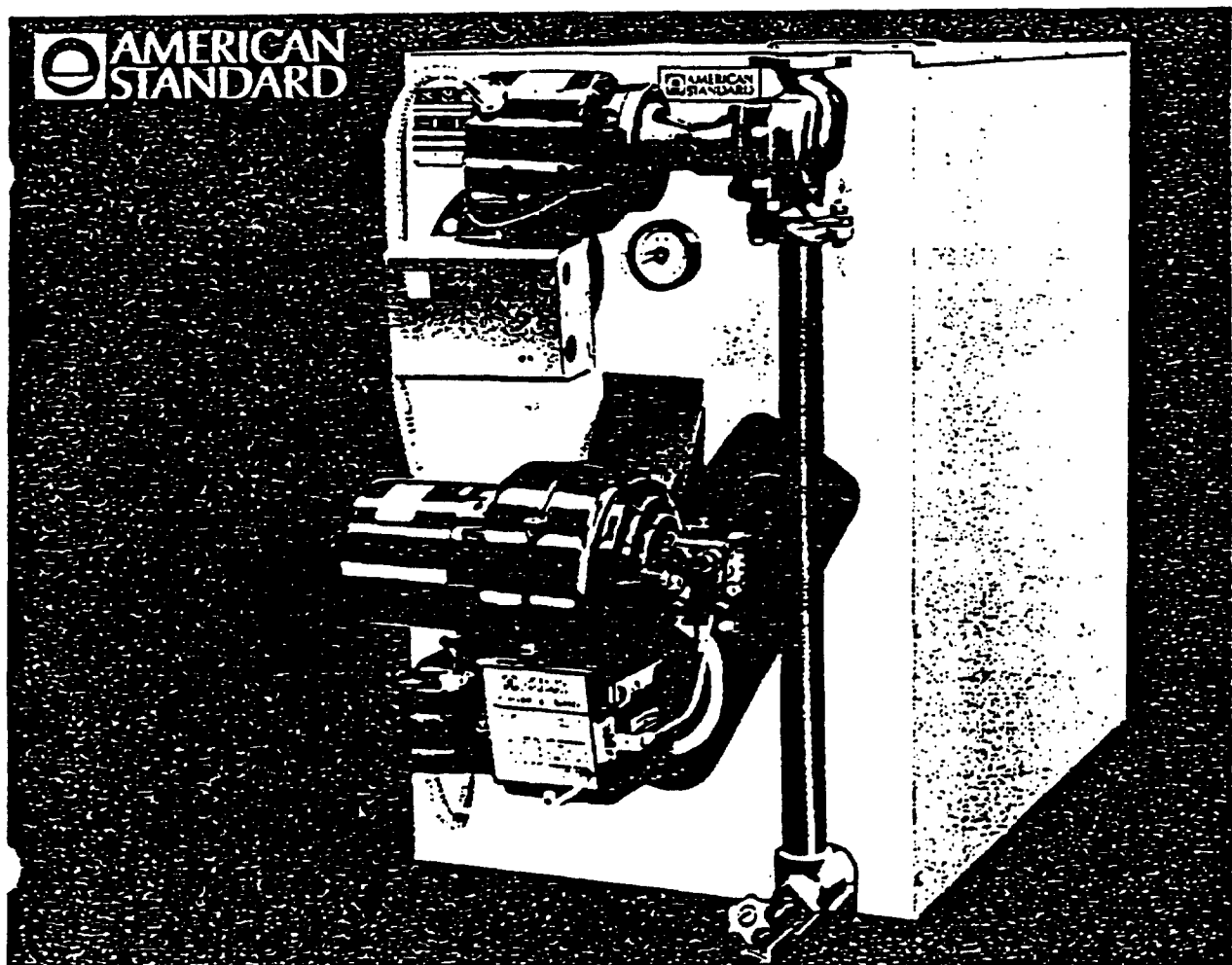


VPm

PACKAGED OIL-FIRED BOILERS
FORCED HOT WATER

PLAINTIFF'S EXHIBIT

ASI-67



Introducing the new VP(T) Packaged Boilers

Eight outstanding features including a new concept in oil boiler operation—dual firing rates.

