



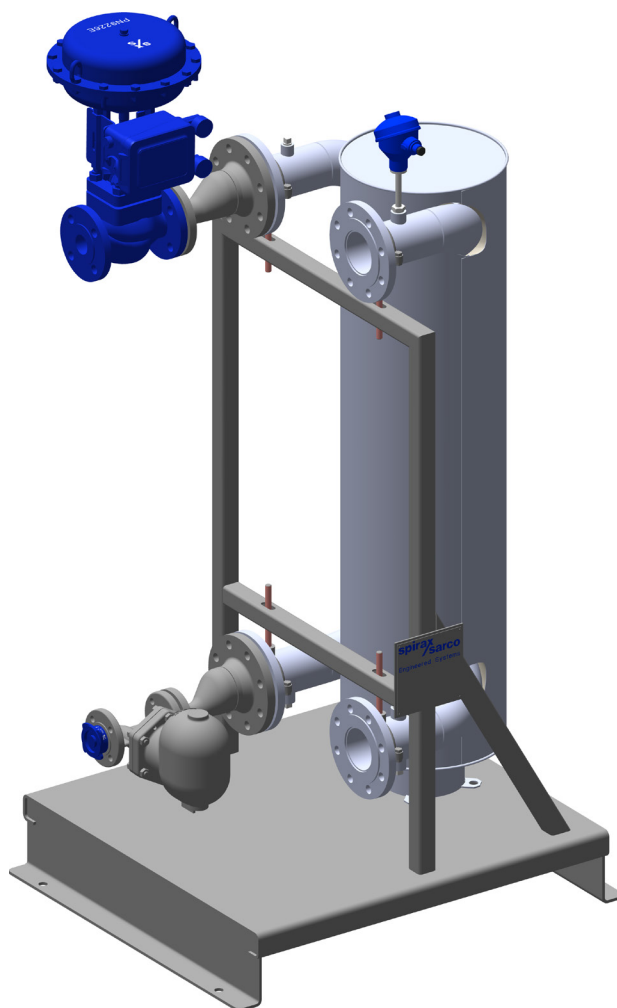
Spirax SpiraHeat™ Heating System Process Controller Based Compact Heat Transfer System

Description

The SpiraHeat™ is a compact steam-to-water energy transfer solution. Suitable for applications with steady and predictable load conditions to produce an accurate water temperature.

Principle features and benefits

- Compact heat transfer solution.
- Produces hot water for heating or process.
- Maintains a stable temperature on slowly changing loads.
- A fully assembled package with matched heat exchanger and temperature control equipment.
- Able to easily install additional safety and control and steam conditioning systems (where required).



A Heat exchanger

One of the components that guarantees system performance is the heat exchanger, which is precisely engineered to match the specific duty requirements.

B Temperature control

The steam flowrate is modulated to exactly match the heat demand. The control valve is pneumatically or electrically actuated and the system uses a fast response Pt100 temperature sensor and process controller for precise control.

C Control panel

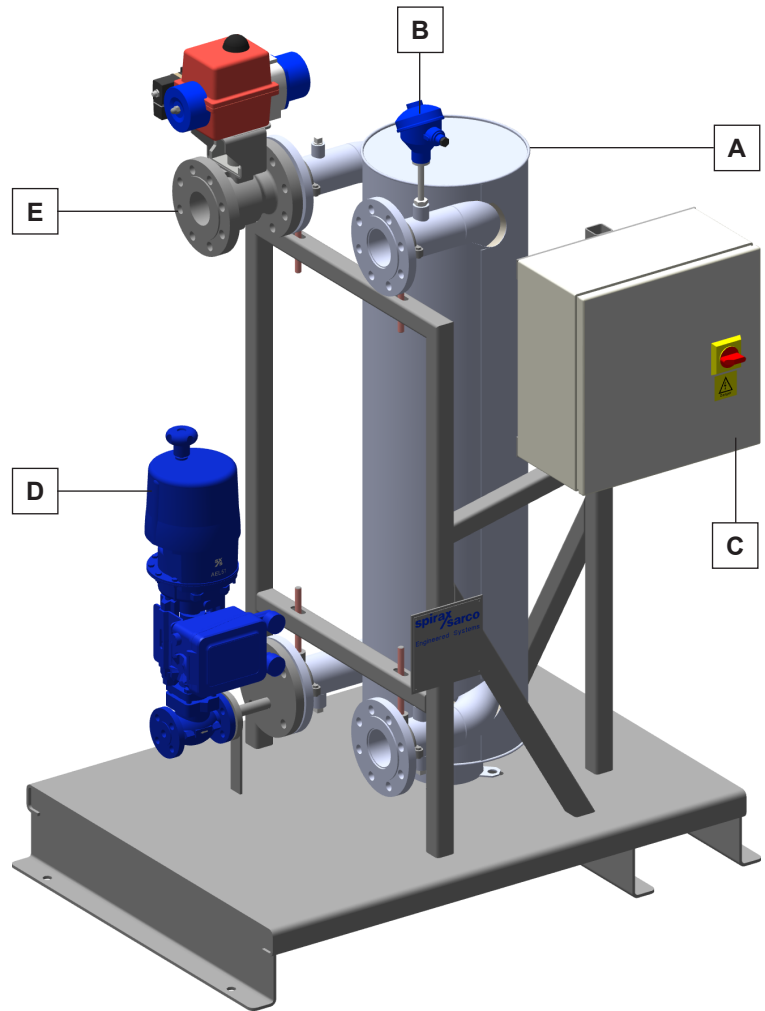
The Spirax SpiraHeat™ features our well established control system the SX90, simplified controls, monitoring and communications. Simple push button controls allows access to all system parameters.

