

# TEQUATIC™ PLUS Filters

## Product Data Sheet



### Designed for Nasty, High-Solids Water

When compared with traditional suspended solids removal technologies, TEQUATIC™ PLUS Filters offer an innovative, self-cleaning solution for removing extremely high and variable solids from fluid streams, even in the presence of fats, oils and grease. TEQUATIC PLUS Filters, with their patented design, combine the power of continuously cleaning, cross-flow filtration with forced settling and solids collection into a single device.

### Application Examples

TEQUATIC™ PLUS Filters are an outstanding choice for removing solids in a variety of industrial wastewater treatment and reuse markets. Application examples include:

- TSS and particulate BOD, COD and TOC<sup>1</sup> reduction
- Pretreatment or cost-saving alternative to clarification, DAF and aeration
- Pretreatment to downstream membranes and filters
- TSS reduction to protect disposal wells and facilitate reuse of frack flowback water

### Product Benefits

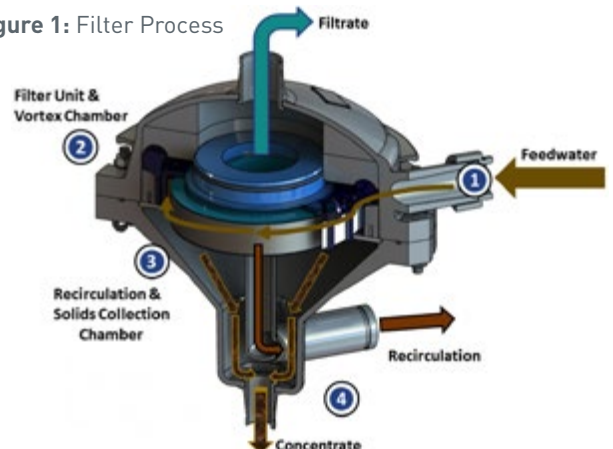
- Operate consistently where other filters typically fail
- Handle high TSS from 100–10,000 mg/L and greater, and filter down to 15 microns
- Capable of operating in the presence of fats, oils and grease
- Require no backwashes, and no to low chemicals
- Help customers realize:
  - Fewer compliance issues and/or lower surcharges and fines
  - Savings on maintenance, consumables and chemicals
  - High water recovery up to or >99%
  - High uptime and reliability in a small footprint (e.g. less waste, space and chemicals)
- Provide excellent flexibility:
  - Integrate into modular systems to meet capacity
  - Adjustable throughput and water recovery
  - Available in pre-engineered, skid-mounted systems for fast installation and startup (see skid datasheets)

### TEQUATIC™ PLUS Filter Operation

As shown in the illustration to the right, operation of TEQUATIC™ PLUS Filters is simple yet effective.

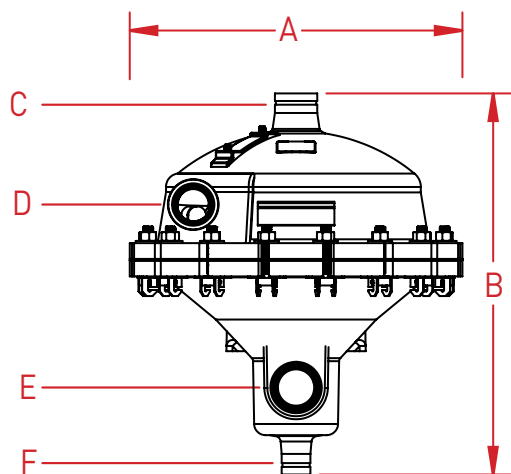
1. Pressure-controlled feedwater enters the unit and the water velocity across the filter screen initiates cross-flow filtration.
2. The feedwater flow drives the cleaning brush assembly, activating the cleaning mechanisms within the filter which continuously clean the filter screen, eliminating cake buildup.
3. Solids enter the recirculation and solids collection chamber. Heavy solids remain in the collection chamber while other particles flow into the recirculation pipe which feeds back into the feed inlet feedwater flow.
4. Concentrated solids are purged periodically for disposal or further processing.

Figure 1: Filter Process



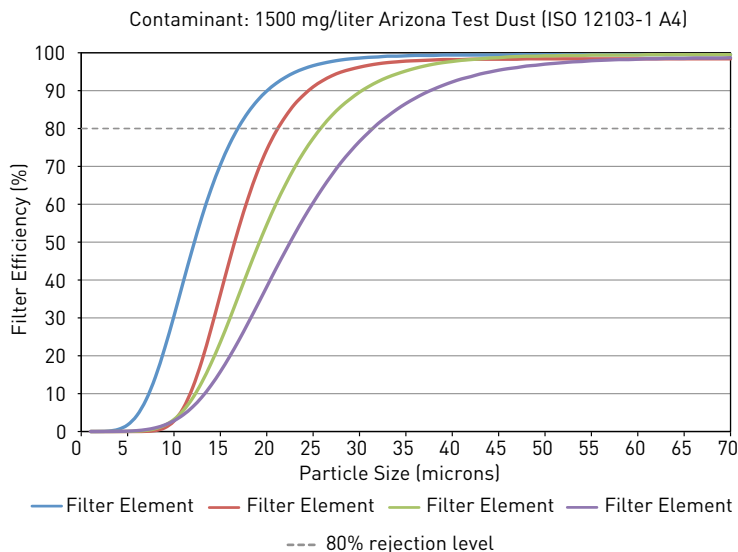
<sup>1</sup> TSS = total suspended solids; BOD = biological oxygen demand; COD = chemical oxygen demand; TOC = total organic carbon; DAF = dissolved air flotation

