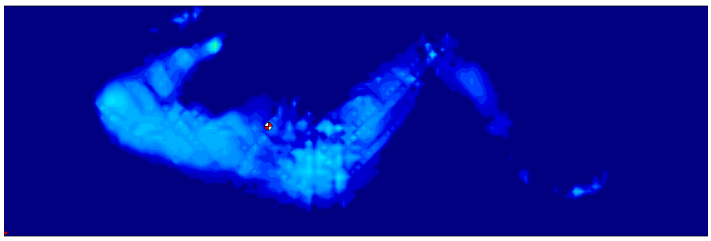
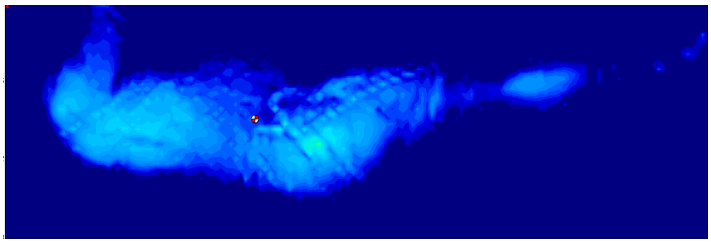
Hospital Mattress Range

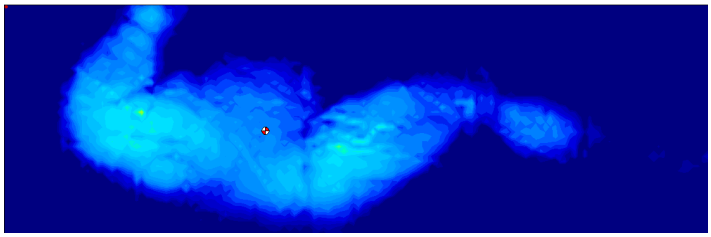
Pressure test results



70 KILO MALE

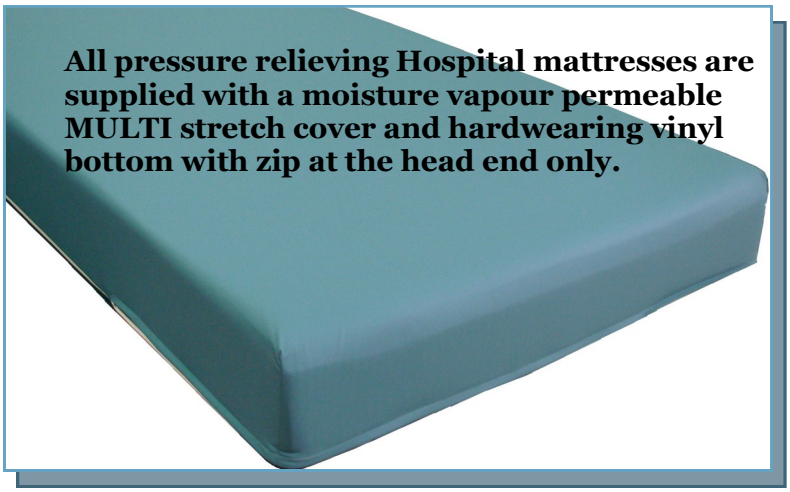


97 KILO MALE

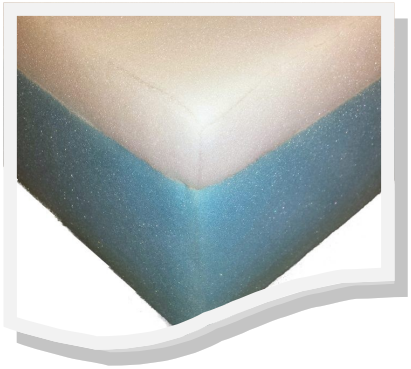


125 KILO MALE

We are pleased to provide you with the independently tested results for our 3 main products for pressure management mattresses.



