



Model No. of product in photograph is: TNK12HD8ZZ10P2FS2S.

Features and Benefits

- Package solution comes complete with all accessories installed
- Patented insertion ring for filter head flange mounting prevents leakage
- Patented integrated baffle wall creates settling zone for returning oil (degassing) with simultaneous cooling effect
- Tested for leakage (no testing is required)
- High degree of cleanliness eliminates time-consuming flushing processes
- Lightweight and cost efficient
- No risk of corrosion
- Available in two different sizes and configurations
- GeoSeal® patented element technology

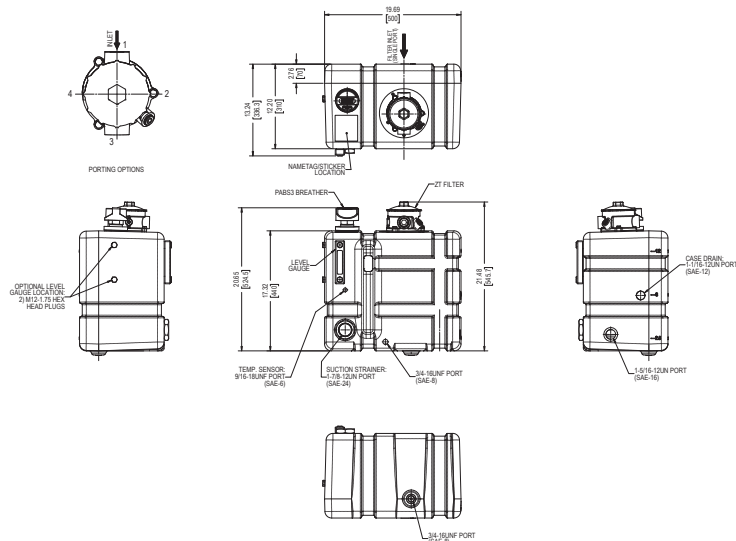
TNK12 - 12 Gallons
TNK18 - 18 Gallons
TNK25 - 25 Gallons

100 psi
(7 bar)
Return Line
Filter

Specifications

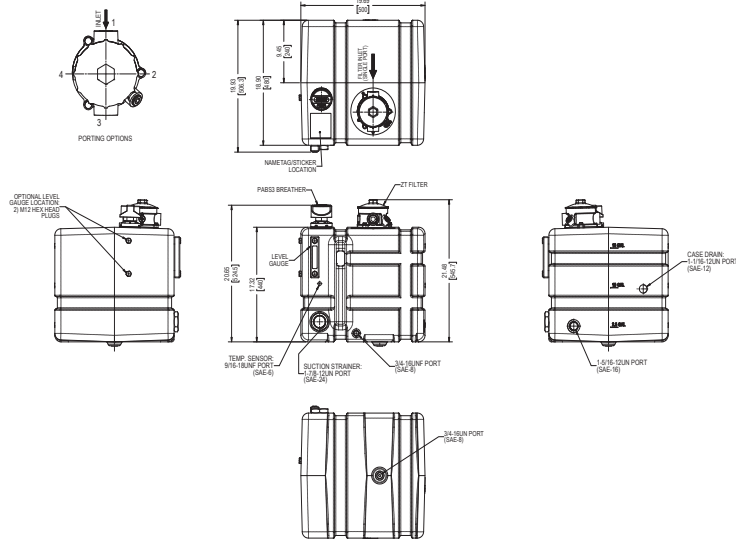
Tank Materials:	High Density Polyethylene (HDPE) Nylon 6 (PA6)
Tank Volumes:	12 gal (45L), 18 gal (70L) or 25 gal (100L)
Operating Temperature:	High Density Polyethylene (HDPE) - 20°F to 180°F (-29°C to 82°C) Nylon 6 (PA6) - 20°F to 220°F (-29°C to 105°C)
Return Line Filter:	ZT & GZT available
Max. Return Flow:	TNK12: 40 GPM (150 L/min) TNK18: 40 GPM (150 L/min) TNK25: 40 GPM (150 L/min)
Breather:	3 µ phenolic resin impregnated paper element
Suction Filter:	100 µ wire mesh
Weight of TNK:	TNK12: 21 lbs (9,7 kg) TNK18: 33 lbs (15 kg) TNK25: 42 lbs (19 kg)
Element Change Clearance:	TNK12: 10" (254mm) TNK18: 10" (254mm) TNK25: 10" (254mm)
Ultra Violet Light Rating:	HPDE = UV-12 PA6 = UV-4 (Tank requires painting or placed out of direct sunlight for PA6 material)

