

## VORTISAND MODELS

VORTISAND<sup>®</sup>, the pioneer in centrifugal sand filtration technology, features a range of models tailored to all needs.

Manufactured by Sonitec, VORTISAND<sup>®</sup> filtration system is supplied in a wide variety of models for full or variable flow ranging from 20 gpm to thousands gpm to offer OPTIMUM SOLUTIONS. Large capacity filters are available upon special requests.



AWT 2-30-SP

### SIDE STREAM "AWT" SERIE MODELS

The most suitable VORTISAND<sup>®</sup> system will be chosen according to the tonnage of the refrigeration system, the circulation flow and/or the volume of water in the system. Other parameters such as temperature and maximum inlet pressure will also be considered.



AWC 1-20-SI

MODEL SELECTED	FILTRATION FLOWRATE	FLOW REQUIRED FOR BACKWASH PER VESSEL FOR 8 MNS (GPM)	SPACE REQUIRED (1)	PUMP/MOTOR (HP)	INLET/OUTLET CONNECTIONS	DRAIN CITY CONNECTION	APPROX. WEIGHT
AWT1-12-SP	20 gpm	12	2'9" x 4'6" x 2'3"	0.5	1"	1"	450
AWT1-16-SP	30 gpm	17	2'2" x 5'6" x 2'6"	0.75	1 1/2"	1 1/2"	600
AWT1-20-SP	60 gpm	35	2'7" x 5'6" x 3'0"	1	1 1/2"	1 1/2"	1000
AWT1-24-SP	75 gpm	40	3'0" x 5'9" x 3'6"	1 1/2	2"	1 1/2"	1650
AWT1-30-SP	100 gpm	50	3'3" x 6'3" x 4'0"	2	2"	1 1/2"	2500
AWT1-36-SP	140 gpm	70	3'7" x 7'0" x 4'6"	3	3"	2"	4100
AWT2-30-SP	200 gpm	50	7'11" x 6'3" x 4'0"	5	3"	1 1/2"	5000
AWT2-30-SP	200 gpm	50	7'11" x 6'3" x 4'0"	5	3"	1 1/2"	5000
AWT2-36-SP	280 gpm	70	9'3" x 7'0" x 4'6"	7	4"	1 1/2"	8000
AWT3-30-SP	300 gpm	50	11'2" x 6'3" x 4'0"	7 1/2	4"	1 1/2"	7500
AWT3-30-SP	300 gpm	50	11'2" x 6'3" x 4'0"	7 1/2	4"	1 1/2"	7500
AWT4-30-SP	400 gpm	50	13'10" x 6'3" x 4'0"	10	4"	1 1/2"	10000
AWT4-30-SP	400 gpm	50	13'10" x 6'3" x 4'0"	10	4"	1 1/2"	10000
AWT3-36-SP	420 gpm	70	12'11" x 7'0" x 4'6"	10	4"	1 1/2"	12000

(1) All dimensions are approximate and may vary at fabrication

#### \* SP - PVC PIPING

All above systems include 304 stainless steel tanks, PVC Schedule 80 piping PVC under drain, cast iron body pump/motor, Aquamatic cast iron body valves, automatic control panel c/w PLC and OIU.

City water for backwash

Maximum Operating Temperature < 105 F.

Maximum Inlet Pressure: 70 psig.

**\* SI - GALVANIZED STEEL PIPING**

All above systems include 304 stainless steel tanks, galvanized steel sch. 40 piping, Stainless steel 304 under drain, cast iron body pump/motor, Aquamatic cast iron body valves, automatic control panel c/w PLC and OIU.

City water for backwash

**Maximum Operating Temperature < 180 F.**

**Maximum Inlet Pressure: 100 psig.**

**VORTISAND in-line serie (partial model listing)**

Full flow or process applications (pre ro, water reuse, etc).

Our "A" Serie is used for In-line applications to ensure a continuous or intermittent flow – the flow can be maintained during backwash operation. When one vessel is in backwash mode the remaining vessels ensure the selected flow. VORTISAND® filters are available in a variety of materials and components depending on each application requirements.

Sonitec manufactures customized systems based on your specifications.



MODEL SELECTED	FILTRATION FLOWRATE	FLOW REQUIRED FOR BACKWASH PER VESSEL FOR 8 MNS (GPM)	SPACE REQUIRED (1)	PUMP/MOTOR (HP)	INLET /OUTLET CONNECTIONS	DRAIN CITY CONNECTION	APPROX. WEIGHT
A1-12-SP	12 gpm	12	2'9" x 4'6" x 2'3"	0.5	1"	1"	450
A1-16-SP	20 gpm	17	2'2" x 5'6" x 2'6"	0.75	1 1/2"	1 1/2"	600
A1-20-SP	30 gpm	35	2'7" x 5'6" x 3'0"	1	1 1/2"	1 1/2"	1000
A1-24-SP	40 gpm	40	3'0" x 5'9" x 3'6"	1 1/2	2"	1 1/2"	1650
A1-30-SP	75 gpm	50	3'3" x 6'3" x 4'0"	2	2"	1 1/2"	2500
A1-36-SP	100 gpm	70	3'7" x 7'0" x 4'6"	3	3"	2"	4100
A2-30-SP	150 gpm	50	7'11" x 6'3" x 4'0"	5	3"	1 1/2"	5000
A2-36-SP	200 gpm	70	9'3" x 7'0" x 4'6"	7 1/2	4"	1 1/2"	8000
A3-30-SP	225 gpm	50	11'2" x 6'3" x 4'0"	7 1/2	4"	1 1/2"	7500
A4-30-SP	300 gpm	50	13'10" x 6'3" x 4'0"	10	4"	1 1/2"	10000
A3-36-SP	300 gpm	70	12'11" x 7'0" x 4'6"	10	4"	1 1/2"	12000

\* Based on 15 gpm /sq.ft flowrate

Any combination of same vessel diameters can be used in parallel to achieve desired filtration flow rates. Sonitec shall require an application data sheet to be filled out on all non-standard applications for final sizing and pricing.

Sonitec does not recommend the use of the VORTISAND® filter for applications where oil and grease are present. However, the filter could be used if the following measures are carefully taken:

Bacteria controls must be rigorous. A too **high bacteria level** will contaminate the filter media and will create channeling inside the media. This situation will lead to a media carry over on the filtrate side of the filter.

Presence of **oil and grease** will lead to the same phenomenon as bacteria but could also lead to complete clogging of media. This will require the replacement of the media.