**Figure 2: Dimensions and Fittings**



**Figure 3: Filter Removal Efficiency<sup>2</sup>**

(Shows removal efficiency versus particle size rejection at indicated conditions.)



**Table 1: Operating Limits**

Item	Value
Max Inlet Pressure	100 psi (6.9 bar)
Temperature <sup>3</sup>	45°F–140°F (7°C–60°C)
pH <sup>4</sup>	5–9 continuous
Max Particle Size	1/16 in. (2000 micron)

<sup>2</sup> Subject to specific operating conditions  
<sup>3</sup> Consult factory for higher max temperatures  
 Minimum temperature dependent on water composition  
<sup>4</sup> Consult factory for pH outside of specified range  
<sup>5</sup> Flow rates will vary depending on water quality  
<sup>6</sup> Victaulic is a registered trademark of Victaulic Company

**Table 2: General Specifications**

Item	TEQUATIC PLUS F-50	TEQUATIC PLUS F-75	TEQUATIC PLUS F-150
<b>Typical Flow Rates by Filter Element<sup>5</sup></b>			
SSC-17-1	5–15 gpm (1.1–3.4 m <sup>3</sup> /hr)	20–60 gpm (4.5–13.6 m <sup>3</sup> /hr)	80–240 gpm (18.2–54.5 m <sup>3</sup> /hr)
SSC-22-1	7.5–17.5 gpm (1.7–4.0 m <sup>3</sup> /hr)	30–70 gpm (6.8–15.9 m <sup>3</sup> /hr)	120–280 gpm (27.3–63.6 m <sup>3</sup> /hr)
SSC-27-1	10–20 gpm (2.3–4.6 m <sup>3</sup> /hr)	40–80 gpm (9.1–18.2 m <sup>3</sup> /hr)	160–320 gpm (36.3–72.7 m <sup>3</sup> /hr)
SSC-32-1	12.5–25 gpm (2.9–5.7 m <sup>3</sup> /hr)	50–100 gpm (11.4–22.7 m <sup>3</sup> /hr)	200–400 gpm (45.4–90.8 m <sup>3</sup> /hr)
<b>Shipping Weight</b>			
	<b>3 dry (18 kg)</b>	<b>197 dry (89 kg)</b>	<b>984 dry (446 kg)</b>
Housing Lid	16 dry (7 kg)	83 dry (38 kg)	370 dry (168 kg)
Housing Base	23 dry (10 kg)	114 dry (52 kg)	614 dry (279 kg)
<b>Dimensions</b>			
A: Diameter	16" (40.6 cm)	27.5" (69.9 cm)	46" (116.5 cm)
B: Height	18" (45.7 cm)	31.5" (80 cm)	64.5" (163.8 cm)
<b>Fittings (see Figure 2)</b>			
C/D/E: Filtrate/Feedwater/ Recirculation (Victaulic <sup>6</sup> ),	2"	3"	6"
F: Concentrate (Victaulic), inches	2"	2"	4"

Contact our Amiad team for further information



**Amiad USA Inc.**  
 Main Office and Manufacturing: 120-J Talbert Road, Mooresville, NC 28117  
 Tel: 800-648-9260, 650-800-7818 | Fax: 650 306-1175  
 E-mail: tequatic@amiad.com www.tequatic.amiad.com

Copyright © 2013 Amiad Water Systems Ltd. All rights reserved. The contents of this catalogue including without limitation all information and materials, images, illustrations, designs, icons, photographs, graphical presentations, designs, literary works, data, drawings, slogans, phrases, names, trademarks, titles and any other such materials that appear in this catalogue (collectively, the "Contents") are the sole property of Amiad Water Systems Ltd. ("Amiad"). Amiad has sole and exclusive right, title and interest in the Contents, including any intellectual property rights, whether registered or not, and all know-how contained or embodied therein. You may not reproduce, publish, transmit, distribute, display, modify, create derivative works from, sell or participate in any sale of, or exploit in any way, in whole or in part, any of the Contents or the catalogue. Any use of the catalogue or the Contents, other than for personal use, requires the advanced written permission of Amiad.