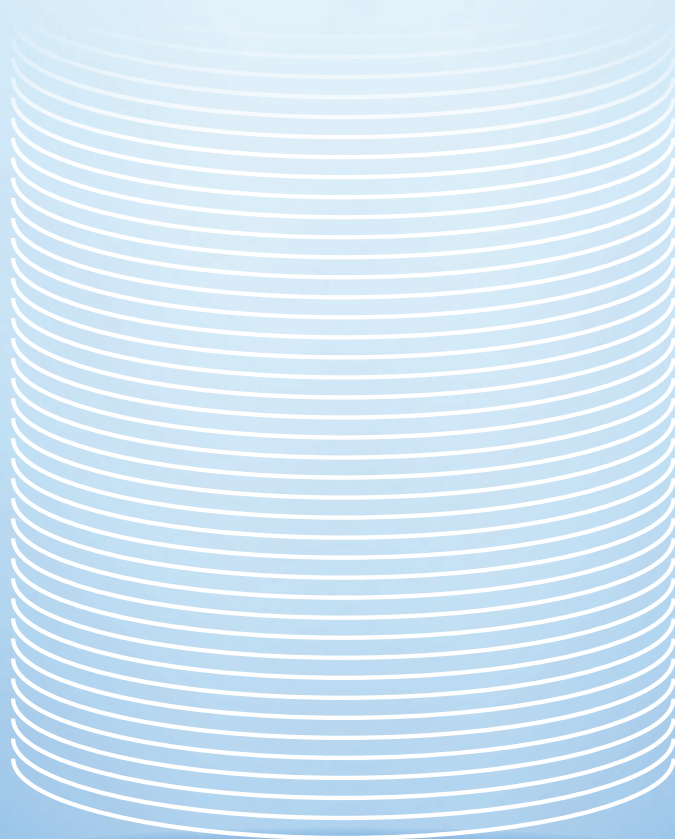


# TAVLIT FILTERS

## 2020

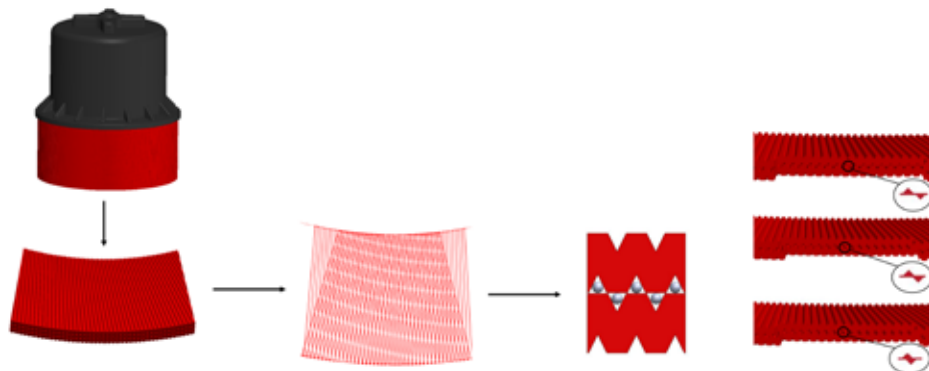


 **TAVLIT**  
Smart Filtration










# Disc Filtration Technology

TAVLIT disc filters combine high quality depth and surface filtration that can stop high quantities of particles with efficient flushing of the disc element which ensures protection of the client system and long service life with minimal maintenance. The discs are made of high-quality plastic material with accurate diagonal grooves on both sides in opposite directions. The filter element is composed of discs compressed together. The many intersections between the grooves of adjacent discs create traps that stop the dirt particles and function as depth filtration. In addition particles are stopped on the outer surface of the discs. The element therefore offers large filtration capacity and can handle large variety of dirt particles, especially organic matter.



Easy to identify color code enables the user to differentiate between the various micron sizes of the discs and choose the proper size of his system requirements.

## Element Type And Mesh Color Code

Mesh/Micron	40/400	80/200	120/120	140/100	200/70	300/50	700/20
Disc	Blue 	Yellow 	Red 	Black 	Brown 	Green 	Grey 

Mesh count per Linear inch.

Micron in approximate values may vary between element types.

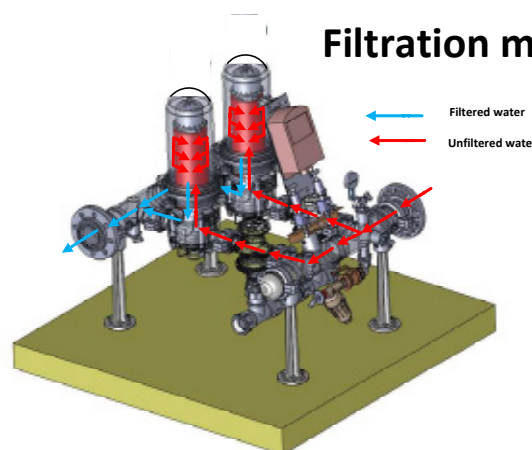
## Filtration process:

Water enters the filter and flows through the discs from the outer surface into the inner space. The dirt accumulates on the outer surface and between the grooves and filtered water flow to the outlet of the filter.

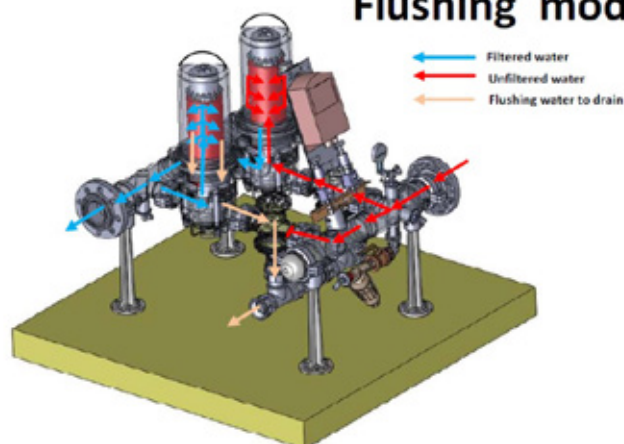
## Flushing process:

Accumulation of the dirt increases the head loss across the filtration battery. When the head loss reaches a preset value (usually 0.5-0.7 bar; 7-10 psi), the controller performs a flushing cycle flushing one filter after the other. The flushing valve reverses position, closes the outlet and opens the drain. Filtered water from the other filters flow into the flushed filter from the outlet into the spine. The piston pressure is released and the discs become loose. Jets flow from the spine rotate and flush the discs. The dirt flows to the drain. After 12-30 seconds, depending on the dirt load and controller settings the discs are clean and the valve returns to filtering position and the next filter performs flushing. Additionally, the controller has a preset time-based flushing as backup.

## Filtration mode



## Flushing mode



## TVD Technology

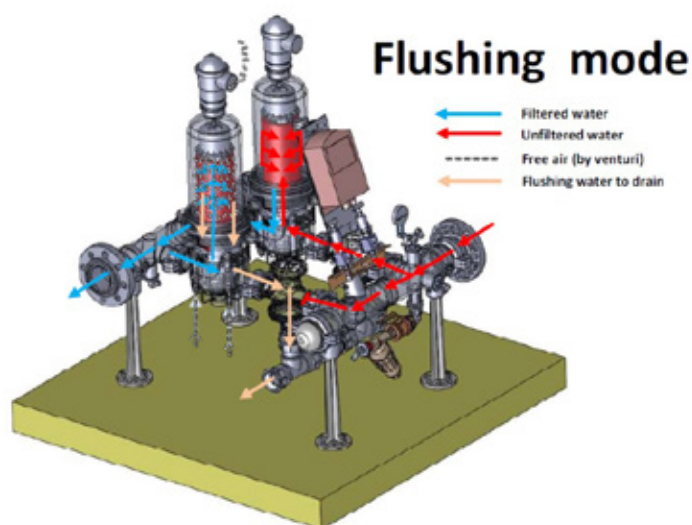
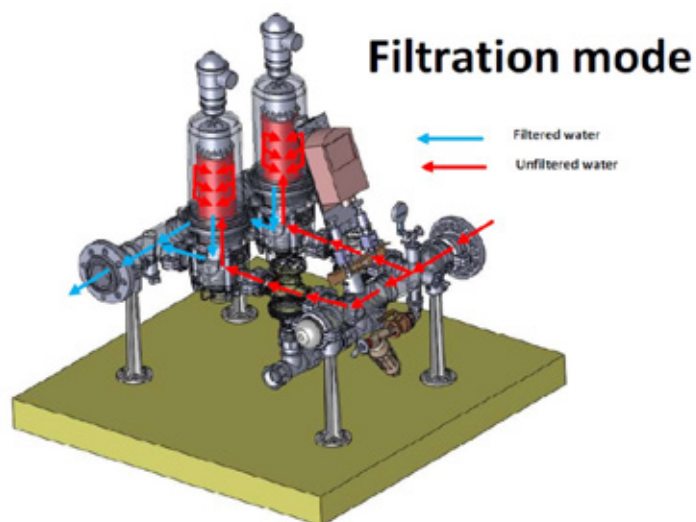
This unique automatic disc filter (patented), saves water and energy by using air in addition to water in the flushing process. The innovative technology of the filter uses venturi devices inserted at the spine's inlets that introduce air during the flushing process to enhance it. The mixture of air and water enables more efficient flushing, uses smaller quantities of water and enables flushing at low pressure of 1.5 bar as compared to 3 bar required by other systems and shortens the flushing time. The use of air also cushions the discs thereby reducing friction and prolonging the disc element life. The venturi devices insert air from the atmosphere and no external power or compressed air is required. The venturi devices are open only during flushing and do not operate during filtration.

### Filtration process:

Water enters the filter and flow through the discs from the outer surface into the inner space. The dirt accumulates on the outer surface and between the grooves, and filtered water flow to the outlet of the filter.

### Flushing process:

Accumulation of the dirt increases the head loss across the filters' battery. When the head loss reaches a preset value (usually 0.5-0.7 bar; 7-10 psi) the controller performs a flushing cycle flushing one filter after the other. The flushing valve changes position, closes the outlet and opens the drain. Filtered water from the other filters flow into the flushed filter from the outlet into the spine. The piston pressure is released and the discs become loose. Jets flow from the spine rotate and flush the discs. The dirt flows to the drain. After 12- 30 seconds, depending on the dirt load and controller settings the discs are clean and the valve returns to filtering position and the next filter performs flushing. During flushing air is introduced into the spines. The mixture of air and water enables highly efficient flushing, uses smaller quantities of water and shortens the flushing time. Additionally, the controller has a preset time-based flushing as backup.



# Adir Manual Filters

Tavlit professional line of plastic filters is high quality, robust and with large filtration area. The filters are available from 1" to 3" and for flow rates up to 50 m³/h. (220 gpm).

## Applications:

- Water filtration for Agriculture, Turf, domestic and industrial applications.
- Applicable for wide range of flows.

## Special Features

- Special locking ring enables easy opening of the filters without the use of tools.
- Filter disc element is secured to the body and includes a telescopic spine that extends to allow to easily clean the disc element.
- Large filtration area for handling large quantities of dirt.
  - 2"S; 3": Screen 950 cm²; Disc 1025 cm².
  - 1½"; 1"S: Screen 425 cm²; Disc 500 cm².



Optional - Pressure indicator enables quick and easy way to show the user that the filter is clogged and needs flushing.

- The device, offered as an add on, is connected directly to the pressure testing ports located on the filter body.

## Technical Specifications:

- Max. Working pressure:
  - 10 bar (140 psi) Black body and Cup.
  - 6 bar (95 psi) Grey body and Cup.
- Available sizes: 1"S, 1½", 2"S, 3".
- Models 2"S, 3" are offered in T and in line configurations.
- Filtration elements: Stainless Steel weave wire screen or Grooved plastic discs.
- Filtration range: 20-140 micron; (700-140 mesh)
- Connections:
  - Threads: B.S.P.T. or N.P.T. all sizes.
  - Flange, VIC: 2", 3".

