

every KNIGHT

*needs the Service of a Squire*



**Squire**<sup>TM</sup>  
*Indirect Water Heater*

**Five Models from 30 to 120 gallons**

- » High Recovery
- » Factory supplied Tank Well and Sensor
- » Dent Resistant Jacketing
- » 444L Passivated Stainless Steel Construction
- » Large Capacity Heat Exchanger
- » Ultra Light Weight
- » Limited Lifetime Warranty



[www.knighththeatingboiler.com](http://www.knighththeatingboiler.com)

## a new Class of Water Heater

### How It Works

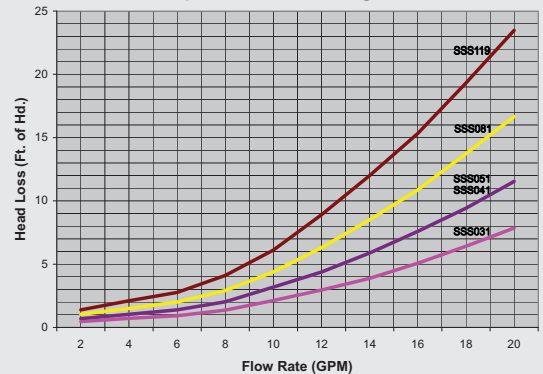
The Squire uses the power and efficiency of the boiler that heats the home to generate domestic hot water for showers, dishwashing, clothes washing...any hot water demand required. The efficiency of the boiler used to heat the home can be as much as 20% higher than a direct-fired tank-type water heater. So why not use that efficiency to “indirectly” provide hot water for all domestic applications.



The Squire passes the boiler water used to heat the home through a uniquely designed internal helical coil that is immersed in the water heater tank. The super heated coil then passes its energy directly to the potable water. The end result is hot water for domestic use from boiler water already being used to heat the home.

By using the Squire, to indirectly heat the domestic water, you eliminate the additional gas line, electrical connections and vent ducts needed with direct-fired tank-type water heaters.

Squire Heat Exchanger Data



### Outstanding Features

#### Quality Finish

Durable plastic jacket provides a rustproof finish even in wet & corrosive environments.

#### Large Capacity 444L Passivated Stainless Steel Tank

Stainless steel construction increases tank's corrosion resistance for years of reliable, dependable service.

#### High Output 304 Stainless Steel Heat Exchanger Coil

Maximum heat transfer efficiency with more surface area, delivering larger amounts of hot water. Supplies up to 5 times more recovery compared to conventional water heaters. The heat exchanger's internal size and external surface area give the Squire greater recovery performance. This way the Squire far exceeds the recovery rate of gas fired water heaters, and supplies as much as five times the amount of hot water as a comparably sized electric water heater.

#### 5 Different Models and Sizes

Meets all your space requirements and hot water demands.

#### Maintenance-Free Operation

Squire does not need expensive maintenance check-ups. Its simple design requires virtually no maintenance, saving money on costly service calls.

#### The Squire Advantage

The Squire is true advancement in hot water generation. By coupling the Squire with an existing or new high efficiency condensing boiler the energy that is being utilized to heat the home is also used to efficiently heat the domestic hot water thus consuming fuel more efficiently than with a direct fired water heater.

#### Energy Efficient Operation

The Squire's 2" thick insulation quality, connected to a modern boiler system will reduce your operating cost to produce hot water. With today's increasing fuel costs the Squire will provide the homeowner fast pay back over conventional methods of heating hot water!

#### Limited Lifetime Warranty

Squire Limited Lifetime Warranty will give homeowners the peace of mind that their water heater is covered by the industry's strongest warranty.

#### Attractive Design

The Squire's attractive appearance will assure each customer that they have installed a superior water heater. The Squires color will match a Knight boiler's color adding to the system's overall appearance.

"I really like the KNIGHT Boiler and Squire Indirect Water Heater because they're very simple to install. The Smart System control is great and I really like being able to troubleshoot with the pocket PC. My customers choose KNIGHT for its high efficiency and state-of-the-art design, and they're all thrilled that KNIGHT and Squire operate so quietly and make their home much more comfortable."