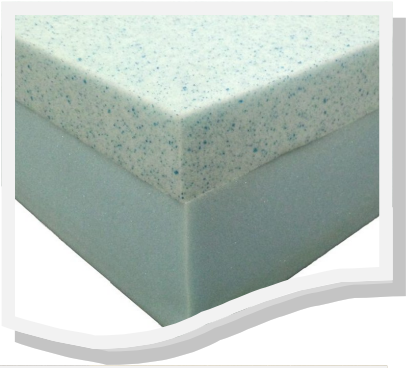
Our Range



THE PRESSURE DOWN MATTRESS

This mattress is a significant aid in the prevention of **PRESSURE, FRICTION AND SHEAR**. All of which are contributing factors to the development of pressure ulcers.

The pressure down mattress is designed to achieve lower interface pressure readings and allow patients immersion into the support surface, distributing pressure according to body heat and dynamics.

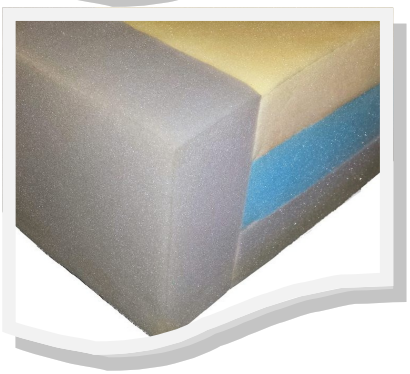


THE COOL FOAM MATTRESS

Cool foam is a unique cooling gel embedded in pressure relieving foam during the manufacturing process. Heat dissipation properties of the gel provide superior regulation of the body temperature.

All the benefits of a pressure relieving hospital mattress with a distinct advantage of having a cooling effect.

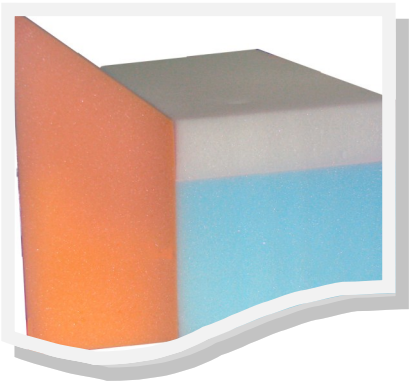
Providing active support, balanced temperature and Instant comfort !!



THE PREMIUM CARE MATTRESS

Triple laminated mattress with firm sides. The mattress offers a superior Graduation of comfort starting with pressure relieving foam followed by medium upholstery grade foam and completed with a firm upholstery grade foam for a supportive base.

The mattress is supplied with firm side walls with hinge cuts in the torso section to ease the bed lifting operation.



THE SAFETY SIDE MATTRESS

An effective device to combat the roll out of bed effect these safety sides can be added to any of our pressure management mattress as above

Alternatively Firm sides and ends may be added for use in high bed rail environments to prevent entrapment or assist in the transfer of patients from bed to wheelchair.

ALSO AVAILABLE

Bariatric, Fallout mattress and Surrounds for Alternating air pressure matts in all sizes including special one off sizes!!

SUMMARY:

Healthcare mattress models with Polyurethane foam & cover were supplied by DF-SA & RB Day to the Dunlop Foams Technical Laboratory, for Pressure Mapping assessment using the X-sensor device.
Pressure mapping is a valuable tool in the evaluation of the support and comfort level of a subject on a particular surface. It may be used as part of assessing the suitability of mattress designs, for their intended purpose.

SAMPLE DESCRIPTION

Sample I.D.	Foam Grades	Cover
1 - Cool Foam combo	COOL FOAM / PRESSURE RELIEVING TOP AND STAMINA BASE 150MM DEPTH	Blue Flexible PU upper + Grey vinyl lower with zip
2 - Pressure Down combo	PRESSURE RELIEVING TOP AND STAMINA BASE 150MM DEPTH	Blue Flexible PU upper + Grey vinyl lower with zip
3 - Premium Care Combo	VISCO ELASTIC TOP MEDIUM CENTRE AND STAMINA BASE 150MM DEPTH	Blue Flexible PU upper + Grey vinyl lower with zip

EXPERIMENTAL

- Pressure Mapping

Using the X-sensor pressure sensor matt, the interface pressure between the body of each subject and mattress was measured, with the subject supine (back lying) and then lateral (side lying). Once the subject settled down, 300 frames were recorded over a 5 minute period in each lying position and the recorded data was analysed using the statistical function of the X3 software.