Size		1"S	1.5"	2"S	3"
<b>Flow rate</b>	m³/h (us gpm)	8 (35)	15 (66)	25 (110)	50 (220)
<b>Screen filtration area</b>	cm² (inch²)	425 (70)	425 (70)	950 (150)	950 (150)
<b>Disc filtration area</b>	cm² (inch²)	500 (80)	500 (80)	1025 (160)	1025 (160)
<b>Stainless Steel screen</b>	mesh (micron)	80-200 (200-70)	80-200 (200-70)	80-200 (200-70)	80-200 (200-70)
<b>Disc element</b>	mesh (micron)	40 - 700 (425 - 20)	40 - 700 (425 - 20)	40 - 700 (425 - 20)	40 - 700 (425 - 20)

1" | 1½"



2"T | 3"T

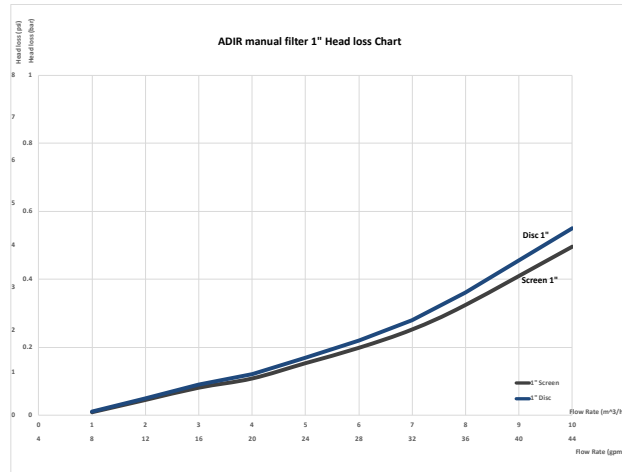


2" | 3"

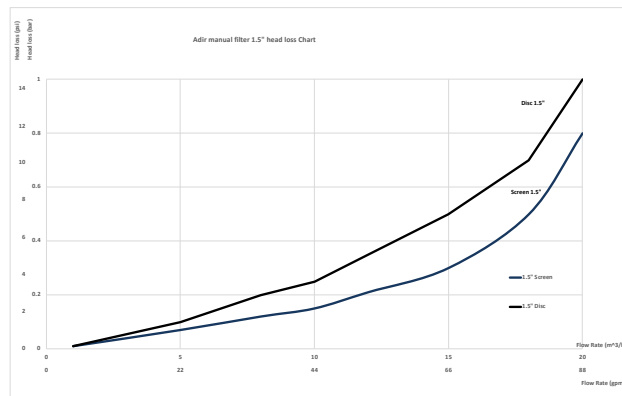


# Adir Manual Filters

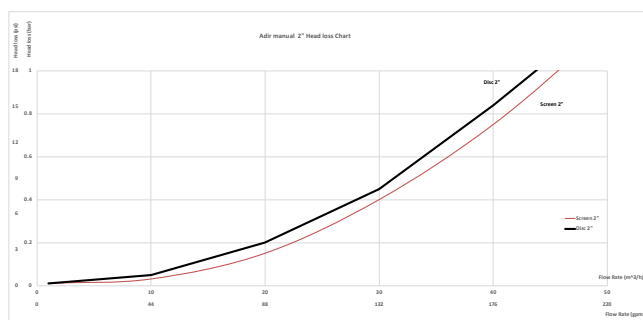
## 1" ADIR FILTER HEAD LOSS



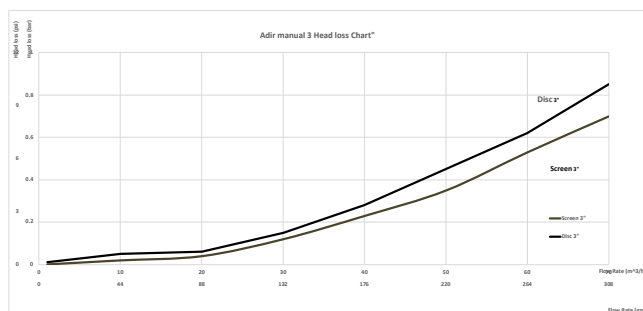
## 1.5" ADIR FILTER HEAD LOSS



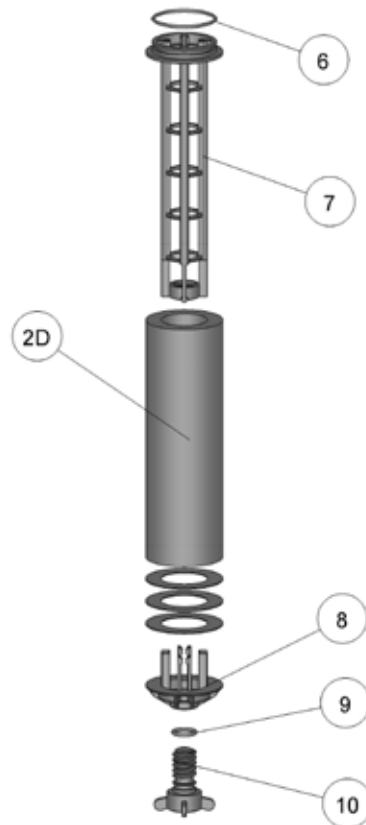
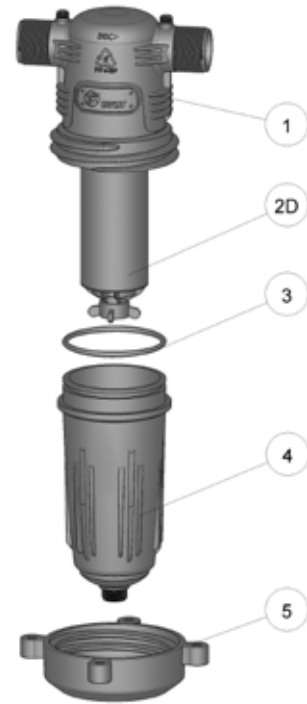
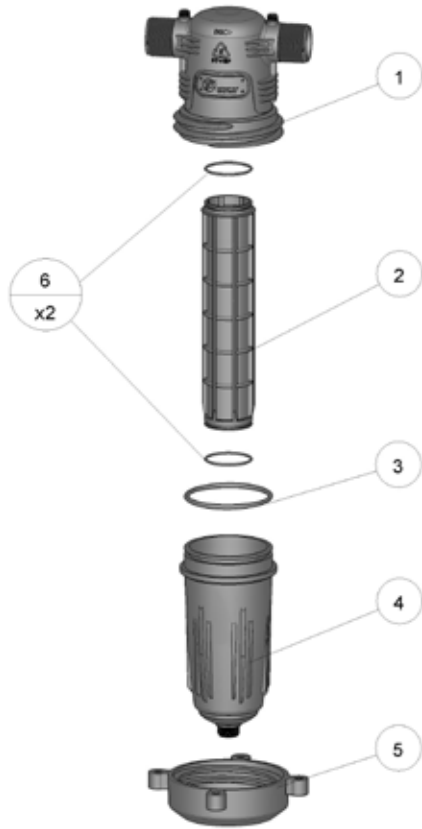
## 2" ADIR FILTERS HEAD LOSS



## 3" ADIR FILTERS HEAD LOSS

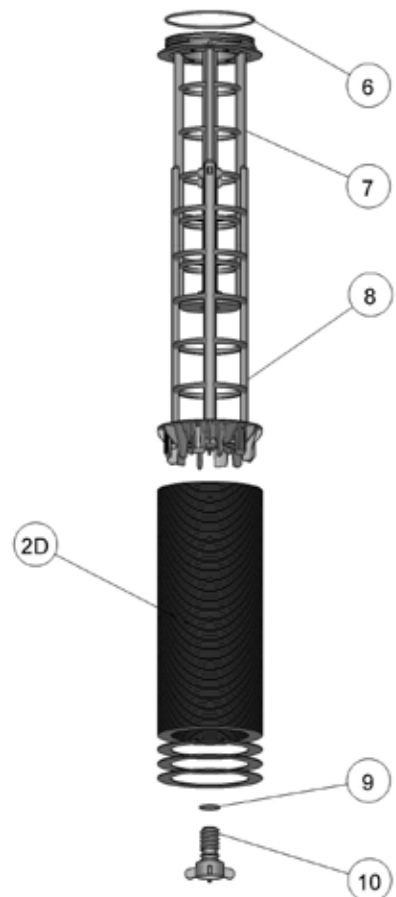
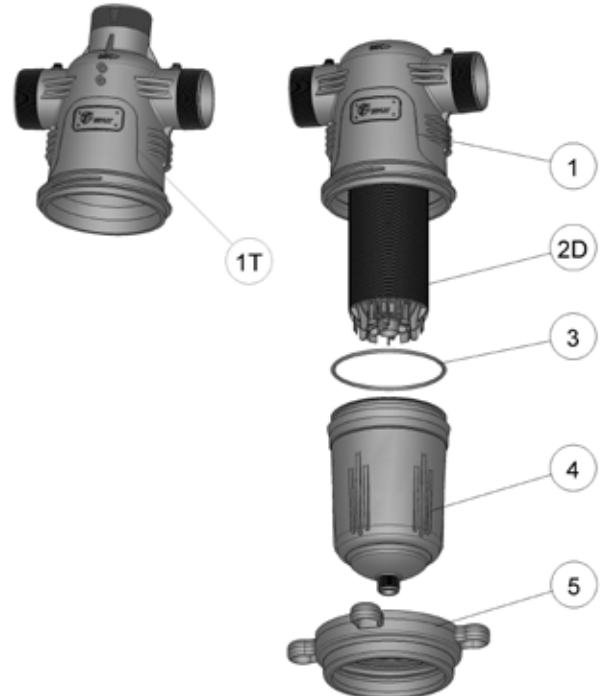
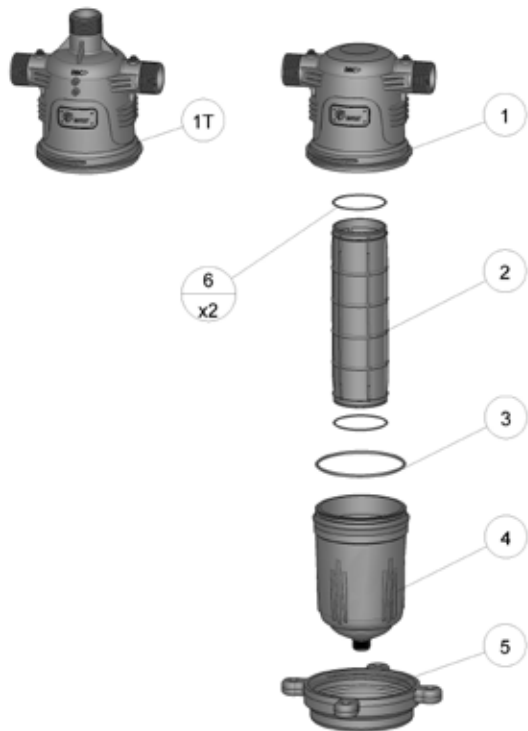


## Adir manual 1 -1.5 parts list



Item No.	Description	Part Number
1	Body	NBF 1 1/2
2	Screen element	NFSJ***M
2D	Disc element	DISKX***
3	Locking O ring	OR 97257
4	Cup	NFC 1 1/2
5	Locking ring	LR 1 1/2
6	Spine O ring	OR2-138B
7	Disc Spine	DH 1 1/2
8	Piston	SP 1 1/2
9	Screw O ring	OR2-114
10	Screw	SCR3

## Adir manual 2 - 3 parts list

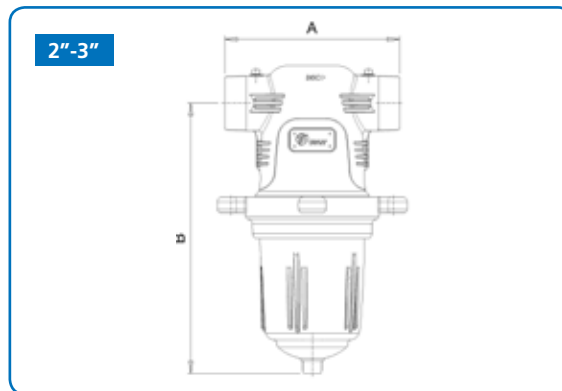
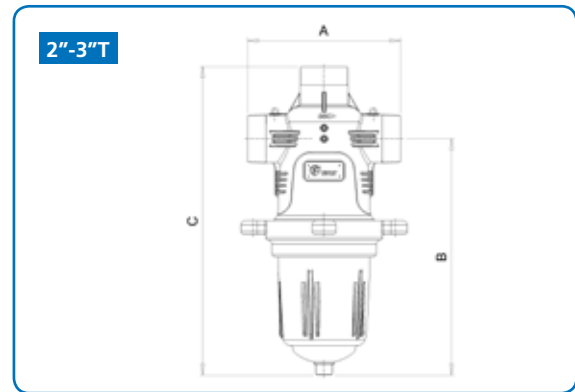
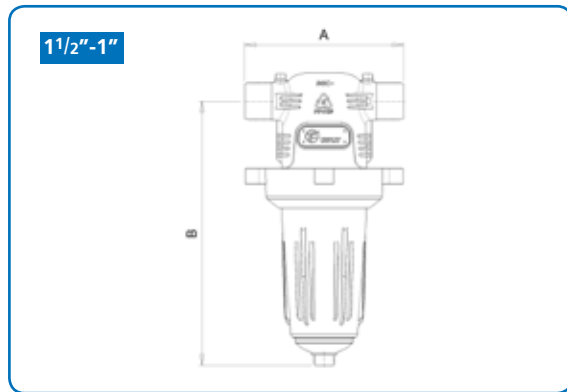