– Chad Padilla, TLC Plumbing, Albuquerque, NM



# Squire Performance Data

## First Hour Rating (GPH)

### KNIGHT Selection and Sizing Chart (Boiler Water at 180°F)

Indirect Model #	SSS031		SSS041		SSS051		SSS081		SSS119	
	140°F	115°F	140°F	115°F	140°F	115°F	140°F	115°F	140°F	115°F
WBN050	76	97	86	106	95	116	118	138	149	170
KBN080, WBN080	108	140	117	150	127	160	149	182	180	213
KBN105, WBN105	133	176	143	185	152	195	175	217	206	249
KBN150, WBN150	138	182	191	252	200	261	223	284	254	315
KBN210, WBN210	138	182	203	269	213	279	287	373	318	404
KBN285	138	182	203	269	213	279	319	417	397	514

NOTES: Based on incoming domestic cold water temperature of 50°F.

### Universal Selection and Sizing Chart (Boiler Water at 180°F)

Indirect Model #	SSS031		SSS041		SSS051		SSS081		SSS119	
	140°F	115°F	140°F	115°F	140°F	115°F	140°F	115°F	140°F	115°F
45,000 Btu/Hr	75	95	85	105	94	114	117	137	148	168
60,000 Btu/Hr	92	119	102	129	112	139	134	161	165	192
75,000 Btu/Hr	110	144	120	153	129	163	152	185	183	216
95,000 Btu/Hr	133	176	143	185	152	195	175	217	206	249
115,000 Btu/Hr	138	182	166	218	176	227	198	250	229	281
140,000 Btu/Hr	138	182	195	258	205	268	227	290	259	321
165,000 Btu/Hr	138	182	203	269	213	279	257	331	288	362
195,000 Btu/Hr	138	182	203	269	213	279	292	379	323	410
225,000 Btu/Hr	138	182	203	269	213	279	319	417	358	459
260,000 Btu/Hr	138	182	203	269	213	279	319	417	399	515
295,000 Btu/Hr	138	182	203	269	213	279	319	417	438	570
335,000 Btu/Hr	138	182	203	269	213	279	319	417	438	570
375,000 Btu/Hr	138	182	203	269	213	279	319	417	438	570
420,000 Btu/Hr	138	182	203	269	213	279	319	417	438	570
470,000 Btu/Hr	138	182	203	269	213	279	319	417	438	570

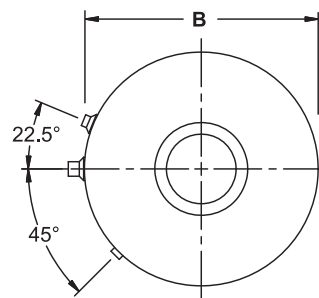
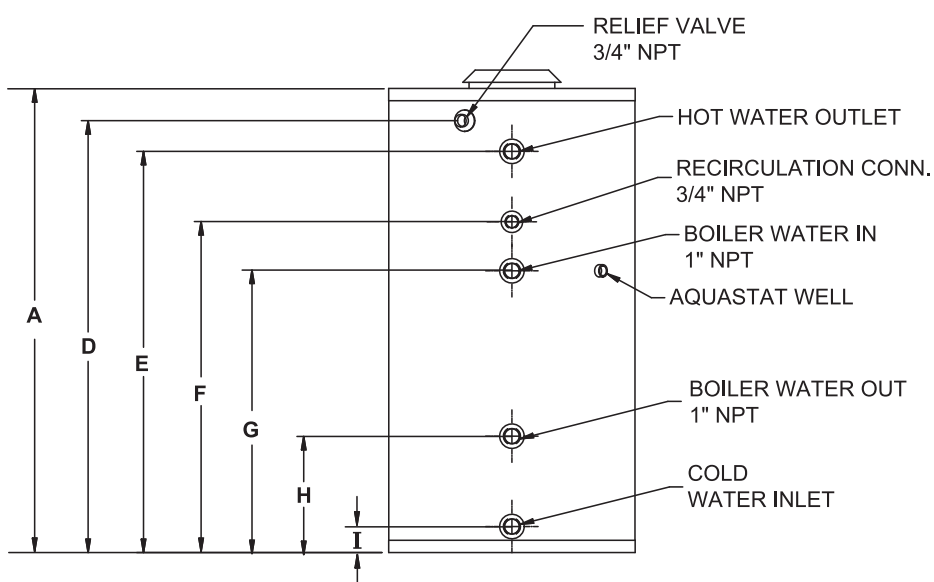
NOTES: Based on incoming domestic cold water temperature of 50°F and gross boiler output as listed.