ONE

Each boiler comes with two nozzles. Install the one that meets the immediate needs. Later, you can add 15,000-20,000 BTUs just by switching nozzles.

TWO

New wet-base cast iron assembly of sections. Makes use of all heat-transfer areas.

THREE

Tankless heaters with the capacity to meet the needs of growing families. Achieve maximum tankless heater rating for each size boiler.

FOUR

Quiet 1725 RPM flame-retention burner.

FIVE

Flame-retention DH burner capable of operating at 12% CO₂ with combustion efficiency of over 80%.

SIX

Completely packaged to save on-the-job assembly time. (To simplify handling, burner packaged separately.)

SEVEN

Fits minimum space of 16½" to 26½" deep x 21½" wide by 34½" high.

EIGHT

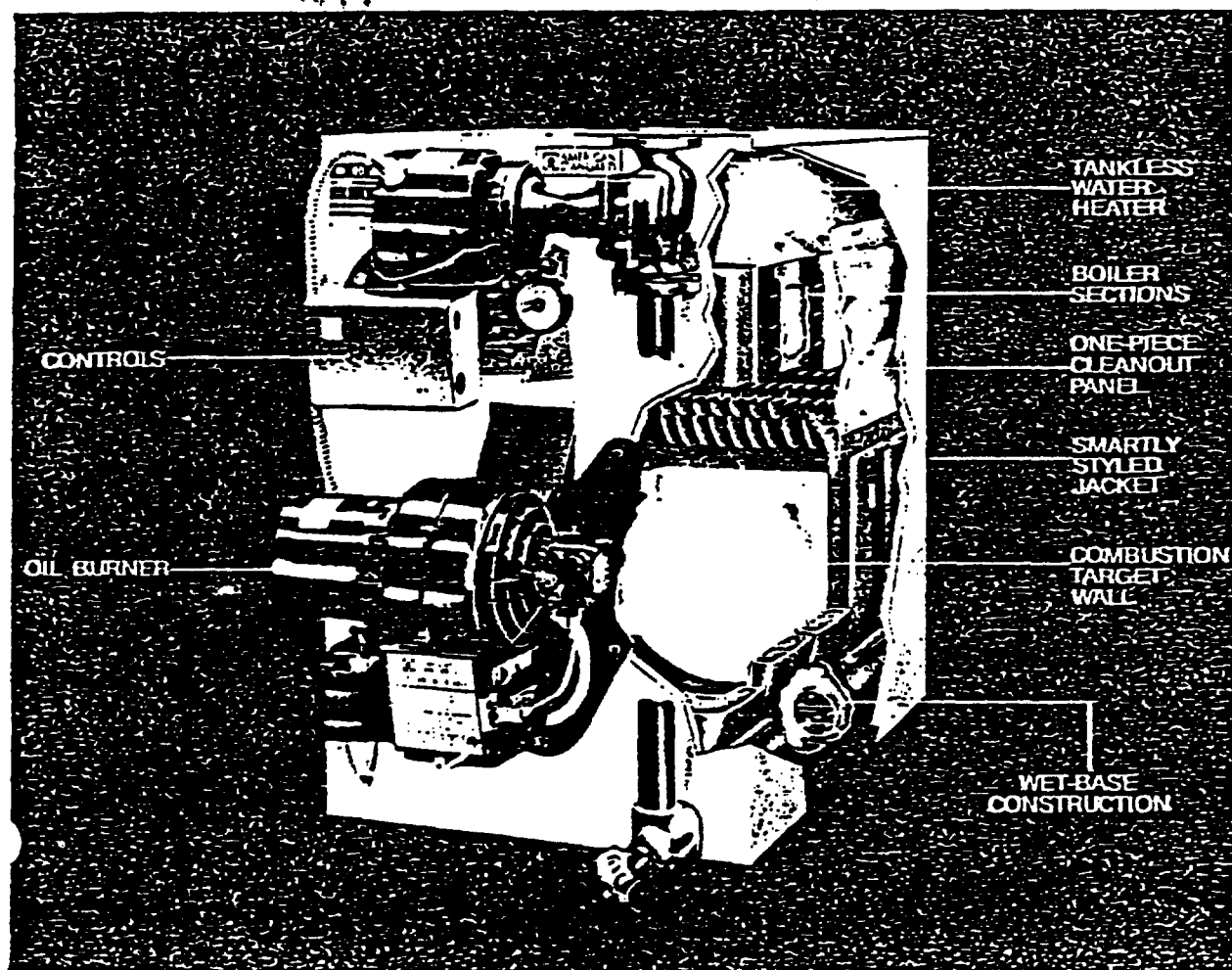
Optional return tapping on rear section for zoning with circulators.