Subject Key	Gender	Weight (kg)	Height (cm)
70-M	Male	70	166
97-M	Male	97	170
125-M	Male	125	172

Equipment : Xsensor Pressure mapping system—Model X3

Location : Dunlop Foam Technical laboratory, South Dandenong, Vic

Tested On : 8th August 2013 Tested By : D. Morris & C. Guillot

RESULTS:

Table 1 - Pressure Mapping Results using the X-Sensor System

Mattress Design and Subject	Subject Lying Position	Average (Overall) pressure mmHg	Back / Shoulder* Peak Pressure (mmHg)	Buttock / Hip* Peak Pressure (mmHg)	Foot / Heel Peak Pressure (mmHg)	Contact Area, cm²	Percentage Peak Pressure under 35 / 50 mmHg
1 – 70M	Back	20.1	35 / 38	39 / 40	49 / 42	2400	98 / 100
1 - 70M	Side	22.5	37	39	35	2390	90 / 100
2 – 70M	Back	20.4	34 / 33	37 / 30	32 / 40	2380	98 / 100
2 - 70M	Side	23.9	40	46	45	2345	84 / 99.5
3 – 70M	Back	19.8	28 / 32	31 / 31	37 / 37	2320	99 / 100
3 - 70M	Side	23.5	47	42	37	2340	84 / 99.8
1 – 97M	Back	22.5	38 / 36	39 / 38	38 / 41	3220	91 / 100
1 – 97M	Side	25.8	47	57	27	3355	78 / 99
2 – 97M	Back	22.3	39 / 37	39 / 39	47 / 47	3370	92 / 100
2 – 97M	Side	25.9	51	55	40	3440	79 / 98
3 – 97M	Back	23.2	33 / 38	39 /37	37 / 34	2915	93 / 100
3 – 97M	Side	25.3	43	47	23	3200	80 / 99.6
1 – 125M	Back	21.3	38 / 37	30 / 29	34 / 38	4360	97 / 100
1 – 125M	Side	28	45	46	32	4330	74 / 100
2 – 125M	Back	23.5	41 / 37	40 / 39	45 / 47	4450	86 / 100
2 – 125M	Side	28	45	46	34	4330	74 / 100
3 - 125M	Back	24.2	39 /40	43 / 42	41 / 46	4185	83 / 100
3 – 125M	Side	27	47	46	28	4310	75 / 99.5

- Peak Pressure values reported where applicable, were (4x4) sensor group average at peak

Note: It is generally recommended that the interface pressure for most healthy subjects does not exceed 35 mmHg. Peak pressures over 50 mmHg may cause discomfort, depending on the extent of the high pressure area and the person's physical condition.

COMMENTS:

➢ The observations and trends reported here are intended to be used only for comparison of the subject tested here, and may not be indicative of trends for lighter or heavier subjects.

Christine Guillot
Technical Services Manager

The tests reported herein have been performed in accordance with Dunlop Foam (DF) Quality Policy. Samples and their identifying descriptions have been provided by the client, unless otherwise stated. DF makes no warranty, implied or otherwise, as to the source of the tested sample(s). The above test results relate only to the sample(s) tested. This document and the name DF may be used in advertising providing the content and format of the advertisement have been approved in advance by the General Manager of DF.

