



EasiHeat-S

Description

The EasiHeat-S is a compact, turn-key, entry level solution, engineered for ease of operation, whilst maintaining accurate temperature control. It delivers energy efficient performance for a wide range of steam to water heating applications, with duties from approximately 70 kW to 3.45 MW. Each unit is supplied fully assembled and pressure tested.

Applications

- Heating systems (HTG) for closed circuit space heating applications with relatively stable load conditions
- Domestic Hot Water systems (DHW) for open circuit, heated potable water applications including showers, washrooms and kitchens
- Process Hot Water systems for open and closed circuit heated water applications with high fluctuations in load conditions



Standard features

Some features of EasiHeat-S are included as standard for all control options, these are listed in the table below.

Feature	Benefits	Option
Steam Control	Fast reacting temperature control. Fluctuating load conditions where temperature control accuracy is important.	N/A
Condensate Removal	Active condensate removal to avoid stall conditions for applications with high load fluctuations or high condensate back pressure.	Steam Trap Pump Trap
Gasket Plate Heat Exchanger (GPHE)	A high efficiency and low volume to pressure ratio. Sized and selected to suit the specific duty requirements. Reduced inspection requirements and fully maintainable.	Number of plates and gasket materials are selected to suit each application
Control Panel	Simple user interface with performance indicators. PID controller tuned for specific process conditions.	Process controller only
Class VI Shut Off	Control valves have steam tight reversible seats.	N/A
Control Actuation Supply	Actuators for control and isolation valves to provide flexibility for customer preference to suit the installation location.	Pneumatic Electric

Standard features (continued)

Feature	Benefits	Option
Pipework & Support Framework	All packages are delivered on a compact frame and baseplate to ensure ease of installation and mobility.	Stainless Steel Grade 304
		Carbon Steel
		Fitted Wheels (Yes/No)
Insulation	The packages can also be insulated to maximise energy efficiency.	On request, installation specific
Wired/Remote Control	Control and monitoring options can be enabled through wired connections.	- Remote start/stop control - Outlet temperature monitoring - Remote setpoint control - High limit tripped/healthy monitoring - System enabled visibility/monitoring - System fault monitoring

Configurable features

All EasiHeat-S systems are designed for the required heat load with features to suit each application and requirement, the table below describes the configurable features available.

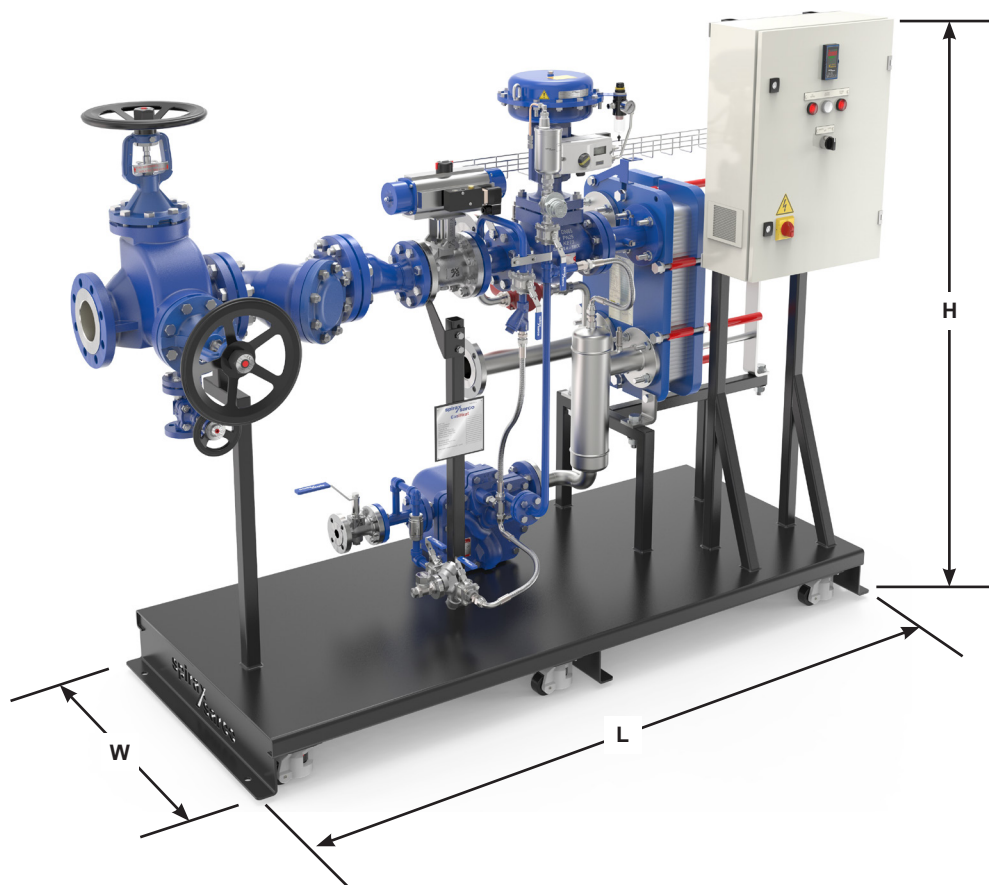
Feature	Benefits	Option
Fail-safe High Limit	High limit temperature control to ensure the system will automatically and safely stop operation, preventing the risk of scalding should temperature overshoot occur.	- Spirax High Limit* - European Standard EN14597* - Italy INAIL*
Additional manual steam isolation	A range of local isolation options to support maintenance procedures and processes.	- Ball valve - BSA - DBB3