Item No.	Description	Part Number
1	Body	NBF2
1T	Body T	NBF2MT
2	Screen element	NFSI***B
2D	Disc element	DISKX***
3	Locking O ring	OR2-362
4	Cup	NFC3G
5	Locking ring	LR3
6	Spine O ring	OR9425
7	Telescopic disc spine static	SP2M
8	Telescopic disc Spine outer part	SP3S
9	Screw O ring	OR2-114
10	Spine screw	SCR3

# Adir Manual Filters

## Physical Dimensions

Size	1"S		1.5"		2"S		3"	
	mm	inch	mm	inch	mm	inch	mm	inch
A	200	7.9	200	7.9	280	11.0	280	11.0
B	340	13.4	340	13.4	420	16.5	450	17.7
C					530	20.9	580	22.8



## Weight\*

	1"		1.5"		2"		3"	
Type	Kg.	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.	Lbs.
Screen	4.2	9.2	3.8	8.4	1.6	3.5	1.4	3.1
Disc	5.1	11.2	4.8	10.6	1.9	4.2	1.7	3.7

\*Filter empty

## Filter Elements

In order to respond to the various needs Tavlit offers the Adir line of filters with two types of filter elements:

1. **Stainless steel** - Stainless steel weave wire screen.
2. **Grooved plastic** disc elements stacked together on a telescopic spine that can be released in order to perform proper flushing of the dirt accumulated on and between the discs.

A wide range of filtration degrees is offered for various applications.



# Eitan Manual Filters

Tavlit offers a line of plastic filters combine high quality with an economical cost. The filters are available from 3/4"-2" and for flow rates up to 20m<sup>3</sup>/h (88 gpm).

## Applications:

Water filtration for Agriculture, Turf, domestic & industrial use.

## Features:

- Easy maintenance.
- Unique: swivel quick installation.
- Chemical and fertilizer resistant.
- Interchangeable filtration elements:  
Disc and Screen elements fit same filter body, with opposite flow direction.



Swivel 2"  
Inox Screen Filter



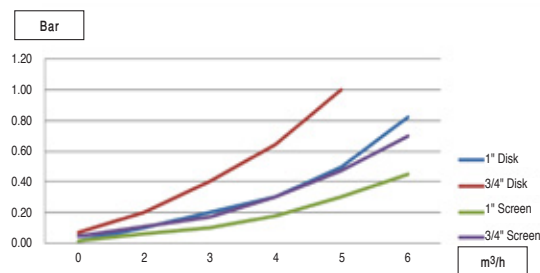
Compact Swivel  
Filter 1 1/2"



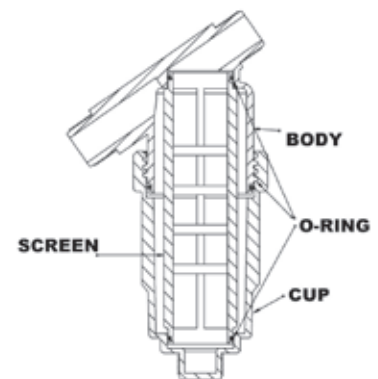
Swivel 1"  
Disk Filter

3/4"-1"

## 3/4"-1" SCREEN AND DISC EITAN FILTERS HEAD LOSS



## SCREEN FILTER



Materials:  
Body: P.P.  
Screen: Stainless steel or Polyester.  
Cup: P.P.  
O-Rings: EPDM.



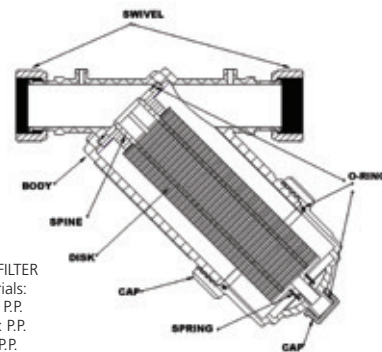
# Eitan Manual Filters

## Technical Specifications:

- Max. working pressure: 10 bar (145 psi).
- Threads: B.S.P.T. or N.P.T.
- Available sizes: 3/4" - 2".
- Flow rates: 5-20 m³/h (22- 88 gpm).
- Filtration elements: Disc, P.P / Screen stainless steel.

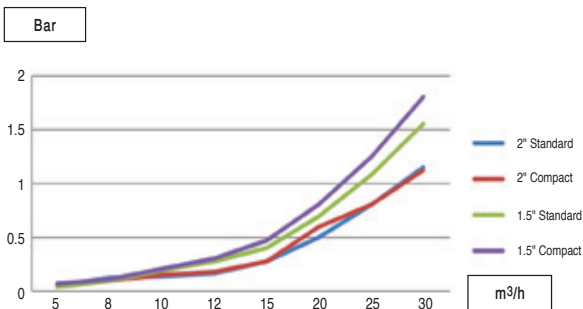
	Standard				Compact	
	3/4"	1"	1 1/2"	2"	1 1/2"	2"
Flow Rate m3/h (gpm)	5 (22)	5 (22)	15(66)	20 (88)	15(66)	20 (88)
Screen Filter Area cm² (inch²)	140 (22)	140 (22)	552 (85)	670 (104)	420 (65)	420 (65)
Disk Filter area cm² (inch²)	180 (28)	180 (28)	385 (60)	488 (75)	290 (45)	290 (45)
Nylon Screen Mesh Range	40-200	40-200				
Stainless Steel Mesh Range	80-200	80-200	80-200	80-200	80-200	80-200
Disk Mesh Range	80-140	80-140	80-140	80-140	80-140	80-140

1 1/2"-2"

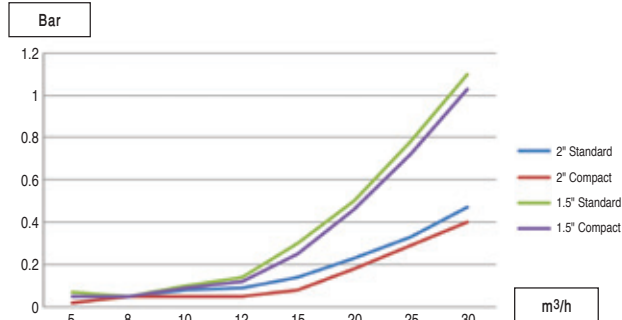


DISK FILTER  
Materials:  
Body: P.P.  
Spine: P.P.  
Cup: P.P.  
Disk: P.P.  
Sleeve: P.P.  
Spring: Stainless steel.  
O-Rings: EPDM.

1.5-2" EITAN DISC FILTERS HEAD LOSS



1.5-2" EITAN SCREEN FILTERS HEAD LOSS



## Physical Dimensions

	standard								compact			
size	3/4"		1"		1 1/2"		2		1 1/2"		2	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
<b>a</b>	121	4.8	121	4.8	257	10.3	257	10.3	257	10.3	257	10.3
<b>B</b>	160	6.4	160	6.4	240	9.6	270	10.8	220	8.8	220	8.8
<b>L</b>	153	6.1	153	6.1	220	8.8	265	10.6	170	6.8	170	6.8
<b>D</b>	31	1.2	31	1.2	80	3.2	80	3.2	80	3.2	80	3.2

## Weight

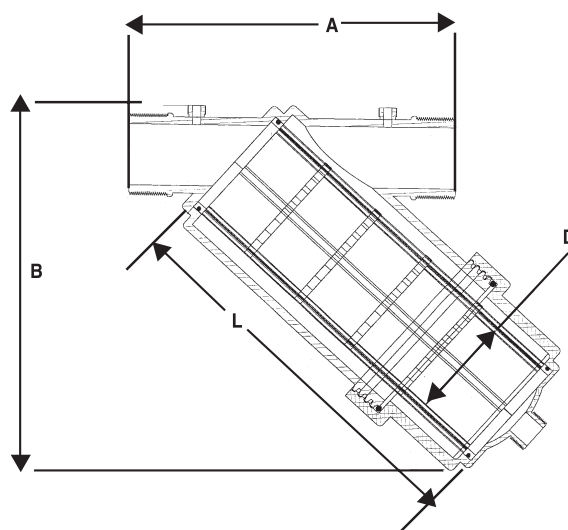
	standard				compact	
size	3/4"	1"	1 1/2"	2	1 1/2"	2
<b>Kg</b>	0.3	0.3	1.3	1.5	1.1	1.25
<b>Lbs.</b>	0.7	0.7	2.9	3.3	2.4	2.8

## Filter elements:














In order to respond to market various needs Tavlit offers two types of filter elements for the Eitan filters:

**Screen:** Polyester or Stainless steel.

**Discs:** Grooved P.P discs stacked together on a spine.



## Element Type and Mesh Color Code


Mesh/Micron	40/425	80/200	120/120	140/105	155/90	200/70
Polyester screen	Dark Blue 	Blue 	Red 		Green 	Violet 
Stainless steel screen		Blue 	Red 		Green 	Violet 
Disk	Blue 	Yellow 	Red 	Black 		

Mesh count per Square inch.


Micron in approximate values may vary between element types.

## On Line Filter

Specially designed connector for:

ON LINE FILTER FEMALE/BARB ADAPTOR		
	Cat. No.	Size
	FA1234F	12X3/4F
	FA1634F	16X3/4F
	FA2034F	20X3/4F

Inox screen 60 mesh

M/F SWIVEL FILTER		
	Cat. No.	Size
	FSFM34	3/4"X3/4"

Inox screen 60 mesh

TAVLIT offers a unique and innovative semi-automatic disc filter that enables the user the advantages of disc filtration without the need of opening the filter and manually cleaning the discs on one hand and without the expensive and sophisticated control systems of an automatic disc filters. The cleaning process is simple and quick. The user only has to turn the handle a  $\frac{1}{4}$  of a turn for 10-20 seconds. The filters are available at 2 and 3" and flow rates up to 50m<sup>3</sup>/h (220 gpm).

## Special Features:

- Flushing is performed simply by turning the operation handle a  $\frac{1}{4}$  of a turn. Quick and easy.
- Water for flushing the discs is filtered with an internal screen.
- Small footprint.
- No external valves are required.

## Applications:

- Water filtration for Agriculture, Turf and industry.
- Intended as control filter in subsections for easy cleaning.
- Most suitable for low quality water sources where the user prefers to clean the discs element without dismantling the filter.



Standard - Pressure indicator enables quick and easy way to show the user that the filter is dirty and needs flushing.

- When pressure loss across the filter element reaches the preset value, usually 0.5 bar (7 psi), the red button pops up and the user can see from a distance that the filter needs flushing.
- There is no need to perform manual pressure tests.
- After flushing the button descends into the indicator body.
- The device is connected directly to the pressure testing ports located on the filter body.

## Filter is offered in two models:

**TDS-1A** – the cleaning process is performed in one action. The user just turns the handle and the filter performs a flushing cycle: Downstream closes, drain valve opens, discs are released and filtered water rotate the discs and removes the dirt. After approximately 10-20 seconds the discs are clean, the user turns the handle back and the filter resumes its filtering mode.

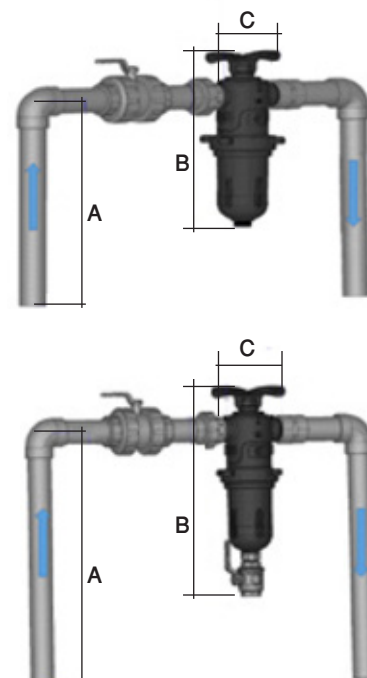
When the filter is clean the user needs to flush the secondary port by opening the service valve for 10 seconds.