TNK12



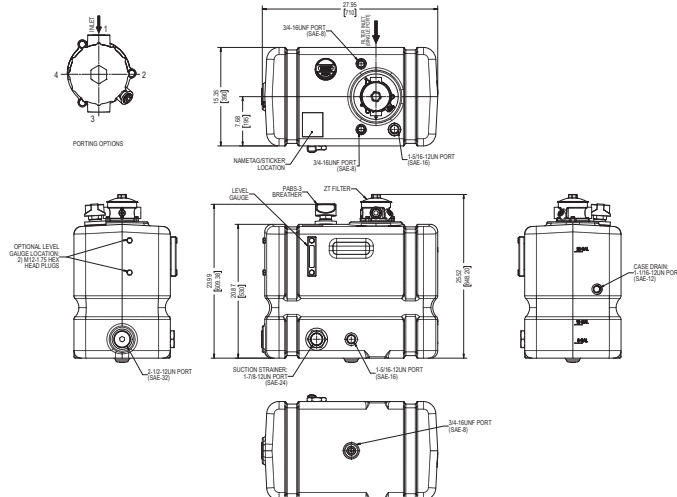
Metric dimensions in [].

TNK18



Metric dimensions in [].

TNK25



Metric dimensions in [].

Element	Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171	
	$\beta_{0.75} \geq 75$	$\beta_{0.100} \geq 100$	$\beta_{0.200} \geq 200$	$\beta_{0.2} \geq 200$	$\beta_{0.5} \geq 1000$
8Z3	6.8	7.5	10.0	N/A	N/A
8Z10	15.5	16.2	18.0	N/A	N/A
8ZZ1	<1.0	<1.0	<1.0	<4.0	4.2
8ZZ3	<1.0	<1.0	<2.0	<4.0	4.8
8ZZ5	2.5	3.0	4.0	4.8	6.3
8ZZ10	7.4	8.2	10.0	8.0	10.0
8ZZ25	18.0	20.0	22.5	19.0	24.0

Element Performance Information

Element	DHC (gm)
8Z3	39
8Z10	32
8ZZ1	51
8ZZ3	52
8ZZ5	59
8ZZ10	55
8ZZ25	77

Element Dirt Holding Capacity

Element Collapse Rating: 150 psid (10 bar)

Flow Direction: Outside In

Element Nominal Dimensions: 3.2" (81 mm) O.D. x 9.25" (235 mm) long

Pressure	Element		Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 25 psi (1.7 bar) bypass valve.				
	Series	Part No.					
Return Line -Tank-Mounted	E Media	8Z3 paper	8Z3 (cellulose media)				
		8Z10 paper	8Z10 (cellulose media)				
		8Z25 paper	8Z25 (cellulose media)				
	Z-Media®	8ZZ3	8ZZ3				
		8ZZ5	8ZZ5				
		8ZZ10	8ZZ10				
		8ZZ25	8ZZ25				
Flow	gpm	0	10	20	30	40	
	(L/min)	0	50	100	150		

Pressure Drop Information

Based on Flow Rate and Viscosity

Shown above are the elements most commonly used in this housing.

