

# STOKVIS

## ENERGY SYSTEMS



# ECONOSTOR II

**HIGH EFFICIENCY GAS/OIL FIRED  
STORAGE WATER HEATER**

## ECONOSTOR

The Econostor II is a high efficiency gas or oil fired hot water service generator and at first glance, would appear to be just another direct fired hot water service unit. However, its design was born out of the development of what is known as the dual-tank principle and this technology in simple terms utilises a neutral primary fluid between an outer tank and inner tank indirectly heating the water within the inner tank for secondary hot water usage. The neutral fluid is heated by way of the combustion chamber and flue ways and this fluid can also be utilised for the purposes of providing heating. Therefore, the Econostor II can serve a dual purpose of not only a hot water service generator, but can also provide heating. The unit would ideally suit those commercial properties where the heating load is relatively low in relation to the hot water service load and space is of a premium. However, the unit can be utilised extensively for hot water service generation only.

Full technical details of the Econostor II are given within the technical manual, however, listed below are the main technical features and benefits:

### Dual-Tank Principle

High temperature heat transfer does not take place between primary and secondary fluid, therefore there is little chance of lime deposition.

### Smooth, Stainless Steel, Corrugated Tank Contains The Domestic Hot Water

Inner tank is able to expand and contract within the outer tank. This, combined with smooth surfaces of stainless steel, prevents scale build up.

Good durability, long life and high degree of hygiene.

Corrugations give large surface area and therefore maximum heat transfer, high efficiency and low running costs.

### Pump Circulating Primary Fluid

Giving even heat distribution and therefore rapid heat up to desired temperatures with no overheating, therefore further reducing the chance of scale build up.

### Easily Accessible Flue Ways

Makes servicing very simple.

### 30ml Layer of C. F. C. Free Polyurethane Foam

Equivalent to approximately 75 mm of fibreglass insulation, giving high degree of insulation to the unit, hence reducing standing losses.

### Limit and Overheat Thermostat

Preventing damage of heat exchanger and hence downtime and costly repairs.

### Higher Storage Temperatures Possible

Combating any possible problem of Legionella

### Secondary Water Heated from the Outside, On All Sides

Ensuring no cold spots and hence preventing Legionella.

### Combined Heating and Hot Water Service Facility

Quicker cost effective installation than conventional systems.

### Adjustable Operating Thermostat Between 60° and 90° C

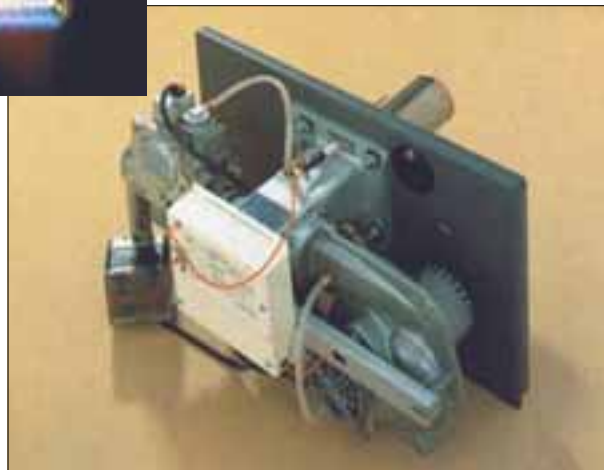
Giving flexibility of stored hot water service temperature and allowing higher outputs than conventional units when controlling higher than 60° C, hence less storage and space are required than conventional units. This in turn brings down the capital cost of the project.

### Pre-Mix Gas and Pressure Jet Oil Burners Available

Giving flexibility for the fuel application and allowing price and performance to be addressed.

### Four Models from 37 Kilowatts to 92 Kilowatts

Allowing all commercial applications to be addressed.



