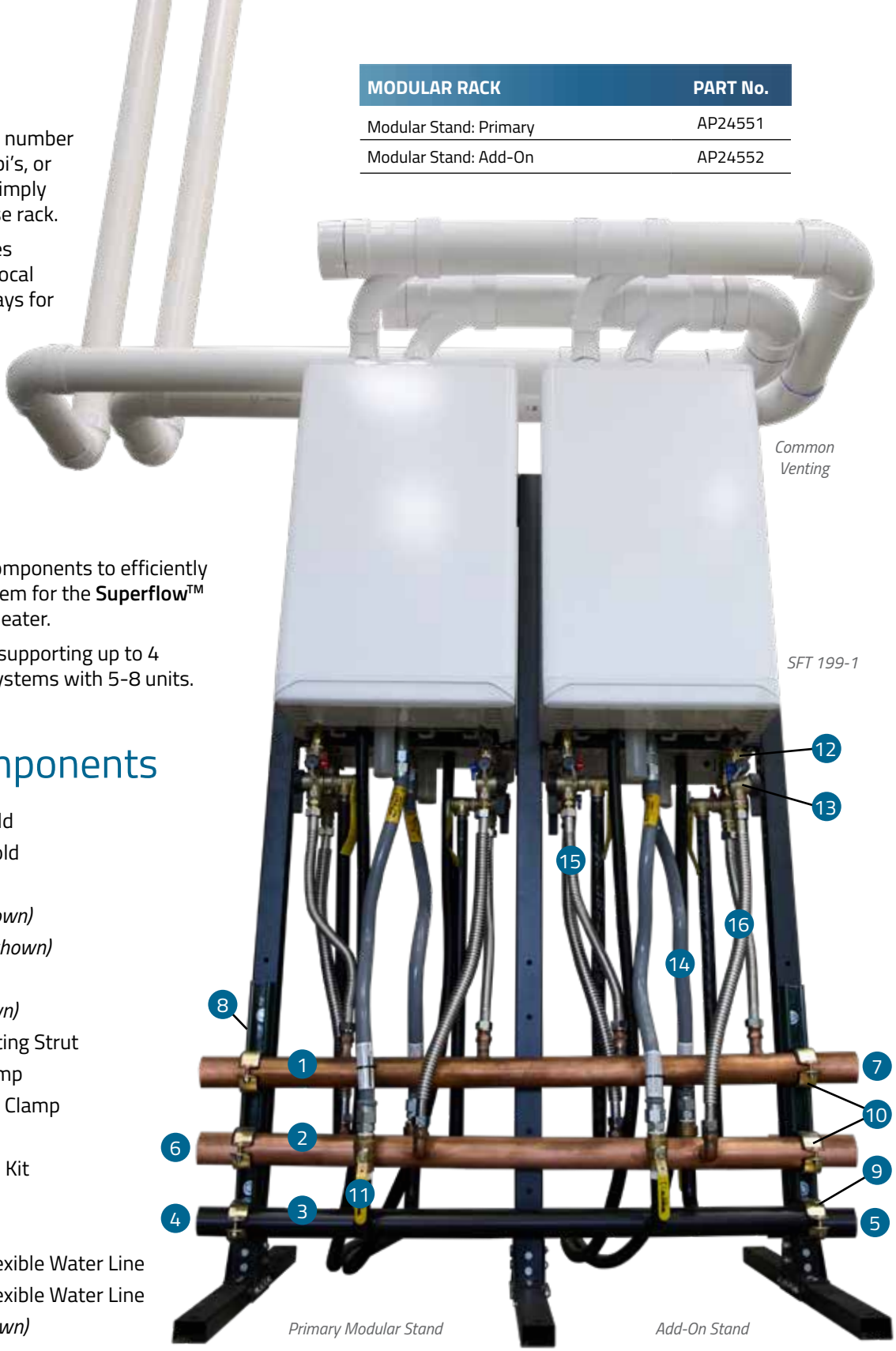
NEW PRODUCT
WIRELESS
8
UNITS
CASCADE
SUPERFLOW™
CASCADE
MANIFOLD PIPING SYSTEM
A GREATER DEGREE OF GOOD™
DRAFT
HIGH-VOLUME
WATER HEATING
THE SMART CHOICE
FOR HOT WATER
IBC®

Modular Rack

- Accommodates an unlimited number of **Superflow™** Boilers, Combi's, or Tankless Water Heaters by simply adding extensions to the base rack.
- Field-assembled rack ensures immediate availability from local wholesalers, eliminating delays for pre-assembled racks.
- Configurable for any **Superflow™** unit to be mounted side-by-side or back-to-back.

