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environment  
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# *Advanced Commercial Hot & Warm Water Solutions*



**EDWARDS**  
*commercial hot water*

# Edwards Advanced Commercial Solutions



Edwards Hot Water manufacture a wide range of commercial water heating equipment to offer you the flexibility and performance you need.

## Design Advantage

With over 40 years experience in hot water we have a solution for most applications. Our unique indirect heat exchange storage cylinders minimise the possibility of scale build up within the storage tank and solar collectors (if fitted). Other systems do not offer the benefits of our anti-scale system and corrosion protection.

Edwards indirect storage cylinders have the added advantage of having two separate heating circuits. A low pressure treated water circuit which can be used for connection to solar collectors or to mechanical devices for room heating and a mains pressure circuit which does not compromise on the supply pressure to the hot water fixtures.

## Quality Construction

Edwards have a true commercial system that is designed and built in accordance with Australian design, manufacturing and quality standards. We have specifically designed our systems for the rigours of commercial applications. They are designed to work harder and longer, with quality materials such as copper and steel used to minimise the effects of wear and tear.

Our commercial focus means each system is constructed to minimise susceptibility to structural weaknesses caused through the expansion, contraction, heat and pressure that makes up the normal operating life of a hot water system.

# Edwards Commercial Solar Solutions

## Choose Solar

When you want the benefits of solar hot water for a commercial project, Edwards Hot Water has the solution for you.

The energy and environmental savings of a commercial solar package can be added to any system to save money on your water heating costs.

Firstly, you can save on your water heating energy costs with free energy from the sun. Secondly, because of solar's positive reduction on greenhouse gas emissions some Governments are now rewarding those individuals or organisations that actively choose to utilise the benefits of a commercial solar system. These rewards come in the form of cash rebates and financial incentives.

Talk to an Edwards Commercial Dealer to determine what savings you can achieve on your next commercial project.

## Options That Suit You

Edwards can provide you with a commercial solar package ranging in size from 2 solar collectors up to 60. The size of the system that best suits your initial budget and the amount of solar contribution to save your running costs is accurately matched. This means you maximise the return on your investment.

Instead of joining a number of small tanks together Edwards has a single tank that is simple to install and saves space. Edwards have various storage tank models such as the SV, LEX & GXC series to suit the available application and plant room space.

For those times of the year when the solar contribution is lower, an automatic back-up, energy boost can be utilised. You have the option to choose the heat source (gas or electric) that best suits your needs.

Anti-freeze protected solar systems are also available as an option in frost prone areas.



# GXC & LEX Series – Indirect Heat Exchangers

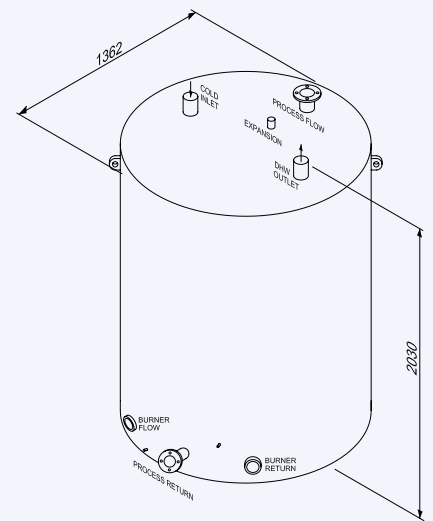
The Edwards GXC and LEX Series water tanks are indirect storage water heat exchange systems that are designed to be heated by a remote heat source such as an Edwards Heatmate, HEV or even an array of solar collectors. However they may also be utilized in conjunction with any gas, oil or electric fired heater.

The GXC and LEX units can operate as either a hot (above 50°C) or warm (up to 50°C) water system without compromising the efficiency and life of the system. A significant advantage of the GXC and LEX range is the elimination of thermostatic mixing valves.

