

Engineering Submittal

SFC SUPERFLOW™ Condensing Combi Boiler



Job Name					
Address					
Designer/Engineer					
Wholesaler					
Mechanical Contractor					
Model / Quanti	ty □ SFC 99-1				
	☐ SFC 160-1				
Date					
Fuel Type:	☐ Natural gas	☐ Propane (field conversion kit included)			









Features

- ASME approved pressure vessel constructed of aluminum with dual copper water ways for space and water heating
- Features an A.F.U.E. of up to 96%
- Vertical combustion chamber and a down firing burner allows gravity drainage of condensate
- Built in ECM high efficiency boiler pump
- Metal fiber knit burner
- Direct spark ignition
- Brushless DC fan
- Propane field conversion kit included
- Factory installed DHW inlet strainer

Certifications

- Tested and certified to ANSI Z21.13 / CSA 4.9 Gas Boiler Standard
- Tested and certified to ANSI Z21.10.3 / CSA 4.3 Gas Water Heater Standard
- Complies with SCAQMD Rule 1146.2 for Low NOx
- Complies with NSF / ANSI 372 Low Lead Content Standard

Boiler Control

- Integrated touch sensitive display panel
- Modulates boiler water temperature based on outside air temperature
- Electronic water pressure sensing for digital display of system pressure
- Diagnostic display of temperature sensors, DHW flow rate and flame current
- Accepts external control system 0 10 VDC signal to control firing rate or setpoint
- Wireless cascade function allows up to 8 SFC 160-1s or SFC 199-1s to operate together to satisfy a space heating and/or domestic hot water demand

Warranties

- Heat exchanger carries a ten (10) year limited warranty for residential applications upon registration
- Burner, controls, and other included equipment carry a five
 (5) year warranty for residential applications

Optional Accessories

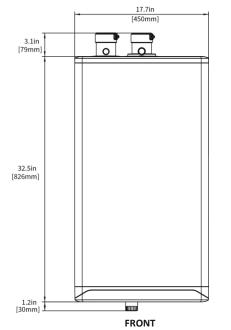
- EZ Pipe Manifold time saving primary / secondary piping
- Floor Stand designed for quick onsite assembly
- PVC Sidewall Termination Kits

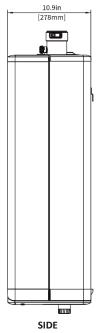


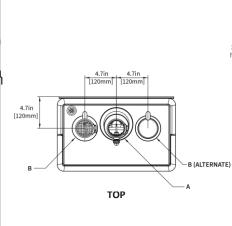
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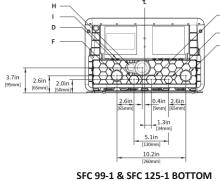
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SPECIFICATION	SFC 99-1	SFC 125-1	SFC 160-1	SFC 199-1
CSA Input (Natural Gas or Propane) - MBH		16.5 – 99	23 – 125	28.5 - 125
CSA Output - MBH	14.8 - 89	15.8 - 89	22 - 111	27.1 - 111
DHW - CSA Input (Natural Gas or Propane) - MBH	15.5 - 99	16.5 - 125	23 - 160	28.5 - 199
A.F.U.E.	96%	95%	94%	95%
Minimum Gas Pressure (Natural Gas or Propane) – inch w.c.	4	4	4	4
Maximum Gas Pressure (Natural Gas or Propane) – inch w.c.	14	14	14	14
Power (120Vac/60Hz) – Watts @ full fire with internal pump	120	120	120	120
Weight (empty) - lbs / Kg	85 / 39	85 / 39	84 / 38	84 / 38
Maximum Operating Pressure – Space Heating – PSI (30 PSI Relief Valve Standard)	43.5	43.5	43.5	43.5
Maximum Operating Pressure – Domestic Hot Water - PSI	150	150	150	150
Max equivalent vent length 2" PVC, CPVC, PP (USA: ASTM D1785, UL1738, Canada: ULC-S636)	65'*	65'*	65'*	65'*
Max equivalent vent length 3" PVC, CPVC, PP (USA: ASTM D1785, UL1738, Canada: ULC-S636)	120'	120'	120'	120'
Domestic hot water delivery @ 67°F/37°C temp. rise — GPM / LPM * Approximate input derate of 10-16% at 2" maximum vent length	2.4	3.2	4.1 •	5.0









H F

SFC 160-1 & 199-1 BOTTOM

	DESCRIPTION	DIMENSION
Α	Exhaust Outlet	2" Schedule 40 PVC
В	Combustion Air Inlet	2" Schedule 40 PVC
С	Cold Domestic Water Connection	3/4" Male NPT
D	Hot Domestic Water Connection	3/4" Male NPT
Ε	Heating Water Inlet (Return)	1" Male NPT
F	Heating Water Outlet (Supply)	1" Male NPT
G	Gas Inlet	3/4" Male NPT
Н	Condensate Outlet	¾" Hose
ı	Control Wiring Entrance	7/16" Rubber Plug

SURFACE	MINIMUM 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"
Тор	2"	24"
Bottom	8"	24"