### Premix - Low NO<sub>x</sub> / High Efficiency Burner

**Combustion Efficiency 93%**

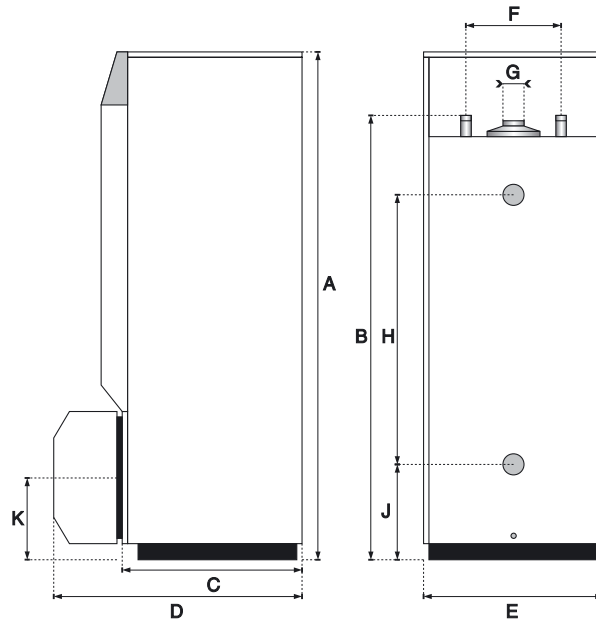
**Water Efficiency 90%**

### NO<sub>x</sub> Levels:

**108 mg/Kwh (61 p.p.m.) @ 0% O<sub>2</sub>**

Tests taken on EST 60 Econostor

# TECHNICAL DATA AND PERFORMANCE



ECONOSTOR II		EST 30 A	EST 45	EST 60	EST 100
<b>PERFORMANCE</b>					
Input kW (oil)		—	63.1	75	109.5
Output kW (oil)		—	53	63	92
Input kW (gas)		39	—	68.8	97
Output kW (gas)		37.5	—	60.5	86
Continuous Output at 60° C	L/h	629	953	1099	1550
Continuous Output at 45° C	L/h	923	1301	1544	2263
Peak Output at 60° C	L/ 60 min	749	1056	1219	1877
Peak Output at 45° C	L/60 min	1048	1386	1656	2554
Peak Output at 60° C	L/10 min	225	262	303	586
Peak Output at 45° C	L/10 min	279	302	369	668
Time to reach 60° C	min	30	16	15	16
Total capacity	Ltr	163.5	127.5	151	352.5
<b>DIMENSIONS</b> mm					
A - Overall Height		1691	1698	1698	2093
B - Height to CWF + HWS flow		1513	1383	1583	2034
C - Depth excluding burner		657	538	538	680
D (gas) - Depth including burner		—	—	880	1000
D (oil) - Depth including burner		—	799	799	941
E - Width		540	542	542	680
F - Distance between CWF + HWS flow		390	390	390	390
H - Distance between primary connections		898	898	1098	1328
J - Height to primary return		281	281	281	281
K - Height to burner centre		—	265	265	306
<b>CONNECTIONS</b>					
Domestic hot water		3/4"	3/4"	3/4"	1"
Primary (Neutral Fluid)		1 1/4"	1 1/2"	1 1/2"	1 1/2"
G - Flue connection	mm	153	150	150	200
Drain		1/2"	1/2"	1/2"	1/2"
Empty weight	Kg	190	172	220	320
Heating surface	m <sup>2</sup>	2.46	1.99	2.46	3.95

## Indirect Dual Tank Options

Many combinations of number and size of Econostor can be used to achieve the desired outputs.

Essentially the Econostor is a direct fired dual tank hot water generator. On some applications it maybe more beneficial, from the overall cost aspect, to provide an Econostor and indirect stainless steel dual tank. This would be linked to the Econostors Neutral Fluid providing additional capacity and heat exchange surfaces.

The Indirect Dual Tanks ( I. D. T's.) are available in a range of sizes from 100 litres to 1000 litres.

Stokvis will advise on the best selection and hydraulic arrangements for various applications, including mains pressure feed kits and hot water priority devices, all of which are explained in detail in the full technical manual.

## STOKVIS Energy Systems maintenance and after sales service

You can be sure that your new Stokvis product is the very best of its type in design, materials and construction. However to obtain the maximum benefits from your quality product, it is essential that it is maintained at maximum efficiency throughout its long working life.

For this reason, STOKVIS Energy Systems provides full UK cover with factory trained engineers to offer you a total service opportunity throughout the year.

This ensures that your equipment can be checked, serviced and, if necessary, adjusted to ensure that maximum energy saving performance. Also, in the unlikely event of a breakdown, repairs can be tackled speedily and cost effectively – wherever you are in the UK. Just phone, fax or e-mail STOKVIS Energy Systems for prompt professional attention to your needs.



### **ENERGY PRODUCTS**

High Efficiency  
and Condensing  
Gas Fired Boilers

•

Hot Water Plate Heat  
Exchanger Packages

•

High Efficiency Sanitary  
Hot Water Packages

•

Dual Fuel Boilers

•

Pressurisation and Booster Sets

•

Steel Panel and Low  
Temperature Radiators

•

Packaged Plant Rooms

•

## The company



Since the early 1980's, STOKVIS Energy Systems has been acknowledged as the vanguard in it's field for both quality of products and customer service.

It is our dedicated objective to continue to excel at providing you our customers and partners with both the products and services you need in these most demanding and dynamic times both now and into the future.

Ivan Thompson  
Managing Director



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