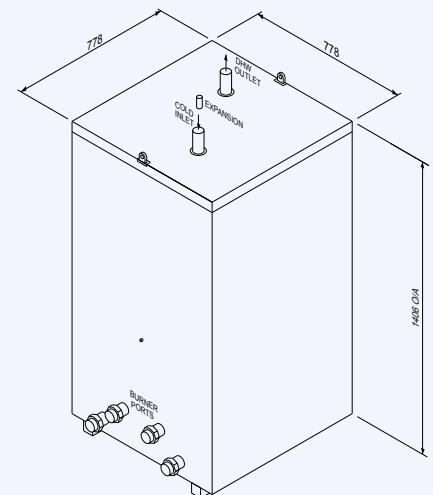
Constructed from a special grade of steel the cylinder is designed to withstand high water temperatures on a continual basis. No anode or artificial lining is required to prevent corrosion as the GXC & LEX tanks are protected by the addition of 'Gendex', the Edwards custom designed corrosion inhibitor.

Using a unique mains pressure heat exchange coil, Edwards offers a system that is naturally resistant to deterioration in poor quality water. Another important feature is the elimination of stagnant areas of warm water which can become potential breeding grounds for unwanted bacteria. Edwards heat exchangers have minimal storage and high water movement so that they help resist legionella and other bacteria proliferation.

The GXC and LEX have the added advantage of being able to be utilized for Hydronic heating purposes. The 'Gendex' treated neutral water can be pumped through under floor heaters or central heating radiators for Mechanical space heating.



**LEX Series**  
(LEX 200 model shown)



**GXC Series**  
(GXC 150 model shown)

Specifications		GXC 50	GXC 100	GXC 150	LEX120	LEX200	LEX350	LEX500
Height	mm	1406	1406	1406	2030	2030	2030	2030
Width/Depth	mm	780sq	780sq	780sq	Ø1112	Ø1362	Ø1654	Ø2016
Cold/Hot Water Connections	mm	Ø50	Ø50	Ø50	Ø50	Ø80	Ø100	Ø100
Peak Flow Rate @ 65°C (hot)	l/min	60	120	180	180	300	420	600
Peak Flow Rate @ 50°C (warm)	l/min	50	100	150	150	250	350	500
Neutral Water Storage	litres	530	530	530	1413	2209	3350	5100
Heat Exch. Pressure Drop	kPa	33	33	33	33	33	33	33
Heat Exchanger Surface Area	sq.m	4	8	12	12	20	28	40
Max. Tank / Coil Working Pressure	kPa	400/1200	400/1200	400/1200	400/1200	400/1200	400/1200	400/1200
Weight – Wet / Dry	kg	730/200	760/230	802/272	1939/525	3221/1012	4836/1486	7224/2124
Maximum Input (warm/hot) – per unit	kW	122	244	366	251/628	419/1047	732/1320	838/2095
Maximum No. of Solar Panels		6	6	6	14	24	36	60
Burner Ports		2	2	4				

Assume cold water temperature of 15°C.