FIG 1: COOL FOAM PRESSURE DOWN – 70kg Male - Back position

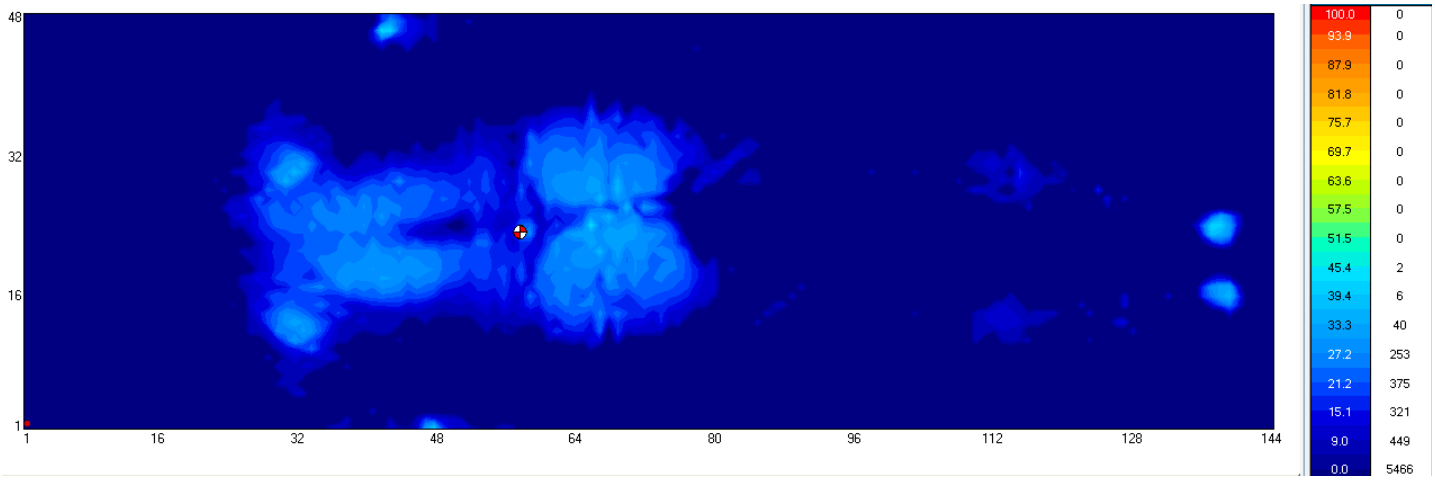


FIG 2: COOL FOAM PRESSURE DOWN – 70kg Male - Side position

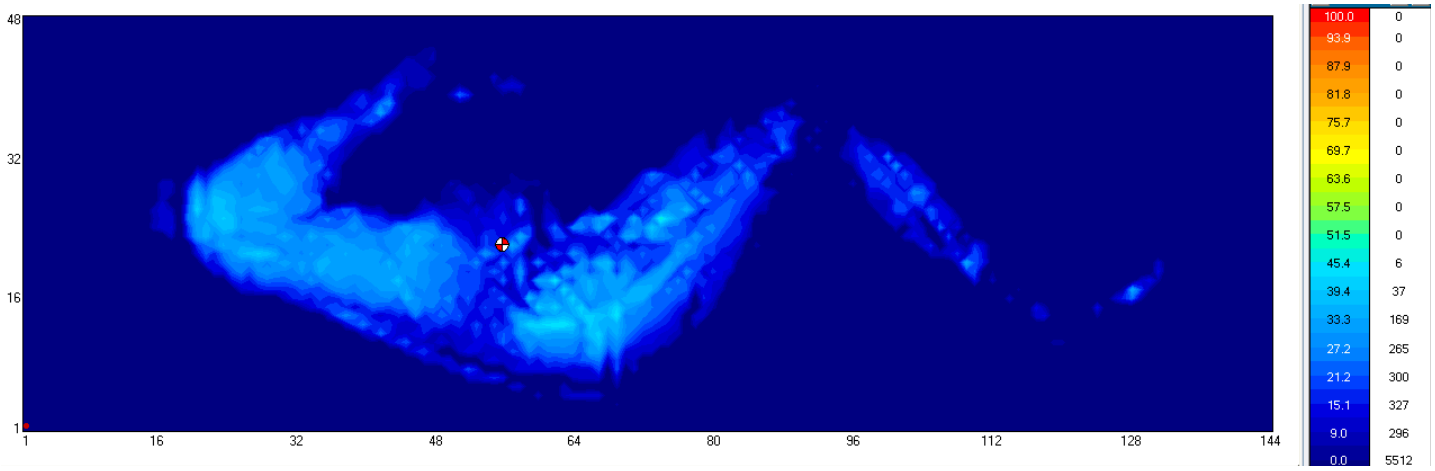