MODULAR RACK	PART No.
Modular Stand: Primary	AP24551
Modular Stand: Add-On	AP24552



Manifold Piping

- Provides all the necessary components to efficiently pipe together a cascade system for the **Superflow™** SFT 199-1 Tankless Water Heater.
- Scale easily with a single kit supporting up to 4 heaters or link two kits for systems with 5-8 units.

Manifold Kit Components

1. 2" Copper Hot Water Manifold
2. 2" Copper Cold Water Manifold
3. 1-1/2" Steel Gas Header
4. 1-1/2" Cast Iron Cap *(not shown)*
5. 1-1/2" Cast Iron Union *(not shown)*
6. 2" Copper Cap *(not shown)*
7. 2" Copper Coupling *(not shown)*
8. 1-5/8" x 1-5/8" x 18" Mounting Strut
9. 1-7/8" Gas header Strut Clamp
10. 2-1/8" Water Manifold Strut Clamp
11. 3/4" Gas Shutoff Valve
12. Tankless Water Heater Valve Kit
13. 3/4" x 3/4" Male Adapter
14. 3/4" x 30" Flexible Gas Line
15. 3/4" x 18" Stainless Steel Flexible Water Line
16. 3/4" x 24" Stainless Steel Flexible Water Line
17. Assembly Hardware *(not shown)*

MANIFOLD PIPING KIT	PART No.
Rack Manifold Kit: 2 Side-by-Side (2SS)	AP24557
Rack Manifold Kit: 3 Side-by-Side (3SS)	AP24555
Rack Manifold Kit: 4 Side-by-Side (4SS)	AP24554
Rack Manifold Kit: 2 Back-to-Back (2BB)	AP24556
Rack Manifold Kit: 4 Back-to-Back (4BB)	AP24553

COMPLETE KIT RACKS + PIPING KIT*	MANIFOLD	BASE RACK	ADD-ON
Rack Manifold Kit: 2 Side-by-Side (2SS)	AP24557	AP24551	AP24552 x 1
Rack Manifold Kit: 3 Side-by-Side (3SS)	AP24555	AP24551	AP24552 x 2
Rack Manifold Kit: 4 Side-by-Side (4SS)	AP24554	AP24551	AP24552 x 3
Rack Manifold Kit: 2 Back-to-Back (2BB)	AP24556	AP24551	-
Rack Manifold Kit: 4 Back-to-Back (4BB)	AP24553	AP24551	AP24552 x 1

** Expandable up to 8 units.*

SUPERFLOW™ CASCADE
MANIFOLD PIPING SYSTEM

Suitable for the following projects:

- Hotels and Restaurants
- Schools
- Healthcare Facilities
- Microbreweries and Bars
- Barn and Farm Buildings
- Gym and Recreational Facilities
- Carwashes
- Office Buildings
- Large Residences and Multi-Family Housing
- Apartment Buildings

HIGH-VOLUME HOT WATER SOLUTIONS

As a contractor, you understand the critical need for efficiency, reliability, and adaptability in every project. The Superflow™ Cascade System is engineered with your requirements in mind, providing a comprehensive solution for high-volume domestic hot water installations. This system not only saves you time and money but also ensures exceptional performance on every job.

Versatile

- **Customizable Configurations:** Tailor every aspect to meet specific project requirements, including wall mounting or free standing rack mounting for both side by side and back to back configurations. Handle any job with ease.
- **Scalable Design:** A single Modular Rack Manifold kit supports up to 4 units, and two kits can support up to 8 units, providing application flexibility.