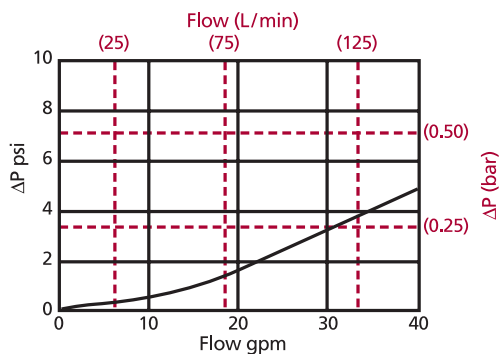
Note: Contact factory regarding use of E media in High Water Content, Invert Emulsion and Water Glycol Applications. For more information, refer to Fluid Compatibility: Fire Resistant Fluids, pages 21 and 22.

Pressure Drop Information

Based on Flow Rate and Viscosity

$\Delta P_{\text{housing}}$

ZT $\Delta P_{\text{housing}}$ for fluids with sp gr = 0.86:



sp gr = specific gravity

$\Delta P_{\text{element}}$

$\Delta P_{\text{element}} = \text{flow} \times \text{element } \Delta P \text{ factor} \times \text{viscosity factor}$

El. ΔP factors @ 150 SUS (32 cSt):

8Z3	.25
8Z10	.09
8Z25	.02
8ZZ1	.37
8ZZ3	.21
8ZZ5	.13
8ZZ10	.11
8ZZ25	.08

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor: Divide viscosity by 150 SUS (32 cSt).

Sizing of elements should be based on element flow information provided in the Element Selection chart above.

Notes

$$\Delta P_{\text{filter}} = \Delta P_{\text{housing}} + \Delta P_{\text{element}}$$

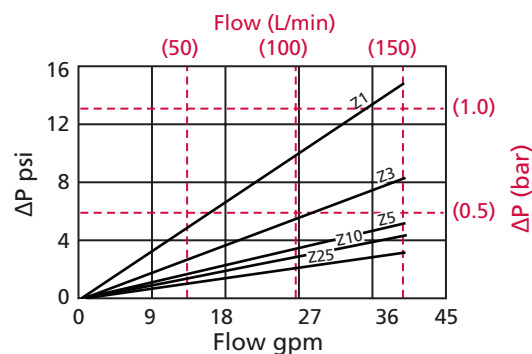
Exercise:

Determine ΔP at 20 gpm (76 L/min) for ZT8ZZ1PES using 200 SUS (44 cSt) fluid.

Solution:

$$\begin{aligned} \Delta P_{\text{housing}} &= 1 \text{ psi } [.07 \text{ bar}] \\ \Delta P_{\text{element}} &= 20 \times .37 \times (200 \div 150) = 9.8 \text{ psi} \\ &\text{or} \\ &= [76 \times (.37 \div 54.9) \times (44 \div 32) = 0.7 \text{ bar}] \\ \Delta P_{\text{total}} &= 1.0 + 9.8 = 10.8 \text{ psi} \\ &\text{or} \\ &= [.07 + .7 = .77 \text{ bar}] \end{aligned}$$

Element Pressure Drop Information



How to Build a Valid Model Number for a Schroeder TNK:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9	BOX 10	BOX 11
TNK										

Example: Note: One option per box

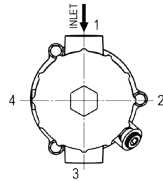
BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9	BOX 10	BOX 11
TNK	12	HD	8ZZ10	S	3	Y2	F	S	2	S