* Manual reset at the thermostat is required for all fail-safe high limit options when tripped

Servicing

Spirax Sarco offer field maintenance services such as commissioning and maintenance contracts to maintain performance, compliance and efficiency of EasiHeat-S systems for total peace of mind. Service offerings can differ by region due to varying capabilities. For more information, please contact your local Spirax Sarco office or sales engineer

Dimensions approximate in mm (inches)



Metric	Maximum dimensions (mm)			Largest piping connections*		
Plate Type	H	L	W	Steam	Water	Condensate
TS6-M	1995	2488	850	DN125	DN65	DN40
T8-M			850	DN150	DN80	DN50
T10-M		2932	904	DN200	DN100	DN50

Imperial	Maximum dimensions (inches)			Largest piping connections*		
Plate Type	H	L	W	Steam	Water	Condensate
TS6-M	78.5	98.0	34	5"	2.5"	1.5"
T8-M			34	6"	3.15"	2"
T10-M		115	35.5	8"	4"	2"

* Piping connections sized to order and will depend on the load and heat exchanger size.

Options selected may impact overall dimensions.

Pressure and temperature limits

Pipework design condition	PN16
Maximum saturated steam design pressure to heat exchanger	* 9 bar g
Maximum water pressure	9 bar g
Maximum water temperature	105 °C
Maximum gasket temperature	** 180 °C
Maximum ambient temperature	50 °C

* 12 bar g high pressure design (maximum operating pressure of 10 barg).

** 200 °C high temperature gaskets available on request.

Electrics and pneumatics

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

Electrical panel supply requirements	Mains single phase power e.g. 230 Vac/50-60 Hz to suit regional requirements	
Actuators supply	Electric (Supplied from panel)	24 Vac/50-60 Hz
	Pneumatic	Maximum 9 bar g
Power consumption	690W Nominal 1610W Max	
Control panel IP Rating	IP65*	

* To maintain the control panel IP rating, any additional glands added to the panel must have a minimum IP rating of IP65.

Materials

Steam and condensate pipework	Carbon Steel	
Steam control valve and condensate pump trap	SG Iron	
Water side pipework	HTG	Carbon steel
	DHW	Stainless steel
Condensate control valve	SG Iron	
Frame material	Painted CS or 304 SS	

Enquiries

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 Sarco office or sales engineer. Special requirements should be detailed.

