITS**

- DRY-BREAK Coupling® – virtually zero spill on disconnect
- STANAG 3756 compliant – cross-compatible with other brands
- Quick and simple connection – push on and turn to start flow – saves time versus more labour intensive alternative couplings
- Tried and trusted brand – TODO® is the most recognised brand of DRY-BREAK® couplings in the world
- Safety Factor: 5:1
- Zero containment leakage under pressure
- Approved by world leading standards bodies



The functionality of the Tank Unit remains exactly the same. Normally in the closed position, the Tank Unit is activated when coupled with a TODO-MATIC® Hose Unit (or coupler). A 15° Turn locks the Hose Unit to the Tank Unit, then a further 90° turn completes the coupling, allowing the product to flow.

TODO

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TECHNICAL DATA



Flow Rates

The below chart details physical results of our gravity discharge testing. The table highlights the timing difference (in minutes) in two scenarios:

1. TODO® II Tank Unit coupled to TODO-MATIC® Hose Unit
2. TODO-MATIC® Tank Unit coupled to TODO-MATIC® Hose Unit

Results were recorded for the 500 litre discharge and for full 1000 litre drain

Size	Timing / mins			
	1000 to 500 litres		1000 litre Full Drain	
	TODO II & TODO-MATIC	TODO-MATIC	TODO II & TODO-MATIC	TODO-MATIC
1 inch	12:50	18:47	34:20	54:36
2 inch	04:55	07:12	15:46	21:46
2.5 inch	01:54	02:06	05:32	06:08
3 inch	01:32	01:44	04:24	05:06
4 inch	00:47	00:48	02:38	03:14
6 inch	Comparable			

Table 1 – Timing Result of Gravity Discharge Testing.

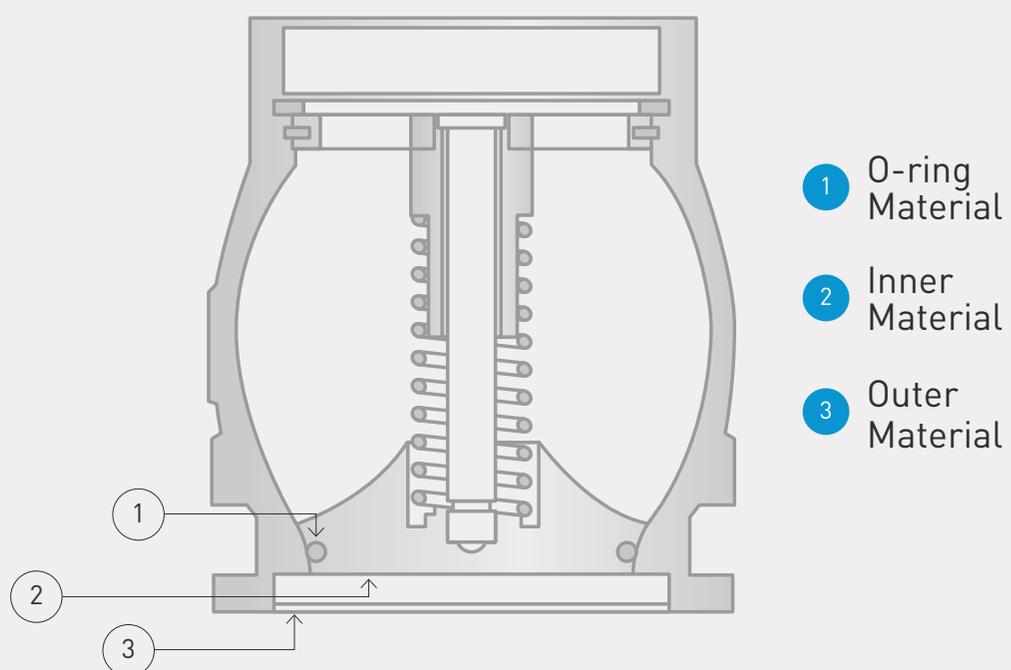
Table 2 shows the time differences in terms of actual minutes and percentage improvement:

Size	Time reduction (mins / secs)	% Improvement
1 inch	05:57	32%
2 inch	02:17	32%
2.5 inch	00:12	10%
3 inch	00:12	12%
4 inch	00:01	3%
6 inch	Comparable	

Table 2 – Time Reduction and Percentage Difference between TODO® II and TODO-MATIC® Tank Units.

