

CERTIFIED

PRODUCT DIRECTORY



Boilers
Baseboard Radiation
Finned Tube (Commercial) Radiation
Indirect-fired Water Heaters

Updated: April 2009

Introduction

The Gas Appliance Manufacturers Association (GAMA) in 2008 merged with the Air-Conditioning and Refrigeration Institute to become the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). The newly merged association is now home to all of the industry's equipment certification programs: I=B=R, GAMA Efficiency Rating Certified and ARI Performance Certified.

AHRI tests boilers, baseboards, commercial finned tube radiation and indirect-fired water heaters and provides authorization for the use of I=B=R ratings for those products. AHRI is also engaged in other projects and activities to develop reliable technical data for the heating and the building industries, and to assure correct calculation, design, and installations of hydronic systems, providing maximum comfort at minimum cost to the consumer.

Some of the projects include:

1. Development of Codes and Standards
2. Research and technical investigations into hydronic theory and practice
3. Publication of technical reports and installation guides reflecting the latest research and practical experience
4. Dissemination of data of value to manufacturers and to the heating industry. The Hydronics Institute maintains its office and laboratory in its own building in Berkeley Heights, New Jersey

About the Directory

This directory contains the I=B=R Ratings for cast-iron, steel, aluminum and copper boilers, baseboard and finned tube radiation, indirect-fired water heaters, effective as of the date of this publication. These ratings have been determined under the provisions of the "I=B=R Rating Procedure for Heating Boilers," "BTS-2000 Testing Standard for Commercial Space Heating Boilers", "I=B=R Testing and Rating Standard for Baseboard Radiation," "I=B=R Testing and Rating Standard for Finned Tube Radiation," "GAMA Testing Standard for Performance of Indirect-Fired Water Heaters," and "GAMA I=B=R Rating Procedure for Indirect-Fired Waters Heaters," copies of which are available for purchase. For boilers under 300,000 Btu input, the I=B=R Procedural Guide includes the requirements of the U.S. Department of Energy.

Any boilers claiming to have I=B=R ratings, but not listed herein do not have I=B=R approval as of the date of this publication. Visit the AHRI Directory of Certified Product Performance at www.ahridirectory.org to check for updates. The designation "SBI Ratings" has been discontinued. The designation "I=B=R Ratings" is now used for all boilers, regardless of construction material.

Boiler model numbers may have prefix and/or suffix letters to indicate variations in the assembly, controls, trim, etc. Refer to the manufacturer's catalog for an explanation of the letters used. Manufacturer's catalogs are reviewed by AHRI to assure physical conformance with the product as it was when tested. Boiler ratings shown are for elevations up to 2,000 feet; for elevations above 2,000 feet, consult the manufacturer.

Any manufacturer who wishes to submit his boiler for testing and approval under the testing standard may do so, upon payment of applicable fees, regardless of whether they are a member of AHRI. Data shown in this book is only for those manufacturers who elected to participate in AHRI's rating and licensing program. An alphabetical index is provided at the back of this book of all boiler, baseboard, finned tube, and indirect-fired water heater manufacturers who have current I=B=R ratings for their products.

Every effort has been made to assure the accuracy of the data contained in this book and in the other publications issued by AHRI. However, neither AHRI nor those responsible for the preparation of the association's publications make any representation or guarantee, or assume or accept any responsibility or liability with respect thereto.

Use of the I=B=R Emblem

The I=B=R emblem is the property of AHRI, registered in its name at the United States Patent and Trademark Office, and the Registrar of Trademarks in Canada.

All boilers listed in this book must bear the I=B=R emblem on the manufacturer's nameplate affixed to the boiler. The emblem is to be used only on the specific models whose ratings have been approved by AHRI. The use of the emblem in

manufacturers' literature is limited to those pages or those publications which are entirely devoted to products qualified to display the emblem.

