

Duraclad

Commercial Oil-Fired Water Heaters

COF-199 to COF-700

Storage Capacity
260 Litres to 325 Litres

Range of Output
40,000 Kcal/hr to 1,40,000 Kcal/hr



FEATURES

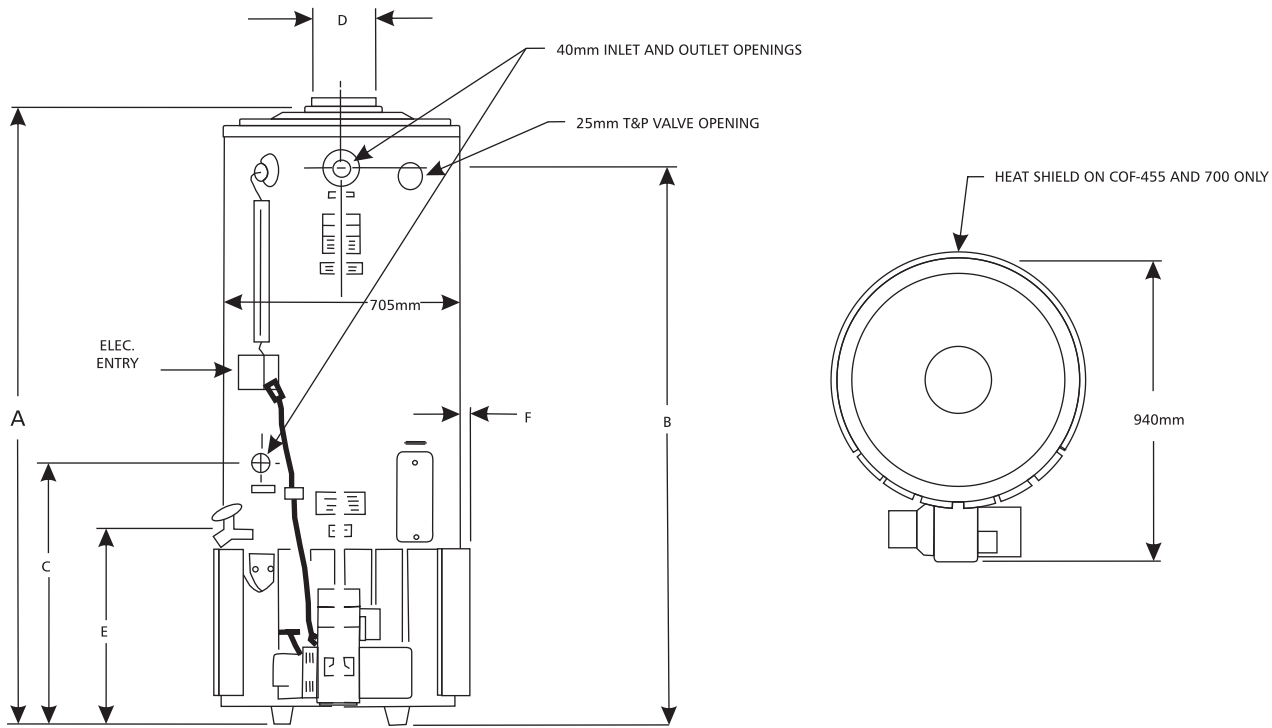
Meets Ashrae/ies 90.1b-1992 Requirements For Improved Energy Efficiencies.