Time-Saving

- **Quick Assembly:** The modular design and field assembly means you can get the components you need from local wholesalers without waiting for pre-assembled systems. This speeds up your installation process, reducing downtime.
- **Simplified Piping:** The manifold kit provides everything necessary to quickly pipe together a cascade system, minimizing installation time and complexity.

Cost-Effective

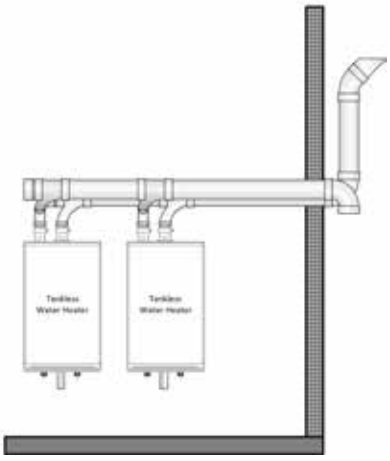
- **Common Venting:** Common vent up to 120' with a 6" common vent pipe using standard venting materials, eliminating the need for proprietary components, and saving material costs.

Innovative Technology

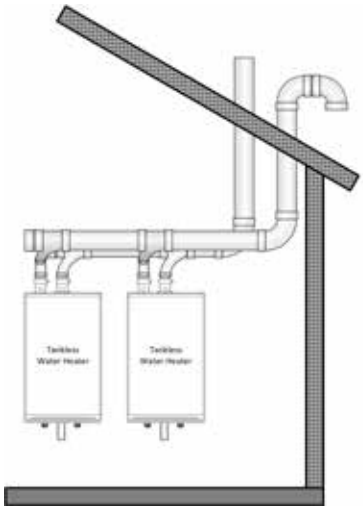
- **Wireless Cascade:** Built-in wireless cascade function simplifies setup, eliminating the need for communication cables and ensuring the system continues to operate during maintenance or repair, enhancing reliability and reducing downtime.

Common Venting

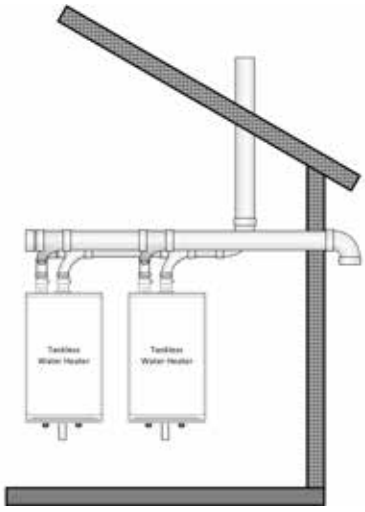
- Enables common venting for up to 8 SFC 199-1 and SFT 199-1 models using standard, non-proprietary venting materials.
- Supports vent lengths of up to 120 feet with a 6-inch common vent pipe.
- Offers multiple termination options:



Sidewall vent and combustion air



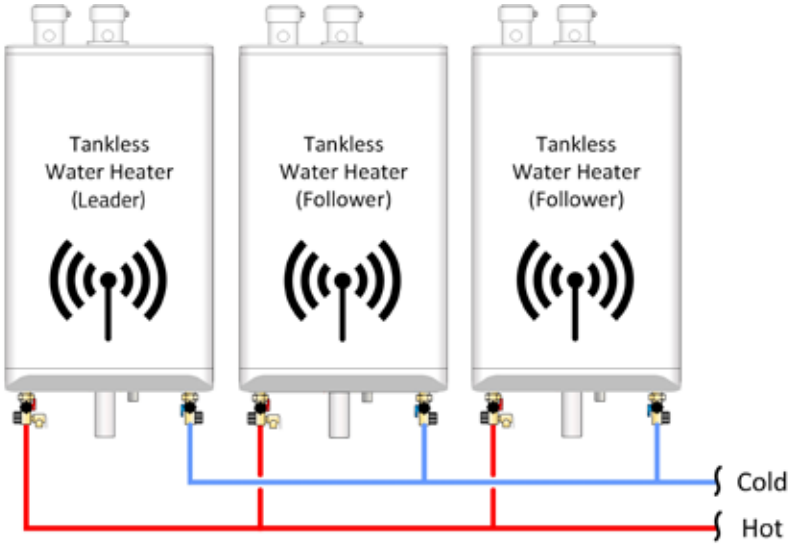
Rooftop vent and combustion air



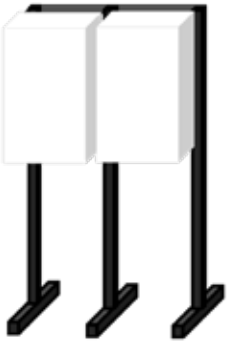
Rooftop vent with sidewall combustion air