FIG 3: PRESSURE DOWN – – 70kg Male - Back position

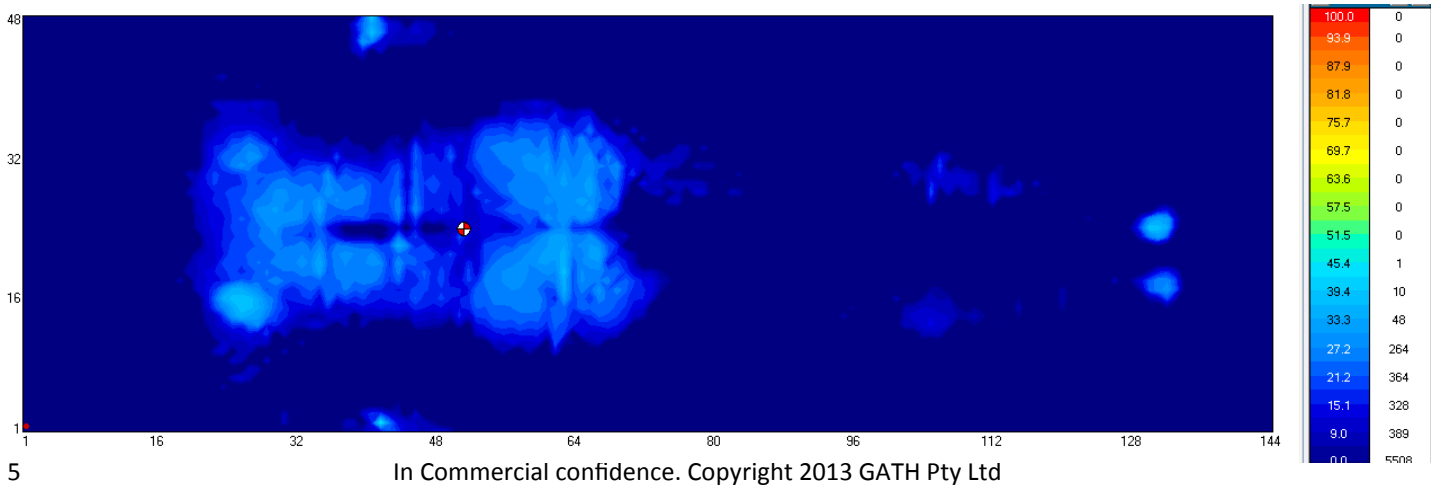


FIG 4: PRESSURE DOWN – 70kg Male - Side position

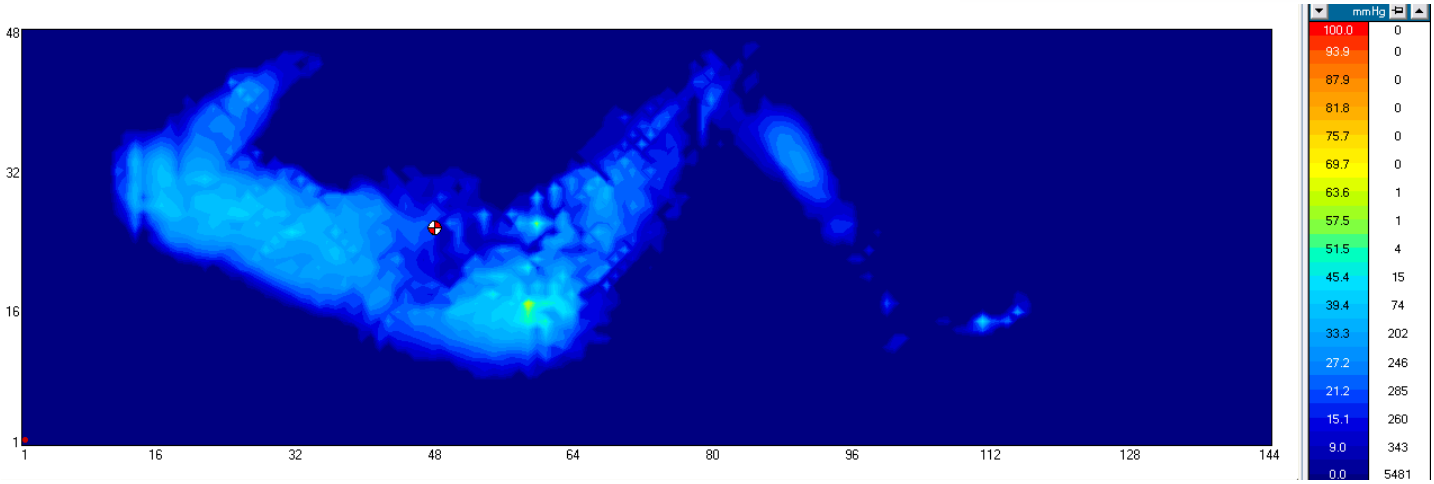