	Peak Flow Rate l / m	45°C Outlet Temp.		50°C Outlet Temp.		65°C Outlet Temp.	
		1 <sup>st</sup> Hour	Hourly Recovery Rate (2nd, 3rd)	1 <sup>st</sup> Hour	Hourly Recovery Rate (2nd, 3rd)	1 <sup>st</sup> Hour	Hourly Recovery Rate (2nd, 3rd)
	warm (45°C & 50°C)/hot (65°C)	litres	litres	litres	litres	litres	litres
<b>GXC Tank containing 1 Heat Exchanger connected to 1-2 Heatmate's</b>							
GXC 50/250 + 1 x Heatmate	50/60	1605	1552	1383	1330	1084	1031
GXC 50/500 + 2 x Heatmates	50/60	3157	3104	2713	2660	2115	2062
<b>GXC Tank containing 2 Heat Exchangers connected to 1-3 Heatmate's</b>							
GXC 100/250 + 1 x Heatmate	100/120	1605	1552	1383	1330	1084	1031
GXC 100/500 + 2 x Heatmates	100/120	3157	3104	2713	2660	2115	2062
GXC 100/750 + 3 x Heatmates	100/120	4709	4656	4043	3990	3146	3093
<b>GXC Tank containing 3 Heat Exchangers connected to 1-6 Heatmate's</b>							
GXC 150/250 + 1 x Heatmate	150/180	1605	1552	1383	1330	1084	1031
GXC 150/500 + 2 x Heatmates	150/180	3157	3104	2713	2660	2115	2062
GXC 150/750 + 3 x Heatmates	150/180	4709	4656	4043	3990	3146	3093
GXC 150/1000 + 4 x Heatmates	150/180	6262	6209	5373	5320	4177	4124
GXC 150/1250 + 5 x Heatmates	150/180	7253	7200	6706	6653	5208	5155
GXC 150/1500 + 6 x Heatmates	150/180	n/a	n/a	7253	7200	6239	6186
<b>LEX Tank containing 5 Heat Exchangers connected to 1-6 Heatmate's</b>							
LEX 200/250 + 1 x Heatmate	250/300	1772	1552	1550	1330	2365	889
LEX 200/500 + 2 x Heatmates	250/300	3324	3104	2880	2660	3254	1778
LEX 200/750 + 3 x Heatmates	250/300	4876	4656	4210	3990	4144	2668
LEX 200/1000 + 4 x Heatmates	250/300	6429	6209	5540	5320	5033	3557
LEX 200/1250 + 5 x Heatmates	250/300	7980	7760	6870	6650	5922	4446
LEX 200/1500 + 6 x Heatmates	250/300	9532	9312	8200	7980	6812	5336

Assume cold water temperature of 15°C.

# HEV Series – Gas or Oil fired Hot Water System



## Gas/Oil Fired

Either a gas or oil fired forced draft burner can be mounted with the HEV to provide a high combustion efficiency.

## Compact

The HEV packs an incredible amount of hot water energy into a small space. Each HEV stands vertically and is designed to fit through a standard commercial doorway. Access for cleaning is on top of the unit so a minimum of floor space is required.

## Large Temperature Range

The HEV can be thermostatically set from 55°C up to an impressive 95°C in the cylinder.

## Process or Room Heating

An added feature of the HEV storage tank is the ability to connect it to a heating water circuit. The treated water inside the tank can be circulated around remote devices such as panel radiators or heat exchangers up to a pressure of 100kPa.

## Long Service Life

The use of heavy duty steel cylinders in a low pressure treated water circuit and use of a copper heat exchanger ensures that the HEV can operate at high capacity without undue stress on the working parts.

## Higher Output

Being forced draft means the system can give you fast hot water recovery. Models range from 646MJ/h to 1318MJ/h and when added to a range of storage capacities, you have enough hot water for the heaviest demand.

The Edwards HEV series water heaters are a specially designed, high efficiency system for commercial and industrial hot water applications.

As the HEV is an indirect heat exchange system it has two separate heating circuits available for use. The storage cylinder operates as a vented, neutral fluid circuit that can be used for heating loads such as panel radiators, heat exchangers and storage tanks. The heat exchange coil immersed within the neutral fluid circuit provides you with large quantities of mains pressure, potable water that can be used for sterilisation, washdown or general ablution purposes. This proven Heavy Duty design provides you with flexibility, reliability and efficiency.