Wireless DHW Cascade

- Our unique built-in wireless cascade function means cascade system setup is as simple as enabling the built-in feature on up to 8 units. No communication cables are required.
- Wireless communication provides the ultimate in cascade system redundancy. The cascade system continue to operate during maintenance of a cascaded unit.

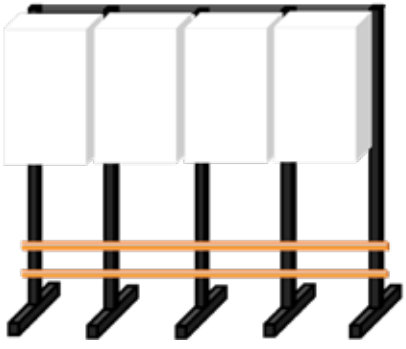


Configurations

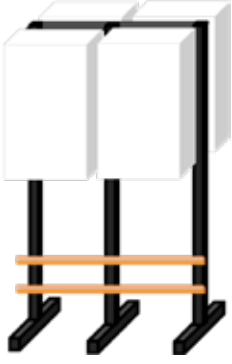


Floor Standing

Wall-Mounted



In-Line



Back-To-Back

Hard Water *Performance*

The **SFT SUPERFLOW™** has the best domestic hot water performance in hard water locations. Hard water causes limescale buildup in all types of water heaters resulting in decreased efficiency and performance. When tested against leading Tankless competitors[1], **SUPERFLOW™** had the least amount of limescale buildup and maintained like new performance between routine maintenance. This extraordinary hard water performance is due to our patented heat exchanger design with integrated copper coil.

[1] *Tested with a water hardness of up to 400ppm (23gpg).*

Innovative Labyrinth Heat Exchanger Design

Our **SFT SUPERFLOW™** utilizes our patented, tried-and-tested heat exchanger technology that incorporates a fully integrated copper coil, ensuring maximum heat transfer and minimal heat loss.

The cold water supply flows directly through the heat exchanger, condenses flue gasses fully, and extracts as much heat as possible.