1. controls—(including primary control) are mounted on front for easy service and adjustment. Controls are factory-mounted and pre-wired. Primary control features light-sensing detector for quick response to ignition and flame failure.

2. model DH-F Arcoflame oil burner—flame-retention head is engineered to provide clean, efficient, economical firing. Sling-mount hanging and EXACT-AIRE control simplify installation and adjustment.

3. water heater—large, copper coil tankless type, is inserted into 5" nipple port.

4. boiler sections—of durable cast iron feature vertical flue design



with pinned surface area to extract maximum combustion heat. Wet-base construction eliminates need for special base. Sections are water tested at 75 psi (2½ times water working pressure in accordance with A.S.M.E.).

5. one-piece cleanout panel—permits cleaning of all flue surfaces from right side without disturbing burner, controls or accessories.

6. smartly styled jacket—made of sturdy steel in beige and brown finish, is assembled on boiler at factory.

7. combustion target wall—long-lived, efficient refractory target wall used on all VP boilers. It provides even heat distribution to combustion area and is factory-installed.

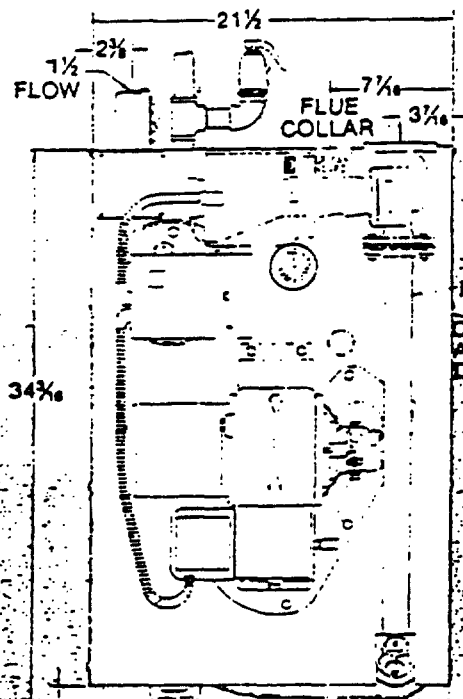
8. wet-base construction—provides an extra heat-absorbing bottom surface. Waterways completely surround combustion area and extend beneath the boiler, making this boiler ideal for installation on combustible floors or basements.

ELIMINAIRE[®]—a patented, cost-saving feature. This unique built-in air eliminator is integrally cast into the left-hand end section. Furnished with all VP(T) boilers, the ELIMINAIRE baffle diverts rising air bubbles into a tapping for connection to the expansion tank. No external device is required to separate air and water, thus reducing both cost and installation time.

