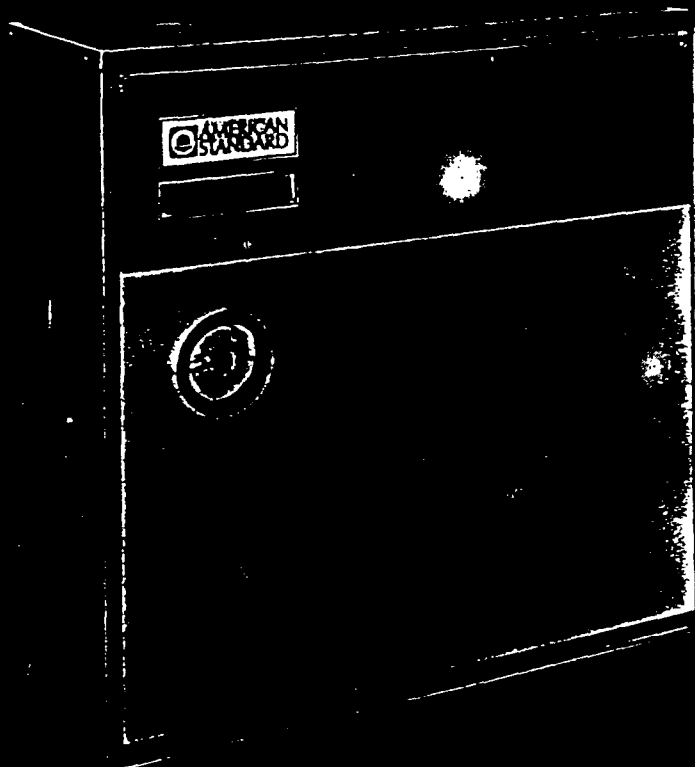


 **AMERICAN
STANDARD**

technical catalog bulletin

Electra II

packaged electric boilers
hot water



3/70

A.I.A. File No. 30C.1 (March, 1970)

**PLAINTIFF'S
EXHIBIT**

ASI-247

00032

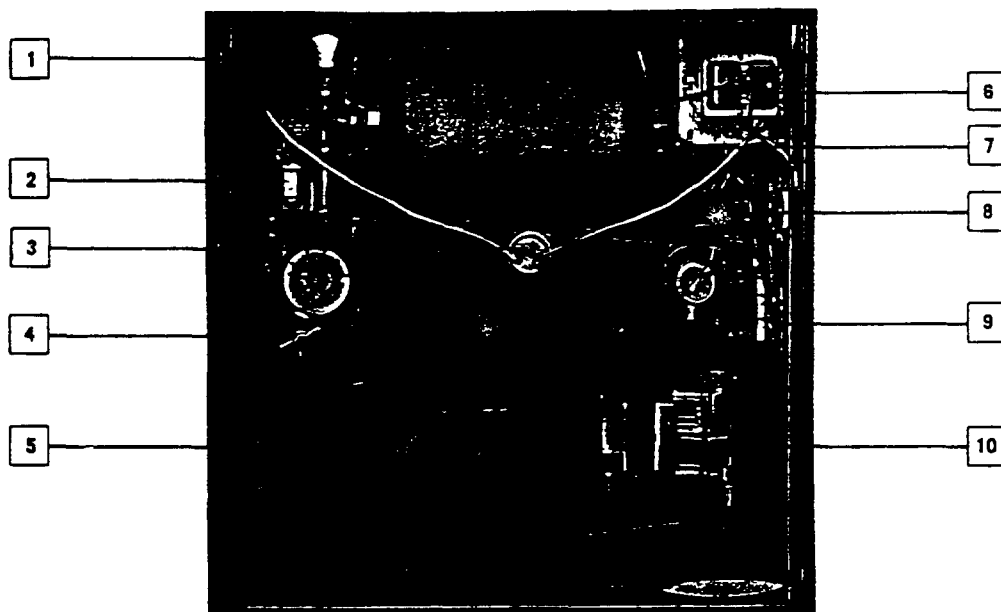
Electra II—the new compact electro-hydronic cast iron boiler— completely packaged, easy to install.

Modern compact electric heating at its best. Electra II has all of the advantages of the larger electric boilers, plus a lower installation cost. And there is still the superior comfort and convenience of a hydronic heating system, coupled with clean, flameless electric power. With output ranges from 6800 B.T.U. to 20,400 B.T.U., Electra II boilers are especially suitable for individual apartment heating or for residential zoned heating through the use of several units.

