

# SQUIRE

## INDIRECT WATER HEATERS



### KEY FEATURES

- Peak draw-off capacities up to 4,991 litres in first hour at a 50°C temperature rise
- Clean out access for easy maintenance and inspection
- Up to 10.0 bar working pressure
- 3 year vessel warranty



# Lochinvar Squire Indirect water heaters

Often referred to as 'calorifiers', indirect water heaters have supplied a wide range of hot water demands for many years. Used in conjunction with a heating boiler installation, these products provide an indirect method of generating hot water for a number of building types.

Squire indirect water heater models are suitable for a wide range of applications in both commercial and industrial buildings, and provide a reliable supply of hot water when installed with suitably sized heating boilers.

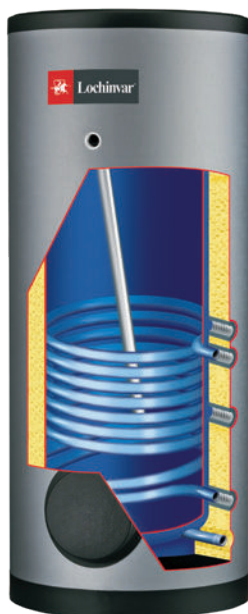
Constructed from enamelled steel the Squire is available with single or dual coil options.



Squire indirect water heater  
*10 single coil models &  
5 twin coil models*

## Single coil models

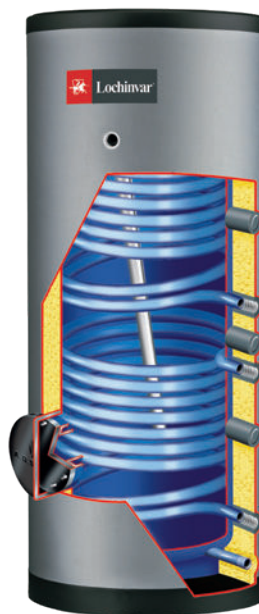
- 10 models
- Storage capacities ranging from 300 to 2820 litres
- Maximum first hour draw-off of up to 4,991 litres per hour
- High recovery coils providing fast hot water recovery



SIVS indirect water heaters

## Twin coil models

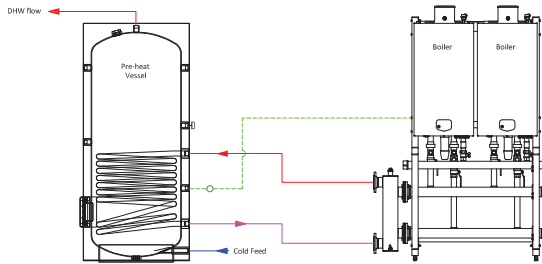
- 5 models
- Storage capacities ranging from 388 to 1020 litres
- Maximum first hour draw off of up to 3,344 litres per hour
- High recovery coils providing fast hot water recovery



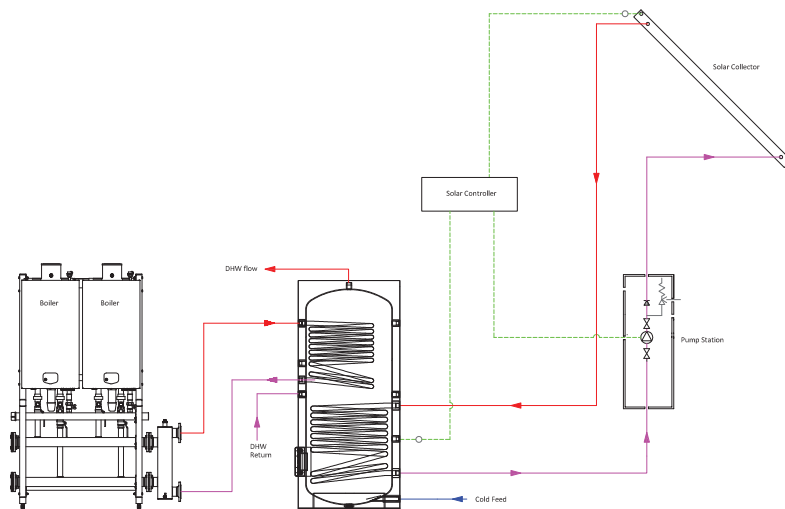
SIVT indirect water heaters



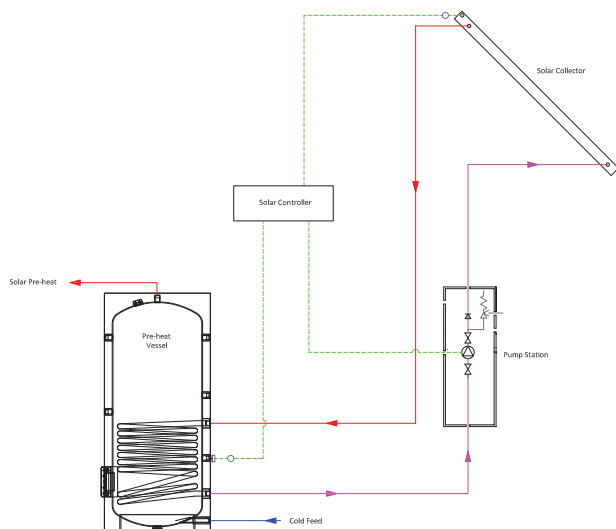
## Typical schematic drawings



Indirect water heater/calorifier with gas-fired condensing boilers



Twin coil indirect water heater with solar thermal and gas-fired condensing boilers



Indirect water heater operating as pre-heat vessel with solar thermal

## Ancillary options

- Destratification pumps
- Unvented system kits and expansion vessels
- Electric immersion elements
- Thermometer kits
- Correx non-sacrificial protection system (models SIVS66 to 220, and SIVT100 to 220)

## Indirect water heating

This has been an established concept in a range of building types, for many years. Advances in boiler efficiencies and indirect water heater coil capabilities in recent years continue to make this a popular choice with those involved in the design and installation of hot water systems for commercial and industrial projects.