EasiHeat-S nomenclature - Split 1

				Example
1	Application Type	EHDSC	= EasiHeat-S Domestic Hot Water (Steam side control)	EHDSC
		EHHSC	= EasiHeat-S Heating (Steam side control)	
2	Steam Control Valve Size	0	= None	3
		1	= DN32 -TS6-M	
		2	= DN40 -TS6-M	
		3	= DN50 -TS6-M	
		4	= DN65 -TS6-M	
		5	= DN80 -T8-M	
		6	= DN100 -T10-M	
3	Steam Control Valve Kv	0	= None	36
		#	= Available Kvs for all valves *	
4	Insulation	N	= None	N
		L	= Lagged	
5	Split Range	0	= None	0
6	Condensate Control Valve Size	0	= None	0
7	Condensate Control Valve Kv	0	= None	0
8	Heat Exchanger Plate Count	#	= Number of plates for sized HEX *	26
9	Heat Exchanger Channel Type	LL	= L-L	MH
		LW	= LWi-LNa	
		MH	= MH-ML	
		MW	= MWi-MNa	
		HH	= H-H	
		HW	= HWi-HNa	
10	Gasket Material	G1	= EPDMP	G4
		G2	= Heat-seal	
		G3	= WRAS EPDMW (UK only)	
		G4	= EPDMP - 12 barg design pressure	
		G5	= Heat-seal - 12 barg design pressure	
		G6	= WRAS EPDMW (UK only) - 12 barg design pressure	
11	Global Variance	UK	= UK	EU
		EU	= Europe	
		MA	= Malaysia	
12	Application Type	PN	= Pneumatic	PN
		EL	= Electric	
13	Condensate Removal	ST	= Steam Trap	ST
		PT	= Pump Trap	
		PTHC	= High Capacity Pump Trap	

* values for # come from the EasiHeat-S sizing software

EasiHeat-S nomenclature - Split 2

			Example
14	High Limit	SIHL = Spirax High Limit	SIHL
		IHL = Independent High Limit compliant with BS EN 14597:2012	
		INAIL = Independent High Limit INAIL	
15	Manual Steam Isolation	N = None	V2
		V1 = Ball Valve	
		V2 = BSA	
		V3 = DBB3	
16	System Recirculation	N = None	N
		R = Recirculation	
17	Control Panel	B1 = Process Control Panel	B1
18	Frame Type	SS = Stainless Steel	CS
		CS = Carbon Steel Painted	
19	Package Supports	S = Static	S
		W = Wheels	
20	Panel Location	S = Standard (Steam Side)	S
		M = Mirror (Water Side)	
21	Extras	N = None	GP
		GP = Pressure Gauge Pack	

EasiHeat-S nomenclature - Split 3

				Example
22	Integrity Test	N	= None	N
23	Data Collection	00	= None	00
24	Control Valve Feedback	N	= None	N
25	TA11 Temperature sensor – Secondary side inlet	N	= None	N
26	TA31 Temperature sensor – Primary side (steam)	N	= None	N
27	TA41 Temperature sensor - Condensate Outlet	N	= None	N
28	TA01 Legionella Guardian	N	= None	N
29	PA31 Pressure sensor - Primary side (steam)	N	= None	N
30	FA11 Inlet Flowmeter - Secondary side (water)	N	= None	N
31	UPS Uninterruptible Power Supply	N	= None	N
32	Communications	C0	= None	C0

Spirax EasiHeat-S™ DHW nomenclature example:

Split 1	1	2	3	4	5	6	7	8	9	10	11	12	13
	EHDSC	3	36	N	0	0	0	26	MH	G4	EU	PN	ST
Split 2	14	15	16	17	18	19	20	21					
	SIHL	V2	N	B1	CS	S	S	GP					
Split 3	22	23	24	25	26	27	28	29	30	31	32		
	N	00	N	N	N	N	N	N	N	N	C0		