

# Market review

## Forced air warming devices

CEP09035

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CEP market reviews provide comparative product specifications for healthcare products available to the UK market within a defined category. They supplement CEP buyers' guides, which offer more general advice on the technical, operational, and economic considerations to be taken into account when selecting an appropriate product. Readers are encouraged to check CEP's web site for updates.

This market review should be read in conjunction with CEP's related buyers' guide [1] and evaluation report [2].

## Background

A forced air warming device is an electrical medical device used to keep patients warm during anaesthesia and surgery.

Inadvertent perioperative hypothermia is a common and preventable complication of surgery [3] Inadvertent perioperative hypothermia is defined as a drop in core body temperature below 36°C [3]. It occurs for a number of reasons, including:

- the action of anaesthetic drugs, which override the body's normal response to cold, inhibiting shivering and causing dilation of blood vessels and further heat loss
- patients getting cold on the ward when waiting to go to theatre
- the use of non-warmed intra-venous (IV) and irrigation fluids
- exposure of the body interior during surgery.

Inadvertent perioperative hypothermia leads to poor outcomes for patients, including increased rates of wound infections and pressure sores, greater need for blood transfusion, greater need for analgesia and longer hospital stay [3].

The National Institute for Health and Clinical Excellence (NICE) recommends forced air warming as the principal active warming method during anaesthesia and surgery [3].

NICE noted that there is emerging evidence that other active methods of warming (specifically electric heating mattresses, electric heating pads and heated water garments) may be as effective as forced air warming in preventing hypothermia but that this evidence is insufficient to support a NICE recommendation for their use [3].

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## How forced air warming devices work

A forced air warming device comprises a controller plus a compatible disposable forced air warming blanket. The controller is reusable with a life expectancy of typically seven years. The controller contains the following components:

- electric motor and fan
- electric heating element
- thermostat
- air filter
- hose.

All forced air warming blankets are intended for single-patient use and are disposable.

To operate a forced air warming device the user connects the hose nozzle to the compatible, disposable blanket. In operation the fan draws in air through the filter and the heating element heats the air to a selected temperature, controlled by the thermostat. Heated air travels through the hose to the blanket, which inflates. The patient contact surface of the blanket permits warm air to escape and move over the patient's skin, transferring heat to the patient by convection.

## Scope

This market review covers eight forced air warming devices that:

- are designed to prevent and treat perioperative hypothermia
- transfer heat by convection
- are suitable for use in the operating theatre
- are used in the UK at the time of publication.

This market review does not cover other methods of active warming such as electric blankets or mattresses including carbon polymer blankets or mattresses, heated fluid filled mattresses or garments, radiant warmers and intravenous fluid warmers.

This market review does not cover forced air warming devices which are restricted to comfort warming outside of the operating theatre. Forced air warming controllers have a product life of typically seven years. Therefore in many hospitals in the UK older models of controller remain in use alongside the newer models. For this reason we have included details of two older models of forced air warming controller, the BairHugger model 505 and the Mistral Air.

## **Information sources**

The sources of information for this market review are the manufacturers' operator and technical manuals [4-17] and also correspondence [18] with manufacturers, clinical peers and regulatory or advisory bodies (see *Acknowledgements*).

## **Presentation of features**

Information on device features is presented in tables 1-4 and further information is presented in the *Discussion* section.

## **New to market**





One manufacturer, Arizant, is expected to supply a new controller, the BairHugger model 775 which has two motor speeds: 'High' and 'Low'. Existing controllers currently have only one motor speed.

