

# PENSOTTI

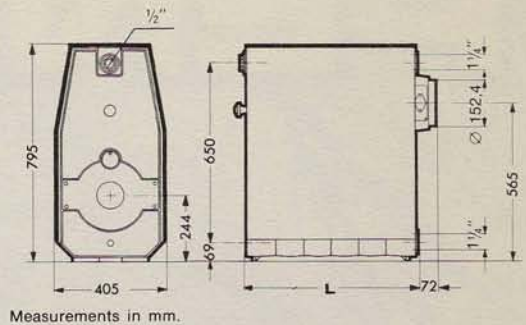




# BOILERS FOR GAS OIL OR BLOWN GAS

The R1 - R2 - R3 Range of boilers are constructed of high grade cast iron sections of unique modern design. The elliptical shape of the combustion chamber exploits the radiant heat from the flame. The gases in the lower flue ways have imparted to them a cross-rotational turbulent action before entering the top flue way. Transfer of heat to water is very efficient.

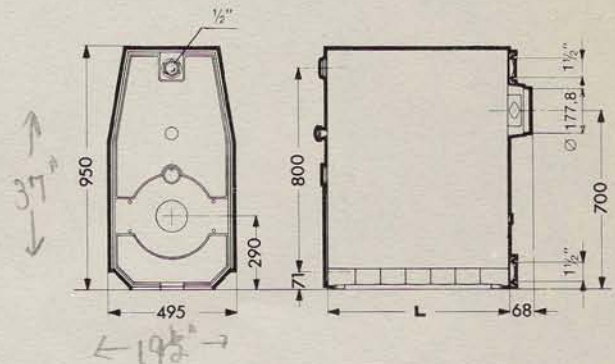
# R1



1. Easy & adequate access for servicing.
2. A Boiler of most robust construction.
3. Durability, economy & reliability.
4. Compact dimensions relative to output.
5. Durable high quality finish.
6. Aesthetically pleasing design.

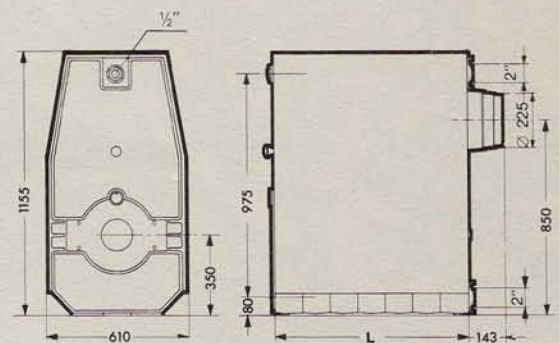
The R1 - R2 - R3 Series are delivered with boiler body completely assembled with push nipples and pressure tested including thermostat and thermostat pocket.

# R2



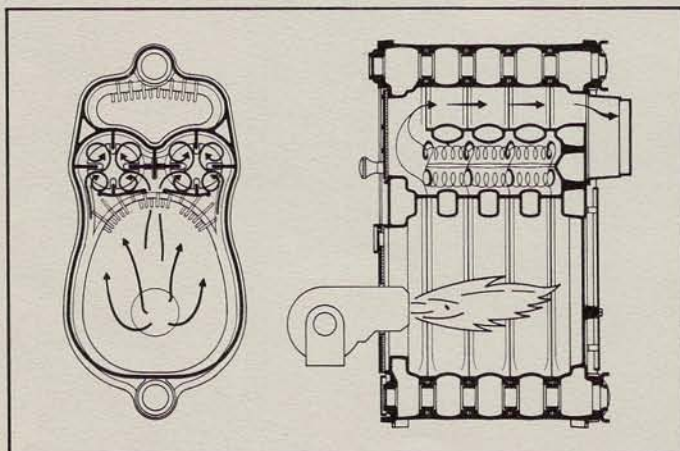
**Max temperature** °F 205  
**Max. W.P. water** PSI 50  
**Min. relief valve capacity** MBH 1,048.3

# R3



Given specifications are subject to modifications without notice.

## SMOKING CIRCUIT



Model	N° sections	OUTPUT			Length L mm.	Water content Lt.	Draught Resistance mm. H <sub>2</sub> O	Weight kgs.
		Kcal/h	MBH	KW				
R1 22	3	22,000	87.30	25.58	329	16	1.7	115
R1 30	4	30,000	119.04	34.88	431	20	2.0	136
R1 38	5	38,000	150.79	44.18	533	24	2.3	160
R1 46	6	46,000	182.53	53.48	635	28	2.6	186
R2 48	5	48,000	190.47	56.80	535	37	2.0	237
R2 58	6	58,000	230.15	67.44	635	42	2.4	272
R2 68	7	68,000	269.84	79.00	735	47	2.8	307
R2 78	8	78,000	309.52	90.69	835	52	3.2	342
R3 84	6	84,000	333.33	97.67	735	85	1.3	461
R3 100	7	100,000	396.82	116.27	855	97	1.8	523
R3 116	8	116,000	460.31	134.88	975	109	2.3	585
R3 132	9	132,000	523.80	153.48	1,095	121	2.8	647
R3 148	10	148,000	587.29	172.10	1,215	133	3.3	709
R3 164	11	164,000	650.78	190.70	1,335	145	3.8	771
R3 180	12	180,000	714.27	209.30	1,455	157	4.3	833