FIG 5: PREMIUM CARE – 70kg Male - Back position

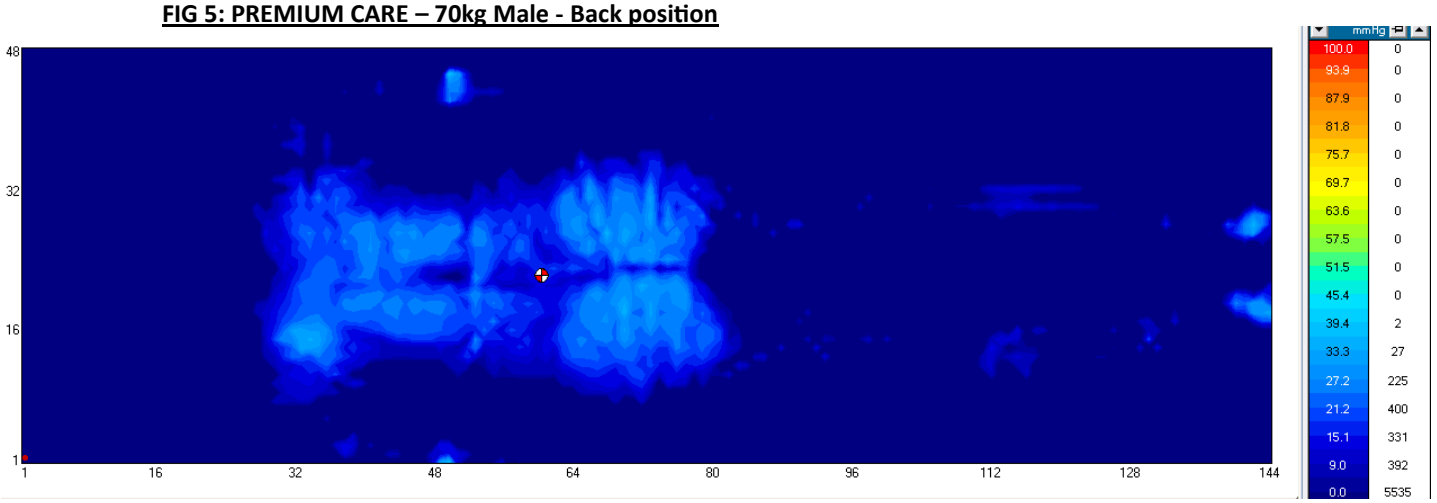


FIG 6: PREMIUM CARE – 70kg Male - Side position

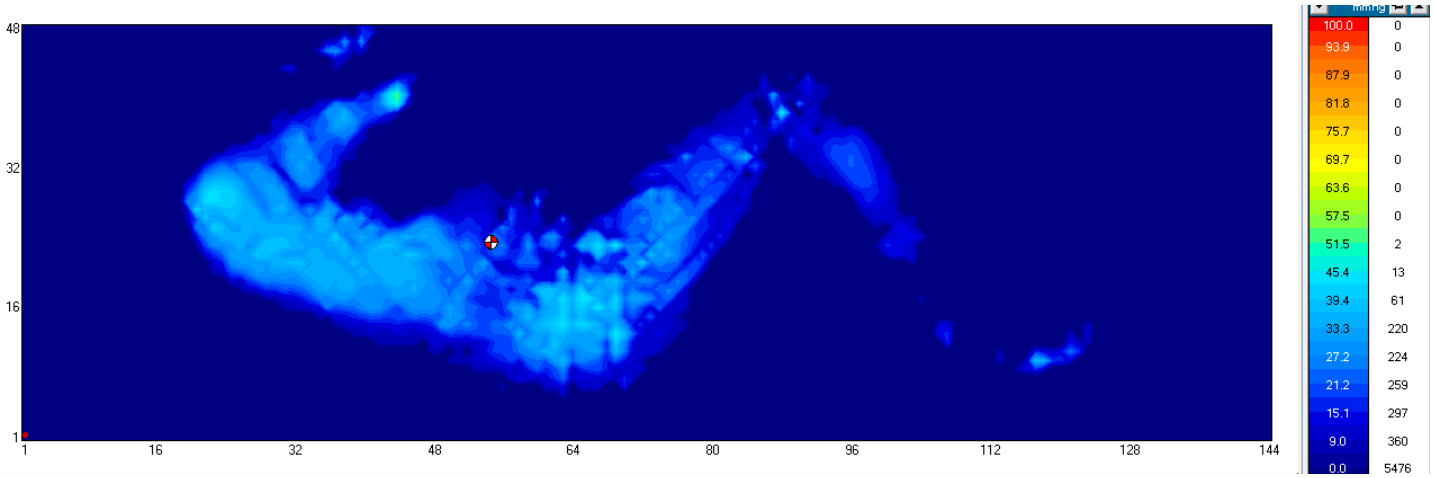