## How to use the market review tables





**Table 1. Key to terms used in table 2 (controller features)**

<b>Term</b>	<b>Description</b>
<b>Temperature settings (°C)</b>	Pre-set temperatures that the user may select (degrees Celsius)
<b>Air temperature at nozzle (°C)</b>	Specified air temperature at the hose nozzle during operation (degrees Celsius)
<b>Location of temperature sensor</b>	The point at which the controller measures the output air temperature
<b>Airflow (l/s)</b>	Volumetric flow rate of air (litres per second)
<b>Hour meter / service indicator</b>	An indicator to alert the user that the controller requires routine servicing
<b>Number of thermostats</b>	No of thermostats within the controller
<b>Over temperature alarm</b>	Safety feature to alert the user visually and / or, audibly
<b>Over temperature shutdown</b>	Controller shutdown in the event of an over temperature
<b>Under temperature alarm</b>	Safety feature to alert the user visually and / or, audibly
<b>Under temperature shutdown</b>	Controller shutdown in the event of an under temperature
<b>Hose storage</b>	Means of hose storage when the device is not in use
<b>Power consumption (W)</b>	Peak and average power consumption of controller (Watts)
<b>Heating element (W)</b>	Power of heating element (Watts)
<b>Associated products</b>	Products marketed by the manufacturer which may be purchased and used with the forced air warming device
<b>Controller placement</b>	H – hard surface P – intravenous fluid pole C – accessory cart B – bedrail T – table S – accessory stand
<b>Filter change frequency (months, or hours)</b>	Frequency of required filter changes, in months or hours
<b>Filtration level (µm)</b>	Measurement of particle size captured by the filter (micrometres), and efficiency, where provided
<b>Hose length (m)</b>	Hose length supplied with controller
<b>Room air temperature operating range (°C)</b>	Controller's specified room air temperature operating range (degrees Celsius)
<b>Power cord length (m)</b>	Length of the power cord (metres)
<b>Dimensions (cm)</b>	Height x Width x Depth (centimetres)
<b>Weight (kg)</b>	Weight of controller (kilograms)
<b>Warranty (years)</b>	The length of the manufacturer's warranty (years)
<b>Motor speed (rpm)</b>	Motor speed of controller (revolutions per minute)
<b>Life span (years)</b>	The expected time in years that the controller will function
<b>Lease price (£)</b>	Manufacturer's lease price in GBP excluding VAT, August 2009
<b>List price (£)</b>	Manufacturer's list price in GBP excluding VAT, August 2009





**Table 2. Controller features**

<b>Manufacturer</b>	Arizant Bair Hugger 505	Arizant Bair Hugger 750	TSCI Mistral Air	TSCI Mistral Air Plus
<b>Image</b>				
<b>Temperature settings (°C)</b>	Ambient Low 32 Medium 38 High 43	Ambient Low 32 Medium 38 High 43	Ambient Low 32 Medium 38 High 43	Ambient Low 32 Medium 38 High 43
<b>Air temperature at nozzle (°C)</b>	High 43°C ± 3 Med 38°C ± 3 Low 32°C ± 3	High 43°C ± 1.5 Med 38°C ± 1.5 Low 32°C ± 1.5	High 43 ± 2 Med 38 ± 2 Low 32 ± 2	High 43 ± 2 Med 38 ± 2 Low 32 ± 2
<b>Location of temperature sensor</b>	Inside controller	End of hose	Inside controller	Inside controller at hose connection
<b>Airflow (l/s)</b>	14	17.5	19 - 21	23 – 27
<b>Hour meter / service indicator</b>	Yes, visible via LCD on top of unit	Yes, visible via menu selection	Yes, alert at 500 hours' operation	Yes, alert at 500 hours' operation
<b>Number of thermostats</b>	1	2	2	2
<b>Over temperature alarm</b>	Audio and visual	Audio and visual	Audio and visual	Audio and visual
<b>Over temperature shutdown</b>	Yes	Yes	Yes	Yes
<b>Under temperature alarm</b>	None	None	Audio and visual	Visual
<b>Under temperature shutdown</b>	No	No	No	No
<b>Hose storage</b>	Hook onto controller and adjustable hose cord	Adjustable hose cord	Detachable hose clip	Detachable hose clip
<b>Power consumption (W)</b>	Peak 1000, average 450	Peak 1550, average 800	1560	Peak 1000, average 700
<b>Heating element (W)</b>	850	1400	1560	Not stated