LIME TAMER™ MODELS INHIBIT LIME AND SEDIMENT BUILDUP	Lime Tamer™ models are warranted against tank failure due to sediment buildup for three years.
GLASS-LINED TANK	Assures years of rust-free clean hot water. 11 Bar working pressure.
82°C ADJUSTABLE THERMOSTAT	Has upper and lower sensing bulbs to average water temperatures at top and bottom of heater for maximum temperature control (49°C-82°C).
SAFETY SHUTOFF	Limits temperature buildup.
UL LISTED OIL BURNER	Precision engineered to match the units they are used with; designed to fire 7 to 19 Liters of oil per hour. All models equipped with single phase continuous duty motor 120 volt AC 50 Hz, 3450 rpm with manual overload switch and interrupted ignition. Standard burners equipped with single stage pump with 1 or 2 line capability. Flame retention principle assures high rate of combustion efficiency, yet maintains low operating noise levels. Fuel unit includes pump, strainer, pressure regulating valve and ignition transformer. Transformer rated at 120 volt AC, 50 Hz with 10,000 volt secondary, UL listed for use commercial grade Diesel oil. Burner mounted cadmium cell relay for flame detection - 15 second safety switch timing eliminates the need for RA890F Electronic Safeguard. Complies with UL A708.5-32/33.
EFFICIENT COMBUSTION CHAMBER	Precast, high temperature combustion chamber made of alumina silica ceramic fiber. Engineered for maximum insulation and heat reflection. Unique design assures more complete combustion by stabilizing flame pattern.
INTERRUPTED IGNITION	Reduces electrical consumption.
OIL SOLENOID SAFETY VALVE	Standard on COF-455 and 700.
20mm DRAIN VALVE	Provided in lower tank for fast draining.
TWO HAND-HOLE CLEANOUTS	Allows easy cleaning on standard models COF-385 and larger and ASME models.
ANODIC PROTECTION	For longer tank life.
FLAME OBSERVATION PORT	Permits convenient flame check.
FOAM INSULATION	Saves fuel, helps assure constant temperature, verminproof.
JACKET	Heavy gauge steel with baked enamel finish over bonderized undercoat. Not approved for installation on combustible flooring.
EASY TO INSTALL BURNER	Three bolt mounting of burner assures easy installation.
BAROMETRIC DRAFT FACTORY	
INSTALLED AGA RATED T&P VALVE	
<i>OPTIONAL</i>	
Two Stage Pump	For use with underground oil storage tanks.
Oil Solenoid Safety Valve	Optional on COF-199, 245, 315 and 385.
ASME Construction Available	On models COF-315A, ASME units have 11 Bar working pressure.
CAUTION	Units must be installed on noncombustible surface.



ASME
(OPTIONAL)





Model	A mm	B mm	C mm	D mm	E mm	F mm
COF-199	1,899	1,721	686	152	584	—
COF-245	1,899	1,721	686	203	584	—
COF-315	1,899	1,721	686	203	584	—
COF-385	1,899	1,651	641	203	603	—
COF-455	1,899	1,676	641	203	603	19
COF-700	2,026	1,778	762	254	737	19

Specifications and Recovery Capacities in LPH

Models	Firing Rate LPH	Tank Storage (Liters)	Output* Kcal/Hr	RECOVERY RATES AT °C RISE								Motor HP	Approx. Ship. Wt. (Kgs)	
				22°C	33°C	45°C	50°C	56°C	61°C	72°C	78°C		Standard	ASME
COF-199	4.6	326	40,121	1827	1220	913	811	731	663	561	523	1/8	256	—
COF-245	5.6	326	49,395	2251	1501	1126	1001	902	819	694	644	1/8	251	—
COF-315	7.3	318	63,508	2896	1929	1448	1285	1156	1054	891	826	1/8	251	301
COF-385	8.9	284	77,621	3536	2357	1770	1573	1414	1285	1088	1012	1/8	287	329
COF-455	10.5	284	91,734	4180	2786	2092	1857	1671	1520	1285	1194	1/8	291	337
COF-700	16.2	262	141,129	6432	4286	3214	2858	2573	2338	1978	1838	1/8	333	384

Recovery ratings are based on 85% thermal efficiency on NCV of HSD (10,200 Kcal per kg)

NOTE: Above 610m altitude, input ratings should be reduced 4% for each 305m above sea level.

SAMPLE SPECIFICATION

Water heater(s) shall be commercial oil model number _____ or equivalent. Heater(s) shall have a minimum oil firing rate of _____ LPH at 38°C temperature rise and a storage capacity of _____ litres. The 11 bar working pressure tank shall be glass-lined with the alkaline borosilicate composition being fused to the steel at 870°C and be equipped with 40mm water inlet and outlet openings, and (2) 20mm x 95mm boiler-type handhole cleanout (2) on COF- 315 and larger or ASME models. The tank shall be insulated with 50mm of vermin proof fiber glass insulation. The outer jacket shall have baked enamel finish over a bonderized undercoating.

The burner shall be Underwriters' Laboratories listed and have a _____ (one or two) stage oil pump. The burner shall have flame retention, interrupted ignition and be equipped with primary controls which will provide for 15 second safety shutdown in the event of flame failure. The heater(s) shall be factory equipped with primary controls which will provide for 15 second safety shutdown in the event of flame failure. The heater(s) shall be factory equipped with temperature limiting device, drain valve, flame observation port and 82°C adjustable thermostat having upper and lower sensing bulbs which average the water temperatures at the top and bottom of the tank for maximum water temperature control. A pressure and temperature relief valve shall be furnished and installed by the factory. Heater tank shall have a 3 year limited warranty against corrosion and tank failure due to sediment buildup as outlined in the warranty.

CAUTION : Unit must be installed on noncombustible surface.

MULTIPLE INSTALLATIONS160

Furnish and install _____ models as specified with an A.O. Smith (2, 3, or 4) heater manifold kit, package number _____

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