**TDS-2A** – the economical solution. The user opens the drain valve and then rotates the handle a  $\frac{1}{4}$  of a turn and the filter performs a flushing cycle: Downstream closes, discs are released and filtered water rotate the discs and removes the dirt. After approximately 10-20 seconds the discs are clean, the user turns the handle back and closes the drain valve, the filter resumes its filtering mode.

When the filter is clean the user needs to flush the secondary port by opening the service valve for 10 seconds.

## Technical specifications:

- Available sizes: 2 and 3".
- Max working pressure: 10 bar.
- Max. flow rate:
- 2" 25 m<sup>3</sup>/h
- 3" 50 m<sup>3</sup>/h
- Available in 20-425 micron (700-40 mesh).
- Required time for flushing: 10-20 seconds.
- Required time to flush the secondary port - 10 seconds.
- Min. flushing pressure: 2 bar.
- Flushing flow rate:
- 2 bar: 9 m<sup>3</sup>/h
- 3 bar: 12 m<sup>3</sup>/h
- Filtration area: 1025 cm<sup>2</sup>
- Connections: Thread BSP, NPT, FLANGE, VIC.
- Construction materials: Nylon, Polypropylene.



We recommend installing a manual valve in the upstream.

## Physical Dimensions

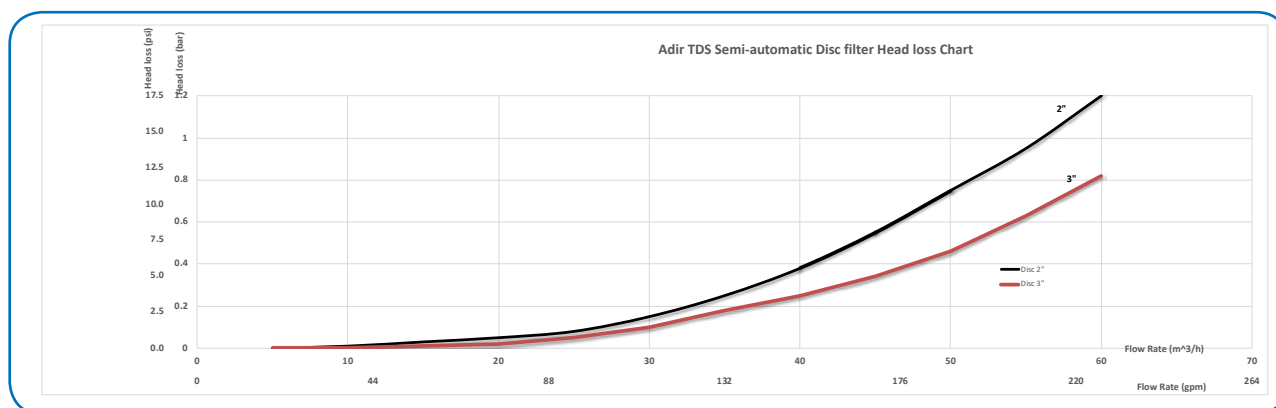
Dimensions (mm)	One Action	Two action
<b>A</b>	750	950
<b>B</b>	645	795
<b>C</b>	235	235

## Weight (empty)

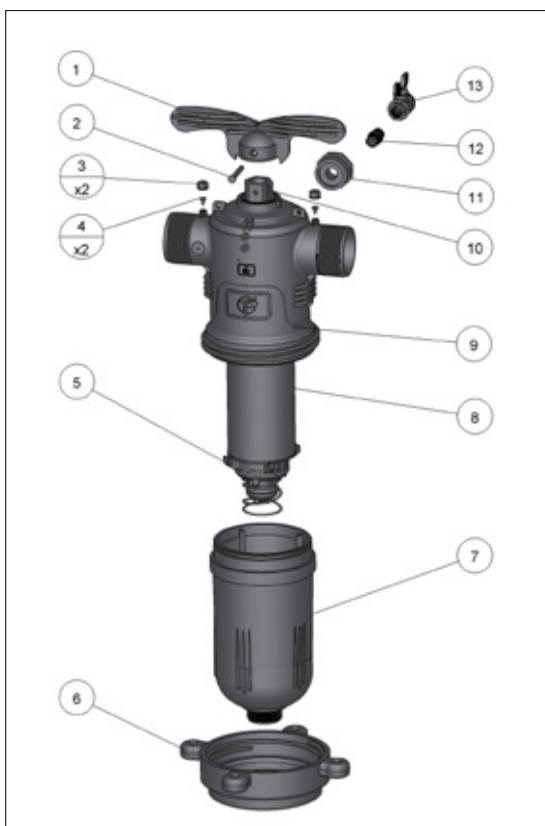
Size	Model	Weight (kg)	Weight (Lbs.)
<b>2 - 3"</b>	1 action	8.6	19
<b>2 - 3"</b>	2 action	9.5	20.5

## Technical Specification

Size		2"S	3"
<b>Flow rate</b>	m <sup>3</sup> /h (gpm)	25 (110)	50 (220)
<b>Disc filtration area</b>	cm <sup>2</sup> ( inch <sup>2</sup> )	1,025 (160)	1,025 (160)
<b>Disc element</b>	Mesh (micron)	40 – 140 (425 – 105)	40 – 140 (425 – 105)



# ADIR Semi –automatic disc filters series TDS



Item No.	Description	Part Number
1	Handle	SAFH
2	Pin	SAFVHPIN
3	Pressure testing port nut	CF14H
4	Pressure testing port nipple	E382020
5	Piston	SAFPIS
6	Nut lock ring	SALR
7	Cup	SAFCUP
8	Disc element	DISKX***
9	Body	BSAF3M
10	Main Valve	SAF3WV
11	Busing 2"x1/2"	BMF212S
12	Nipple 1/2"	N12
13	Valve 1/2"	BV12FT
14	Strainer	SAFSS
15	Secure pin	SAFSSPIN
16	Keel adaptor	SAFKA
17	Flush valve body	SAFSH
18	Spacer	SAFSP
19	Piston seal	SAFSEAL
20	Piston locking ring	SAFVDL
21	Piston nut	OMMN08
22	Pressure disc	SAFPD
23	Spring	SAFSPR

TAVLIT offers semi-automatic screen filters, models TS, for easy effective filtration. The plastic filters are designed for long life and service in hard conditions and include a strong INOX 316 screen mesh. During operation water enters the filter and dirt is accumulated on the inner surface of the screen and clean water is supplied to the field. When the filter is dirty as shown by the head-loss indicator, the user performs a flushing cycle by opening the drain valve and rotating the handle – Opening the drain valve creates low pressure in the suction nozzles and dirt is sucked from the screen to the nozzles. The rotation of the handle moves the suction nozzles on the entire screen area and remove all the accumulated dirt off the screen – debris is flushed through the drain port out of the filter. During the flushing cycle water flow to the field are uninterrupted.

The filters are available in 2" and 3" for flow rates up to 50 m<sup>3</sup>/h (220 gpm).



## Applications:

- Water filtration for agriculture, Turf and industry.
- Intended as control filter in subsections for easy cleaning.
- Most suitable for low quality water sources where the user prefers to clean the filter without dismantling it.

## Technical specifications:

- Available sizes: 2" 3".
- Max working pressure: 10 bar.
- Max. flow rate:
  - 2" 25 m<sup>3</sup>/h
  - 3" 50 m<sup>3</sup>/h
- Available in 70-200 micron (200-80 mesh).
- Min. flushing pressure: 2 bar.
- Flushing flow rate:
  - 5.5 m<sup>3</sup>/h At 2 bar
  - 7 m<sup>3</sup>/h At 3 bar
- Filtration area: 950 cm<sup>2</sup>
- Connections: Thread BSP, NPT. FLANGE, VIC.
- Construction materials: Nylon, Polypropylene. O Rings - EPDM.

## Special Features:

- Water flow to the field is uninterrupted.
- Made from high quality plastics materials.
- High quality and robust SS 316 screen.
- Small foot print and large filtration area.
- Tailor made batteries of filters are available for higher flow rates.
- Optional - Pressure indicator clearly shows when the filter is dirty and needs flushing.

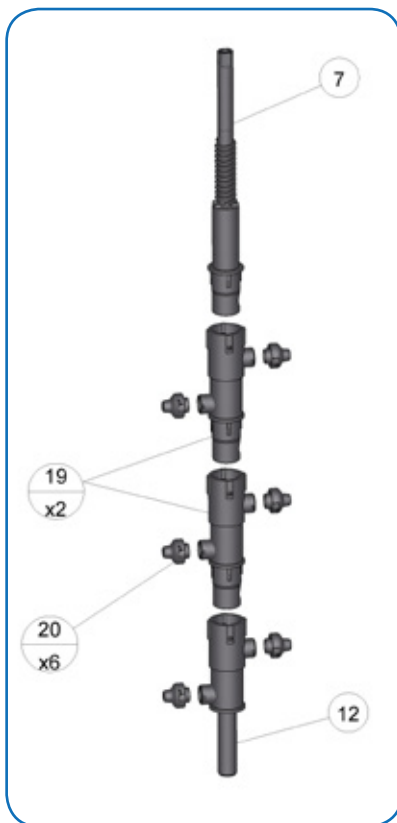
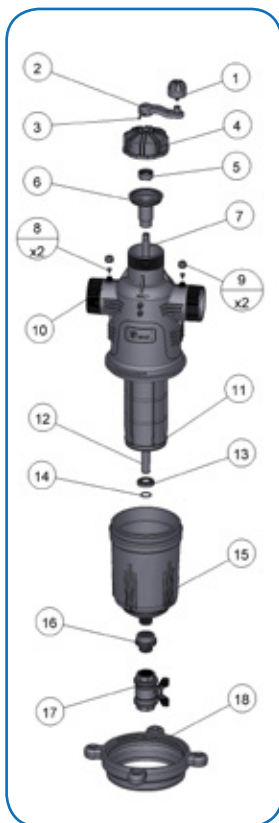
## Technical Specification

Size		2"	3"
Flow rate	m <sup>3</sup> /h (gpm)	25 (110)	50 (220)
Screen area	cm <sup>2</sup> ( inch <sup>2</sup> )	950 (150)	950 (150)
Screen element	Mesh (micron)	80 – 200 (200 – 70)	80 – 200 (200 – 70)

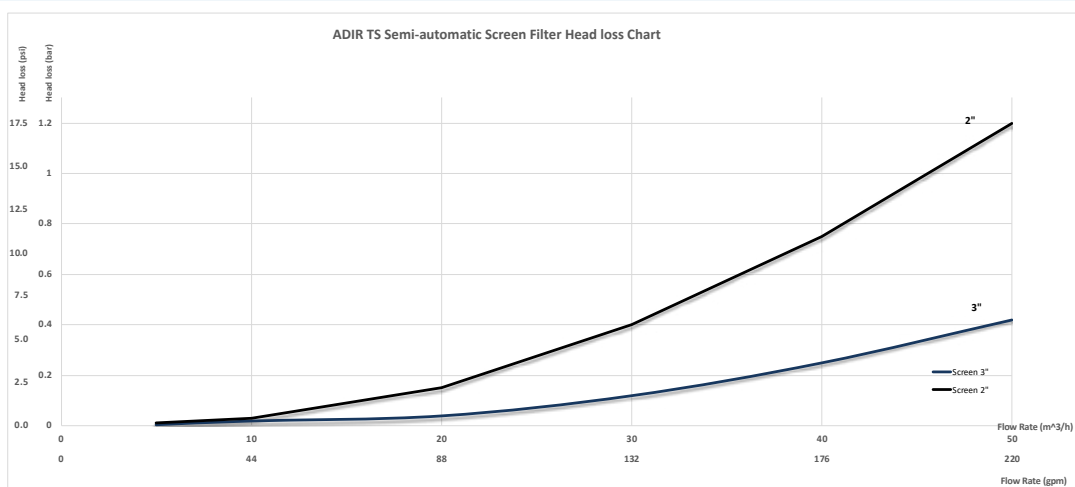
## Weight (empty)

Size	Weight Kg (lbs)
2"	4.5 (10)
3"	4.5 (10)

# ADIR Semi-automatic screen filters series TS



Item No.	Description	Part Number
1	Knob	CHRNAB
2	Handle	CRHAN
3	Pin	CRHANP
4	Cover	TCAP3
5	Insert	SASINS
6	Housing	TCH3
7	Suction pipe - A	TSCRW3
8	Pressure testing port nipple	E382020
9	Pressure testing port cover	CF14H
10	Body	NBF3MT
11	Screen	NFSI120B
12	Suction pipe -C	SAXE
13	Bushing	SASPB
14	Spacer	SASSP
15	Cup	NFC3
16	Bushing 1"x1"	BFM1
17	Flush valve 1"	V1
18	Nut lock ring	LR3
19	Suction pipe -B	SAXM
20	Suction nozzle	SASSN



## Pressure indicator (optional)

The pressure indicator enables quick and easy way to show the user that the filter is clogged and needs flushing.