**Table 2. Controller features (continued)**

<b>Manufacturer</b>	Arizant Bair Hugger 505	Arizant Bair Hugger 750	TSCI Mistral Air	TSCI Mistral Air Plus
<b>Image</b>				
<b>Associated products</b>	IV fluid warmer	IV fluid warmer	None	None
<b>Controller placement</b>	H, P, C, B, T	H, P, C, T	H, P, C, B	T, P, C
<b>Filter change frequency (months)</b>	12 months / 500 hours	12 months / 500 hours	500 hours	12 months / 500 hours
<b>Filtration level (µm)</b>	0.2µm, high efficiency	0.2µm, high efficiency	0.3µm, high efficiency	0.3µm, 99.99% efficient
<b>Hose length (m)</b>	2	2	1.8	1.8
<b>Room air temperature operating range (°C)</b>	Not stated	15-25	10-40	10-40
<b>Power cord length (m)</b>	4.6	4.6	4.0	4.0
<b>Dimensions (cm)</b>	33 x 28 x 25	30 x 25 x 34	28 x 22 x 25	25.5 x 33.5 x 38.0
<b>Weight (kg)</b>	6.2	7.0	5.8	5.8
<b>Warranty (years)</b>	Not stated	Not stated	1	3
<b>Motor speed (rpm)</b>	3150	4000	Not stated	Not stated
<b>Life span (years)</b>	Not stated	Not stated	Unknown	7
<b>Lease price (£)</b>	Determined by blanket purchase contract	Determined by blanket purchase contract	Determined by blanket purchase contract	Determined by blanket purchase contract
<b>List price (£)</b>	1,950	2,500	Not stated	100

**Table 2. Controller features** (continued)

<b>Manufacturer</b>	CSZ Warm Air 135	Covidien WarmTouch 5900	Smiths Medical Equator EQ-5000	Gaymar Industries Thermacare TC3003
<b>Image</b>				
<b>Temperature settings (°C)</b>	Ambient Low 32.2 Medium 37.8 High 43.3	Low 32 Medium 38 High 43 Boost 45 (max 45 minutes)	Ambient Low 36 Medium 40 High 44	Ambient Low 32 Medium 38 High 43 Very High 46
<b>Air temperature at nozzle (°C)</b>	High 43.3 +4 / -2 Med 37.8 +4 / -2 Low 32.2 +4 / -2	High 43 Med 38 Low 32 (No ranges stated)	High 44 ± 1 Med 40 ± 1 Low 36 ± 1	Very High 46 High 43 Med 38 Low 32 (No ranges stated)
<b>Location of temperature sensor</b>	Inside controller	Inside controller	End of hose	Inside controller
<b>Airflow (l/s)</b>	14	25	20	Not stated
<b>Hour meter / service indicator</b>	Yes, alert at 500 hours' operation	Yes	Yes	No
<b>Number of thermostats</b>	2	2	1	2
<b>Over temperature alarm</b>	Audio and visual	Audio and visual	Audio and visual	Visual
<b>Over temperature shutdown</b>	Yes	Yes	Yes	Yes
<b>Under temperature alarm</b>	Audio and visual	None	Visual	None
<b>Under temperature shutdown</b>	Yes	No	No	No
<b>Hose storage</b>	Integral holder	Integral holder	Integral holder	Slide under bedrail hooks at back of unit
<b>Power consumption (W)</b>	1680	2400	960	1680
<b>Heating element (W)</b>	Not stated	Not stated	Not stated	1200

**Table 2. Controller features (continued)**

<b>Manufacturer</b>	CSZ Warm Air 135	Covidien WarmTouch 5900	Smiths Medical Equator EQ-5000	Gaymar Industries Thermacare TC3003
<b>Image</b>				
<b>Associated products</b>	None	Cart	Cart	Accessory stand
<b>Controller placement</b>	H, P, B	H, P, C, B	H, P, C	S, P, B
<b>Filter change frequency (months)</b>	500 hours	2000 hours	12 months or as required	12 months / 1000 hours
<b>Filtration level (µm)</b>	0.2µm, high efficiency	0.3µm, 99.97% efficient	0.2µm	0.2µm
<b>Hose length (m)</b>	1.8	1.5	2.14	1.22
<b>Room air temperature operating range (°C)</b>	16-27	18-28	10-40	16-29
<b>Power cord length (m)</b>	4.6	4.26	3.66	Not stated
<b>Dimensions (cm)</b>	34.3 x 22.2 x 22.2	38 x 41 x 28	30 x 24 x 19	42 x 28 x 27
<b>Weight (kg)</b>	6.1	6.8	6.8	6.8
<b>Warranty (years)</b>	1	Not stated	1	2
<b>Motor speed (rpm)</b>	Not stated	Not stated	Not stated	Not stated
<b>Life span (years)</b>	7	5 – 7	10+	Unknown
<b>Lease price (£)</b>	15 per month including servicing	Determined by blanket purchase contract	Determined by blanket purchase contract	Determined by blanket purchase contract
<b>List price (£)</b>	600	2,625	1,992	2,500