### WATER RATING

MODEL	R122	R130	R138	R146	R248	R258	R268	R278	R384	R3100	R3116	R3132	R3148	R3164	R3180
Gross Output	87300	119040	150790	182530	190470	230150	269840	309520	333330	396820	460310	523800	587290	650780	714270
Net Output	75700	103500	131500	158300	190000	230000	270000	309000	289600	335700	400000	455700	509600	565200	620900
Firing Rate	.75	1.00	1.20	1.40	1.50	1.80	2.10	2.40	2.75	3.35	3.65	4.25	4.85	5.45	6.00
Net Output Sq. Ft.	505	590	875	1055	1101	1333	1565	1791	1930	2238	2666	3038	3397	3768	4139
Number Sections	3	4	5	6	5	6	7	8	6	7	8	9	10	11	12

### PENSOTTI CAST-IRON BOILER SPECIFICATIONS

MODEL	R122	R130	R138	R146	R248	R258	R268	R278	R384	R3100	R3116	R3132	R3148	R3164	R3180
Nozzle Specs.	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
Stack Diameter	6	6	6	6	7	7	7	7	9	9	9	9	9	9	9
Boiler Water Cap.	4.2	5.25	6.3	7.35	8.91	11	12.30	13.60	22.30	25.50	28.60	31.60	34.60	38.10	41.20
Supply Size	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2"	2"	2"
Return Size	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2"	2"	2"

(Dimensions A-B-C inches)

### DIMENSIONS

Appr. Ship. Weigh.	253	299	352	409	521	598	675	752	1014	1150	1287	1423	1560	1696	1853
<b>A</b> Overall Width	15 61/64	15 61/64	15 61/64	15 61/64	19 1/2	19 1/2	19 1/2	19 1/2	24 11/32	24 11/32	24 11/32	24 11/32	24 11/32	24 11/32	24 11/32
<b>B</b> Overall Length	15 51/64	19 53/65	23 23/32	27 54/64	23 3/4	27 45/64	31 41/64	35 37/64	34 19/32	39 21/64	44 3/64	48 49/64	53 1/2	58 15/54	62 31/32
<b>C</b> Jacket Height	31 21/64	31 21/64	31 21/64	37 7/16	37 7/16	37 7/16	37 7/16	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2
<b>D</b> Smoke Outlet	22 17/64	22 17/64	22 17/64	22 17/64	27 37/64	27 37/64	37 37/64	27 37/64	33 1/2	33 1/2	33 1/2	33 1/2	33 1/2	33 1/2	33 1/2
<b>E</b> Jacket Length	12 31/32	16 63/64	21	25	21 5/64	25	28 63/64	32 57/64	28 63/64	33 11/16	38 13/32	4 39/64	47 7/8	52 19/32	57 21/64

## REVISED TABLE OF RECOMMENDED COMBINATIONS RIELLO - PENSOTTI

BOILER MODEL	SECTION	NET OUT PUT MBTU/HR.	BURNER MODEL	NOZZLE	PUMP PRESSURE		TURBULATOR	AIR	HIGH FIRE AIR
					PSI	BAR			
R1-22	3	75.7	3-M	.60-60°	145	10	2.5	4.5	
R1-30	4	103.5	5-M	.85-60°	145	10	2	4	
R1-38	5	131.5	5-M	1.00-60°	145	10	2.5	4	
R1-46	6	158.3	10-M	1.25-60°	145	10	0.5	2	
R2-48	5	190.0	10-M	1.25-60°	160	11	1	2.3	
R2-58	6	230.0	10-M	1.50-60°	145	10	1.5	2.8	
R2-68	7	270.0	10-M	1.75-60°	160	11	3	3.6	
R2-78	8	309.0	15-M	2.25-60°	145	10	1.5	2.5	
R3-84	6	289.6	15-M	2.00-60°	160	11		2.3	
R3-100	7	335.7	15-M	2.50-60°	145	10	1.5		2.7
R3-116	8	400.0	15-M	3.00-60°	145	10	2.5		3
R3-132	9	455.7	15-M	3.50-60°	145	10	3.5		3.5
R3-148	10	509.6	20-M	3.50-60°	175	12	2.5	3	3.8
R3-164	11	565.2	20-M	4.00-60°	175	12	3.5	3.5	4.5
R3-180	12	620.9	20-M	4.50-60°	160	11	4	4	6

**Below 2.00 GPH Nozzle Size - use Delavan Type W, Monarch Type R or AR, Steinen Type S; Over 2.00 Nozzle Size - use Delavan Type B, Monarch Type PLP, Hago Type P or Steinen S or SS.**

MODEL	SECTIONS	WATER CONTENTS GALS.	WEIGHT	DRAFT " W.C.	BURNER CAPACITY GPH	GROSS OUTPUT BTU/HR. MBH	NET WATER BTU/HR. MBH	NET WATER SQ. FT.
R1-22	3	4.2	253	.06	.75	87	75.7	505
R1-30	4	5.25	299	.08	1.00	119	103.5	590
R1-38	5	6.3	352	.09	1.20	151	131.3	875
R1-46	6	7.35	409	.10	1.50	182	158.3	1055
R2-48	5	9.71	521	.08	1.60	190	165.2	1101
R2-58	6	11.	598	.09	1.80	230	200.0	1333
R2-68	7	12.30	675	.11	2.20	270	234.8	1565
R2-78	8	13.60	752	.13	2.55	309	268.7	1791
R3-84	6	22.30	1014	.06	2.55	333	289.6	1930
R3-100	7	25.50	1150	.07	3.00	396	335.7	2238
R3-116	8	28.60	1287	.09	3.65	460	400.0	2666
R3-132	9	31.80	1423	.11	4.15	524	455.7	3038
R3-148	10	34.90	1560	.13	4.65	586	509.6	3397
R3-164	11	38.10	1696	.15	5.30	650	565.2	3768
R3-180	12	41.20	1833	.17	5.70	714	620.9	4139