When pressure loss across the filter element reaches the preset value, usually 0.5 bar (7 psi), the red button pops up and the user can see from a distance that the filter needs flushing.

There is no need to perform manual pressure tests.

After flushing the button descends into the indicator body.

The device, offered as an add on, is connected directly to the pressure testing ports located on the filter body.



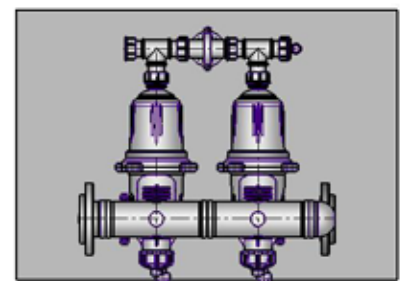
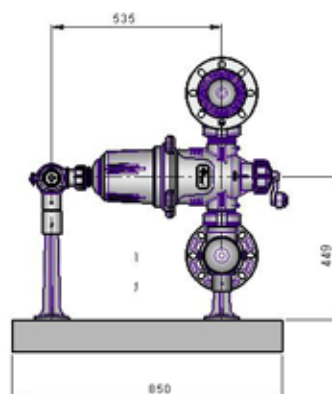
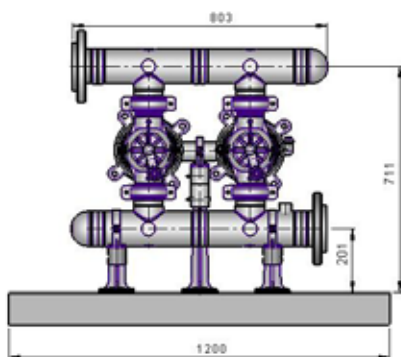
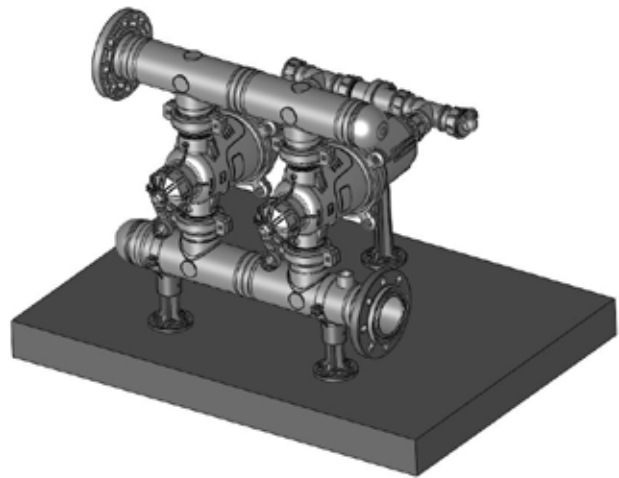
TAVLIT expands its offering with standard filter batteries for various flow rates. The batteries are based on semi-automatic screen filters Model TS and supplied complete with all components and are ready for field installation. The flexibility of the solutions offered by TAVLIT enables users to have the perfect solutions for their needs in a cost-effective solution.

## Applications:

- For AG, turf and landscape irrigation when higher flows are used.
- Most suitable for low quality water.
- Enables the user to perform flushing without opening the filter housing.
- Applicable when water supply cannot be interrupted even during flushing.
- Simple and economical solution.
- Customizable according to client requirements.

## Technical information:

- Available batteries 2–6 units of the TAVLIT all plastic semi-automatic Screen filter TS.
- Recommended flow rates 40-300 m<sup>3</sup>/h; (180-1,300 GPM).
- Max. operating pressure 10 bar; (145 psi).
- Batteries are supplied with Flanged connection for easy installation.
- It is recommended to install an air release valve at the inlet to our filtration system on the top elbow at the system inlet.
- It is recommended to install a butterfly manual valve at the system inlet.
- Drainage manifold should be connected to a 50mm or 63 mm PE pipe.
- Pipe should no longer than 5 meters.
- Pressure indicator, installed on the filter battery clearly shows when the battery is dirty and a flushing cycle should be initiated.
- Flushing should be performed one filter after the other.
- Water supply to the field in uninterrupted during flushing.
- It is recommended to perform a flushing cycle once a day.



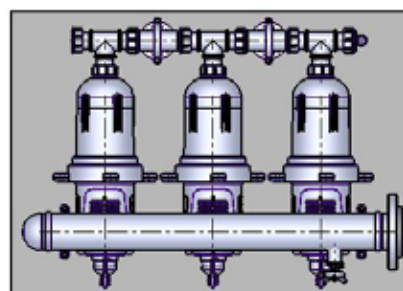
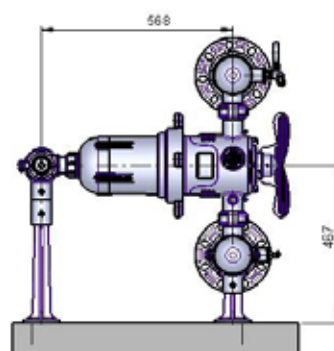
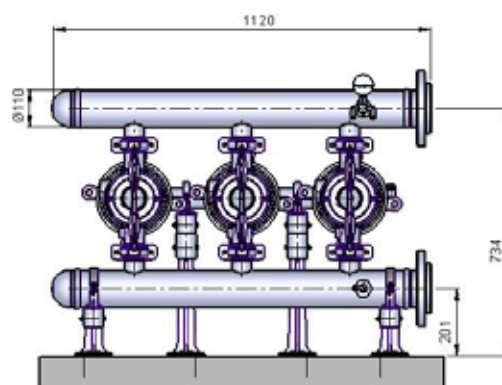
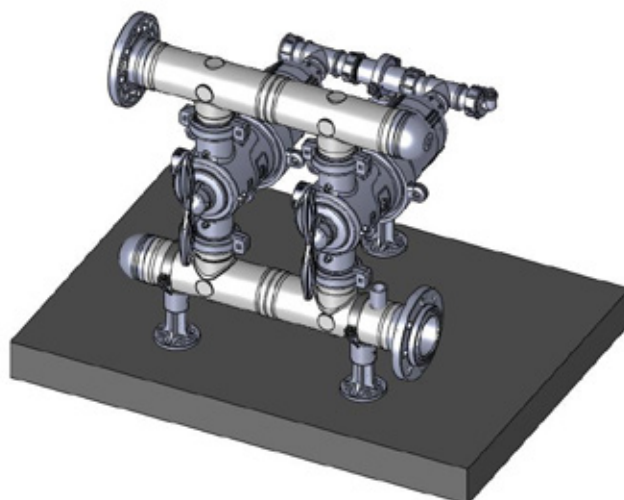
TAVLIT expands its offering with standard filter batteries for various flow rates. The batteries are based on the innovative semi-automatic disc filters Model TDS and supplied complete with all components and are ready for field installation. The flexibility of the systems offered by TAVLIT enables users to have the perfect solution for their needs.

## Applications:

- For AG, turf and landscape irrigation when higher flows are used.
- Most suitable for low quality water.
- Enables the user to perform flushing without dismantling the filter.
- Applicable when water supply cannot be interrupted even during flushing.
- Simple and economical solution.
- Customizable according to client requirements.

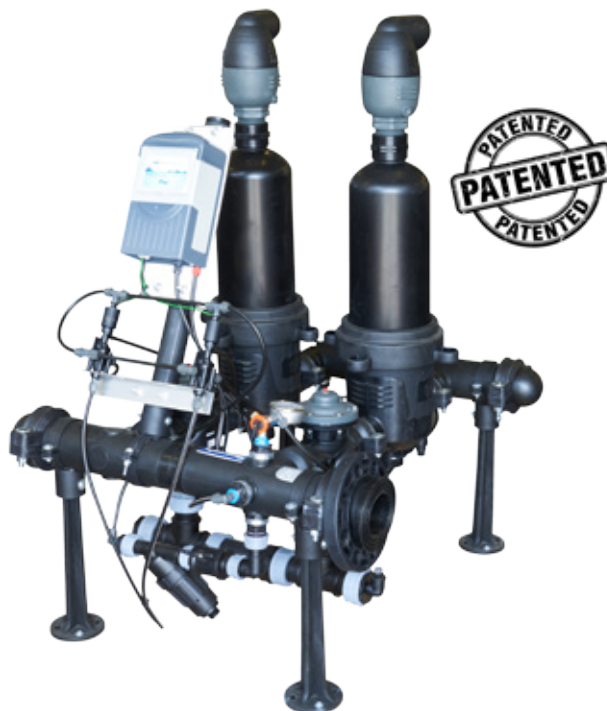
## Technical information:

- Available batteries 2–6 units of the TAVLIT all plastic semi - automatic Disc filter TDS.
- Recommended flow rates 40-300 m<sup>3</sup>/h; (180-1,300 gpm).
- Max. operating pressure 10 bar; (145psi).
- Batteries are supplied with Flanged connection for easy installation.
- It is recommended to install an air release valve at the inlet to our filtration system on the top elbow at the system inlet.
- It is recommended to install a butterfly manual valve at the system inlet.
- In order to drain the flush water from the secondary filter, of the semi - automatic disc filter, (TDS), a 20 mm pipe should be connected to the ½" valve located at the screen flushing port of each of the filters.
- The pipe must be at the lower end of the battery.
- This pipe can be connected to the drain pipe of the filters flushing.
- Drainage manifold should be connected to a 50mm or 63 mm PE pipe.
- Pipe should no longer than 5 meters.
- Pressure indicator, installed on the filter battery clearly shows when the battery is dirty and a flushing cycle should be initiated.
- Flushing is performed one filter after the other.
- Water supply to the field in uninterrupted during flushing.
- It is recommended to perform a flushing cycle once a day.



TAVLIT line of automatic disc filters model TVD combines high quality depth filtration with efficient flushing of the disc element. This unique automatic disc filter (patented), enables flushing at a very low pressure of 1.5 bar as compared to 3 bars normally required by such systems.

The innovative technology of the filter uses venturi devices inserted at the spine's inlets that introduce air during the flushing process to enhance it. the mixture of air and water enables more efficient flushing, uses smaller quantities of water for flushing and shortens the flushing time. It also enables proper flushing at a low pressure. The use of air also cushions the discs thereby reducing friction and prolonging the disc element life. The venturi devices insert air from the atmosphere and no external power or compressed air is required. The venturi devices are open only during flushing and do not operate during filtration. The filter element is composed of highly accurate grooved discs from excellent quality plastic materials. The grooved discs are compressed together to form the filtration element. The intersections between the grooves and the outer surface of the element offer large effective filtration surface with in depth area used to stop debris is especially effective in filtration of organic matter.



## **Filtration process:**

Water enters the filter and flow through the discs from the outer surface into the inner space. The dirt accumulates on the outer surface and between the grooves. and filtered water flow to the outlet of the filter.

## **Flushing process:**

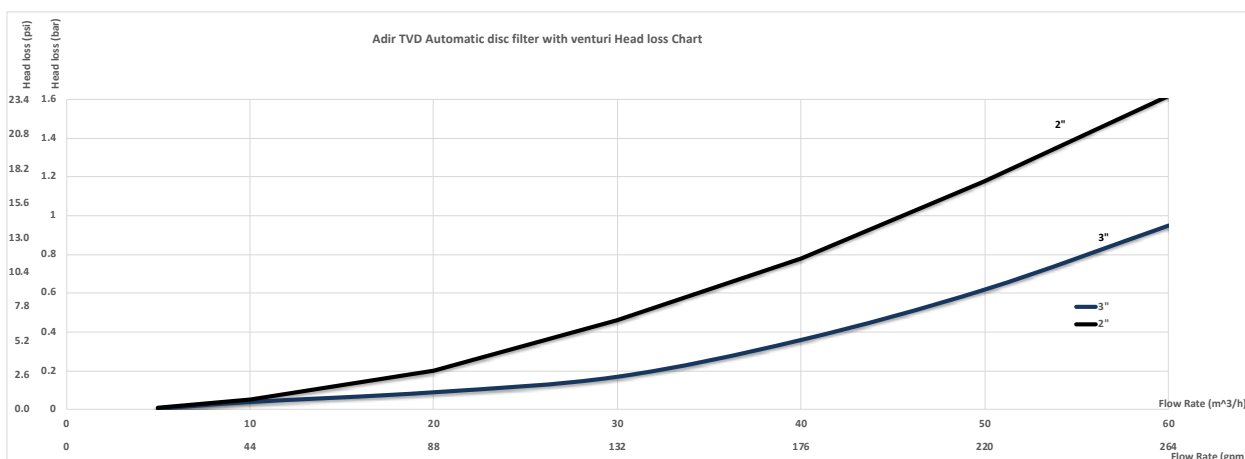
Accumulation of the dirt increases the head loss across the filters' battery. When the head loss reaches a preset value (usually 0.5-0.7 bar; 7-10 psi) the controller performs a flushing cycle flushing one filter after the other. The flushing valve changes position, closes the outlet and opens the drain. Filtered water from the other filters flow into the flushed filter from the outlet into the spine. The piston pressure is released and the discs become loose. Jets flow from the spine and rotate and flush the discs. The dirt flows to the drain. After 12- 30 seconds, depending on the dirt load and controller settings the discs are clean and the valve returns to filtering position and the next filter performs flushing. During flushing air is introduced into the spines. The mixture of air and water enables highly efficient flushing, uses smaller quantities of water and shortens the flushing time. Additionally, the controller has a preset time-based flushing as backup.