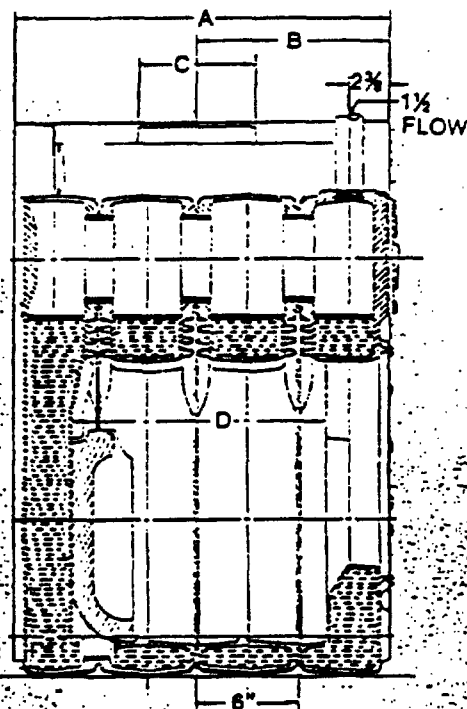
Arcoflame, EXACT-AIR and ELIMINAIRE are trademarks of AMERICAN-STANDARD

Technical Data

Number of Sections	Water Content Gals.	Heat Transfer Service Sq. Ft.
3	15.6	14.9
4	20.0	21.5
5	24.4	28.1



Front View Packaged Boiler



Section Through Boiler

RATINGS—VPT Boilers—packaged units with factory installed tankless heaters

Model No.	gross I=B=R output (MBH)	I=B=R burner capacity (gph)	no. of sections	tankless heater no.	tankless heater capacity (gpm)*	net I=B=R rating (MBH)	net rating sq. ft. water	burner used	nozzle size	chimney size
VPT-115	115.0	1.05	3	130	3½	100.0	667	DH-4F1	1.00—60° semi-solid and	8" x 8" x 15'
VPT-130	130.0	1.15				113.0	753		1.10—60° semi-solid	8" x 8" x 15'
VPT-170	170.0	1.50	4	131	4½	147.8	985	DH-5F2	1.50—80° solid and	8" x 8" x 15'
VPT-190	190.0	1.70				165.2	1,102		1.65—80° solid	8" x 8" x 15'
VPT-230	230.0	2.05	5	132	6	200.2	1,333	DH-5F3	2.00—60° semi-solid and	8" x 8" x 15'
VPT-250	250.0	2.25				217.4	1,449		2.25—60° semi-solid	8" x 12" x 15'

VP Boilers—packaged units less tankless heaters

VP-115	115.0	1.05	3	—	—	100.0	667	DH-4F1	1.00—60° semi-solid and	8" x 8" x 15'
VP-130	130.0	1.15				113.0	753		1.10—60° semi-solid	8" x 8" x 15'
VP-170	170.0	1.50	4	—	—	147.8	985	DH-5F2	1.50—80° solid and	8" x 8" x 15'
VP-190	190.0	1.70				165.2	1,102		1.65—80° solid	8" x 8" x 15'
VP-230	230.0	2.05	5	—	—	200.2	1,333	DH-5F3	2.00—60° semi-solid and	8" x 8" x 15'
VP-250	250.0	2.25				217.4	1,449		2.25—60° semi-solid	8" x 12" x 15'

*GPM water from 40°F to 140°F with 200°F boiler water temperature – intermittent draw.

DIMENSIONS—VPT boilers

[illegible]

VP boilers

VP-115	3	16%	8%	6 1/8	9%	39	26	28	560
VP-130									
VP-170	4	22%	11%	6 1/8	15%	39	26	34	670
VP-190									
VP-230	5	26%	14%	7 1/8	21%	39	26	40	780
VP-250									

VP packaged oil-fired boilers

minimum piping recommendations forced hot water

Procedures for filling loop Heatrim system:

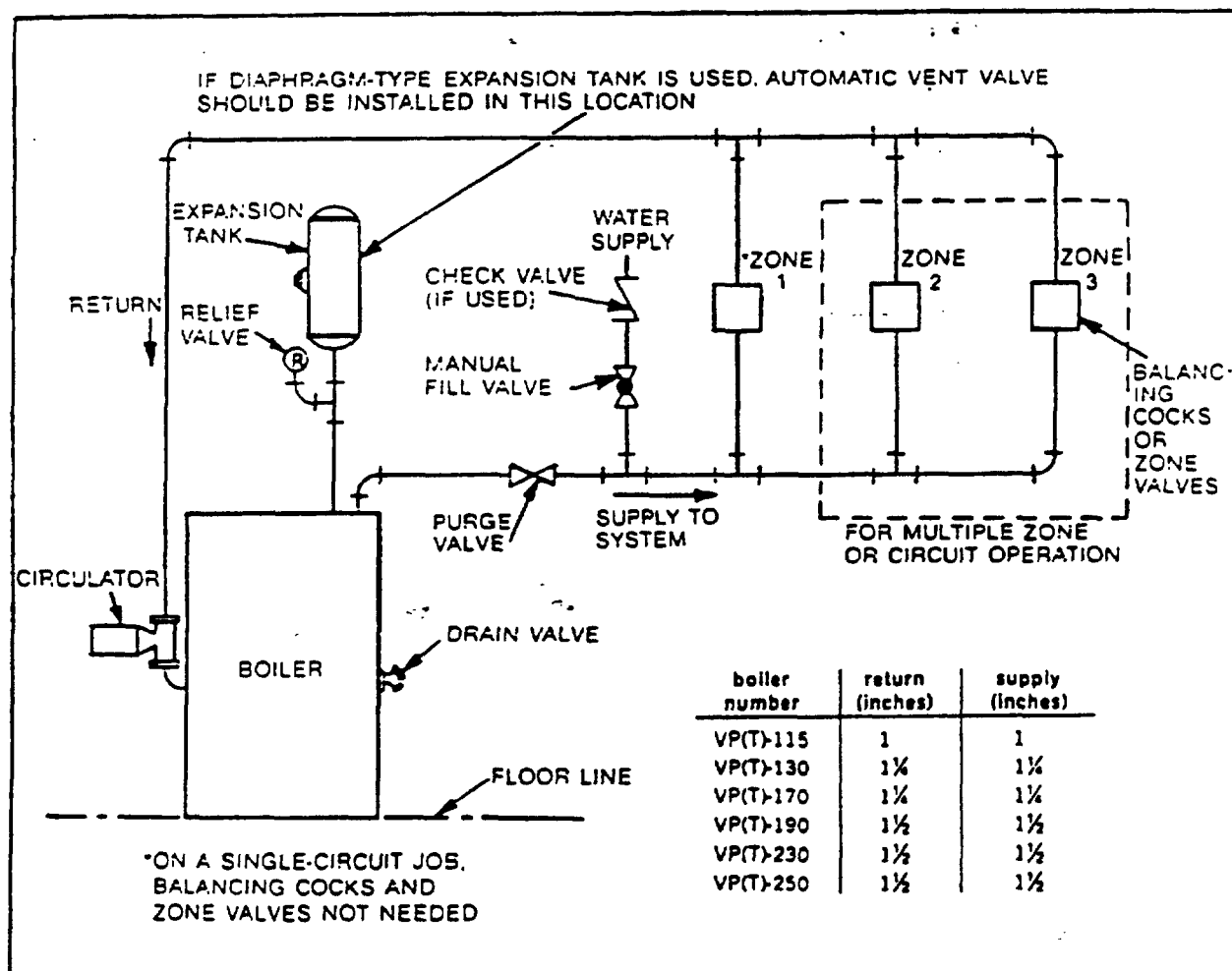
1. Close all zone valves except zone to be purged.
2. Open boiler drain valve.
3. Open fill valve.
4. Close purge valve.
5. Vent air from boiler by manually opening relief valve.
6. Open second valve to be purged. Close first zone. After second zone is purged, open third zone.

valve and close second zone. Repeat for as many zones as in system. (NOTE: Always have one zone valve open.)

7. When all zones have been purged, close boiler drain cock.
8. When water appears at relief valve, release lever and allow to close.
9. Continue filling until pressure gauge reads approximately 12 lbs./sq. in. Close fill valve.
10. Open purge valve.

NOTE:

For a single loop Heatrim system, no additional vents, cocks, valves, drains or other accessories are required — with one exception: if tankless heater is used and Heatrim is above the boiler outlet, a flow check valve must be installed to prevent gravity circulation.



General schematic showing wiring to components