D Condensate control option

One of the components that guarantees system performance is the correctly selected control valve with actuator, ensuring all of the useful energy in the steam is used within the unit, there's less waste than other available alternatives which, in turn, reduces both fuel demand and your CO² emissions.

E Pipework

All pipework is correctly sized for the application and is fabricated using modern welding techniques, approved welders and weld procedures. Flanged products are used where possible for reliability and easy maintenance.



Materials

Steam and condensate pipework	Carbon steel
Steam control valve and trap	Carbon steel and SG Iron
Heat exchanger	Stainless steel

Pressure and temperature limits

Pipework design condition	PN16
Maximum saturated steam supply pressure to heat exchanger	10 bar g
Maximum secondary pressure	10 bar g
Maximum secondary temperature	105 °C
Maximum steam temperature	180 °C

Operating conditions

Operating ambient temperature	0 °C to 55 °C (32 °F to 131 °F)
Relative humidity	5 to 85% non-condensing
Atmosphere	Not suitable for use above 2000m or in explosive or corrosive atmospheres
IP rating:	IP54*

*Excluding some 'EL' option systems which are reduced to IP31

Electrics and pneumatics

All control equipment is pre-wired and piped ready for connection to the air supply and power source.

Electrical supply	Power supply	110-240 Vac/50-60 Hz
	Supply fuse	5A (T)
Actuators	Electric	24 Vac/50-60Hz
	Pneumatic	1.4 to 6.0 bar g

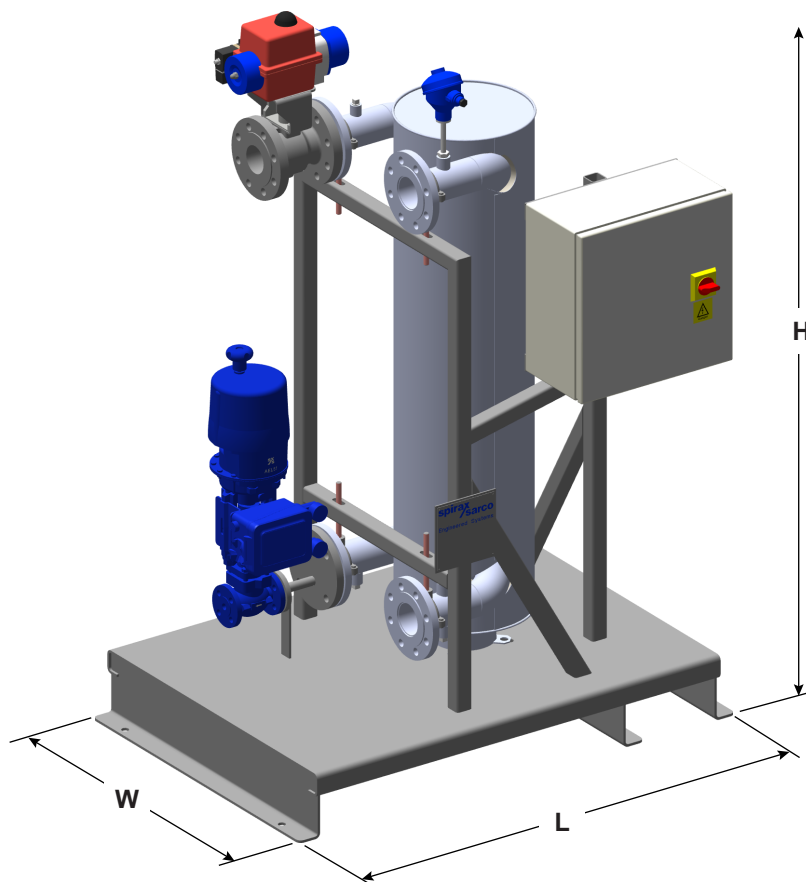
Support frame

The Spirax SpiraHeat™ heating system is delivered pre-assembled on a compact frame and baseplate ready to move with a fork lift truck to the position of installation.

Example dimensions (approximate) in mm

A small selection of SpiraHeat™ system dimensions are listed below. Each package are supplied with detailed drawings.