No one has permission to state that his product has been tested under the I=B=R Certification Program, or to publish I=B=R Ratings, or to use the I=B=R Emblem in any manner, unless

- (a) The manufacturer has executed a license with AHRI, and
- (b) AHRI has tested the series according to the I=B=R Procedural Guide for Heating Boilers, or GAMA's I=B=R Procedural Guide for Indirect-Fired Water Heaters and
- (c) AHRI has advised the manufacturer in writing of the exact rating applicable to the specific models.

All I=B=R Rated boilers must be manufactured in accordance with the latest edition of Section IV of the ASME Boiler and Pressure Vessel Code covering Heating Boilers.

Why Hydronics

Besides the reliability of equipment ratings, and the well-established reliability of hydronic accessories, there are many good reasons why hydronic systems have long been recognized as the standard method for providing indoor comfort.

Hydronic heating, whether steam or hot water, provides positive, controlled circulation of the heating medium. Systems are basically self-balancing, and in larger, more complicated heating systems, balancing is positively controlled by familiar valves and thermostats.

The life of hydronic equipment is measured in decades; some existing boilers are more than fifty years old. In addition to the high efficiency of boilers (some over 90%), losses through the distribution system are extremely low on modern installations.

Temperature control is close to ideal with hydronics. Any well-designed system can provide excellent comfort, without drafts or sharp swings in temperature.

The flexibility of hydronic installations permits a variety of piping arrangements, simple or sophisticated controls, and large choice of room distribution units for all comfort applications.

Historical Timeline

- 1915: National Boiler and Radiation Manufacturers Association is formed by producers of cast iron boilers and radiators.
- 1929: The name is changed to the Institute of Boiler and Radiator Manufacturers (I=B=R).
- 1940: Start of 30-year research agreement with the University of Illinois, including 39 research programs which resulted in many improvements of systems and equipment
- 1944: Institute broadened to include manufacturers of non-ferrous radiation, and accessories for systems and equipment.
- 1956: I=B=R Test Laboratory built at Urbana, Illinois and manned by engineers of the University of Illinois.
- 1963: Manufacturers of Steel heating boilers join to become the Steel Boiler Division.
- 1970: The Hydronics Institute is formed from the above predecessors.
- 1983: Burner and Burner Components Division is formed as an operating group within The Institute.
- 1995: The Hydronics Institute became a Division of GAMA.
- 2008: GAMA and ARI merged to become the Air-Conditioning, Heating, and Refrigeration Institute.

© Copyright 2009 Air-Conditioning, Heating, and Refrigeration Institute

TESTING AND RATING PROCEDURE **FOR INDIRECT-FIRED WATER HEATERS**

The Gas Appliance Manufacturers Association (GAMA) in 2008 merged with the Air-Conditioning and Refrigeration Institute to become the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). The newly merged association is now home to all of the industry's equipment certification programs: I=B=R, GAMA Efficiency Rating Certified and ARI Performance Certified.

The current edition of the "GAMA Rating Procedure for Indirect-Fired Water Heaters" is the basis for determining I=B=R Ratings. This references the "Testing Standard, Method to Determine Performance of Indirect-Fired Water Heaters". Together these standards itemize specific methods and procedures to assure accuracy and uniformity of testing. A brief outline of the standard practices is provided below.

The scope applies to Indirect-Fired Water Heaters designed for installation with a hot water boiler or some other external source of heated water. The standard is limited to Indirect-Fired Water Heaters having a total volume (potable plus heat source) of 120 gallons or less. The standard does not apply to direct-fired instantaneous or storage water heaters, direct fired instantaneous water heaters, tankless water heaters, or heat pump water heaters.

The tests determine the Ratings of Potable Volume, Heat Source Volume, Standby Loss, Continuous Draw, First Hour Rating, Minimum Heat Source Output, Minimum Heat Source Flow, and Heat source Friction Loss.