## Pre-heat vessels / renewable installations

Squire products can also be used as 'pre-heat vessels' on solar thermal installations; in these projects the hot water generated from solar gain is stored and then used as feed water for the primary hot water supply.

Twin coil models are particularly suitable, with the solar renewable providing hot water via the lower coil, and the upper coil connected to the heating boiler installation. This type of installation removes the need for an additional pre-heat vessel and therefore can save valuable plant room space.

## Technical specification

Indirect storage vessel model		SIVS66GE	SIVS100GE	SIVS110GE	SIVS130GE	SIVS165GE	SIVS220GE	SIVS330GE	SIVS440GE	SIVS550GE	SIVS660GE	SIVT100GE	SIVT110GE	SIVT130GE	SIVT165GE	SIVT220GE
		SINGLE COIL MODELS										TWIN COIL MODELS				
Storage capacity	litres	300	390	480	650	730	1020	1580	1830	2600	2820	388	475	650	730	1020
Efficiency data - Building regulations																
Heat loss	Kw/24 hr	2.4	2.4	2.5	3.0	3.0	3.5	3.7	4.1	5.6	5.8	2.4	2.5	3.0	3.0	3.5
Efficiency data - ErP																
Ecodesign energy label rating		C	C	C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	C	C	n/a	n/a	n/a
Standing loss	W	100	100	104	126	126	146	154	171	232	243	100	104	126	126	146
Coil and performance data																
Dimensions (height)	mm	1375	1710	2045	1840	2035	2005	1985	2175	2045	2070	1710	2045	1840	2035	2005
Dimensions (width)	mm	740	740	760	910	930	1100	1300	1300	1600	1600	740	760	910	930	1100
Hot outlet connection (inches)	BSP	R ½	R 1 ½	R 1 ½	R 1 ½	R 1 ½	R 1 ½	R 2	R 2	R 2	R 2	R 1 ½	R 1 ½	R 1 ½	R 1 ½	R 1 ½
Cold feed connection (inches)	BSP	R ½	R 1 ½	R 1 ½	R 1 ½	R 1 ½	R 1 ½	R 2	R 2	R 2	R 2	R 1 ½	R 1 ½	R 1 ½	R 1 ½	R 1 ½
Flow/Return connection (inches)	BSP	Rp 1	Rp 1 ½	Rp 1 ½	Rp 1 ½	Rp 1 ½	Rp 1 ½	Rp 1 ½	Rp 1 ½	Rp 1 ½	Rp 1 ½	Rp 1	Rp 1	Rp 1 ½	Rp 1 ½	Rp 1 ½
Weight (empty)	kg	103	139	180	241	254	336	398	426	576	600	145	196	246	262	340
Weight (full)	kg	403	529	660	891	984	1356	1978	2256	3176	3450	533	671	896	992	1360
Minimum working pressure	bar	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Maximum working pressure	bar	10	10	10	10	10	10	7	7	7	7	10	10	10	10	10
Maximum working temperature	°C	95	95	95	95	95	95	85	85	85	85	95	95	95	95	95
Electrical requirements (for thermostat only)		230V /1Ph/ 50hz*										230V /1Ph/ 50hz*				
Coil and performance data																
Coil output (80/60 °C) bottom/top	kW	52	79	102	106	114	147	149	149	159	159	52/37	68/42	73/40	81/57	88/59
Coil surface area bottom	m2	2.45	2.45	3.11	3.45	3.72	4.82	5.2	5.2	6	6	1.64	2.13	2.39	2.66	2.89
Coil surface area top	m2											1.15	1.31	1.33	1.86	1.93
Flow rate (80/60 °C) bottom	l/sec	0.62	0.93	1.19	1.24	1.34	1.73	1.8	1.8	1.9	1.9	0.62	0.81	0.86	0.96	1.04
Flow rate (80/60 °C) top	l/sec											0.44	0.50	0.48	0.67	0.69
Pressure loss bottom	kPa	7.8	24.4	48.9	10.4	12.8	25.9	83	83	69.5	69.5	7.8	16.6	3.7	5	6.1
Pressure loss top	kPa											3	4.3	0.7	1.8	2
Maximum coil temperature	°C	110	110	110	110	110	110	90	90	90	90	110	110	110	110	110
Maximum coil pressure	bar	16	16	16	16	16	16	6	6	6	6	16	16	16	16	16
Max. draw off capacity (1st Hour) at 50°C temperature rise (top coil only)	l/hr	1134	1473	2138	2343	2545	3344	3827	4027	4815	4991	830	960	1013	1345	1525
Heat up time at 50°C temperature rise (top coil only)	min	20	17	16	22	23	24	37	43	57	62	18	20	28	22	30
Max. draw off capacity (1st Hour) at 50°C temperature rise (both coils)	l/hr											1841	2272	2464	2958	3344
Heat up time at 50°C temperature rise (both coils)	min											15	15	20	18	24

\* For thermostat

Energy label, product fiche and ErP data table are available at [www.lochinvar.ltd.uk](http://www.lochinvar.ltd.uk)

For further information on the Squire indirect water heaters, including ICM & user instructions and our full warranty terms and conditions, please visit our website: [www.lochinvar.ltd.uk](http://www.lochinvar.ltd.uk)



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Lochinvar Ltd reserves the right to change specifications without prior notice

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