



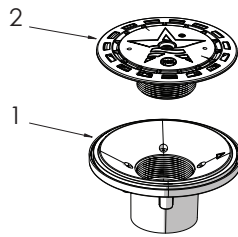
# FLOW SYNC™ FLOOR RETURN INSTRUCTIONS

Certified to NSF/ANSI/CAN 50

INSTRUCTIONS FOR MODELS: FSTxxx, RFSTxxx (xxx = COLOR SUFFIX)  
U.S. Patent Pending [www.aquastarpoolproducts.com/patents](http://www.aquastarpoolproducts.com/patents)

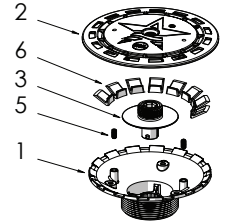
## READ AND FOLLOW ALL INSTRUCTIONS

### Part # FSTxxx - Flow Sync™ Floor Return



1. Adjustable Floor Return Body
2. Return Fitting

### Part # RFSTxxx - Retrofit Flow Sync™ Floor Return



1. Lower, Floor Return Valve, Qty 1
2. Upper, Floor Return Valve, Qty 1
3. Stem, Floor Return Valve, Qty 1
4. #8 x .375" Pan Head Phillips, 316 SS, Qty 3
5. Set Screw, 10-24 x .375", 316 SS, Qty 2
6. Plug, Floor Return Valve, Optional, Qty 8

## INSTALLATION INSTRUCTIONS

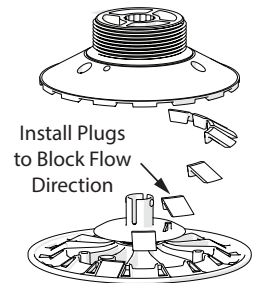
Please read and follow all instructions. For use in commercial or residential applications.

1. **Positioning:** Place returns a maximum of 20 ft apart, with the first row within 15 ft of each wall. Add extra returns at stairs, ramps, coves, sun shelves, beach entries, and other high-use or low-circulation areas. Always confirm layout and flow rates with local building and health codes.
2. **Secure Fitting:** Thread the Return Fitting into the Body until flush with the pool floor. Tighten the two set screws to lock into position using a 3/32" Hex Key.

## Optional Plug Instructions

Optional plugs can be installed to control the direction of water flow. Installing all 8 plugs will reduce the flow from 360 to 180 degrees. To install plugs:

1. Remove 3x #8 Pan Head Screws
2. Lay Upper Valve cover upside-down on a flat surface
3. Insert plugs into openings to be blocked
4. Replace Lower Valve Assembly onto Upper Valve Cover, being sure to align the arrows.
5. Reinstall the 3x #8 Pan Head Screws



## FLOW ADJUSTMENT

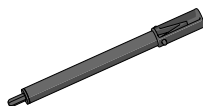
To adjust flow, insert a 3/8" hex key, Deck Tool (Part # FSTW), or Hand Tool (Part # FSEW) into the center of the valve. Rotate the valve stem clockwise until it is fully closed. Then rotate it counter-clockwise, counting the audible clicks, to set the desired flow rate. The valve supports flows from 1 to 83 GPM (approximately 20 fps outlet velocity), a range that satisfies circulation requirements\* (see next page for note). After setting the flow, fine-tune each return jet until a dye test disperses evenly across the pool within twenty minutes, confirming balanced circulation.

## Adjustment Tools

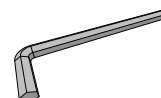
The flow rate can be adjusted manually using the optional Hand Tool (Part # FSEW,) or from the deck with a pole and the optional Deck Tool (Part # FSTW), without needing a diver. A standard 3/8" hex key can also be used.



