

## Steam SHIELD Series Commercial Steam Room Defense System

The Am-Finn Steam SHIELD series is the industry's first filter systems specifically designed for commercial steam rooms. The Steam SHIELD series is designed to protect steam generation equipment from harmful chemicals and pollutants. The result is a significant reduction in maintenance, reduced down-time, reduction of the use of harsh cleaning chemicals and prolonged equipment life. The Steam SHIELD series is the only filter available carrying the NSF label (National Food Safety).



### 1. Installation Precautions

- The Am-Finn Steam SHIELD series is not to be used where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before the filter.
- Do not install where the line pressure is outside of 40 - 125 psi, or where temperature is lower than 40 deg F (the filter must be protected from freezing) or exceeds 100 deg F.
- The installation of the filter must comply with any applicable federal, state or local codes. Codes should be checked before installation.
- The filter is designed for cold-water only. Hot or warm water will damage the filter housing.
- Recommended pH range is 6 to 8.5.

### 2. Installation

- Remove filter from packaging and inspect for damage. Notify shipping company immediately if damaged.
- Carefully lift filter using OSHA approved proper lifting techniques.
- Dispose of packing materials to avoid tripping.

#### POSITIONING OF THE FILTER

The water filter should be mounted upright on a horizontal surface without obstructions. Locate a position that is close to the steam generator and out of the way of potential damage. The filter must be placed in an area that it can be accessible to replace the filter with a 6" minimum bottom clearance.



### Mounting

1. Measure backplate of filter system and mark hole locations on wall (See Item 1).
  - a. Insure marks are level, then drill holes for anchors (if needed). Anchors must be properly matched, to allow for wet weight of filter system.
  - b. Secure SMF water filter system to wall.

### Water Connections

2. Use appropriate 1/2" fittings and tubing to allow for a flow rate of 5 to 10 Gallons Per Minute (GPM) (See Item 2). **Do not overtighten fittings into plastic parts! Warranty will be voided if parts are cracked and/or broken due to misuse and/or overtightening!** Use only Selecto approved, SMF Modular fittings!
  - b. Connect water filter inlet to cold water supply. Use approved flexible beverage tubing where possible with correct sized tube clamps. If hard plumbing is necessary then use only lead free solder and protect filter housing from excessive heat. Do not solder within 12" of plastic parts!
3. From outlet of water filter use no less than 1/2" ID tubing to all specified equipment. It is only permissible to decrease line size when multiple lines are being used (See Item 3).

\* Teeing the tubing should be done appropriately, for example 1/2" x 1/2" x 1/2". This is only to be done at equipment location if line is to be used for other equipment.

### Initializing Water Filter

4. Check to be sure that the cartridge is properly installed. Do this by turning the cartridge counter-clockwise when looking at the bottom of the cartridge, and then back clockwise until the positive stop is felt. (See Item 4). (Also see Cartridge Changing Instructions (Page 5) and Troubleshooting Guide (Page 6))
5. Turn inlet ball valve to the "On" position (handle horizontal) slowly allowing water to fill filter system (See Item 5).
6. Purge the cartridge so that there is no air remaining by depressing the red button until a steady stream of water comes out (See Item 6).
7. Purge all air from the drink system water lines by pressing the plain water valve on drink dispenser for approximately 1 minute, or until no air, only water comes out.
8. System is now operational. Go back and check every connection for possible leaks and fix where needed.

### Cartridge Change Schedule

9. Change cartridge once yearly, or when the needle on the pressure gauge (See Item 7) stays in the "Red" area.

### 3. Maintenance

#### Cartridge Replacement Schedule

1. When the line pressure downstream of the filter housing drops to 30 psi or below during system operation, the cartridge(s) needs to be replaced. Occasional dips below 30 psi and back are normal.
2. For system backplate label for ordering information for cartridge replacements.
3. See below for Cartridge Changing Instructions.



### 4. Changing the Cartridge



#### Step #1

Shut off inlet valve **5**. Push "Red" pressure relief button **6** located at left end of SMF filter system to relieve pressure until no more water comes out. Grasp filter cartridge, turn counter-clockwise 1/4 turn (when viewed from bottom) and pull downward about 1 1/2" to remove the filter cartridge. Properly dispose of old cartridge.

