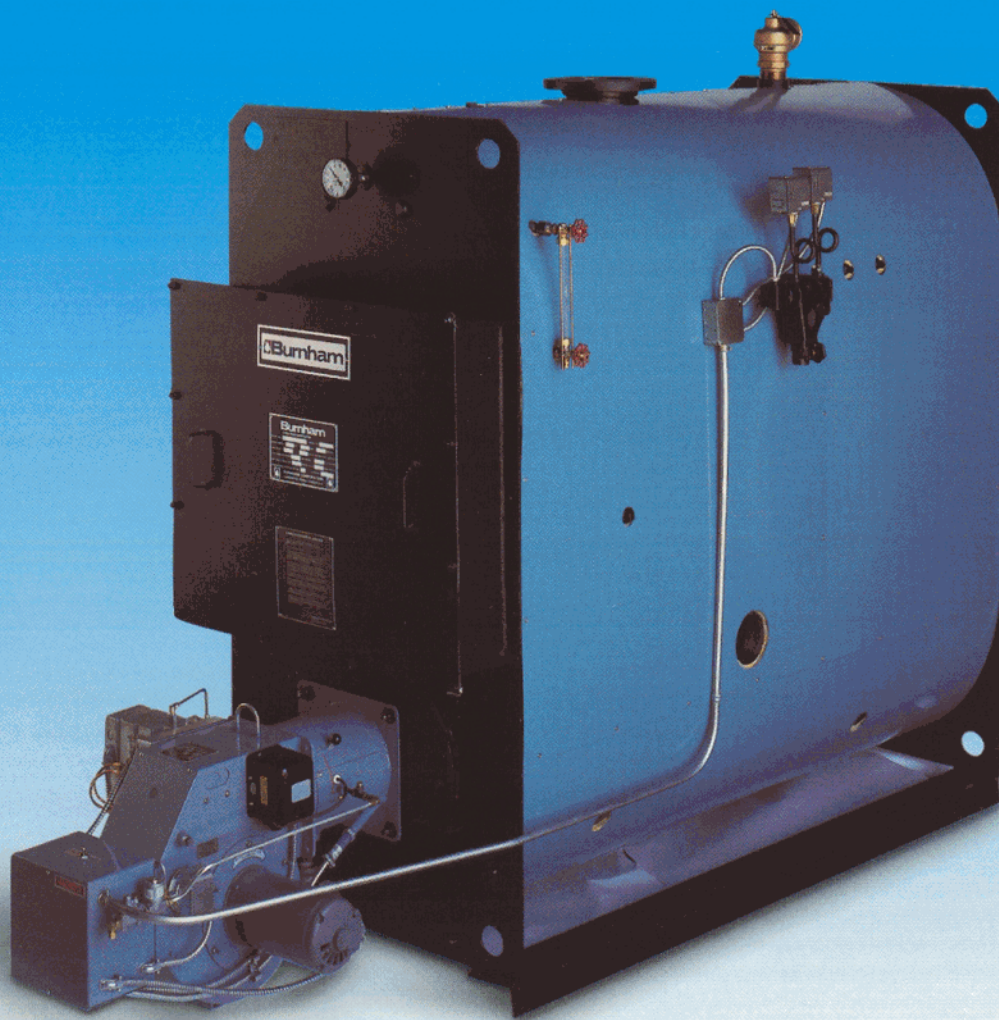




Series E Three-Pass Firetube Generator



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Packaged Heating that Fits the Space

The Burnham Industrial Series E Firetube boiler is fully packaged and designed to provide maximum cost and energy efficiency. The Series E boiler fits through any standard 36" x 80" doorway, eliminating the need for any costly building alterations or difficult site assemblies. This convenient size allows for easier and less expensive retrofit or upgrade of an existing boiler room.

Each factory assembled Series E is pressure tested at two times the maximum working pressure (water), which exceeds ASME code requirements. This pressure testing assures you that the boiler will deliver clean, quiet and reliable heat from the day it's installed.

A forced-draft unit, the Series E avoids the expense of a tall stack and is much more economical to operate and install than atmospheric-fired boilers. The forced draft creates a more controlled combustion, and a more thorough mixture of fuel and air are achieved resulting in optimum efficiency.