## Applications:

- As main filter battery for AG, Turf and large landscape projects.
- Suitable for low quality water, especially water with high load of organic matter.
- Most suitable for low pressure systems and for users that want to save energy.
- Applicable for industrial application, even when the water is corrosive.
- Used as prefiltration in systems when a high degree of filtration is used to protect the main filters.

## Technical information:

- Max. operating pressure 10 bar.
- Min pressure required for flushing 1.5 bar.
- Backflush flowrate: 6.5 m<sup>3</sup>/h (at 1.5 bar).
- Filtration grade:  
20-425 micron (700-40 mesh).



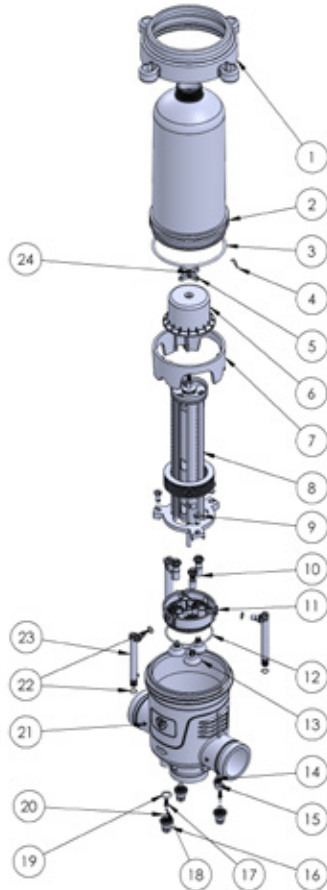
## Filters Batteries

Filter Battery	Filtration Area Cm <sup>2</sup>	Filtration Volume Cm <sup>3</sup>	flow rate (m <sup>3</sup> /h)			
			Water Quality			
			Good	Average	Poor	Very Poor
2X2"	2,200	2,870	40	30	20	16
3X2"	3,300	4,290	60	45	30	24
4X2"	4,400	5,720	80	60	40	32
5X2"	5,500	7,150	100	75	50	40
6X2"	6,600	8,580	120	90	60	48
7X2"	7,700	10,010	140	105	70	56
2X3"	2,200	2,870	60	50	40	30
3X3"	3,300	4,290	90	75	60	45
4X3"	4,400	5,720	120	100	80	60
5X3"	5,500	7,150	150	125	100	75
6X3"	6,600	8,580	180	150	120	90
7X3"	7,700	10,010	210	175	140	105

## Note:

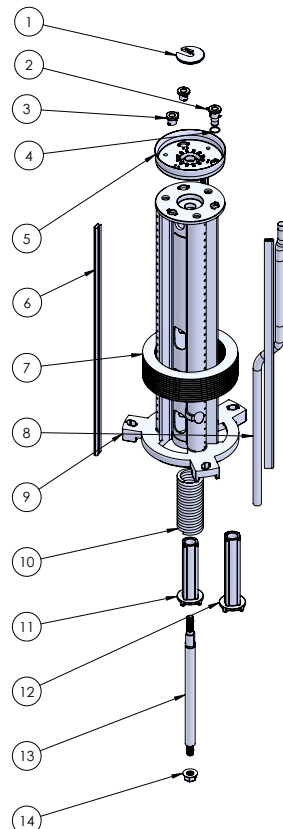
- Flexibility – Using our inhouse engineering team and fabrication facilities TAVLIT can offer highly customized filtration batteries tailored to your needs.
- Consultation and knowledge.
- Design of complete systems including external products.

## TVD PARTS



Item No.	Description	Part Number
1	Locking ring	SALR
2	Cup	TVDCUP
3	Cup O ring	OR2-361
4	Pin	TVDRPIN
5	Piston handle	TVDPISHAN
6	Cap	TVDPCAP
7	Keel clamp	TVDCLAMP
8	Keel assembly	TVDKHEEL
9	Keel screw	TVDKS
10	Venturi device tube	TVDDVT
11	Spine core	TVDCORERUB
12	Spine O ring	OR98.0X3.0
13	Sleeve	TVDSLIV
14	Pressure testing port nipple	E382020
15	Pressure testing port nut	CF14H
16	Venturi device cover	TVDAENT
17	Spacer	TVDDAMPER
18	Venturi device ball	TVDBALL
19	Venturi device O ring	OR2-210
20	Venturi device cover O ring	OR2-201
21	Body	TVDB3 TVDB3V
22	Knee o ring	OR2-014
23	Knee	TVDKNEE
24	Piston handle nut	TVDFNM8

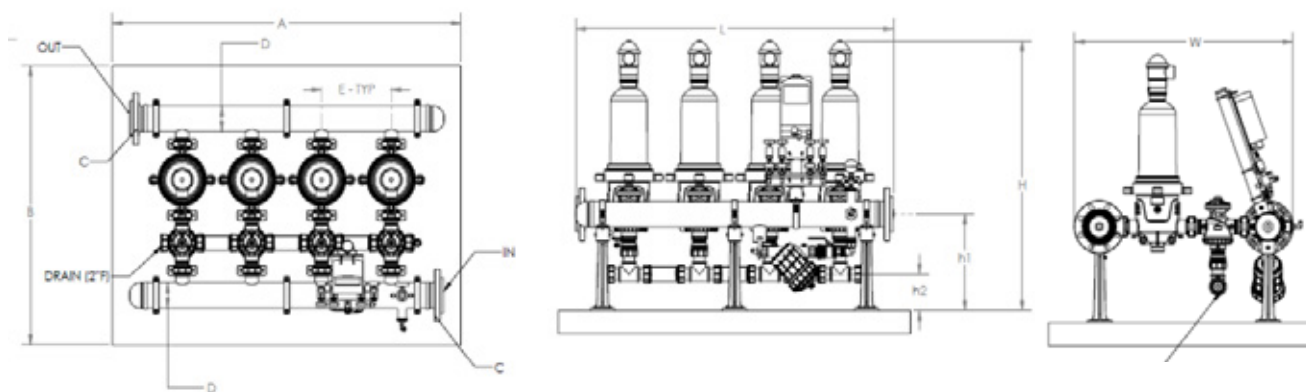
## KEEL PARTS



Item No.	Description	Part Number
1	Washer	TVDSW
2	Connector	TVDCONN
3	Locker	TVDCONNS
4	Locker O ring	TVDLR
5	Piston	TVDPIS
6	Keel S.S. cover	TVDMC
7	discs	DISK
8	Tube	TUBE Diam 10 mm TAD
9	Keel body	TADD Sub Assy-1
10	Spring	TVDPISPR
11	Spring stopper	TVDSS
12	Spring stopper A	TADSS
13	Rod	TV DPR
14	nut	TVDFNM8

## TVD FILTERS BATTERIES (Metric units)

MODEL	CAT NUMBER	FILTERS INLET/ OUTLET	A	B	C	D	E	W	L	H	h1	h2
		inch	mm	mm	inch	mm	mm	mm	mm	mm	mm	mm
2X2"	E22X09EBXX2XXP1	2"	800	1200	3	90	320	1000	750	1100	400	150
3x2"	E32X11ECXX2XXP1	2"	1200	1200	4	110	320	1100	1100	1100	400	150
4X2"	E42X11ECXX2XXP1	2"	1600	1200	4	110	320	1100	1400	1100	400	150
5X2"	E52X16ECXX2XXP1	2"	2000	1200	6	160	320	1100	1800	1200	430	150
6X2"	E62X16ECXX2XXP1	2"	2400	1200	6	160	320	1100	2100	1200	450	180
3X3"	E33X16ECXX2XXP1	3"	1200	1200	6	160	320	1100	1100	1200	450	120
4X3"	E43X16ECXX2XXP1	3"	1600	1200	6	160	320	1100	1500	1200	450	120
5X3"	E53X16ECXX2XXP1	3"	2000	1200	6	160	320	1100	1800	1200	450	120
6X3"	E63X20ECXX2XXP1	3"	2400	1200	8	200	320	1100	2100	1200	450	150
7x3"	E73X20ECXX2XXP1	3"	2800	1200	8	200	320	1100	2500	1200	450	150
8X3"	E83X20ECXX2XXP1	3"	3200	1200	8	200	320	1100	2800	1200	450	150



## TVD FILTERS BATTERIES (US Units)

MODEL	CAT NUMBER	FILTERS INLET/ OUTLET	A	B	C	D	E	W	L	H	h1	h2
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
2X2"	E22X09EBXX2XXP1	2"	31	47	3	4	13	39	30	43	16	6
3x2"	E32X11ECXX2XXP1	2"	47	47	4	4	13	43	43	43	16	6
4X2"	E42X11ECXX2XXP1	2"	63	47	4	4	13	43	55	43	16	6
5X2"	E52X16ECXX2XXP1	2"	79	47	6	6	13	43	71	47	17	6
6X2"	E62X16ECXX2XXP1	2"	94	47	6	6	13	43	83	47	18	7
3X3"	E33X16ECXX2XXP1	3"	47	47	6	6	13	43	43	47	18	5
4X3"	E43X16ECXX2XXP1	3"	63	47	6	6	13	43	59	47	18	5
5X3"	E53X16ECXX2XXP1	3"	79	47	6	6	13	43	71	47	18	5
6X3"	E63X20ECXX2XXP1	3"	94	47	8	8	13	43	83	47	18	6
7x3"	E73X20ECXX2XXP1	3"	110	47	8	8	13	43	98	47	18	6
8X3"	E83X20ECXX2XXP1	3"	126	47	8	8	13	43	110	47	18	6

TAVLIT line of automatic disc filters model TAD combines high quality depth filtration with efficient flushing of the disc element. The filter element is composed of highly accurate grooved discs from excellent quality plastic materials. The grooved discs are compressed together to form the filtration element. The intersections between the grooves and the outer surface of the element offer large effective filtration surface with in depth area used to stop debris is especially effective in filtration of organic matter.



## Filtration process:

Water enter the filter and flow through the discs from the outer surface into the inner space. The dirt accumulates on the outer surface and between the grooves and filtered water flow to the outlet of the filter.

## Applications:

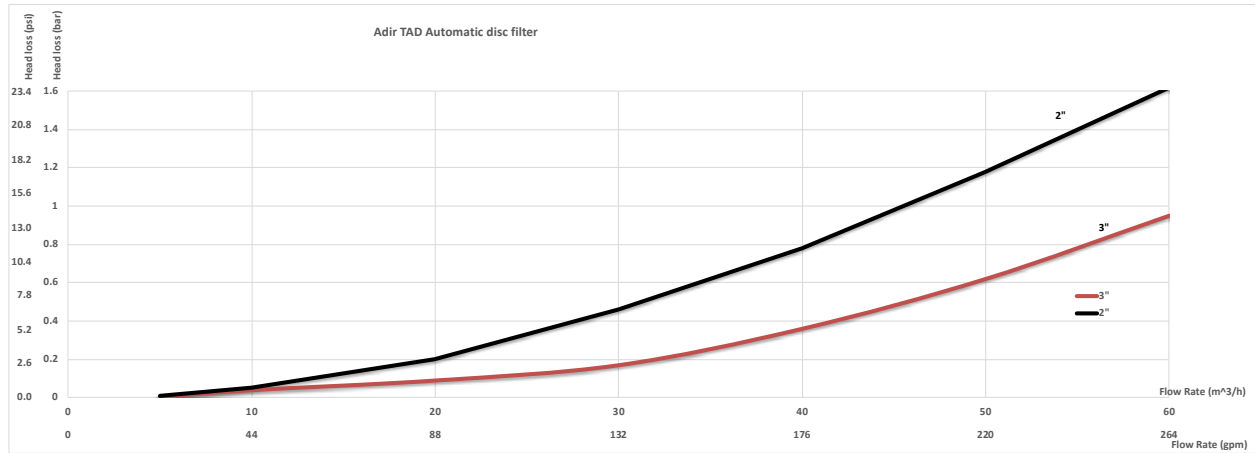
- As main filter battery for AG, Turf and large landscape projects.
- Suitable for low quality water, especially water with high load of organic matter.
- Applicable for industrial application, even when the water is corrosive.
- Used as prefiltration in systems when a high degree of filtration is used to protect the main filters.