The Electra II is completely packaged with all controls, circulator, expansion tank, cast iron shell and electric heating elements inside the jacket. It weighs so little

it can be installed hanging on a wall, in a small closet or even under a kitchen countertop. The brown jacket is accented by a 2-piece, two-tone black and beige front panel. Installation is fast and easy—two simple electrical connections—to the main power supply and room thermostat. Piping connections are simple, too!

Five Electra II boiler models let you tailor the heating system to the dwelling. External jacket size remains constant—only the element changes. The Electra II offers the flexibility formerly restricted to other types of electric heat—with the addition of dependable hydronic heating, rugged construction and low installation cost.



1—automatic air vent—bleeds off trapped air from the system water.

2—adjustable limit control—allows selection of maximum boiler water temperature for system design.

3—pre-set pressure control—guarantees safe operation within prescribed pressure range.

4—drain valve—readily available for draining boiler and system when necessary.

5—water pressure relief valve—is safely remote from all electrical connections.

6—transformer—factory installed and wired. Provides low voltage to the operating controls.

7—factory-installed expansion tank—is concealed inside jacket.

8—relay—factory wired on/off switch controlled by low voltage thermostat.

9—electric heating element—mounted inside end of boiler casting. Of low density for extra quiet performance.

10—circulator—is wired for continuous operation.

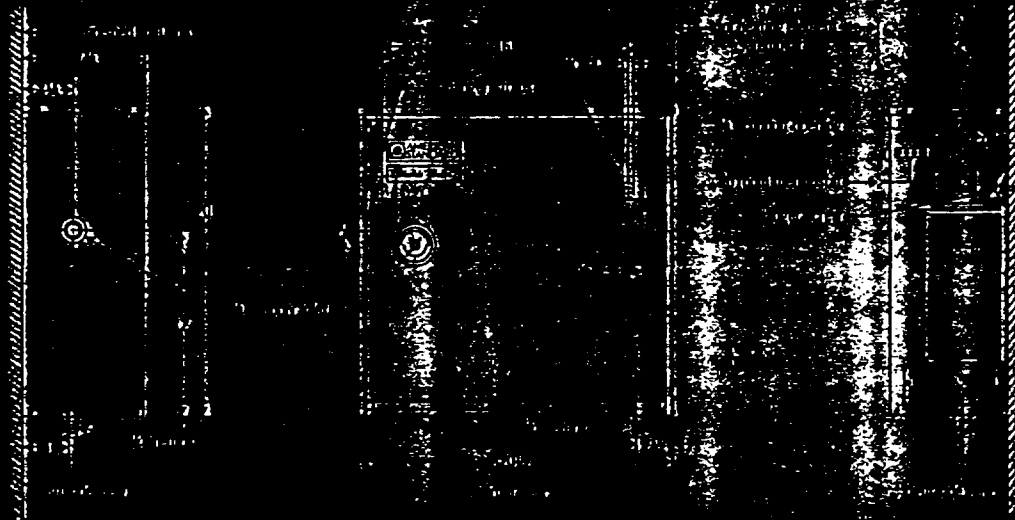
packaged electric boilers

crated shipping weight

Saline amount	Less 44 lb per ton	Net lb	Basis	Value at 249 mils	Value of water lost (gallons)	Saline amount	Net lb basis
22.7	1	2,000	10.00	20.00		22.7	91
22.10	1	2,000	10.00	20.00		22.10	92
22.15	1	2,000	10.00	20.00		22.15	93
22.17	1	2,000	10.00	20.00		22.17	94
22.20	1	2,000	10.00	20.00		22.20	95

The authors are grateful to the referees for their valuable comments and suggestions which improved the manuscript.

•Hintergrund und Zielsetzung (10-15%)



•••••

De igual manera, en el caso de $\gamma = 1$ (ver Fig. 7(a)), el coeficiente de absorción disminuye a valores de α de 10 a 15, y aumenta de

4. A program will examine the steps obtained from finding an optimal class structure. A classification is then to be computed and compared finding step one finding. It will be an attempt to match it against the better solution.

