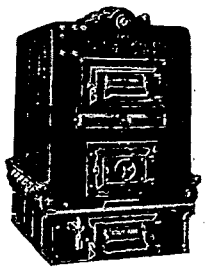
Universal Smokeless Boiler Company

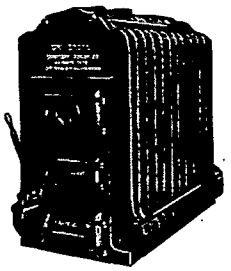
Ravenna, Ohio



100% Water Tube Cast Iron Sectional Heating Boilers

for

Coal, Coke, Wood, Gas and Oil



The CERTIFIED NET ALLOWABLE LOAD shown below is the guaranteed net capacity of the boiler as APPROVED and ADOPTED by the *Heating and Piping Contractors' Association* (Cleveland branch) and used by them in connection with their "CERTIFIED HEATING."

THE PIPING is already figured in as a part of the load so that no allowance need be made for same except in special cases such as garages, factories, etc., that use the piping for radiation purposes.

Double Grate Down-Draft "Smokeless" — Water Line, 61 in. — Height, 73 in. — Width, 49 in.

Boiler No. Steam	"Certified" Net Allowable Load	Catalog Rating	Sections
S-32	1190	3800	7
S-42	1670	4500	8
S-43	1905	5200	9
S-53	2140	5700	10
S-54	2400	6400	11
S-64	2670	7100	12
S-65	2890	7800	13
S-74	3100	8150	13
S-75	3250	8500	14
S-84	3440	8850	14
S-85	3640	9200	15
S-95	3970	9750	16
S-96	4130	10150	17
S-97	4280	10500	18
S-106	4510	11000	18
S-107	4640	11250	19
S-108	4870	12100	20
S-117	5110	12250	20

Boiler No. Steam	"Certified" Net Allowable Load	Catalog Rating	Sections
S-118	5280	12650	21
S-119	5480	13000	22
S-1110	6450	15000	23

Water Line, 57" Height, 67" Width, 36"

Boiler No. Steam	"Certified" Net Allowable Load	Catalog Rating	Sections
S-432	675	1650	7
S-433	735	1800	8
S-443	920	2200	9
S-444	1000	2400	10
S-454	1135	2700	11
S-455	1270	3000	12
S-465	1435	3250	13
S-466	1525	3450	14
S-476	1660	3800	15
S-477	1745	4000	16

Single Grate Up-Draft "Smoke Preventing" — Water Line, 48 in. — Height, 60 in. — Width, 49 in.

Boiler No. Steam	"Certified" Net Allowable Load	Catalog Rating	Sections
S-332	1575	4675	7
S-342	1885	5350	8
S-343	2215	6000	9
S-352	2325	6650	9
S-353	2400	7100	10

Water Line, 47" Height, 57" Width, 36"

Boiler No. Steam	"Certified" Net Allowable Load	Catalog Rating	Sections
S-354	2475	7500	11
S-362	2550	8000	10
S-363	2770	8450	11
S-364	3025	8900	12
S-373	3250	9350	12
S-374	3490	9800	13
S-375	3730	10200	14
S-383	3980	10650	13
S-384	4260	11100	14
S-385	4480	11550	15
S-394	4740	12000	15

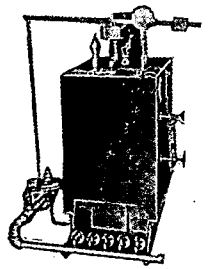
Boiler No. Steam	"Certified" Net Allowable Load	Catalog Rating	Sections
S-395	5020	12450	16
S-396	5280	12900	17
S-397	5550	13350	18

Water Line, 47" Height, 57" Width, 36"

Boiler No. Steam	"Certified" Net Allowable Load	Catalog Rating	Sections
S-532	525	2880	7
S-542	630	3600	8
S-552	715	3900	9
S-553	870	4200	10
S-562	980	4320	10
S-572	1090	5040	11
S-573	1210	5400	12
S-582	1315	5760	12
S-592	1430	6480	13
S-593	1540	6830	14

UNIVERSAL GAS BOILERS FOR STEAM AND WATER

With Metallic Jacket Lined with Super Fire Felt. Plain Section for Steam or Water. Height of Water Line 30 inches.