## Technical information:

- Max. operating pressure 10 bar.
- Min pressure required for flushing 2.5 bar.
- Flushing flow rate 9.5 m<sup>3</sup>/h.
- Available filtration grades: 20-425 micron; (700-40 mesh).

## Flushing process:

Accumulation of the dirt increases the head loss across the filtration battery. When the head loss reaches a preset value (usually 0.5-0.7 bar; 7-10 psi), the controller performs a flushing cycle flushing one filter after the other. The flushing valve reverses position, closes the outlet and opens the drain. Filtered water from the other filters flow into the flushed filter from the outlet into the spine. The piston pressure is released and the discs become loose. Jets flow from the spine and rotates and flushes the discs. The dirt flows to the drain. After 12-30 seconds, depending on the dirt load and controller settings the discs are clean and the valve returns to filtering position and the next filter performs flushing. Additionally, the controller has a preset time-based flushing as backup.

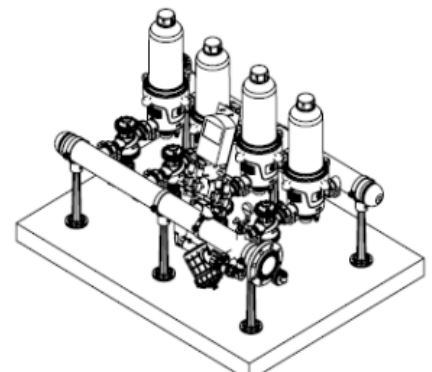
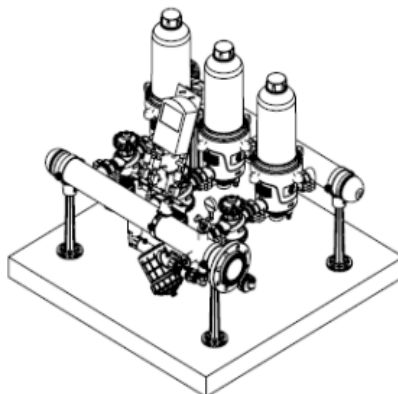
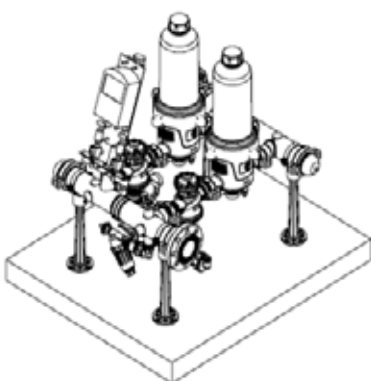


## Filters Batteries

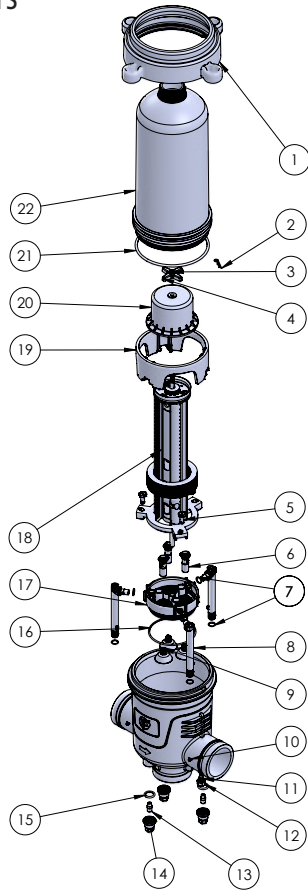
Filter Battery	Filtration Area Cm <sup>2</sup>	Filtration Volume Cm <sup>3</sup>	flow rate (m <sup>3</sup> /h)			
			Water Quality			
			Good	Average	Poor	Very Poor
2X2"	2,200	2,870	40	30	20	16
3X2"	3,300	4,290	60	45	30	24
4X2"	4,400	5,720	80	60	40	32
5X2"	5,500	7,150	100	75	50	40
6X2"	6,600	8,580	120	90	60	48
7X2"	7,700	10,010	140	105	70	56
2X3"	2,200	2,870	60	50	40	30
3X3"	3,300	4,290	90	75	60	45
4X3"	4,400	5,720	120	100	80	60
5X3"	5,500	7,150	150	125	100	75
6X3"	6,600	8,580	180	150	120	90
7X3"	7,700	10,010	210	175	140	105

### Note:

- Flexibility – Using our inhouse engineering team and fabrication facilities TAVLIT can offer highly customized filtration batteries tailored to your needs.
- Consultation and knowledge.
- Design of complete systems including external products.

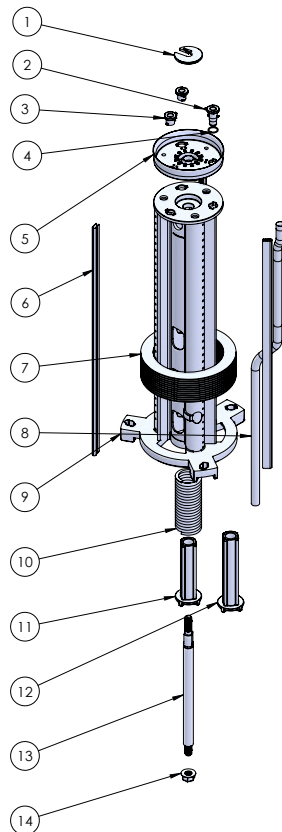


## TAD PARTS



Item No.	Description	Part Number
1	Locking ring	SALR
2	Pin	TVDRPIN
3	Flange nut	TVDFNM8
4	Piston handle	TVDPISHAN
5	Keel screw	TVDKS
6	Tube	TADVT
7	Tube O ring	OR2-014
8	Knee	TVDKNEE
9	Sleeve	TVDSL
10	Body	TVDB3 TVDB3V
11	Pressure testing port nipple	E382020
12	Pressure testing port nut	CF14H
13	Spacer	TADBUNG
14	Cover	TVDAENT
15	Cover O ring	OR2-210
16	Spine core O ring	OR98.0X3.0
17	Spine core	TADCORERUB
18	Keel assembly	TVDKHEEL
19	Keel clamp	TVDCCLAMP
20	Cap	TVDPCAP
21	Cup O ring	OR2-361
22	Cup	TVDCUP

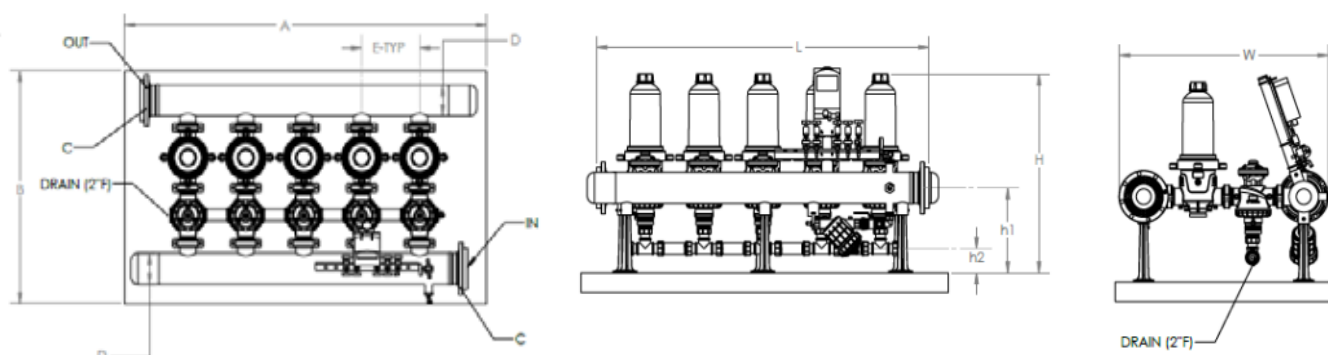
## KEEL PARTS



Item No.	Description	Part Number
1	Washer	TVDSW
2	Connector	TVDCONN
3	Locker	TVDCONNS
4	Locker O ring	TVDLR
5	Piston	TVDPIS
6	Keel S.S. cover	TVDMC
7	discs	DISK
8	Tube	TUBE Diam 10 mm TAD
9	Keel body	TADD Sub Assy-1
10	Spring	TVDPISPR
11	Spring stopper	TVDSS
12	Spring stopper A	TADSS
13	Rod	TV DPR
14	nut	TVDFNM8

## TAD FILTERS BATTERIES (Metric units)

MODEL	CAT NUMBER	FILTERS INLET/ OUTLET	A	B	C	D	E	W	L	H	h1	h2
		inch	mm	mm	inch	mm	mm	mm	mm	mm	mm	mm
2x2"	C22X09EBXX2XXP1	2"	800	1200	3	90	320	1000	750	1000	400	150
3x2"	C32X11ECXX2XXP1	2"	1200	1200	4	110	320	1100	1100	1000	400	150
4x2"	C42X11ECXX2XXP1	2"	1600	1200	4	110	320	1100	1400	1000	400	150
5x2"	C52X16ECXX2XXP1	2"	2000	1200	6	160	320	1100	1800	1000	430	150
6x2"	C62X16ECXX2XXP1	2"	2400	1200	6	160	320	1100	2100	1000	450	180
3x3"	C33X16ECXX2XXP1	3"	1200	1200	6	160	320	1100	1100	1000	450	120
4x3"	C43X16ECXX2XXP1	3"	1600	1200	6	160	320	1100	1500	1000	450	120
5x3"	C53X16ECXX2XXP1	3"	2000	1200	6	160	320	1100	1800	1000	450	120
6x3"	C63X20ECXX2XXP1	3"	2400	1200	8	200	320	1100	2100	1000	450	150
7x3"	C73X20ECXX2XXP1	3"	2800	1200	8	200	320	1100	2500	1000	450	150
8x3"	C83X20ECXX2XXP1	3"	3200	1200	8	200	320	1100	2800	1000	450	150



## TAD FILTERS BATTERIES (US Units)

MODEL	CAT NUMBER	FILTERS INLET/ OUTLET	A	B	C	D	E	W	L	H	h1	h2
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
2x2"	C22X09EBXX2XXP1	2"	31	47	3	4	13	39	30	39	16	6
3x2"	C32X11ECXX2XXP1	2"	47	47	4	4	13	43	43	39	16	6
4x2"	C42X11ECXX2XXP1	2"	63	47	4	4	13	43	55	39	16	6
5x2"	C52X16ECXX2XXP1	2"	79	47	6	6	13	43	71	39	17	6
6x2"	C62X16ECXX2XXP1	2"	94	47	6	6	13	43	83	39	18	7
3x3"	C33X16ECXX2XXP1	3"	47	47	6	6	13	43	43	39	18	5
4x3"	C43X16ECXX2XXP1	3"	63	47	6	6	13	43	59	39	18	5
5x3"	C53X16ECXX2XXP1	3"	79	47	6	6	13	43	71	39	18	5
6x3"	C63X20ECXX2XXP1	3"	94	47	8	8	13	43	83	39	18	6
7x3"	C73X20ECXX2XXP1	3"	110	47	8	8	13	43	98	39	18	6
8x3"	C83X20ECXX2XXP1	3"	126	47	8	8	13	43	110	39	18	6

TAVLIT line of automatic disc filters model TADD combines high quality depth filtration with efficient flushing of the disc element.

These filters have a double filtering element to handle higher dirt load.

The filter element is composed of highly accurate grooved discs produced from high quality plastic materials. The grooved discs are compressed together to form the filtration element. The intersections between the grooves and the outer surface of the element offer large effective filtration surface with in depth area used to stop debris is especially effective in filtration of organic matter.



## Filtration process

Water enter the filter and flow through the discs from the outer surface into the inner space. The dirt accumulates on the outer surface and between the grooves and filtered water flow to the outlet of the filter.

## Flushing process

Accumulation of the dirt increases the head loss across the filters' battery. When the head loss reaches a preset value (usually 0.5-0.7 bar; 7-10 psi). The controller performs a flushing cycle flushing one filter after the other.