The manufacturer is responsible for testing all their models within the limitations of the Rating Procedure that I=B=R ratings are requested. The Hydronics Institute then conducts one pre-certification test on each series to assure the accuracy of the manufacturer's testing. Then annually, AHRI conducts verification tests of samples randomly selected from the manufacturer's stock to assure the continued accuracy of the ratings.

All tests are conducted by a representative of AHRI at the manufacturer's laboratory.

Indirect-Fired Water Heater models listed herein which have been tested by The Program have met the following conditions:

Continuous Draw Rating: The test results shall be at least 98% of the rating.

First Draw Rating: The test results shall be at least 98% of the rating.

Standby Loss Rating: The test results shall be no more than 110% of the rating.

DEFINITIONS

CONTINUOUS DRAW RATING: volume in gallons of hot water that can be drawn from an Indirect-Fired Water Heater on a continuous basis.

FIRST HOUR RATING: volume in gallons that the Indirect-Fired Water Heater can deliver for the first hour of draw only. This is the sum of the continuous draw volume and the usable stored water that is obtained from the first draw test.

HEAT SOURCE FRICTION LOSS: friction loss in feet of water column of the heat source side of the Indirect-Fired Water Heater at the rated heat source water flow rate.

HEAT SOURCE WATER VOLUME: volume in gallons of non-drinkable water from a heat source that is contained in the Indirect-Fired Water Heater.

INDIRECT-FIRED STORAGE WATER HEATER: a water heater consisting of a potable hot water storage tank equipped with an internal or external heat exchanger used to transfer heat to the stored potable water from an external source.

INDIRECT-FIRED INSTANTANEOUS WATER HEATER: a water heater consisting of a tank which contains hot water from an external source and a heat exchanger used to transfer heat from this stored water to the potable water.

MINIMUM HEAT SOURCE FLOW RATE: the minimum flow rate in gallons per minute from the heat source needed to achieve the first hour and continuous draw ratings.

MINIMUM HEAT SOURCE OUTPUT RATE: the rate in Btu's per hour that the heat source must put out in order to achieve the first hour and continuous draw ratings.

POTABLE WATER VOLUME: volume of drinkable water in gallons that the Indirect-Fired Water Heater contains.

STANDBY LOSS: the rate of heat that is lost from the jacket of an Indirect-Fired Water Heater in Btu's per hour.

INDIRECT-FIRED WATER HEATERS

Model Number	Footnotes	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
--------------	-----------	----------------------	--------------------------	----------------------	------------------------	-------------------	--------------------------	----------------------------------	--------------------------------	---------------------------------------

BOCK WATER HEATERS INC.

Sidekick

30SK		30.0	1.4	1.5	119	27	92	59	14.0	2.3
40SK		38.0	2.3	1.5	198	33	165	105	14.0	3.4
50SK		45.0	2.3	1.1	205	40	165	105	14.0	3.4
80SK		75.0	2.8	0.8	259	70	189	120	14.0	3.5
119SK		110.0	2.8	1.2	291	102	189	120	14.0	3.5

BRADFORD WHITE CORPORATION

DSW

STORAGE TYPE

STORAGE TYPE	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
DSW-255-RS	50.0	1.0	0.8	278	50	228	149	13.0	1.1

POTABLE WATER IN TANK

PowerStor

Trade Name(s): Bradford White, Jetglas

STORAGE TYPE

STORAGE TYPE	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
SW-2-30-L	30.0	2.7	1.2	255	20	235	157	13.7	1.5
SW-2-40-L	40.0	2.7	1.1	260	25	235	157	13.7	1.5
SW-2-40R-L	40.0	2.7	1.1	260	25	235	157	13.7	1.5
SW-2-50-L	50.0	2.7	0.9	265	30	235	157	13.7	1.5
SW-2-50R-L	50.0	2.7	0.9	265	30	235	157	13.7	1.5
SW-65C-5	58.0	5.0	0.7	405	35	370	245	14.0	5.0
SW-2-65-L	60.0	2.7	0.7	275	40	235	157	13.7	1.5
SW-80C-5	73.0	5.0	0.6	415	45	370	245	14.0	5.0
SW-2-80-L	75.0	2.7	0.6	295	60	235	157	13.7	1.5
SW-120C-5	114.0	5.0	0.4	445	75	370	245	14.0	5.0
SW-2-120-L	116.0	2.7	0.4	325	90	235	157	13.7	1.5