Specifications	Units	HEV95/490	HEV330/1000
Neutral Water Storage	litres	430	1587
Energy Input	MJ/h	646	1318
Energy Output	kW	143	293
1 <sup>st</sup> Hour Hot Water Delivery			
– based on 65°C outlet temp.	litres	2546	5245
– based on 85°C outlet temp.		1893	3806
Recovery Rate			
– based on 65°C outlet temp.	litres/hr	2457	5035
– based on 85°C outlet temp.		1755	3596
Min. Operating Temp. – Tank / Coil	°C	60/55	60/55
Max. Operating Temp. – Tank / Coil	°C	95/88	95/88
Heat Exch. Continuous Flow Rate	l/min		
– based on 65°C outlet temp.		41	84
– based on 85°C outlet temp.		29	60
Heat Exch. Peak Flow Rate	l/min	84	210
Coil Surface Area	sq.m	4	9.5
Min./Max. Coil Working Press	kPa	140/1200	140/1200
Combustion Chamber Efficiency	%	80	80
Max. Tank Working Pressure	kPa	100	100
Max. Pressure Drop – Tank / Coil	kPa	2 / 33	2 / 33
Weight – Wet / Dry	kg	846 / 416	2723 / 1136
Power Supply (for temp. controller only)*		240 Volt 1 Phase	240 Volt 1 Phase
Height Tank	mm	1910	2036
Depth (incl. burner)	mm	1380	2000
Tank Diameter	mm	812	1362
Flue Ø	mm	200	250
Cold and Hot Water Connections	mm	Ø40 copper	Ø65 copper
Process Flow and Return	mm	65 BSP socket	80 BSP socket
Expansion	mm	32 BSP socket	40 BSP socket

Assume cold water temperature of 15°C.  
\*Excludes forced draft burner

# SV Series – Storage Tanks

Whether you need an intermittent, continuous or fast draw-off of hot water up to 82°C, the SV series provides the hot water you need. Simply connect one or more heat sources such as an Edwards Heatmate for use in applications such as:

Hotels/Motels, Hospitals, Resorts, Apartment Buildings, Processing Plants, Laundries, Dairies, Caravan parks.

Every SV Series storage tank is made with performance, long life and flexibility in mind. It carries a 5 year manufacturer's warranty which means a safer, longer lasting hot water system.

The vitreous enamel lined tank provides a natural barrier against corrosion and will withstand hot water temperatures without deterioration.

## Have More Hot Water

Each storage tank has 50mm inlet and outlet connections as standard. This allows you to have high pressure hot water very quickly. Each storage tank can be connected to an energy source of up to 564MJ/h which means you will have plenty of hot water.

More than one SV tank or Heat Source can be manifolded together to increase capacity.

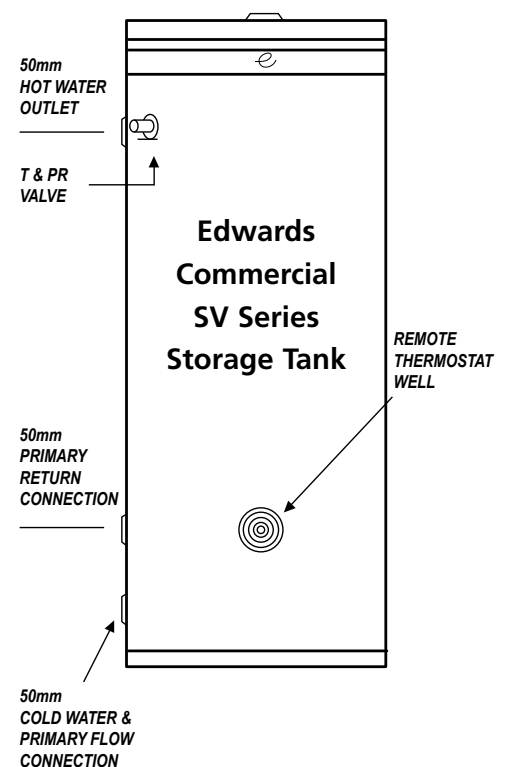
## Modular Versatility

Space and flexibility of use is an ever-increasing demand on building designers today. At Edwards we have designed our systems to be unmatched in versatility. By separating the functions of storing and heating water, we have created a modular system that can be added to at a later time for increased capacity or located remote from each other to match your specific needs.