## Applications:

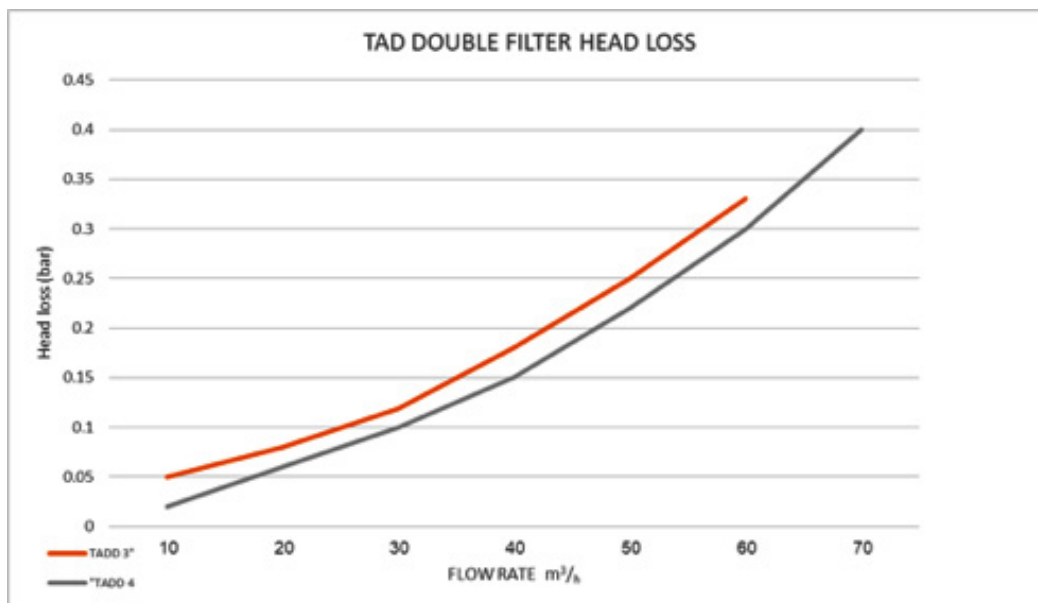
- As main filter battery for Agriculture, Turf and large landscape projects.
- Applicable for high flow rates.
- Suitable for low quality water, especially water with high load of organic matter.
- Applicable for industrial application, even when the water is corrosive.
- Used as prefiltration in systems when a high degree of filtration is used to protect the main filters.

## Technical information:

- Max. operating pressure 10 bar.
- Available models:
  - 3" filters battery – up to 45 m<sup>3</sup>/h per element.
  - 4" filters battery – up to 60 m<sup>3</sup>/h per element.
- Min pressure required for flushing 2.5 bar
- Flushing flow rate: 20 m<sup>3</sup>/h
- Filtration area 2,200 cm<sup>2</sup> per element.
- Available filtration grades: 20-425 micron; (700-40 mesh).

## Note

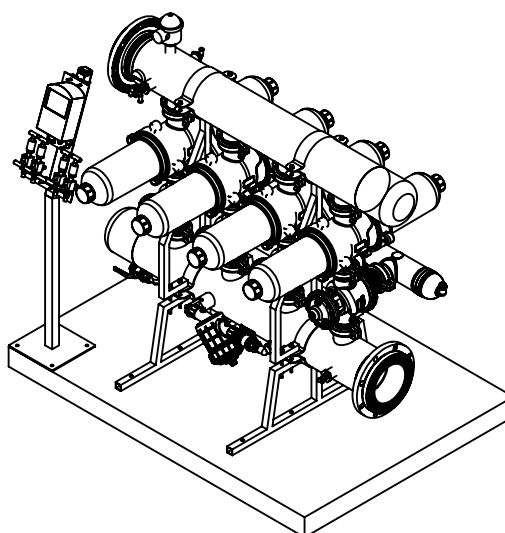
Flexibility - TAVLIT offers large variety of filter batteries tailored to your needs based on our inhouse manifold fabrication capabilities.



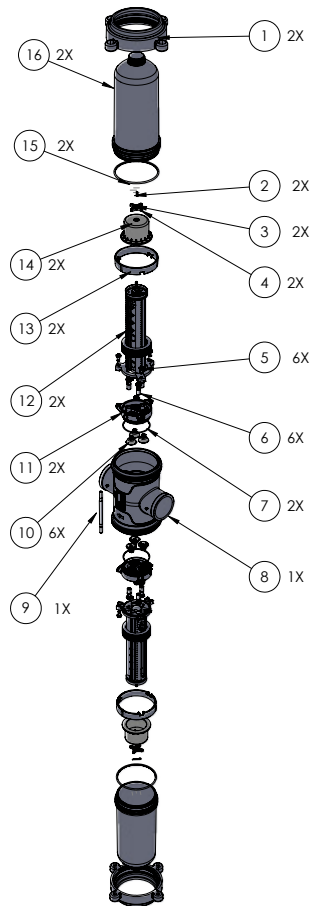
TADD-03\_19A

## Filter Batteries TADD (Metric units)

Filter Battery	Filtration Area Cm <sup>2</sup>	Filtration Volume Cm <sup>3</sup>	flow rate (m <sup>3</sup> /h)			
			Water Quality			
			Good	Average	Poor	Very Poor
2X3"	4,400	5,740	90	80	70	60
3X3"	6,600	8,610	135	120	105	90
4X3"	8,800	11,480	180	160	140	120
5x3"	11,000	14,350	225	200	175	150
6X3"	13,200	17,220	270	240	210	180
7X3"	15,400	20,090	315	280	245	210
8X3"	17,600	22,960	360	320	280	240
2X4"	4,400	5,740	120	110	90	80
3X4"	6,600	8,610	180	165	135	120
4X4"	8,800	11,480	240	220	180	160
5x4"	11,000	14,350	300	275	225	200
6X4"	13,200	17,220	360	330	270	240
7X4"	15,400	20,090	420	385	315	280
8X4"	17,600	22,960	480	440	360	320

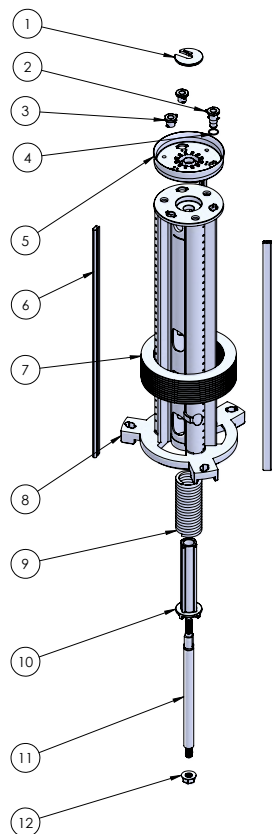


## TADD PARTS



Item No.	Description	PART NUMBER
1	Locking ring	TDSSALR
2	Pin	TVDRPIN
3	Flange nut	TVDFNM8
4	Piston handle	TVDPISHAN
5	Keel screw	TVDKS
6	Tube	TADVT
7	Spine core O ring	O-RING (98X3)
8	TADD body	TADB4V
9	Knee	TADDCONSHAFT
10	Sleeve	TVDSL
11	Spine core	TADDCORE
12	Keel assembly	TADD KEEL ASSEMBLY
13	Keel clamp	TADDCLAMP
14	Cap	TVDPCAP
15	Cup O ring	OR2-361
16	Cup	TVDCUP

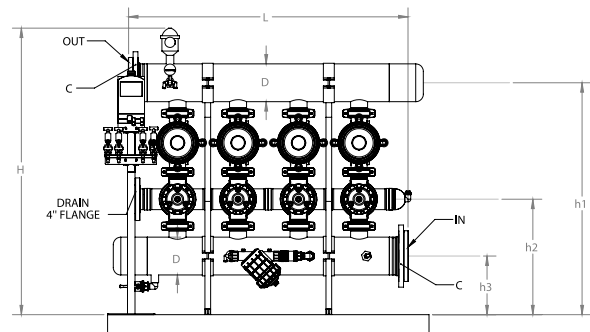
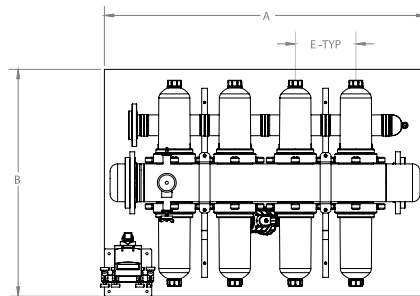
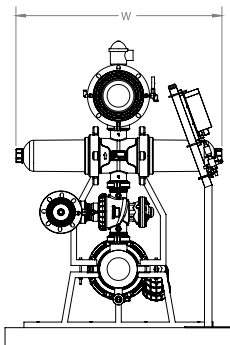
## TADD KEEL PARTS



Item No.	Description	PART NUMBER
1	Washer	TVDSW
2	Connector	TVDCONN
3	Locker	TVDCONNS
4	Locker O ring	TVDLR
5	Piston	TVDPIS
6	Keel S.S. cover	TVDMC
7	Discs	DISKX120
8	Keel body	TVDKEL
9	Spring	TVDPISPR
10	TADD spring stopper	TADSS
11	Rod	TVDPR
12	Nut	TVDFNM8

## TADD Filters Batteries (Metric units)

MODEL	CAT NUMBER	TADD FILTER SIZE	A	B	C	D	E	W	L	H	h1	h2	h3
		inch	mm	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm
2X3"	D23*16ED*1322V1	3"	800	1200	6	160	320	1100	860	1350	1170	580	290
3X3"	D33*16ED*1323V1	3"	1200	1200	6	160	320	1100	1180	1350	1170	580	290
4X3"	D43*20EE*1324V1	3"	1600	1200	8	200	320	1100	1500	1430	1230	600	310
5X3"	D53*22EE*1325V1	3"	2000	1200	8	200	320	1100	1820	1430	1230	600	310
6X3"	D63*25EF*1326V1	3"	2400	1200	8	225	320	1100	2140	1490	1270	625	325
7X3"	D73*25EF*1327V1	3"	2800	1200	10	280	320	1100	2460	1650	1350	680	350
8X3"	D83*28EG*1328V1	3"	3200	1200	10	280	320	1100	2780	1650	1350	680	350
2X4"	D24*16ED*1422V1	4"	800	1200	6	160	320	1100	860	1380	1200	580	290
3X4"	D34*20EE*1423V1	4"	1200	1200	8	200	320	1100	1180	1460	1260	600	310
4X4"	D44*22EE*1424V1	4"	1600	1200	8	225	320	1100	1500	1520	1300	625	325
5X4"	D45*25EF*1425V1	4"	2000	1200	8	225	320	1100	1820	1520	1300	625	325
6X4"	D46*28EG*1426V1	4"	2400	1200	10	280	320	1100	2140	1680	1380	680	350
7X4"	D46*28EG*1426V1	4"	2800	1200	10	280	320	1100	2460	1680	1380	680	350
8X4"	D48*31EH*1428V1	4"	3200	1200	10	280	320	1100	2780	1680	1380	680	350



## TADD Filters Batteries (US Units)

MODEL	CAT NUMBER	TADD FILTER SIZE	A	B	C	D	E	W	L	H	h1	h2	h3
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
2X3"	D23*16ED*1322V1	3"	31	47	6	6	13	43	34	53	46	23	11
3X3"	D33*16ED*1323V1	3"	47	47	6	6	13	43	46	53	46	23	11
4X3"	D43*20EE*1324V1	3"	63	47	8	8	13	43	59	56	48	24	12
5X3"	D53*22EE*1325V1	3"	79	47	8	8	13	43	72	56	48	24	12
6X3"	D63*25EF*1326V1	3"	94	47	8	9	13	43	84	59	50	25	13
7X3"	D73*25EF*1327V1	3"	110	47	10	11	13	43	97	65	53	27	14
8X3"	D83*28EG*1328V1	3"	126	47	10	11	13	43	109	65	53	27	14
2X4"	D24*16ED*1422V1	4"	31	47	6	6	13	43	34	54	47	23	11
3X4"	D34*20EE*1423V1	4"	47	47	8	8	13	43	46	57	50	24	12
4X4"	D44*22EE*1424V1	4"	63	47	8	9	13	43	59	60	51	25	13
5X4"	D45*25EF*1425V1	4"	79	47	8	9	13	43	72	60	51	25	13
6X4"	D46*28EG*1426V1	4"	94	47	10	11	13	43	84	66	54	27	14
7X4"	D46*28EG*1426V1	4"	110	47	10	11	13	43	97	66	54	27	14
8X4"	D48*31EH*1428V1	4"	126	47	10	11	13	43	109	66	54	27	14



Filters 05-20\_Ver 6\_Eng