Design Load (kW)	Type	Valve actuation	Maximum dimensions (mm)			Piping connections DN		
			H	L	W	Steam	Water	Condensate
100	SC-DN20-PN	Pneumatic	1566	910	790	DN20	DN40	DN25
200	CC-DN15-K _v 1.0-PN	Electric	1653	910	790	DN50	DN50	DN15
300	SC-DN40-PN	Pneumatic	1765	1150	790	DN40	DN65	DN25
400	CC-DN15-K _v 1.0-PN	Electric	1762	1150	790	DN100	DN80	DN15
500	SC-DN65-PN	Pneumatic	1948	1150	790	DN65	DN80	DN40
1200	CC-DN15-K _v 2.5-PN	Electric	1794	1500	1030	DN100	DN125	DN15



Typical specification

The building heating unit shall be a Spirax SpiraHeat™ process controller based compact heat transfer system. The system will be pre-assembled and mounted on a compact frame with either pneumatic or electric control option.

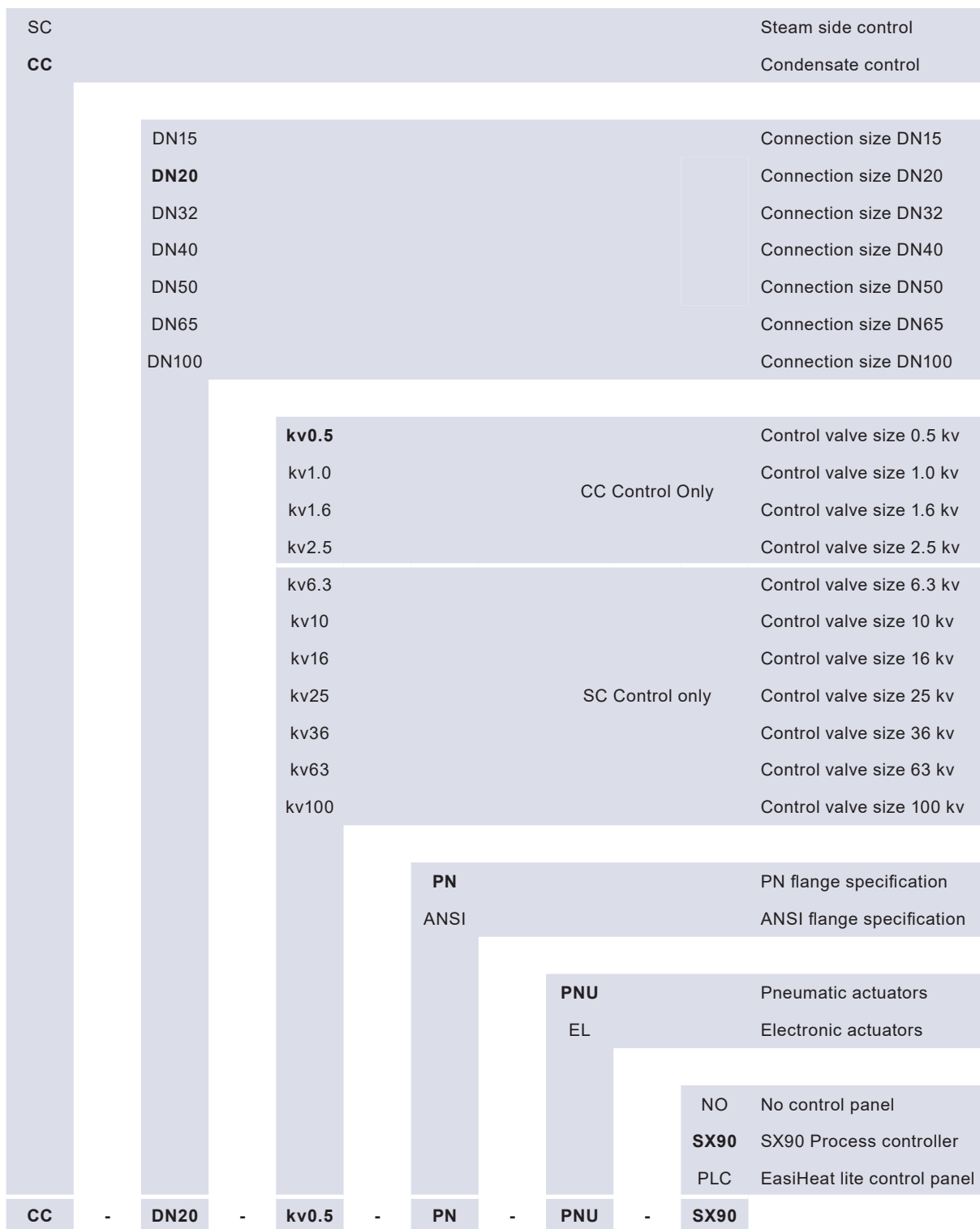
In order to meet EU standards for Temperature Control Devices and Temperature Limiters For Heat Generating Systems, the addition of Independent High Limit (IHL) control equipment is a compulsory design requirement for packages installed within the EU.

Regulation Conformance

The SpiraHeat™ fully complies with the current version EN Machinery Directive.

In order to meet standard EN14597 for Temperature Control Devices, an independent high temperature control system will need to be installed.

Spirax SpiraHeat™ nomenclature



How to order

All systems are designed for the required heat load with controls to suit the application. The best way of ensuring that we have all the necessary information for quotation and manufacture is to contact your local Spirax supplier who will size the appropriate SpiraHeat.