**Table 3. Key to terms used in table 4 (blanket features)**

<b>Term</b>	<b>Description</b>
<b>Range of blankets</b>	Number of blanket types available on the UK market
<b>Blanket compatibility with other controllers</b>	Controllers from other manufacturers that are compatible for use with these blankets
<b>Blanket material</b>	Material blanket is manufactured from
<b>Blanket air escape</b>	Punctured : material has visible perforations approximately 1mm in diameter Permeable : material is permeable to air due to microscopic holes achieved through blanket manufacture
<b>Sterile blankets available</b>	Availability of sterile blankets






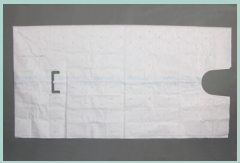
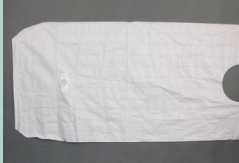

Table 4 shows the features of the forced air warming blankets provided by six manufacturers.

Blanket list prices are shown in appendix 2.

**Table 4. Blanket features**

		<b>Manufacturer</b>			
		Arizant Bair Hugger 505	Arizant Bair Hugger 750	Cardiac Services Mistral Air	Cardiac Services Mistral Air Plus
<b>Blanket Features</b>	<b>Controller image</b>				
	<b>Full body blanket image</b>				
	<b>Range of blankets</b>	24	24	17	17
	<b>Blanket compatibility with other controllers</b>	No	No	Arizant BairHugger 505 and 750 CSZ 130, Tyco Mallinckrodt 5000	Arizant BairHugger 505 and 750 CSZ 130, Tyco Mallinckrodt 5000
	<b>Acceptable to cover blankets with theatre drapes</b>	Yes	Yes	Acceptable but not necessary	Acceptable but not necessary
	<b>Blanket material</b>	Spunbonded Polypropylene	Spunbonded Polypropylene	Non-woven polypropylene / polyethylene	Non-woven polypropylene / polyethylene
	<b>Blanket air escape</b>	Punctured	Punctured	Permeable	Permeable
	<b>Sterile blankets available</b>	Yes	Yes	Yes	Yes

**Table 4. Blanket features (continued)**

		<b>Manufacturer</b>			
		CSZ – Central Medical Supplies Warm Air 135	Covidien WarmTouch 5900	Smiths Medical Equator EQ-5000	Gaymar Industries Thermacare TC3003
<b>Blanket Features</b>	<b>Controller image</b>				
	<b>Full body blanket image</b>				
	<b>Range of blankets</b>	8	6	11	5
	<b>Blanket compatibility with other controllers</b>	Arizant BairHugger 200, 250, 500. Mallinckrodt models 5000, 5100	Not stated	Arizant BairHugger 505 and 750	Not stated
	<b>Acceptable to cover blankets with theatre drapes</b>	Acceptable but not necessary	Yes	Yes	Yes
	<b>Blanket material</b>	Non-woven polypropylene / polyethylene	Polyethylene Latex free	Non-woven polypropylene / polyethylene	Non-woven layer bonded to a plastic film
	<b>Blanket air escape</b>	Permeable	Punctured	Punctured	Punctured
	<b>Sterile blankets available</b>	Yes	Yes	Yes	No

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## Discussion

### Air temperature

The user-selectable, pre-set temperatures are similar across all devices, with typical settings being ambient (room air temperature), 32°C, 38°C and 43°C or 44°C. Use of the ambient setting (where present) will have a cooling effect on the patient. Two devices have higher temperature settings that warrant additional safety measures. The Warm Touch 5900 has a “boost” setting of 45°C which operates for 45 minutes when selected by the user; the controller then reverts automatically to the 43°C setting, although the user may re-select the “boost” setting at their own discretion [9,10]. The Thermacare TC3003 has a maximum setting of 46°C and the product manuals state specific contraindications for this setting as follows [11,12]:

- do not use the 46°C setting with four models of blanket: TC2050, TC2052, TC2054, TC2060
- do not use the 46°C setting in the operating theatre or when treating patients with low cardiac output, circulatory problems or patients that are unconscious or immobilised.

