

SmartPlus®

HOT WATER RECIRCULATION

Plumbing

The Smart Way to Instant **Hot Water** Comfort.

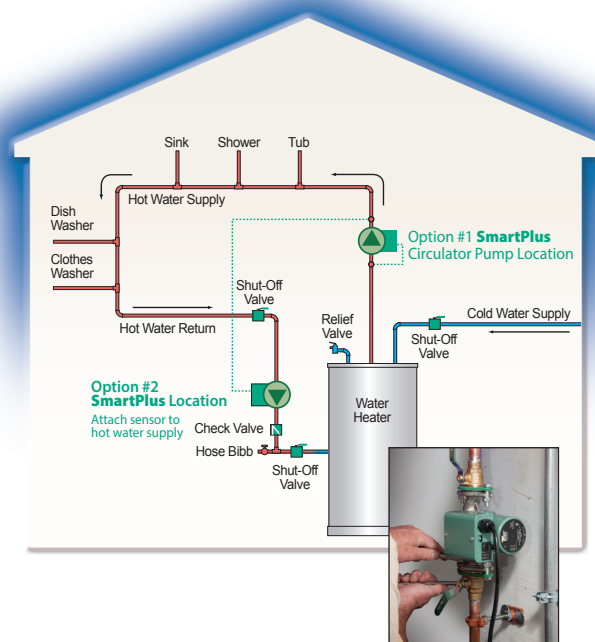
The Taco SmartPlus® is designed to increase hot water comfort while conserving water and energy in residential systems with a dedicated return line. By recirculating “cooled” hot water back to the water heater, the wait for hot water is reduced to seconds. Fully automatic, SmartPlus never needs programming and comes equipped with a 72-hour memory backup. Stop waiting and start saving up to 12,000 gallons of water per year with Taco SmartPlus Hot Water Recirculation.



Applications

The Problem: Waiting for Hot Water

It's a common problem: turn on the faucet or shower for hot water, then wait for it to arrive. In fact, the wait can be up to two minutes in larger homes with multiple bathrooms and long runs of pipe between the plumbing fixtures and the water heater! With a Taco SmartPlus circulator in place, there's no more wait. Instant hot water!



Waiting Means Wasting

Waiting for hot water sends millions of gallons of cooled water down the drain each year. In fact, an average family of four wastes up to 12,000 gallons of water each year waiting for hot water.* Water conservation is so important that many US states and municipalities routinely impose watering bans and offer rebate incentives to help conserve this natural resource.

*Source: Dept. of Energy

Estimated Annual Water Savings

Pipe Type	Hot Water Supply Length (ft.)	Pipe Water Volume (gallons)	Daily Water Volume Wasted (gallons)*	Annual Water Volume Saved (gallons)
1/2" Copper Type "L"	100	1.2 per 100'	12	4,400
	150		18	6,600
	200		24	8,800
	250		30	11,000
	300		36	13,200
3/4" Copper Type "L"	100	2.5 per 100'	25	9,200
	150		37	13,700
	200		50	18,300
	250		62	23,000
	300		75	27,500

* Assume average of 10 cycles per day.

SmartPlus®

Energy Down the Drain

Of course, all that "waiting water" contains some heat energy (BTU's), even if it's only room temperature. Wasting those BTU's and starting over with fresh, cold water to heat up requires even more heat energy. So in addition to wasting water, millions of BTU's and energy dollars are wasted, too.

How a Domestic Hot Water Recirculation System Works

A standard DHW system requires a dedicated return line from the furthest fixture back to the water heater. The return line is connected to a tee at the tank drain valve or to the tank's cold water supply line. A Taco SmartPlus circulator pump is installed on the hot water supply line, or on the hot water return line, and controlled by the SmartPlus electronic control board.

How the SmartPlus Circulator Works

The SmartPlus circulator has a mode select toggle switch on the electronic control board that allows for 2 operation modes; "Pulse" or "Smart" mode. Pulse mode is indicated by a flashing yellow LED. A solid yellow LED indicates the pump is set to Smart mode. All operation is automatic, no manual timer or temperature setting is required.

Pulse Mode

When set for Pulse mode, the SmartPlus circulator will run automatically every 10 minutes to maintain hot water at all fixtures. The run time is adjustable from 1 to 10 minutes.

Smart Mode

The run time is adjustable from 1 to 10 minutes. When set for Smart mode, the circulator will run in Pulse mode as above for the first 7 days. During the first 7 days, the SmartPlus will monitor and record the household's hot water usage pattern. For the next 7 days, the SmartPlus will use the preceding week's usage pattern to cycle the pump. This process will be repeated every 7 days.

MATERIALS OF CONSTRUCTION

Stator Housing Steel
Cartridge Stainless Steel
Impeller Noryl
Shaft Ceramic
Bearings Carbon
O-Ring EPDM
Casing (Volute) Stainless Steel, flanged

Features & Benefits

Features & Benefits

Smart Mode — When set to Smart mode the pump will automatically learn the weekly household hot water usage patterns.

Variable Run Time Setting — Adjustable run time can be set between 1 to 10 minutes for varying domestic hot water pipe sizes and loop length.