= TNK12HD8ZZ10S3Y2FS2S

Filter Model Number Selection

BOX 1	BOX 2	BOX 3	BOX 4																		
Product Series	Size	Material	Return Filter & Element Micron Selection																		
TNK	12 = 12 Gallon 18 = 18 Gallon 25 = 25 Gallon	HD = HDPE PA = Nylon 6 (PA6)	<table border="1"> <thead> <tr> <th>GZT (GeoSeal®)</th> <th>ZT</th> </tr> </thead> <tbody> <tr> <td>8GTZZ1 (Synthetic)</td> <td>8Z3 (Cellulose)</td> </tr> <tr> <td>8GTZZ3 (Synthetic)</td> <td>8Z10 (Cellulose)</td> </tr> <tr> <td>8GTZZ5 (Synthetic)</td> <td>8Z25 (Cellulose)</td> </tr> <tr> <td>8GTZZ10 (Synthetic)</td> <td>8Z21 (Synthetic)</td> </tr> <tr> <td>8GTZZ25 (Synthetic)</td> <td>8Z23 (Synthetic)</td> </tr> <tr> <td></td> <td>8Z25 (Synthetic)</td> </tr> <tr> <td></td> <td>8Z10 (Synthetic)</td> </tr> <tr> <td></td> <td>8Z25 (Synthetic)</td> </tr> </tbody> </table>	GZT (GeoSeal®)	ZT	8GTZZ1 (Synthetic)	8Z3 (Cellulose)	8GTZZ3 (Synthetic)	8Z10 (Cellulose)	8GTZZ5 (Synthetic)	8Z25 (Cellulose)	8GTZZ10 (Synthetic)	8Z21 (Synthetic)	8GTZZ25 (Synthetic)	8Z23 (Synthetic)		8Z25 (Synthetic)		8Z10 (Synthetic)		8Z25 (Synthetic)
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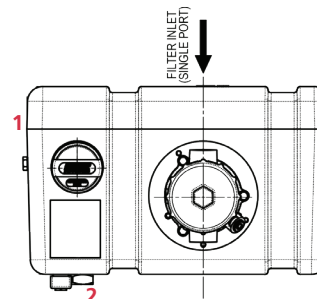
BOX 5	BOX 6	BOX 7						
Inlet Porting	Filter Inlet Port Orientation	Filter Dirt Alarm®						
P = 1" NPTF PP = Dual 1" NPTF S = SAE-16 SS = Dual SAE-16 B = ISO 228 G-1" BB = Dual ISO 228 G-1"	1 = Rear 2 = Right 3 = Front 4 = Left	<table border="1"> <thead> <tr> <th></th> <th>Omit = None</th> </tr> </thead> <tbody> <tr> <td>Visual</td> <td>Y2 = Back-mounted tri-color gauge Y2C = Bottom-mounted gauge in cap Y5 = Back-mounted gauge in cap</td> </tr> <tr> <td>Electrical</td> <td>ES = Electric switch ES1 = Heavy-duty electric switch with conduit connection</td> </tr> </tbody> </table>		Omit = None	Visual	Y2 = Back-mounted tri-color gauge Y2C = Bottom-mounted gauge in cap Y5 = Back-mounted gauge in cap	Electrical	ES = Electric switch ES1 = Heavy-duty electric switch with conduit connection
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Visual	Y2 = Back-mounted tri-color gauge Y2C = Bottom-mounted gauge in cap Y5 = Back-mounted gauge in cap							
Electrical	ES = Electric switch ES1 = Heavy-duty electric switch with conduit connection							



Porting Options

BOX 8	BOX 9	BOX 10
Filler/Breather	Sight Glass	Sight Glass Location
F = PABS3	S = SLG-5 N = No Sight Glass	Omit = No Sight Glass 1 = Left 2 = Front

BOX 11
Suction Strainer
S = SAE-24, 100 Mesh Strainer N = No Strainer / SAE-32 Open Port



NOTES:

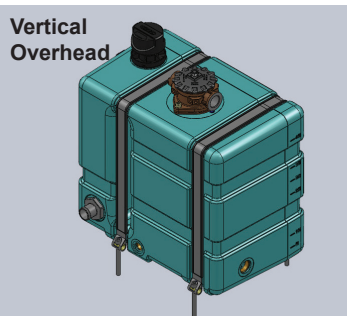
Box 4. Micron Rating refers to the return filter element rating.
Tank Mounting Straps sold as a separate part number, please see next page for configurations and options.

FURTHER INFORMATION:
PA6 Material must be painted or placed in a location out of direct sunlight to avoid UV degradation.