FIG 6: COOL FOAM PRESSURE DOWN – – 97kg Male - Back position

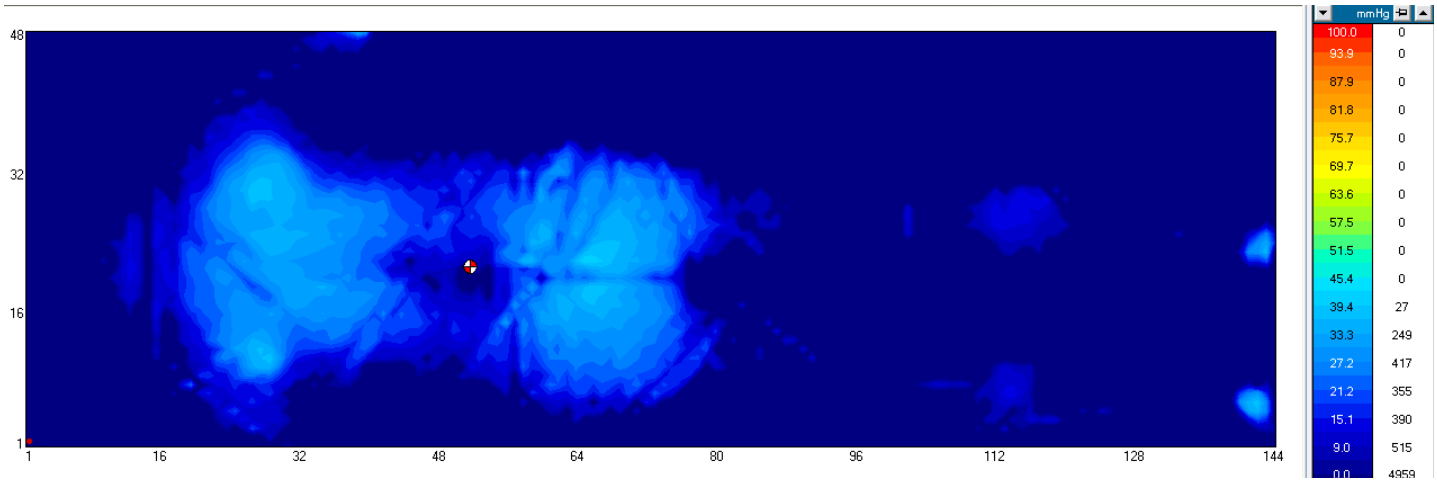


FIG 7: COOL FOAM PRESSURE DOWN – -97kg Male - Side position