The temperature of the heated air delivered by the controller is controlled by a temperature sensor located in the controller. Heated air cools as it travels along the hose. Most manufacturers state a temperature range for the air exiting the controller at a particular temperature setting eg 43°C ± 2°C [15,16]. For the majority of controllers the temperature sensor is located inside the controller “box”, ie before the hose. In two cases, The BairHugger 750 [5,6] and the Equator EQ-5000 [13,14], the temperature sensor is located at the hose end, ie very close to the blanket. In these two cases the manufacturers state narrower ranges for the temperature of the air exiting the controller compared to other models, at [setting] ± 1.5°C [5,6] and [setting] ± 1°C [13,14], respectively. In addition the Bair Hugger model 750 and the Equator EQ-5000 have a digital display of the air temperature measured at the hose end. For two controllers, the Warm Touch 5900 [9,10] and the Thermacare TC3003 [11,12], no temperature range is stated for the air exiting the controller.

### Airflow

Table 2 presents airflow in l/s. Airflow, together with air temperature, determines the rate of convective heating. In theory, higher temperature air at a higher rate of flow has a higher rate of heat transfer by convection. The airflow of the controllers, where specified, ranges from 14 l/s to 27 l/s.

### Transfer of heat

It is important to note that the heat delivered to the patient depends on numerous factors, including air temperature, airflow and blanket design.

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## **Thermal safety**

All controllers have alarms or indicators to alert the user if an excessively high temperature occurs. In the event of an over-temperature alarm, every controller shuts down automatically. Four controllers have alarms for under temperature conditions. The Warm Air 135 device is the only device to have an under temperature audio-visual alarm and automatic under temperature shut down. The Thermacare TC3003 controller does not have an audible over-temperature alarm.

## **Hour meter**

Most controllers have an hour meter or a visual alarm to indicate when a service is due. One device does not have this feature (Thermacare TC3003), which means that users should arrange routine servicing at the stated frequency.

## **Hose**

Hose length is an ergonomic factor to enable positioning of the forced air warming device relative to other theatre equipment.

All controllers have a means of storing the hose when not in use. Storing the hose correctly is good practice, to minimise the risk of hose contamination. On two devices the hose storage hooks may not be used while the controller remains mounted on an IV pole; these are the Warm Air 135 device and the Thermacare TC3003. The Equator EQ-5000 device has a simple hose storage design that occludes the hose nozzle when it is stored.

For neonatal use, the Equator EQ-5000 device has a narrower diameter hose that is compatible with neonatal blankets.

## **Room air temperature**

Table 2 shows the room air temperature operating range for each controller. Operating theatres are generally air-conditioned for the comfort of theatre staff; this will also keep room air temperature well within the stated operating ranges.

## **Associated products**

The two BairHugger devices are compatible with an intravenous (IV) fluid warming device, sold separately. There is a mature market in IV fluid warming, the majority of which are designed to be used independently of forced air warming devices.

## **Service options**

All controllers require routine servicing, and all manufacturers provide technical support including servicing for a fee, and service manuals for technically qualified hospital staff to use.

## Other features

Controllers do not vary significantly in size, weight, or ease of operation.

## Cleaning

All controllers should be cleaned between surgical cases with a clean, damp cloth and a mild detergent or hospital disinfectant. The hose exterior surface is generally corrugated to provide flexibility and strength and clinical users report difficulty in cleaning contaminants from the corrugations [18]. The Thermacare TC3003 has a flexible, plastic outer hose covering or sheath, which may be easier to clean than the corrugated surface.

## Blankets

Table 4 shows the features of each manufacturer's blankets underneath an image of the adult full body blanket, for illustration.

A consideration for the purchaser is the range of blankets that are available for each forced air warming device. This range varies from five blanket designs to twenty-four.

A larger range of blankets suggests that the manufacturer supplies highly specialised blankets for specific situations. Purchasers should consider how many blanket types are required for the surgical situations they encounter. Some blankets may be best suited to relatively few procedures whereas others may be used widely across a range of procedures. It may be necessary to strike a balance between providing blanket options for all surgical situations while at the same time managing the complexity of stock control. Forced air warming blankets are bulky to store in large volumes.