Size	Material	Connection	Dimensions					
			Weight		Overall length		Widest Diameter	
			TODO MATIC	TODO II	TODO MATIC	TODO II	TODO MATIC	TODO II
1	Aluminium	NPT	0.3 kg	0.3kg	91 mm	89 mm	56 mm	56 mm
1	Stainless Steel	NPT	0.7 kg	0.7kg	91 mm	89 mm	56 mm	56 mm
2	Aluminium	NPT	0.4 kg	0.5kg	100 mm	98 mm	79 mm	75 mm
2	Stainless Steel	NPT	1.8 kg	1.2 kg	100 mm	98 mm	79 mm	75 mm
2,5	Aluminium	NPT	1.6 kg	1.1 kg	162 mm	130 mm	110 mm	108 mm
2,5	Stainless Steel	NPT	3.0 kg	2.8 kg	162 mm	130 mm	110 mm	108 mm
3	Aluminium	NPT	1.2 kg	1.4 kg	144 mm	136 mm	119 mm	119 mm
3	Stainless Steel	NPT	4.0 kg	3.4 kg	144 mm	136 mm	119 mm	119 mm
4	Aluminium	NPT	3.3 kg	3.3 kg	172 mm	173 mm	173 mm	164 mm
4	Stainless Steel	NPT	7.3 kg	8.0 kg	172 mm	173 mm	173 mm	164 mm
6	Aluminium	NPT	10.7 kg	10.7 kg	239 mm	250 mm	238 mm	238 mm
6	Stainless Steel	NPT	25.0 kg	20.6 kg	239 mm	250 mm	238 mm	238 mm

Table 3 – Weight and Dimensional Differences – TODO® II v TODO-MATIC®.



CORE UNIT FEATURES				CONNECTION FEATURES				REVISION	OPTIONS	MATERIALS								
TT3				02					5S	4407								
Tank Unit 3"				Female NPT					PEV	SS Internals and Body, Viton Seals								
Core Unit Features				Connection Features				Revision	Options			Materials						
Unit Type		Unit Size		Connection Type		Connection Size		Revision	Options - if not offered / alternative to standard			Body Material		Inner Material		Seal Material		
Variation	Designation	Variation	Designation	Connection	Variation	Designation	Variation	Designation	Revision	Option	Variation	Designation	Material	Designation	Material	Designation	Material	Designation
Tank Unit	TT	1"	1	BSP	Female	00	0.5 Inch	Z	A	PEV	-	5S	1	Aluminium	1	Aluminium	06	NBR 70 Shore
		2"	2		Male	01	0.75 Inch	Y	B	Grease Free	-	13S	4	Stainless Steel	4	Stainless Steel	07	Viton 70 Shore
		2.5"	25	NPT	Female	02	1 Inch	X	C								08	EPDM
		3"	3		Male	03	1.25 Inch	W	D								09	PTFE
		4"	4		Type A	04	1.5 Inch	V	E								14	Kalrez 6375
		6"	6		Type B	05	2 Inch	U	F								17	FMVQ
					Type E	06	2.5 Inch	T									23	Chemraz 505
					Type F	07	3 Inch	R									28	EPDM Peroxide Cured
					Type CL	08	4 Inch	Q									36	NBR 90 Shore
					Type CS	09	6 Inch	P									37	Viton 90 Shore
					Type J	10	Special	S									38	EPDM 90 Shore
				ANSI Class 150	Type DL	11	NOTE: This field is not used if the connection size matches the hose unit size										46	NBR FDA Approved
					Type DS	12											47	Viton FDA approved
					Dovetail	13											48	EPDM FDA Approved
					Special	14											51	FKM 90 Vi895
					Type A	15											56	FKM 70 LT170
					Type B	16												
					Type E	17												
					Type F	18												
					Type CL	19												
				ANSI Class 300	Type CS	20												
					Type J	21												
					Type DL	22												
					Type DS	23												
					Dovetail	24												
					Special	25												
					Type A	26												
					Type B	27												
					Type C	28												
					Type D	29												
					Type E	30												
				PN10/16	Type F	31												
					Type G	32												
					Type H	33												
					Dovetail	34												
					Type B21	35												
					Special	36												
					Type A	37												
					Type B	38												
					Type C	39												
					Type D	40												
					Type E	41												
				PN25/40	Type F	42												
					Type G	43												
					Type H	44												
					Dovetail	45												
					Type B21	46												
					Special	47												
				TTMA	-	48												
				TW1	-	49												
				TW3	-	50												
				Undrilled	-	51												
				PN6	-	52												
				W2-7	-	53												
				Special	-	54												

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THE NEXT
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CERTIFICATES AND STANDARDS

TODO® II Tank Units are certified to and adhere by the following standards:

- 2014/68/EU – Pressure Equipment Directive
- 2010/35/EU – Transportable Pressure Equipment Directive
- 2014/34/EU – ATEX
- VdTÜV under test approval mark TÜ.AGG.162-93 towards ADR, RID, MDG and TA-Luft classifications
- ISO 9001:2015
- ISO 14001:2015

**“WHEN I LOOK TO BUY A DRY-BREAK®
VALVE FOR MY PROJECT
– I ASK FOR A TODO®”**

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