Gas Boiler

Steam P. S. Water P. W.	Steam Rating	Water Rating	Steam P. S. Water P. W.	Steam Rating	Water Rating	Steam P. S. Water P. W.	Steam Rating	Water Rating
No. 31	300	480	No. 33	1600	2585	No. 35	3100	4985
41	400	665	43	1750	2825	45	3250	5225
51	550	905	53	1900	3065	55	3400	5465
61	700	1145	63	2050	3305	65	3550	5705
32	850	1385	73	2200	3545	75	3700	5945
42	1000	1625	34	2350	3785	36	3950	6185
52	1150	1865	44	2500	4025	46	4100	6425
62	1300	2105	54	2650	4265	56	4250	6665
72	1450	2345	64	2800	4505	66	4400	6905
			74	2950	4745	76	4550	7145

Special Circulating Section—For Steam

Height of Water Line 33 inches

No. T. S.	Steam Rating	No. T. S.	Steam Rating	No. T. S.	Steam Rating	No. T. S.	Steam Rating	No. T. S.	Steam Rating	No. T. S.	Steam Rating
31	380	32	1020	33	1920	34	2820	35	3720	36	4620
41	480	42	1200	43	2100	44	3000	45	3900	46	4800
51	660	52	1380	53	2280	54	3180	55	4080	56	4980
61	840	62	1560	63	2460	64	3360	65	4260	66	5160
..	....	72	1740	73	2640	74	3540	75	4440	76	5340

STEAM OR VAPOR BOILERS—Outlet, 2-3 in. Fifteen-section one extra 1½ in. outlet for every 10 sections. Returns, 2-3 in. Trimmings—Safety valve, steam gage, water glass complete with try cock, automatic gas control valve, automatic steam pressure regulator, metal bellows type; pilot, complete with lava tip and cut-off valve; gas pressure regulator, hand control valve.

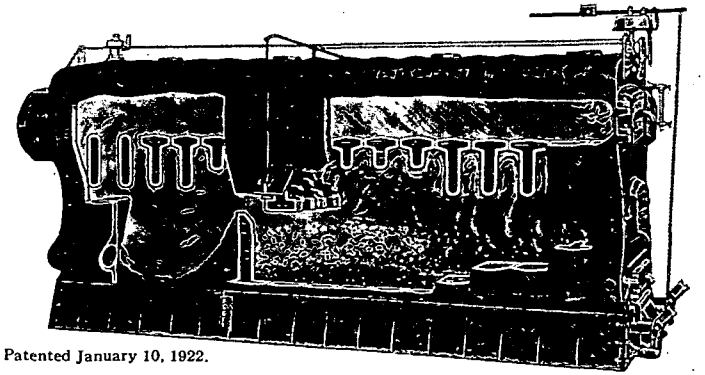
WATER BOILERS—Outlets, 2-3 in. Returns, 2-3 in. Trimmings—Thermometer, altitude gage, automatic gas control valve, pilot, gas pressure regulator, hand control valve.

Utica Heater Company

Utica, New York

365 E. Illinois St. CHICAGO, ILL. — 628 Union Building CLEVELAND, O. — 1843 Grand Central Term'l NEW YORK, N. Y.

Representatives In Principal Jobbing Centers



Patented January 10, 1922.

Cut-away View, showing Primary and Secondary Combustion Chambers and Air Inlets

Utica-Imperial SUPER-SMOKELESS Boilers

Burn Soft Coal Smokelessly—Use Any Available Fuel

Performance—

In Utica-Imperial SUPER-SMOKELESS Boilers, smoke, soot, heavy volatile gases, and all combustible products of distillation are consumed *as fuel*, on the principal of *active* 2-stage combustion. This is accomplished by the admission, *at the proper place*, of a secondary supply of air, *highly heated*, and delivered in jets.

At a point where combustible matter, released in the original fire, passes closely over the bed of incandescent coke, the heated oxygen mixes with it in blasts of high velocity. Combustible matter is at once ignited and passes into the secondary chamber as a bluish-white volume of burning gases. *Results:* exceptionally high temperature—heat transfer—fuel efficiency; clean, soot-free flues and chimney; strict compliance with the most rigid smoke ordinances.

Spiral Gas Travel—

Incandescent as they enter the flues, the gases are given a distinct rotary motion in their travel forward and back through the boiler. This whirling motion greatly increases the amount of heating surface over which the gases must pass, and lengthens the time that the gases remain within the boiler.

The centrifugal motion causes *all* of the gases to be brought into intimate "scrubbing" contact with *all* of the heating surface. None of the heating surface is at *any* time ineffective. *Results:* unusually efficient *utilization* of the neat generated.

Dry Steam—

Tests made under ordinary operating conditions reveal steam entering mains 99.97 per cent dry.

Construction—

Sectional. High grade cast iron, constantly checked by chemical analysis to insure strength and durability of every casting.

Operation—

Extremely simple. Long firing periods. No special skill or training required.

Utilizes any heating fuel and has proved especially efficient with oil-burner.

Ratings—

Conservative. Determined from tests made in accordance with requirements of the *A. S. H. & V. E.* and the *A. S. M. E.* Our high efficiency ratings indicate output for average conditions with a minimum of fuel consumption. High output ratings indicate reserve capacity of boilers and are useful for comparison with other commercial ratings. Fully guaranteed for delivery of steam at boiler outlets under stated conditions of tests.