Other design features help maintain this durability and economy over the years. While the original efficiency of some other boilers can decrease when outer wrappers develop air leaks and tubes cannot be cleaned thoroughly, the Series E overcomes these problems. Built to ASME section IV standards, its outer shell of welded steel boilerplate assures the continued airtight conditions necessary for efficient combustion. Opening the front flue door allows convenient access to the firetubes. By brushing out all of the firetubes, the original efficiency of the boiler is restored in a matter of minutes.

These installation, operation and maintenance features add up to real savings for you.

Thermablok™ Boosts Savings

Further savings result from the Series E Thermablok™ hot gas reversing chamber. This lightweight chamber is vacuum formed of material proven to be virtually



maintenance-free through many years of use. Thick but lightweight and resilient, the chamber material is an ideal insulator: it keeps the intense heat of combustion in the boiler while easily withstanding the stresses of shipping and

thermal cycling. It is immune to the mechanical and thermal damage which can be so expensive to remedy in the massive solid-cast reversing chambers found in some boilers. In addition, chamber inspection is quick and easy.

Specify Burnham for Quality and Dependability

When you select Burnham, you are buying more than just heat. Burnham has earned a reputation for quality and dependability dating back to 1856. And today Burnham is still dedicated to insuring that your Burnham boiler operates efficiently and effectively.

Careful design and efficient manufacturing produce a quality boiler worthy of the Burnham name while saving you money. Low initial cost, compact packaged design, ease of installation, economical operation, and quality construction make the Series E ideal for new or replacement applications.

Burnham Industrial also offers a complete boiler room selection for one source equipment supply. Specify the Series E Three-Pass Firetube Generator and accessories for your next commercial or industrial application.

Ratings



BOILER NUMBER	BOILER OUTPUT		IBR GROSS OUTPUT MBH	IBR NET RATING			IBR BURNER CAPACITY		COMBUSTION EFFICIENCY%		HEATING SURFACE SQ. FT.	
	HP	LB/HR		STEAM SQ. FT.	STEAM MBH	WATER MBH	LIGHT OIL GPH	NATURAL GAS	LIGHT OIL	NATURAL GAS	FIRESIDE	WATERSIDE
E-20	20.4	705	684	2138	513	595	6.1	877	83.4	81.0	80	88
E-30	31.2	1075	1043	3258	782	907	9.1	1308	84.1	81.7	120	132
E-40	41.9	1445	1402	4429	1063	1219	12.0	1738	84.8	82.4	160	176
E-50	52.1	1797	1743	5613	1347	1516	15.2	2207	83.7	81.3	200	219
E-60	62.8	2167	2102	6800	1632	1828	18.2	2630	84.2	81.8	240	261
E-70	73.5	2537	2461	7963	1911	2140	21.0	3053	84.7	82.2	280	304
E-80	84.3	2908	2821	9125	2190	2453	24.0	3475	85.1	82.7	320	346

BOILER NUMBER	FURNACE VOLUME CU. FT.	WATER CONTENT GAL.		APPROX. DRY WT. LBS.	APPROX. WT. FULL LBS.	
		STEAM	WATER		STEAM	WATER
E-20	6.88	86	109	1724	2442	2633
E-30	8.44	132	168	2137	3238	3538
E-40	10.01	178	227	2570	4055	4463
E-50	12.70	190	250	2982	4567	5067
E-60	14.23	228	300	3361	5263	5863
E-70	15.77	267	351	3732	5959	6660
E-80	17.30	305	401	4106	6650	7451

NOTES:

- Suffix "L" indicates steam boiler, "W" indicates water boiler. Suffix "G" indicates gas-fired, "O" oil-fired and "GO" for combination gas-oil fired.
- IBR net ratings shown are based on piping and pick up allowances which vary from 1.333 to 1.288 for steam and 1.15 for water.
- Net ratings for water, square feet, are based on 170°F average water temperature in system. For higher water temperatures, select boiler on basis of IBR Net Ratings, MBH.
- The IBR burner capacity in GPH is based on oil having a heat value of 140,000 BTU per gallon.
- Boiler ratings are based on 12½% CO₂, +.10" water column pressure at boiler flue outlet. Consult manufacturer for installations having unusual piping and pick up requirements, such as intermittent system operation, extensive piping systems, etc. Ratings shown above apply at altitudes up to 1,000 feet on oil and 2,000 feet on gas. For altitudes above those indicated, the ratings should be reduced at the rate of 4% for each 1,000 feet above sea level.