POTABLE WATER IN TANK

PowerStor2

Trade Name(s): Bradford White, Jetglas

STORAGE TYPE

STORAGE TYPE	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
DW-2-40-L	38.0	2.5	1.1	123	25	98	65	8.0	2.4
DW-2-50-L	48.0	2.5	0.9	133	35	98	65	8.0	2.4
DW-2-65-L	64.0	2.5	0.7	148	50	98	65	8.0	2.4
DW-2-80-L	75.0	2.5	0.6	158	60	98	65	8.0	2.4

POTABLE WATER IN TANK

PowerStorSS

Trade Name(s): Bradford White, Jetglas

STORAGE TYPE

STORAGE TYPE	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
RTV-40-L	39.6	1.2	0.8	158	25	133	88	8.0	1.6
RTV-52-L	51.3	1.6	0.7	200	35	165	113	8.0	6.2
RTV-75-L	74.5	1.6	0.5	225	60	165	113	8.0	6.2
RTV-75D-L	74.5	2.3	0.5	270	55	215	150	14.5	7.5
RTV-119-L	118.9	4.6	0.6	360	80	280	195	11.0	8.5

POTABLE WATER IN TANK

BURNHAM HYDRONICS (U.S. BOILER CO., INC.)

Alliance

STORAGE TYPE

STORAGE TYPE	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
ALG40A	40.0	2.7	1.0	188	26	162	106	8.0	1.6
ALG50A	50.0	2.7	0.9	193	31	162	106	8.0	1.6
ALG65A	60.0	2.7	0.8	204	42	162	106	8.0	1.6
ALG80A	75.0	2.7	0.8	221	59	162	106	8.0	1.6
ALG120A	114.0	5.0	0.7	408	83	325	212	10.0	3.0

POTABLE WATER IN TANK

CROWN BOILER CO.

Maxi-Therm Series

STORAGE TYPE

STORAGE TYPE	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
MT040GBR	40.0	2.7	1.0	188	26	162	106	8.0	1.6
MT050GBR	50.0	2.7	0.9	193	31	162	106	8.0	1.6
MT065GBR	60.0	2.7	0.8	204	42	162	106	8.0	1.6
MT080GBR	75.0	2.7	0.8	221	59	162	106	8.0	1.6
MT120GBC	114.0	5.0	0.7	408	83	325	212	10.0	3.0

POTABLE WATER IN TANK

INDIRECT-FIRED WATER HEATERS

Model Number	Footnotes	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
--------------	-----------	----------------------	--------------------------	----------------------	------------------------	-------------------	--------------------------	----------------------------------	--------------------------------	---------------------------------------

CROWN BOILER CO.

Mega Stor (Horizontal) Series

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
MSH-40		37.6	1.1	1.4	151	35	116	75	8.0	2.5
MSH-53		51.0	1.3	1.3	203	45	158	101	8.0	3.5

Mega Stor Series

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
MS-26		25.6	0.9	1.7	144	23	121	77	8.0	2.5
MS-40		38.7	1.1	1.4	195	38	157	102	8.0	3.0
MS-53		51.1	1.3	0.9	226	47	179	114	8.0	3.5
MS-79		80.0	1.8	1.0	287	69	218	145	8.0	4.8
MS-119		111.7	3.7	1.4	472	88	384	24	12.7	7.9

HEAT TRANSFER PRODUCTS INC.