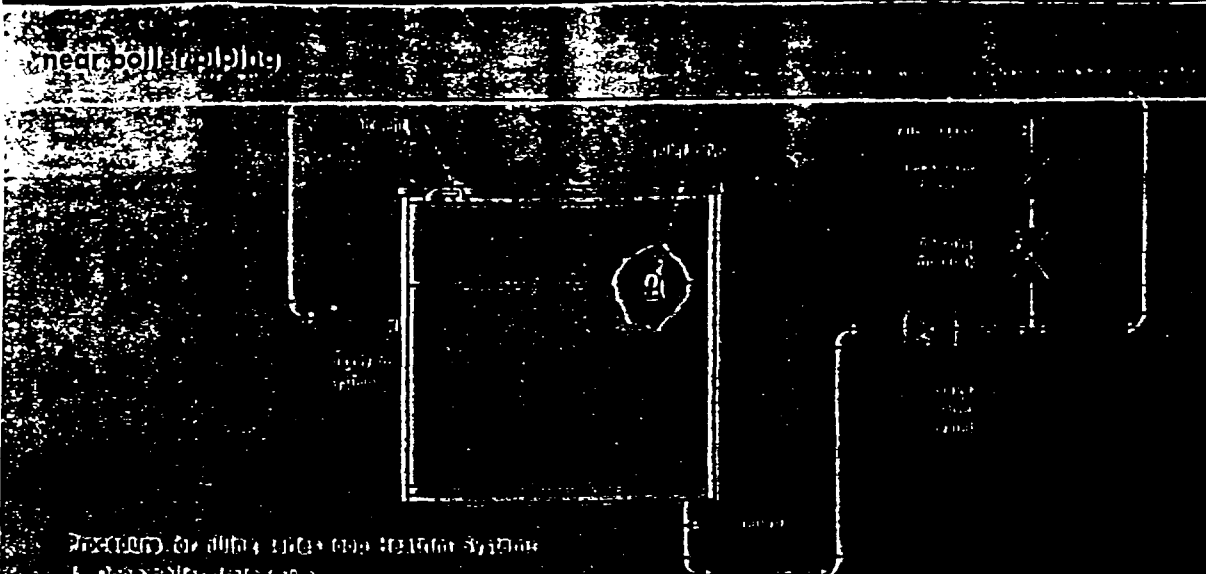
2007/5 2000/00

[illegible]

Electra II

packaged electric boilers

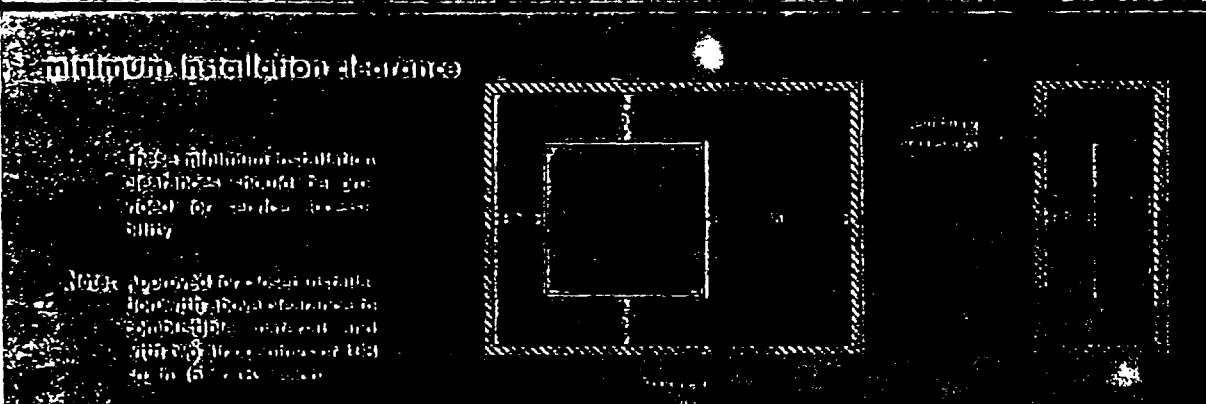
near-boiler piping



Procedure for filling a new boiler system

1. Open boiler drain valve
2. Open air valve
3. Close surge valve
4. Vent the front boiler by manually opening relief valve
5. When water appears at relief valve, release hand and allow to close
6. Continue filling until pressure gauge reads desired pressure (2 lbs. per sq. in.)
7. Open surge valve

minimum installation clearance



These minimum installation clearances should be provided for standard boiler only.

Note: Approved for standard installation with the following exceptions: in conjunction with cast iron and steel boilers, clearance of 18 inches on the sides and 24 inches on the top and bottom.

field wiring specifications

Boiler model	Supply voltage (VAC)	Supply current (amps)	Supply voltage (VAC)	Supply current (amps)
EB-1	120	15	240	7.5
EB-2	120	20	240	10
EB-3	120	25	240	12.5
EB-4	120	30	240	15
EB-5	120	35	240	17.5
EB-6	120	40	240	20
EB-7	120	45	240	22.5
EB-8	120	50	240	25

These ratings are based on a 120V/240V system with a 100% duty cycle.

AMERICAN STANDARD
PLUMBING / HEATING