Standard Equipment

Boiler: Three-pass boiler constructed and stamped in accordance with Section IV of the ASME Code for 15 psi steam or 30 psi water, sealed for forced draft firing, insulated and jacketed, with rear smoke outlet, rear observation port, lifting eyes, flue brush and handle.

Steam Trim: L404A operating control, L404C high limit control, MM157 main low water cutoff and auxiliary probe type, mounted and wired. 3-1/2" dial steam gauge, gauge glass set and safety relief valve shipped not installed.

Water Boiler Trim: L4006A operating control, L4006E high limit control, probe type low water cutoff, forced internal circulation pump, and flow switch mounted and wired. 3-1/2" dial Theraltimeter and relief valve shipped not installed.

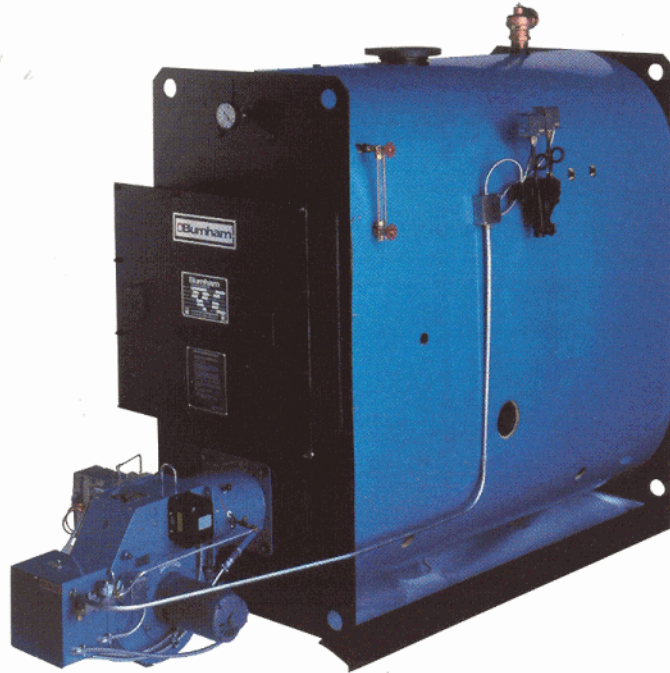
Burner: Selected for fuel requirements, mounted and wired. Refer to burner data sheets for details of burner equipment. Burners available for gas, number 2 oil, or combination gas-number 2 oil.

INSTANTANEOUS HOT WATER HEATING COILS

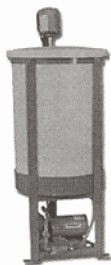
COIL NUMBER	FOR USE IN THE FOLLOWING BOILER SIZES:	RATED CAPACITY GALLONS HEATED 40° TO 140°F		
		BOILER WATER TEMPERATURE		
		180°F GPM	180°F GPH	212°F GPH
INA-200	E20	3.5	210	325
INA-210	All Sizes Except E20	3.5	210	325
INA-300	All Sizes Except E20	5.0	300	466
INA-360	All Sizes Except E20	6.0	360	560
INA-450	All Sizes Except E20	7.5	450	700
INS-600	E60 and Larger	10.0	600	933
INA-750	E60 and Larger	12.5	750	1165
INA-900	E40 and Larger	15.0	900	1400
INA-1125	E60 and Larger	18.7	1125	1750
INA-1350	E70 and Larger	22.5	1350	2100
INA-1500	E80	25.0	1500	2330

NOTE: Special coils providing full boiler output also available; consult factory

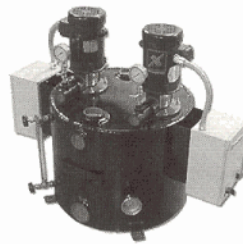
The Complete Boiler Room Supplier



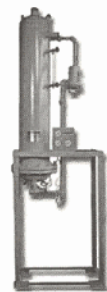
Bottom Blowdown



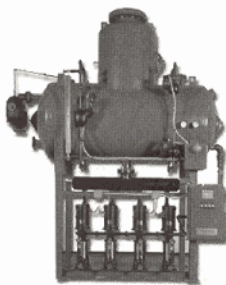
Chemical Feed System



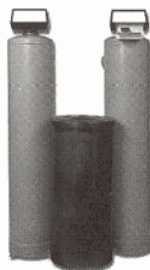
Compact Feed System



Surface Blowdown/
Heat Recovery System



Deaerator System



Water Softener System



Boiler Feedwater System



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