**Flow Sync™  
Hand Tool**  
Part # FSEW



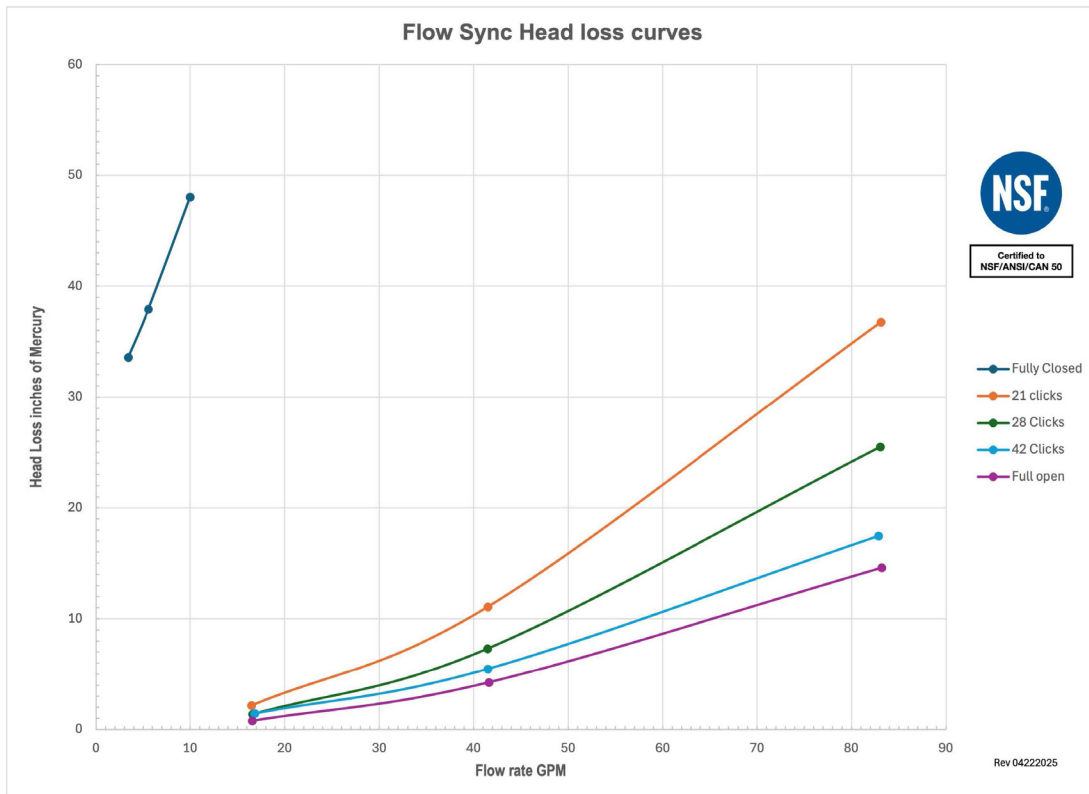
**Flow Sync™  
Deck Tool**  
Part # FSTW



**Standard 3/8" &  
3/32" Hex Key**  
Not included

## FLOW SYNC™ FLOOR RETURN HEAD LOSS CURVE

Use this chart to determine the head loss based on your selected flow setting. In accordance with NSF 50, head loss is shown in inches of mercury across a range of flow rates (GPM) from fully closed to fully open. The maximum operating pressure is 50 psi.



### BENEFITS OF USING FLOW SYNC™

Flow Sync™ adjustable output allows builders and service pros to balance new or retrofit systems, ensuring even sanitation and debris removal from shallow shelves to deep ends—without the need for costly repiping.

#### Key Benefits:

##### Adjustable Flow Rates

Flow Sync™ allows flow adjustments from 1 to 83 GPM, providing even water distribution throughout the pool. This flexibility helps ensure compliance with spacing and flow requirements\*.

##### Up to 360-Degree Water Flow

Flow Sync™ projects water in all directions for better circulation, minimizing the risk of floor discoloration and improving consistent treatment. Ideal for sun shelves and beach entries.

##### Easy Above Water Flow Adjustment

Adjust flow rates conveniently from above the water using the optional adjustment tool—no divers or in-pool access needed. This saves time and keeps maintenance simple.

##### Leak Prevention

An integrated water stop prevents leaks, and the included pipe adapter ensures compatibility with standard plumbing sizes.

##### Flush-Mounted Design

The flush-mounted design blends into the pool floor and reduces trip hazards.

##### NSF 50 Certified

Flow Sync™ meets NSF 50 standards for quality and safety, with high-grade ABS material for durability.

\* ANSI/PHTA/ICC-2 American National Standard for Public Pool and Spa Operations and Maintenance, the International Swimming Pool and Spa Code (ISPS), and the Model Aquatic Health Code (MAHC).