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**Albion**   
**[www.albionwaterheaters.com](http://www.albionwaterheaters.com)**

# **ECO-CYLINDERS**

**INSTALLATION INSTRUCTIONS**

**CLEAR SKIES APPROVED**  
SC 2082 SC 2083

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## **CENTURION ECO AND SUPERDUTY ECO HE CYLINDERS AND COMBINATION UNITS**

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PLEASE LEAVE ATTACHED TO CYLINDER IN POCKET PROVIDED

# INSTALLATION INSTRUCTIONS FOR CENTURION ECO AND SUPERDUTY ECO HE CYLINDERS AND COMBINATIONS

Albion ECO products are designed for use in systems employing ECO heat sources eg. solar, geotherm and heat pumps with additional heat provided by fossil fuel i.e. gas, oil, electric input. The installation must be carried out by a competent installer. In addition to the information provided within this document all legal requirements and best practices must be adhered to. Position the unit on a firm base which allows air flow under the concave bottom of the product. Ensure the structure is capable of supporting the gross weight of the product - see product label.

## CYLINDERS ONLY

ECO cylinders are open vented storage vessels designed for use in static open vented systems. The maximum working head is indicated on the product label. Ensure this cylinder is suitable for your installation before proceeding. Connect 'C' cold feed to the cold feed cistern via an isolation valve and fit a drain cock at the lowest point of this pipe adjacent to the cylinder. Connect 'A' hot water draw off and open vent connection to hot outlets and provide an open vent to the cold feed cistern. The minimum size for an open vent is 22mm. The vent must rise continually and be permanently open with no obstructions. Try to avoid a wholly vertical vent pipe.

## COMBINATION UNIT ONLY

ECO Combination units are open vented vessels with an integral cold feed cistern. The cold feed and open vent pipes are also integral. Cold entry to the unit is via a ball valve and a float (not provided) and an overflow warning pipe must be installed. Connection 'L' 1/2" female BSP is a drain point. The hot water draw off 'A' connects directly to the hot water outlets.

## BOTH CYLINDERS AND COMBINATION UNITS

### ECO Element

Connections 'D' and 'E' are the ECO element providing heat input into the base of the unit. Connections are 22mm compression. ECO elements must be fully pumped and are suitable for open and sealed systems up to a maximum pressure of 7.0 bar pressure. If the pipework does not rise from the ECO element, ensure adequate air release is provided. Connect flow to connection 'E'. Thermostatic control of the ECO system is via a probe thermostat (not supplied) and 1/2" BSP probe pocket is incorporated within the ECO control system. Connection 'F' provides for this facility. Ensure the setting of the thermostat will not allow the water temperature to exceed 65°C.

## FOSSIL COIL

Please note that the Centurion ECO cylinder has a 28mm diameter spirally wound coil suitable for both gravity and pumped systems, whereas Superduty ECO HE cylinders are fitted with the Superduty Multicoil which is suitable for fully pumped systems only. Both types of coil are suitable for open vented or sealed systems up to a maximum pressure of 3.5 bar. Flow share and priority heat plans are acceptable. The primary connections are 1" male BSP fitted with Albitec adaptors allowing easy connection to 22mm or 28mm pipework. Where primary pipework does not continually rise, provide an air release point to connection 'J'. Either 'H' or 'J' may be used as flow or return. Provide thermostatic control of hot water via a strap-on thermostat (not supplied) positioned halfway between 'H' and 'J'. Set thermostat to ensure water does not exceed 65°C.

## TEMPERATURE INDICATOR 'G'

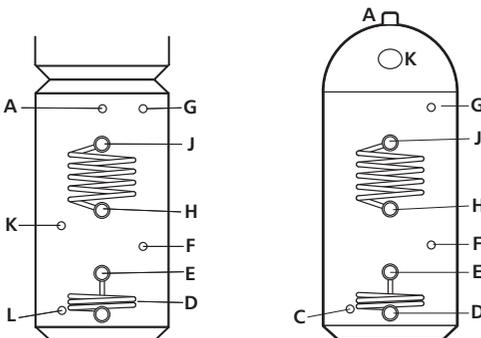
A 1/2" BSP Connection 'G' provides for an indication of the stored hot water temperature in the upper part of the cylinder. Clear Skies approvals indicate the type of thermometer to be used.

## IMMERSION HEATER 'K'

A 2 1/4" BSP connection is provided for the installation of an immersion heater. This facility is designed as a back-up heat source should there be a boiler failure.

## OPERATION

The operation of the Albion ECO unit is simple. Cold water in the cylinder is pre-heated by the ECO source. The heat rises to the upper area. Should the water in the upper 70% of the unit not achieve the desired temperature, this shortfall will be provided by the fossil fuel coil or immersion heater as programmed. As hot water is used, pre-heated ECO water from the lower 30% of the cylinder rises and new cold water enters the unit ready for ECO pre-heating. As further hot water is used, the cycle continually repeats itself.



- A** Hot Draw-off.
- C** Cold Feed.
- D** ECO Element (Return).
- E** ECO Element (Flow).
- F** Thermostat Point.
- G** Temperature Point.
- H** Fossil Coil.
- J** Fossil Coil.
- K** Immersion Heater.
- L** Drain Point.

KEY

**CENTURION IS AN ALBION BRAND NAME**

**ECO** = Ecologically Friendly

**HE** = High Efficiency

Please visit our website and view Fact File 021 for our full range of sizes and options.

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This unit is supplied by  
**Albion Water Heaters Ltd**  
Shelah Road, Halesowen, West Midlands, B63 3PG, United Kingdom

Tel: 0121 585 5151 Fax: 0121 501 3826  
E mail: [sales@albion-online.co.uk](mailto:sales@albion-online.co.uk)  
[www.albionwaterheaters.com](http://www.albionwaterheaters.com)