MODEL		SV325	SV410
Height	mm	1640	1835
Diameter	mm	640	685
Rated Storage Capacity	litres	325	410
Peak Flow Rate	l/min	165	165
Max. Energy Input	kW	162	204
Weight – Full	kg	412	521
Weight – Empty	kg	87	111
Max. Working Pressure	kPa	1000	1000
Max. Water supply pressure without ECV	kPa	800	800
Max. Water supply pressure with ECV*	kPa	680	680

\*ECV not supplied with storage tank



SV With 'Heatmate' (Internal/External)	Peak Flow Rate l / m	Total Gas Input MJ/h	65°C Outlet Temp.		70°C Outlet Temp.		80°C Outlet Temp.	
			1 <sup>st</sup> Hour	Hourly Recovery Rate (2nd, 3rd)	1 <sup>st</sup> Hour	Hourly Recovery Rate (2nd, 3rd)	1 <sup>st</sup> Hour	Hourly Recovery Rate (2nd, 3rd)
			litres	litres	litres	litres	litres	litres
1 x SV 325 + 1 x Heatmate	165	250	1300	1031	1120	847	940	663
2 x SV 325 + 1 x Heatmate	310	250	1580	1031	1395	847	1210	663
1 x SV 410 + 2 x Heatmates	165	500	2420	2062	2050	1694	1795	1326
2 x SV 410 + 2 x Heatmates	310	500	2780	2062	2410	1694	2040	1326
2 x SV 410 + 3 x Heatmates	310	750	3810	3093	3260	2541	2700	1989
2 x SV 410 + 4 x Heatmates	310	1000	4840	4124	4100	3388	3370	2652

Assume cold water temperature of 15°C.

# Heatmate 250 – Water Heater Circulator



The Heatmate 250 is a water heater circulator designed for remote connection to an Edwards SV, GXC or LEX storage vessel. The Heatmate is thermostatically controlled and can be used in both warm water and hot water applications. Utilising state of art ignition technology the Heatmate will provide you with vast quantities of hot water time and time again.

The Heatmate has the added advantage of being able to be installed internally or externally and is available in either Natural or LP gas.

SPECIFICATIONS	HEATMATE 250	
	INTERNAL (mm)	EXTERNAL (mm)
Height	1080	1175
Width	930	930
Depth	380	435
Water Inlet	Direct: 25 BSP Male / Indirect: 20 BSP Female	
Water Outlet	ø25 Copper	ø25 Copper
Gas Inlet	20 BSP Male	20 BSP Male
Flue	200 O.D	n/a
Input (MJ/h)	250	250
Output (kW)	54	54
Weight (kg)	78	84
Max. Water Temp. (°C)	88	88
Min. Inlet Gas Pressure (kPa)	NG 1.13, LPG 2.75	NG 1.13, LPG 2.75
Max. Inlet Gas Pressure (kPa)	NG 1.25, LPG 2.75	NG 1.25, LPG 2.75
Max. Water Pressure (kPa)	850	850



## After-sales care

Edwards has an extensive support network throughout Australia and overseas. Our experienced technical personnel and authorised dealers will give you quick, friendly and accurate service. Every commercial system is supplied with a manufacturers warranty. See product manual for full details.

**Website** [www.edwards.com.au](http://www.edwards.com.au) **Email** [info@edwards.com.au](mailto:info@edwards.com.au)  
**For sales assistance call 1300 132 949** (Australia only)  
**For service assistance call 1300 132 948** (Australia only)  
**For International sales and service assistance call +61 8 9351 4600**

**Head Office** Edwards is a division of Rheem Australia Pty Ltd,  
 1 Alan Street, Rydalmere NSW 2116  
**ABN 21 098 823 511**

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Care has been taken to insure that technical information provided is as accurate as possible at the time of publication. However, specifications, methods and figures are subject to change without prior notice.



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