SSU Series

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
SSU-20		19.3	0.5	1.8	180	16	164	102	8.0	4.3
SSU-30		28.7	0.7	1.5	208	22	186	117	8.0	4.3
SSU-30LB		28.9	0.4	1.7	198	24	174	109	8.0	4.3
SSU-45		42.9	0.6	1.1	226	33	193	122	10.0	9.4
SSU-60		58.5	0.6	0.9	247	53	194	122	10.0	9.4
SSU-80		82.0	1.0	0.7	359	73	286	185	12.0	19.7
SSU-119		120.1	1.0	0.5	470	116	354	223	14.0	28.2

LAARS HEATING SYSTEMS COMPANY

LS

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
LS-SW-65C-5		58.0	5.0	0.7	405	35	370	245	14.0	5.0
LS-SW-80-5		73.0	5.0	0.6	415	45	370	245	14.0	5.0
LS-SW-120C-5		114.0	5.0	0.4	445	75	370	245	14.0	5.0

LS-DW

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
LS-DW-2-40-L		38.0	2.5	1.1	123	25	98	65	8.0	2.4
LS-DW-2-50-L		48.0	2.5	0.9	133	35	98	65	8.0	2.4
LS-DW-2-65-L		64.0	2.5	0.7	148	50	98	65	8.0	2.4
LS-DW-2-80-L		75.0	2.5	0.6	158	60	98	65	8.0	2.4

LS-RTV

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
LS-RTV-40-L		39.6	1.2	0.8	158	25	133	88	8.0	1.6
LS-RTV-52-L		51.3	1.6	0.7	200	35	165	113	8.0	6.2
LS-RTV-75-L		74.5	1.6	0.5	225	60	165	113	8.0	6.2
LS-RTV-75D-L		74.5	2.3	0.5	270	55	215	150	14.5	7.5
LS-RTV-119-L		118.9	4.6	0.6	360	80	280	195	11.0	8.5

LS-SW

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
LS-SW-2-30-L		30.0	2.7	1.2	255	20	235	157	13.7	1.5
LS-SW-2-40-L		40.0	2.7	1.1	260	25	235	157	13.7	1.5
LS-SW-2-50-L		50.0	2.7	0.9	265	30	235	157	13.7	1.5
LS-SW-2-65-L		60.0	2.7	0.7	275	40	235	157	13.7	1.5
LS-SW-2-80-L		75.0	2.7	0.6	295	60	235	157	13.7	1.5
LS-SW-2-120-L		116.0	2.7	0.4	325	90	235	157	13.7	1.5

LOCHINVAR CORPORATION

Energy Saver

STORAGE TYPE

									<u>POTABLE WATER IN TANK</u>	
EGS030		30.0	2.7	1.2	255	20	235	157	13.7	1.5
EGS040		40.0	2.7	1.1	260	25	235	157	13.7	1.5
EGS050		50.0	2.7	0.9	265	30	235	157	13.7	1.5

INDIRECT-FIRED WATER HEATERS

Model Number	Footnotes	Potable Volume (gal)	Heat Source Volume (gal)	Standby Loss (°F/hr)	1st Hr Rating (gal/hr)	1st Draw (gal/hr)	Continuous Draw (gal/hr)	Minimum Heat Source Output (MBH)	Minimum Heat Source Flow (gpm)	Heat Source Friction Loss (feet w.c.)
--------------	-----------	----------------------	--------------------------	----------------------	------------------------	-------------------	--------------------------	----------------------------------	--------------------------------	---------------------------------------

LOCHINVAR CORPORATION

EGS065		60.0	2.7	0.7	275	40	235	157	13.7	1.5
EGS080		75.0	2.7	0.6	295	60	235	157	13.7	1.5
EGS120		116.0	2.7	0.4	325	90	235	157	13.7	1.5

Squire

STORAGE TYPE

SSS-031		27.0	0.8	1.5	148	21	127	75	11.0	2.2
SSS-041		40.0	1.1	1.6	181	36	145	93	10.5	2.4
SSS-051		52.0	1.3	0.7	199	48	151	100	10.7	2.3
SSS-081		80.0	2.1	0.7	308	75	233	151	11.6	3.9
SSS-119		112.0	3.0	0.6	426	100	326	199	11.2	5.1