All blankets permit warm air to exit through the patient contact surface. This is achieved either through puncture holes that are typically one mm in diameter, or by permeable blanket material. The puncture holes tend to produce jets of air under the blanket and the permeable material produces a more general movement of air. There is no evidence that either type of design is superior.

All blankets may be covered with surgical drapes, to assist the theatre staff in preserving a sterile field around the operating site. Covering blankets with drapes is not required for the blankets to function.

A minority of blanket models from some suppliers are available as sterile products for specific situations, eg marketed as "cardiac blankets". Sterile blankets generally cost more than non-sterile blankets.

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We should like to thank the following for their contribution to this buyers' guide.

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George Meakin, Senior Lecturer in Paediatric Anaesthesia, Association of Paediatric Anaesthetists of Great Britain and Ireland

Sherran Milton, Education Officer, Association for Perioperative Practice

Peter Robinson, Buyer, NHS Supply Chain

Ian Patterson-Waterston, Senior Medical Device Specialist, Medicines and Healthcare products Regulatory Agency

Jennie Wilson, Senior Nurse/Programme Leader - SSI surveillance, Health Protection Agency

Arizant UK Limited

Cardiac Services

Central Medical Supplies Limited

Cincinnati Sub-Zero Medical

Covidien

Gaymar Industries

Pajunk UK Medical Products Limited

Smiths Medical

The Surgical Company International BV

Vital Signs Limited

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- [18] CEDAR, Cardiff and Vale University Health Board. CEP buyers' guide on forced air warming devices - responses to a questionnaire issued to clinical peers, regulatory organisations and device manufacturers (unpublished). 2008. Cardiff.

Supplier	Address	Contact details
Arizant UK Limited	Calder Island Way Wakefield West Yorkshire WF2 7AW	Tel 01924 200550 <a href="http://www.arizant.co.uk">www.arizant.co.uk</a>
Cardiac Services  (The Surgical Company International)	The Acumen Centre First Avenue Poynton Manchester SK12 1FJ	Tel 01625 878999 <a href="http://www.cardiac-services.com">www.cardiac-services.com</a>
Central Medical Supplies Ltd  (Cincinnati Sub Zero)	CMS House Basford Lane Leek Staffs ST13 7DT	Tel 01538 399541 <a href="http://www.centralmedical.co.uk">www.centralmedical.co.uk</a>
Covidien UK Commercial Ltd	154 Fareham Road Gosport Hampshire PO13 0AS	Tel 01329 224000 <a href="http://www.covidien.com">www.covidien.com</a>
Smiths Medical International	Colonial Way Watford Herts WD24 4LG	Tel 01923 246434 <a href="http://www.smiths-medical.com/uk">www.smiths-medical.com/uk</a>
Pajunk Medical Products UK Ltd  (Gaymar Industries)	Rotterdam House 116 Quayside Newcastle upon Tyne NE1 3DY	Tel 01661 871203 <a href="http://www.pajunk.com">www.pajunk.com</a>

Note: UK-based supplier details shown (manufacturer shown in brackets where applicable)

**Table 5. Blanket list prices for Arizant for use with Bair Hugger 505 and Bair Hugger 750**

<b>Blanket Code</b>	<b>Description</b>	<b>List Price (£) ex VAT</b>
110	Outpatient Blanket with booties	
111	Outpatient Blanket	
300	Full Body Blanket	
305	Chest Access Blanket	
310	Paediatric Full Body Blanket for recovery	
315	Multi-Access Blanket	
522	Upper Body Blanket	
523	Upper Body Blanket XL	
525	Lower Body Blanket	
530	Paediatric Blanket Long	
537	Small Lower Body Blanket	
540	Torso Blanket	
542	Dual Port Torso Blanket	
545	Adult Underbody Blanket	
550	Large Paediatric Underbody Blanket	
555	Paediatric Underbody Blanket	
560	Cath Lab Blanket	
570	Surgical Access Blanket	
575	Spinal Underbody Blanket	
585	Lithotomy Underbody Blanket	
610	Full Body Surgical Blanket	
630	Sterile Cardiac Lower Body Blanket	
635	Full Access Underbody Blanket	
645	Sterile Cardiac Access Blanket	