#### Step #2

Remove and discard the "Red" sanitary cap from the top of the new cartridge. Be sure to apply sufficient lubrication (supplied) to the O-Rings. Align ear on cartridge with notch in filter head and push upwards to insert. Be sure to push cartridge all the way in! Turn cartridge clockwise (when viewed from bottom) until a definite stop is felt and cartridge is sealed. Hand tight is sufficient. Turn on inlet valve **5**. Flush for one minute.



It is recommended that the cartridge be changed at least yearly, when pressure drops significantly, or when bad tastes and/or odors return. See page 1 or system backplate label for proper replacement cartridge part number.

## 5. Troubleshooting Guide

### Leaks

All SMF Series Modular Filter Systems are factory pressure tested. It is normal to experience leaks of a few drops of water at the various O-Ring sealed junction points at initial Start-Up only. This will subside after a few minutes as soon as the O-Rings become under pressure and seat properly. For any leaks lasting longer than this, or those that are more than a few drops, please see the troubleshooting points below. Note: The inlet valve **5** must be turned "OFF" (handle in vertical position), and pressure relieved by pushing the "Red" pressure relief button **6** before attempting to fix any leakage problems.

**1. Leaks at threaded connection points.**

This type of leak should be repaired by removing the fitting and applying additional thread sealant compound. Do not attempt to repair by tightening the fitting more! Overtightening fittings into plastic parts may cause the plastic to crack. This type of damage is considered abuse, and not covered by the warranty!

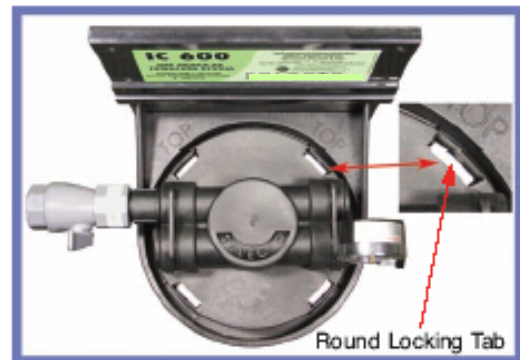
**2. Leaks at Junction of Modular Fittings to Filter Head**

If leaking persists at the junction points, remove the retainer clip carefully by inserting a screwdriver or other object into the hole and gently prying "UP" to remove. Gently remove the leaking fitting by "pulling straight out". Apply additional lubricant (supplied) to the O-ring and re-insert the fitting by gently "pushing all the way in" until the shoulder on the fitting contacts the filter head. Examine the retaining clip for any cracks from removal and re-insert by "pushing straight down" until it is all the way in. If retaining clip is cracked or stretched in any way, discard it and use a new one (supplied). If the above procedure does not cure the leak, repeat the processes above, replacing the O-Ring (supplied). See diagram below.



**3. Leaks Between Cartridge and Filter Head**

While looking at the top of the filter system, grasp the cartridge and turn slightly counter-clockwise, when viewed from bottom and then back clockwise, making sure that the ears on the cartridge are fully engaged into the filter head. The round locking tab in the filter head will be engaged into the half-round recess in the cartridge ear. See diagram below.



- 4. If leakage persists, remove cartridge by following the procedures outlined in "Step 1" of the Cartridge Changing Instructions on Page 5. Inspect the O-Ring on the top of the cartridge for damage. Replace with a new O-Ring (supplied) and lubricate well with lubricant supplied. Replace the cartridge by following the procedures outlined in "Step 2" of the Cartridge Changing Instructions on Page 5. See diagram below.**



### Bypassing the Filter System

The purpose of the Selecto SMF Modular Filter System is to provide constant safe, clean ingredient water. Bypassing the system is not recommended. However, in the case of a damaged or clogged filter cartridge, it may sometimes become necessary to bypass the system. This may be accomplished by removing the filter cartridge by following the procedures outlined in "Step 1" of the Cartridge Changing Instructions on Page 5, and installing the "Bypass Plug" in its place. When installing the "Bypass Plug", it is necessary to properly lubricate the O-Ring using the lubricant provided. Install the plug the same as a replacement cartridge by following the procedures outlined in "Step 2" of the Cartridge Changing Instructions on Page 5. Be certain to properly engage the "Ears" on the "Bypass Plug" fully into the round locking tab in the filter head as outlined on the previous page. See the diagram at right.