POTABLE WATER IN TANK

P B HEAT, LLC

Peerless Partner

STORAGE TYPE

PP-30LB		29.4	0.5	2.0	174	26	148	94	8.0	4.4
PP-40		37.5	0.6	1.2	214	35	179	112	10.0	6.9
PP-60		58.9	0.6	0.8	242	54	188	117	10.0	6.9
PP-80		82.0	1.0	0.7	359	73	286	185	12.0	19.7
PP-120		120.1	1.0	0.5	470	116	354	223	14.0	28.2

POTABLE WATER IN TANK

VAUGHN MANUFACTURING CORP.

Top Performer Plus

STORAGE TYPE

S27TPP		26.0	0.3	1.0	192	22	170	106	8.0	18.0
S35TPP		35.0	0.3	0.7	200	30	170	106	8.0	18.0
S50TPP		50.0	0.3	0.6	225	45	180	117	8.0	19.0
S70TPP		69.0	0.3	0.5	294	64	230	128	8.0	20.0

POTABLE WATER IN TANK

INDEX

PAGE INDEX OF BOILER MANUFACTURERS

	<u>RESIDENTIAL</u>	<u>COMMERCIAL</u>
	CAST IRON	STAINLESS STEEL
	STEEL	ALUMINUM
	COPPER	CON- DENSING
Aerco International, Inc. Northvale, NJ		36
American Standard Heating & Cooling Products Tyler, TX	5	
Axeman-Anderson Company South Williamsport, PA	5	
Biasi, S.p.A./QHT, Inc. Portsmouth, NH	6	36
Bosch Thermotechnology Corp. Londonderry, NH	6	36
Boyertown Furnace Co. Boyertown, PA	7	
Burnham Commercial..... Lancaster, PA	7	37
Burnham Hydronics (U.S. Boiler Co., Inc.) Lancaster, PA	7	38
Camus Hydronics Ltd. Mississauga, ON, Canada	9	
Carrier Corporation Indianapolis, IN	9	9
Climate Energy, LLC Medfield, MA	10	
Columbia Boiler Company Pottstown, PA	10	38
Crown Boiler Company Philadelphia, PA	11	38
Dunkirk Boilers, ECR International, Inc. Utica, NY	13	39
ECR International..... Utica, NY	14	
EFM..... Schuylkill Haven, PA	14	
Genesis Boiler Co. North Bergen, NJ	15	
Hamilton Engineering Livonia, MI	15	
Heat Transfer Products, Inc. East Freetown, MA	16	39

INDEX

PAGE INDEX OF BOILER MANUFACTURERS (cont.)

	<u>RESIDENTIAL</u>				<u>COMMERCIAL</u>	
	CAST IRON	STEEL	STAINLESS STEEL	ALUMINUM	COPPER	CON- DENSING
Hydrotherm, Div. of Mestek Westfield, MA	16					16
International Comfort Products Corp. (USA)..... (Arcoair, Clare, Comfort Maker, Heil, Tempstar) Lewisburg, TN	16					
Laars Heating Systems Company Rochester, NH	18				17	17
Lennox Industries, Inc. Carrollton, TX	18			18		18
Lochinvar Corporation Lebanon, TN			19		19	19
Mestek, Inc Westfield, MA	20					
New Yorker Boiler Company Hatfield, PA	20	21				41
NY Thermal, Inc..... St. John, NB, Canada			21			21
PB Heat, LLC Bally, PA	21	22	22			22
Patterson-Kelley Co./Harsco Corporation..... East Stroudsburg, PA						43
Pennco, ECR International, Inc Utica, NY	22					43
PNA, Inc./Pensotti Bangor, ME	23					
PurePro Boyertown, PA	24					
Raypak, Inc. Oxnard, CA					24	44
RBI Water Heaters, Div. of Mestek Canada..... Mississauga, ON, Canada					24	45
Sears Roebuck and Company Chicago, IL	25			25		25
Slant/Fin Corporation Greenvale, NY	25			25		25
Smith Cast Iron Boilers, Div. of Westcast, Inc..... Westfield, MA	27					48
A.O. Smith Water Products Co. Irving, TX						50

INDEX

PAGE INDEX OF BOILER MANUFACTURERS (cont.)