Contact Arizant UK  
for list prices

**Table 6. Blanket list prices for Cardiac Services for use with Mistral Air and Mistral Air Plus**

<b>Blanket Code</b>	<b>Description</b>	<b>List Price (£) ex VAT</b>
MA0220	Adult Blanket (white)	£6.13
MA0230	Paediatric Blanket (white)	£6.13
MA0250	Lower Body Blanket (white)	£6.13
MA0260	Upper Body Blanket (white)	£6.13
MA0265	Half Upper Body Blanket (white)	£6.13
MA0270	Torso Blanket (white)	£6.13
MA0280	Sterile Full Surgical Access Blanket (white)	£26.09
MA0290	Non-sterile Full Surgical Access Blanket (white)	£15.88
MA0340	Neonatal Blanket (white)	£8.05
MA0400	Full Underbody (white)	£14.46
MA0450	Underbody (white)	£10.21
MA0320	Adult Blankets (silver)	£7.20
MA0330	Paediatric Blanket (silver)	£7.20
MA0340	Neonatal Blanket (silver)	£8.05
MA0350	Lower Body Blanket (silver)	£7.20
MA0360	Upper Body Blanket (silver)	£7.20
MA0365	Half Upper Body Blanket (silver)	£7.20
MA0510	Tube	£6.20

**Table 7. Blanket list prices for Central Medical Supplies for use with Warm Air 135**

<b>Blanket Code</b>	<b>Description</b>	<b>List Price (£) ex VAT</b>
CSZ145	Warming Tube	£6.50
CSZ243	Adult Full Body	£5.50
CSZ244	Paediatric Full Body	£5.50
CSZ246	Neonatal	£19.00
CSZ344	Torso	£5.50
CSZ442	Lower Body	£5.50
CSZ443	Upper Body	£5.50
CSZ542	Sterile Cardiac	£24.50

**Table 8. Blanket list prices for Covidien for use with WarmTouch 5900**

<b>Blanket Code</b>	<b>Description</b>	<b>List Price (£) ex VAT</b>
503-0810	Adult CareQuilt	£13.26
503-0840	Paediatric CareQuilt	£13.26
503-0850	CareDrape Paediatric	£13.26
503-0860	Cardiac Blanket	£23.10
503-0870	CareDrape Upper Body	£13.26
503-0880	CareDrape Lower Body	£13.26

**Table 9. Blanket list prices for Smiths Medical for use with Equator EQ-5000**

<b>Blanket Code</b>	<b>Description</b>	<b>List Price (£) ex VAT</b>
SW-2001	Adult Full Body Convective Warming Blanket	£20.20
SW-2002	Paediatric Full Body Convective Warming Blanket	£20.20
SW-2003	Upper Body Convective Warming Blanket	£20.20
SW-2004	Lower Body Convective Warming Blanket	£20.20
SW-2005	Neonate to Small Child Convective Warming Blanket	£20.20
SW-2006	Preemie to Neonate Convective Warming Blanket	£20.20
SW-2007	Tube Convective Warming Blanket B-5	£20.20
SW-2008	Sterile Cardiac Convective Warming Blanket £336.60	£33.66
SW-2009	Paediatric Underbody Convective Warming Blanket	£20.20
SW-2010	Small Upper Body Convective Warming Blanket	£20.20
SW-2011	Large Paediatric Underbody Convective Warming Blanket	£20.20
SW-2013	Adult Underbody Blanket	£20.20
SW-2014L	Lateral Access Blankets	£28.00
SW-2014R	Lateral Access Blankets	£28.00
SW-2015	Upper Underbody Blanket	£20.20
SW-2016	Full Body Split Access Blanket	£28.00
SW-2018	Multi-Access Blanket	£28.00
SW-2019	Poncho Blanket	£28.00

**Table 10. Blanket list prices for Pajunk Medical Products UK for use with Thermacare TC3003**

<b>Blanket Code</b>	<b>Description</b>	<b>List Price (£) ex VAT</b>
TC1050	Full Body Quilt	£15
TC2050	Lower Body Quilt	£15
TC2052	Upper Body Quilt	£15
TC2054	Torso Quilt	£15
TC2060	Paediatric U-Shaped Quilt	£20

## **Buyers' guide: Forced air warming devices**

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## **About CEP**

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