Plastic Tank Strap Arrangement Introduction

Mobile applications have unique requirements for hydraulic components. Often, these components need to be small, compact and as lightweight as possible. Making sure these reservoirs are secure is often overlooked. Schroeder Industries has taken the steps to ensure that customers have all the tools necessary to securely operate their mobile equipment. Schroeder's Plastic Tank (TNK) Reservoir, a money and time-saving solution with an integrated return filter and accessories in one compact package, also includes mounting straps. These mounting straps have been developed to assure a safe and secure connection to the frame or chaise of any mobile vehicle. These straps are offered in three configurations for both sizes of the Plastic Tank in either a steel strap or a rubber coated steel strap.

Mounting Possibility Standard Tank: 12 Gallon

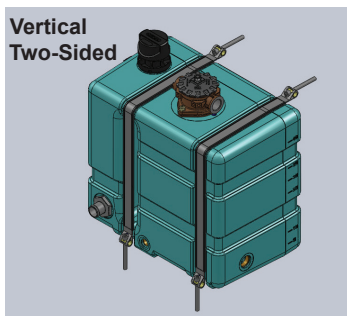


Standard Steel Straps

STR12VOS
41.9" (1063 mm)

Rubber Coated Steel Straps

STR12VOB
41.9" (1063 mm)

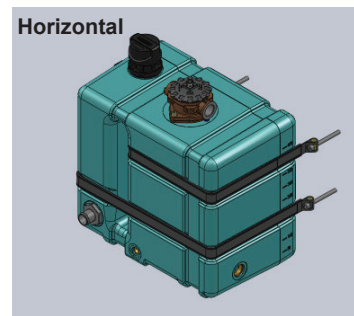


Standard Steel Straps

STR12VTS
25.8" (656 mm)

Rubber Coated Steel Straps

STR12VTB
25.8" (656 mm)



Standard Steel Straps

STR12HUS
33.8" (859 mm)

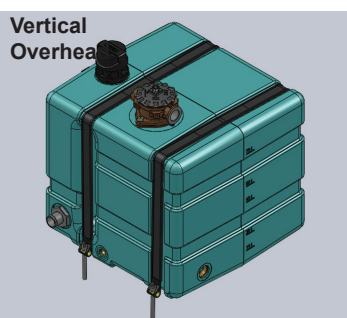
STR12HLS
40.2" (1022 mm)

Rubber Coated Steel Straps

STR12HUB
33.8" (859 mm)

STR12HLB
40.2" (1022 mm)

Mounting Possibility Standard Tank: 18 Gallon

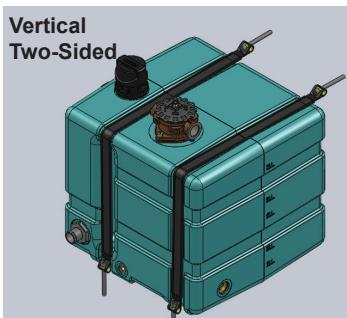


Standard Steel Straps

STR18VOS
49.8" (1266 mm)

Rubber Coated Steel Straps

STR18VOB
49.8" (1266 mm)



Standard Steel Straps

STR18VTS
32.2" (818 mm)

Rubber Coated Steel Straps

STR18VTB
32.2" (818 mm)



Standard Steel Straps

STR18HUS
46.7" (1185 mm)

STR18HLS
53.1" (1348 mm)

Rubber Coated Steel Straps

STR18HUB
46.7" (1185 mm)

STR18HLB
53.1" (1348 mm)

How to Build a Valid Model Number for a Schroeder STR12:

BOX 1	BOX 2	BOX 3	BOX 4
STR			

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	
STR	12	VO	S	= STR12VOS

BOX 1

Tank Size

STR = Strap

BOX 2

Part Type

12 = 12 gallon tank

18 = 18 gallon tank

BOX 3

Arrangement

VO = Vertical Overhead

VT = Vertical Two-Sided

HU = Horizontal Upper Strap

HL = Horizontal Lower Strap

BOX 4

Cover

S = Steel Strap

B = Rubber Covered Steel Strap

For TNK25 strap mounting options please consult factory.