### Universal Selection and Sizing Chart (Boiler Water at 200°F)

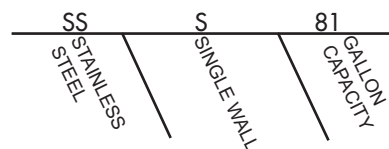
Indirect Model #	SSS031		SSS041		SSS051		SSS081		SSS119	
	140°F	115°F	140°F	115°F	140°F	115°F	140°F	115°F	140°F	115°F
45,000 Btu/Hr	82	106	92	115	102	125	124	147	155	178
60,000 Btu/Hr	102	133	112	143	122	152	144	175	175	206
75,000 Btu/Hr	122	161	132	171	142	180	164	203	195	234
95,000 Btu/Hr	149	198	159	207	168	217	191	239	222	271
115,000 Btu/Hr	154	205	185	244	195	254	217	276	249	308
140,000 Btu/Hr	154	205	219	291	228	300	251	323	282	354
165,000 Btu/Hr	154	205	228	303	238	313	284	369	315	400
195,000 Btu/Hr	154	205	228	303	238	313	324	424	355	455
225,000 Btu/Hr	154	205	228	303	238	313	356	468	395	511
260,000 Btu/Hr	154	205	228	303	238	313	356	468	442	575
295,000 Btu/Hr	154	205	228	303	238	313	356	468	487	638
335,000 Btu/Hr	154	205	228	303	238	313	356	468	487	638
375,000 Btu/Hr	154	205	228	303	238	313	356	468	487	638
420,000 Btu/Hr	154	205	228	303	238	313	356	468	487	638
470,000 Btu/Hr	154	205	228	303	238	313	356	468	487	638

NOTES: Based on incoming domestic cold water temperature of 50°F and gross boiler output as listed.

# Stainless Steel Indirect Dimensions and Specifications



FOR EASE IN ORDERING  
BY MODEL NUMBER



This heater is a 80 gallon, single wall coil, Stainless Steel indirect water heater.

## Dimensions

Model	A	B	D	E	F	G	H	I	Domestic Water Conn.	Shipping Weight
SSS031	38-3/4"	20"	32-3/4"	32-3/4"	27"	22"	9-1/2"	2-1/4"	1"	60
SSS041	54-3/4"	20"	48"	48"	29-1/4"	25-1/4"	9-1/2"	2-1/4"	1"	80
SSS051	47-3/4"	24"	40-1/4"	39-3/4"	30"	26"	10"	2"	1"	105
SSS081	68-3/4"	24"	62-3/4"	59-1/2"	34-1/2"	29-1/2"	10-3/4"	2"	1-1/2"	205
SSS119	64-3/4"	29"	58-3/4"	52-1/2"	44-1/2"	40-3/4"	12-1/4"	2"	1-1/2"	220

Note: Heat Exchanger connections are 1" male NPT

## Specifications

Model	Gallon Capacity	First Hour Rate (Gallons)		Max Coil Load BTU/hr	Flow Rate GPM	Pressure Drop Ft. Hd	Continuous Rate (GPH)	
		140°F	115°F				140°F	115°F
SSS031	27	154	204	99,000	4.6	0.8	132	183
SSS041	40	228	303	146,900	6.9	1.8	196	271
SSS051	52	238	313	146,900	6.9	1.8	196	271
SSS081	80	356	468	218,600	10.4	4.9	292	404
SSS119	117	485	636	293,700	13.6	11.5	392	542

Note: Based on incoming cold water temperature of 50°F and boiler water temperature of 200°F.

### Certified for Potable Water and Space Heating Applications

This water heater is suitable for water heating and space heating. Toxic chemicals, such as those used for boiler water treatment shall NEVER be introduced into the potable water system. This water heater may NEVER be connected to any existing heating system or components previously used with non-potable water heating appliances.

All models available with a Lifetime Limited Warranty Against Tank Failure. All parts are warranted for one year. Five year limited tank warranty on all models when installed in a commercial application.



Lochinvar Corporation • 300 Maddox Simpson Pkwy • Lebanon, TN 37090 • 615-889-8900 / Fax: 615-547-1000

www.Lochinvar.com