SFT - TANKLESS

Technical Information

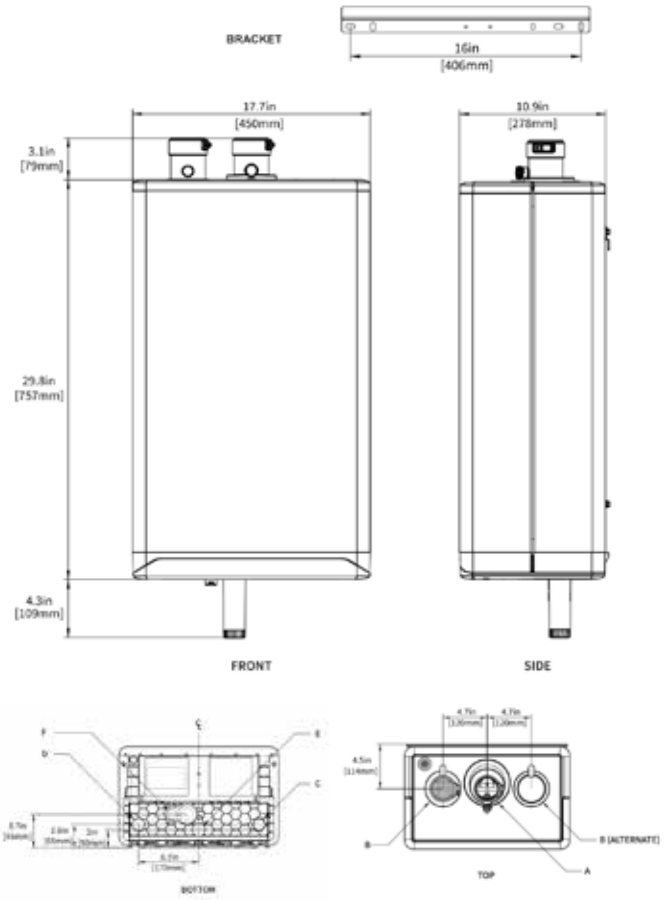
15 YEAR HEAT EXCHANGER WARRANTY

5 YEAR PARTS WARRANTY

SPECIFICATIONS	SFT 199-1
Heat Capacity (Input)	Natural Gas/Propane - 28,500-199,000 BTU/H
Efficiency Ratings (NG & LP)	U.E.F. - 0.9
Flow Rate (DHW): 35˚F (19˚C) Temp. Rise	10.1 GPM (38 LPM)
Flow Rate (DHW): 45˚F (25˚C) Temp. Rise	7.9 GPM (30 LPM)
Flow Rate (DHW): 67˚F (36˚C) Temp. Rise	5.4 GPM (20 LPM)
Dimensions (W/H/D)	17.7 in. x 29.8 in. x 10.9 in. (450 mm x 757 mm x 277 mm)
Weight (empty)	68 lb/31 kg
Installation Type	Indoor Only Wall-Hung
Venting Type	Forced Draft Direct Vent
Ignition Type	Electronic Ignition
Water Pressure	40 psig - 150 psig
Gas Pressure (NG or LP*)	4 inch w.c. - 14 inch w.c.
Min. Flow Rate to Activate DHW Heating	0.5 GPM (1.9 LPM)
Pressure Vessel Water Content	0.19 USG / 0.72 L
Ambient Temperature - Low	32 ˚F / 0 ˚C
Ambient Temperature - High	122 ˚F / 50 ˚C
Max. Relative Humidity (Non-Condensing)	90%
Power Supply: Main Supply	120Vac. 60Hz
Power Supply: Watts at Full Fire	100 Watts
Materials: Casing	Painted Steel and Plastic
Materials: Heat Exchangers	Copper Tubes in AL Block
Venting (Canada venting must meet ULC S636)	2" or 3" PVC, CPVC, Polypropylene
Vent Clearances	0" to Combustibles
Safety Devices	Flame Proving Module, Flue Gas Temp. Sensor, Protective Fuse
Certified Design	ANSI Z21.10.3 | CSA 4.3
Freeze Protection	Yes

** Units ship configured for Natural Gas (NG) with a Propane (LP) conversion kit included.*

SURFACE	DISTANCE FROM COMBUSTIBLE SURFACES	RECOMMENDED DISTANCE FOR INSTALLATION AND SERVICE
Front	2"	24"
Rear	0"	0"
Left Side	1.5"	6"
Right Side	4"	6"
Top	2"	24"
Bottom	8"	24"



PIPING CONNECTIONS	SFT 199-1
A. Exhuast Outlet	2" Schedule 40 PVC
B. Combustion Air Inlet	2" Schedule 40 PVC
C. Cold Domestic Water Connection & Inlet Filter	3/4" Male NPT
D. Hot Domestic Water Connection	3/4" Male NPT
E. Gas Inlet	3/4" Male NPT
F. Condensate Outlet	3/4" Hose

VENTING	MAXIMUM EQUIVALENT LENGTH
Schedule 40 PVC, CPVC, or PPs	(each side)
2"	65'
3"	120'
2" or 3" 90˚ Long Sweep Vent Elbow	Allow 5 equivalent feet
2" or 3" 90˚ Short Sweep Vent Elbow	Allow 8 equivalent feet
2" or 3" 45˚ Short Vent Elbow	Allow 3 equivalent feet
PPs	
PPs 87-90˚ Elbow	Allow 8 equivalent feet
Flex PPs	
3" PPs Flex	35' Actual (Equivalent = Actual x 1.4)

IBC

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All information contained in this brochure is subject to change without notice.
Due to clerical error, regulation change or product development please confirm all information with IBC.

900-313 (R2) 04.09.25