

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.



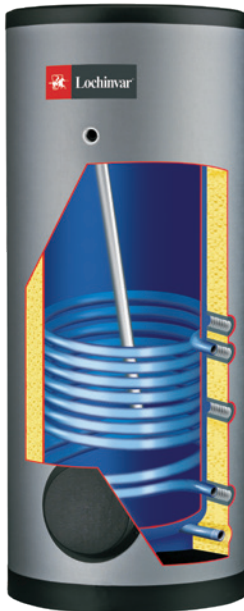
Squire indirect water heater
*10 single coil models &
5 twin coil models*

Single coil models

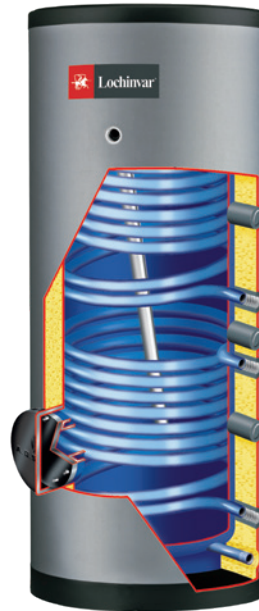
- 10 models
- Storage capacities ranging from 300 to 2820 litres
- Maximum first hour draw-off of up to 4,991 litres per hour
- High recovery coils providing fast hot water recovery

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

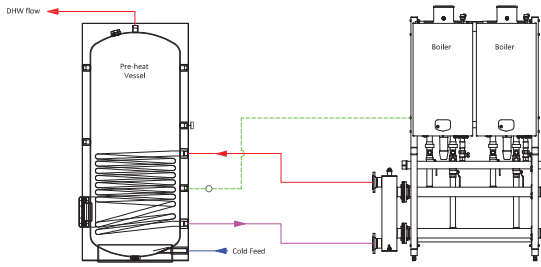


SIVS indirect water heaters

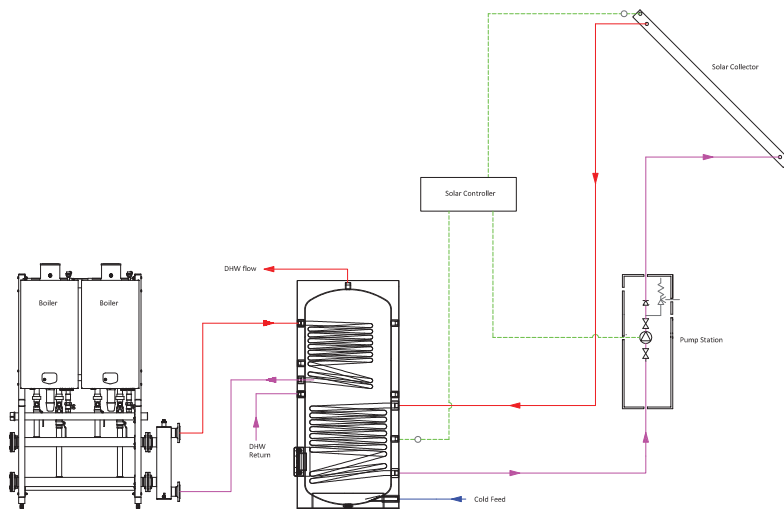


SIVT indirect water heaters

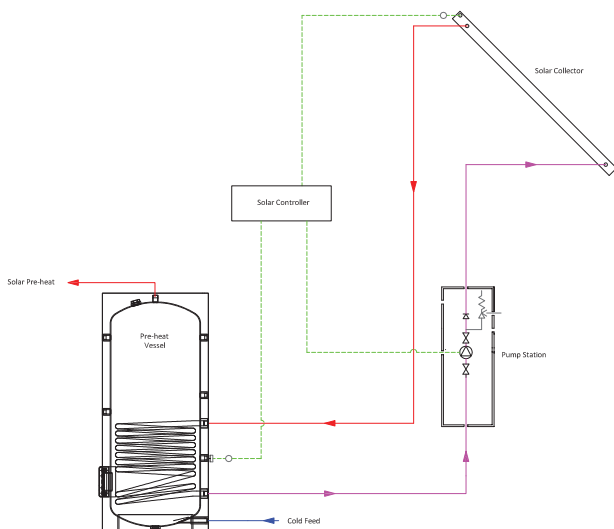
Typical schematic drawings



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 | | SIV566GE | SIV5100GE | SIV5110GE | SIV5130GE | SIV5165GE | SIV5220GE | SIV5330GE | SIV5440GE | SIV5550GE | SIV5660GE | 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 1½ | R 1½ | R 1½ | R 1½ | R 1½ | R 2 | R 2 | R 2 | R 2 | R 1½ | R 1½ | R 1½ | R 1½ | R 1½ |
| Cold feed connection (inches) | BSP | R ½ | R 1½ | R 1½ | R 1½ | R 1½ | R 1½ | R 2 | R 2 | R 2 | R 2 | R 1½ | R 1½ | R 1½ | R 1½ | R 1½ |
| Flow/Return connection (inches) | BSP | Rp 1 | Rp 1½ | Rp 1½ | Rp 1½ | Rp 1½ | Rp 1½ | Rp 1½ | Rp 1½ | Rp 1½ | Rp 1½ | Rp 1 | Rp 1 | Rp 1½ | Rp 1½ | Rp 1½ |
| 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 | m ² | 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 | m ² | | | | | | | | | | | 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

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



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Lochinvar Ltd reserves the right to change specifications without prior notice

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