	<u>RESIDENTIAL</u>				<u>COMMERCIAL</u>	
	CAST IRON	STEEL	STAINLESS STEEL	ALUMINUM	COPPER	CON- DENSING
Thermal Solutions Products, LLC Lancaster, PA						51
Thermo-Dynamics Boiler Co. Schuylkill Haven, PA		29				51
Trane Products Tyler, TX						30
Triangle Tube Blackwood, NJ			30			30..... 51
Ultimate Engineering, ECR International, Inc. Utica, NY						30
Utica Boilers, ECR International, Inc. Utica, NY		30		30		30..... 51
Utica Heating Utica, NY						31
Viessmann Manufacturing Co. Waterloo, ON, Canada		31	32	32		32..... 52
Weil-McLain Michigan City, IN		32		32		32..... 52
Williamson Thermoflo Milwaukee, WI						34

INDEX

PAGE INDEX OF BASEBOARD AND FINNED TUBE MANUFACTURERS

	<u>BASEBOARD</u>	<u>FINNED TUBE</u>
Airedale • Racine, WI.....		67
Argo Technology, Inc. • Westfield, MA.....	56	
Burnham Hydronics (U.S. Boiler Co., Inc.) • Lancaster, PA.....	56	
Crown Boiler Company • Philadelphia, PA.....	56	
Design Line, Div. of Mestek, Inc. • Westfield, MA.....	56	
Embassy Industries Inc. • Westfield, MA.....	56	
Governale Company, Inc. • Brooklyn, NY.....	57	
Haydon Corporation, Thermogenics Div. • Paterson, NJ.....	57	
Hydrotherm, Div. Mestek, Inc. • Westfield, MA.....	59	
Modine Manufacturing Co. • Racine, WI.....		67
OCS Industries, Div. of CIDC Corp. • Brooklyn, NY.....	59	
Rittling, A Division of Hydro-Air Components, Inc. • Buffalo, NY.....		68
Rosemex, Inc. • St-Bruno, PQ, CANADA.....		69
Sigma Convector Enclosure Corp. • Brampton, ON, Canada.....		69
Slant/Fin Corporation • Greenvale, NY.....	59	69
Sterling Hydronics, Div of Mestek, Inc. • Westfield, MA.....	60	70
Suntemp, Div. of Mestek, Inc. • Westfield, MA.....	62	
The Trane Company • LaCrosse, WI.....		71
Vulcan Radiator, Div. of Mestek, Inc. • South Windsor, CT.....		73
Weil-McLain • Michigan City, IN.....	62	

PAGE INDEX OF INDIRECT- FIRED WATER HEATER MANUFACTURERS

Bock Water Heaters • Madison, WI.....		79
Bradford White Corp. • Ambler, PA.....		79
Burnham Hydronics (U.S. Boiler Co., Inc.) • Lancaster, PA.....		79
Crown Boiler Company • Philadelphia, PA.....		79
Heat Transfer Products, Inc • East Freetown, MA.....		80
Laars Heating Systems Company. • Rochester, NH.....		80
Lochinvar Corp. • Lebanon, TN.....		80
PB Heat, LLC. • Bally, PA.....		81
Vaughn Manufacturing Corp. • Salisbury, MA.....		81

TABLES

Table I - I=B=R Water Ratings.....		82
Table J - Flat Top Cover Steam Ratings.....		88
Table K - Expanded Metal Cover Steam Ratings.....		90