72 Hour Memory Backup — Should a power outage occur, the SmartPlus (in Smart mode only) will retain its recorded settings and internal timer for 72 hours. When power is restored, the SmartPlus will return to its programmed mode setting, either "Pulse" or "Smart."

Vacation Function — After 36 hours of inactivity the pump will automatically TURN OFF and remain off until hot water usage is detected again.

Exercise Function — While in vacation mode the pump will cycle on once every 7 days and run for 10 seconds to prevent any corrosion or scale buildup.

Factory Installed 6' Line Cord

Remote Temperature Sensor Included

Optional IFC® (Integral Flow Check)

Unmatched Reliability-Maintenance Free

Water Conservation — The average residence can save up to 12,000 gallons of water per year - water that normally goes down the drain while waiting for hot water.

Comfort & Convenience — Once the pump is set to the desired operating mode it never needs to be set again. Hot water is always available in seconds.

Efficiency — Smart/Pulse operation maximizes hot water comfort and energy savings.

Reliability — SmartPlus provides quiet operation and industry leading electronics with Taco 008 circulators for proven performance & dependability.

3 Year Warranty

LED Indicators:

- GREEN — Power
- YELLOW — Mode
- RED — Error code diagnostics



Choosing the Correct SmartPlus Circulator for the Job

Pump Selection Charts

This information is provided as a guide only. Find the table below that best describes the design you plan to use. Select the circulator based on the supply and return pipe size, pipe line length, and circulator model. Do not oversize the pump or high velocity noise and erosion corrosion of the system piping may result.

1/2" Supply and Return Lines

Model Number	Supply Pipe Maximum Length (ft.)	Total Maximum Pipe Length (ft.)
008-IQSF6	250	450
008-IQSF6-IFC*	250	450

*With Optional Integral Flow Check

3/4" Supply and Return Lines

Model Number	Supply Pipe Maximum Length (ft.)	Total Maximum Pipe Length (ft.)
008-IQSF6	300	600
008-IQSF6-IFC*	300	600

*With Optional Integral Flow Check

Assumptions

Flow = 1 GPM

Max. Velocity = 3 ft./sec.

Allowances have been added for pressure drop of other typical system components

Type L copper tubing

Supply & return piping are equal in length

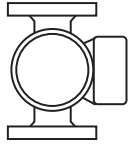


Submittal Data Information SmartPlus® Hot Water Recirculation

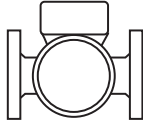
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Effective: 06/08/25

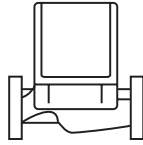
Mounting Positions



STANDARD



OPTIONAL



OK IF OVER 20 PSI

Model Nomenclature

- IQ – SmartPlus
- SF – Stainless Steel, Flanged
- IFC – Integral Flow Check

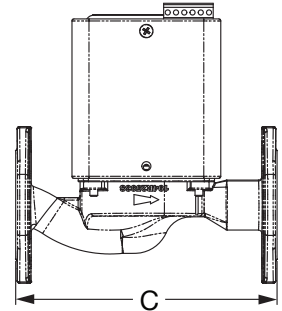
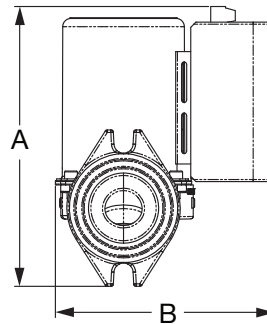
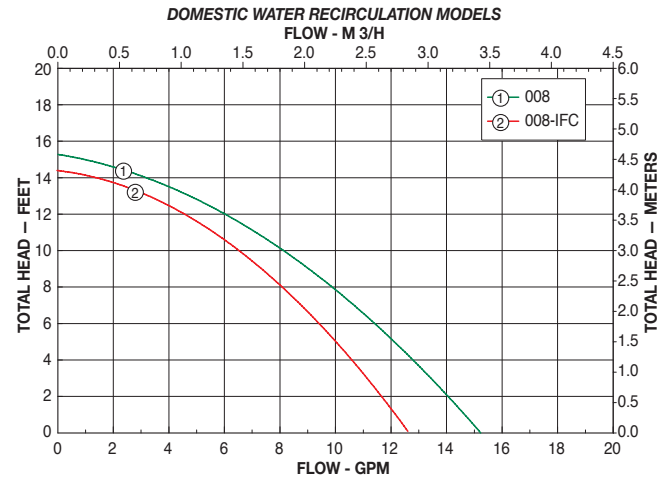
Performance Data

Model	Flow Range	Head Range
008-IQSF6	0 - 15 GPM	0 - 15 Feet
008-IQSF6-IFC	0 - 13 GPM	0 - 14.5 Feet

Electrical Data

Model	Volts	Hz	Ph	Amps	RPM	HP
008	115	60	1	0.84	3250	1/25

Performance Field Information - 60 Hz



Dimensional Data

Model	Connection	Casing	A		B		C		Ship Wt.	
			In.	mm.	In.	mm.	In.	mm.	lbs.	kg
008-IQSF6	Flanged	Stainless Steel	7	177	5-1/2	140	6-1/2	165	8.0	3.6
008-IQSF6-IFC	Flanged									



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