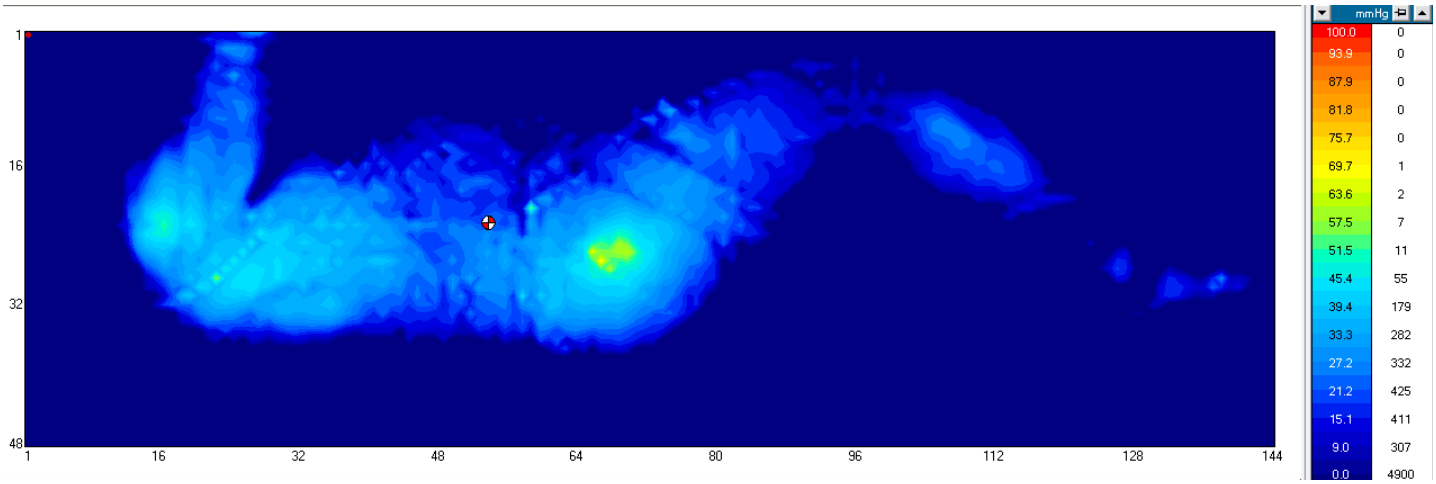


FIG 8: PRESSURE DOWN – – 97kg Male - Back position

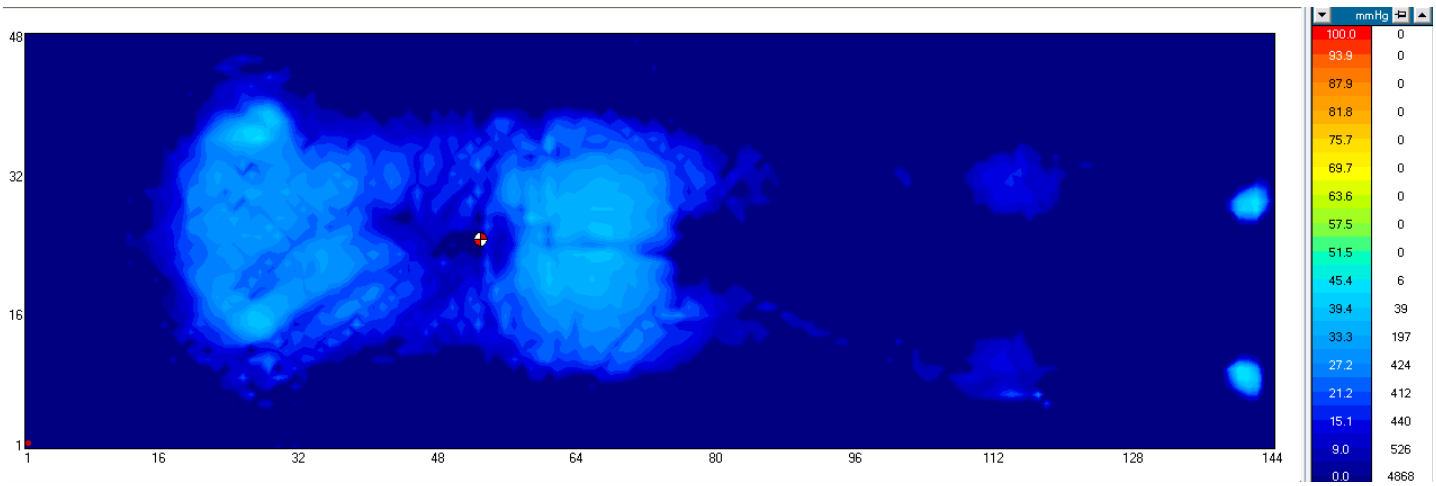


FIG 9: PRESSURE DOWN – 97kg Male - Side position

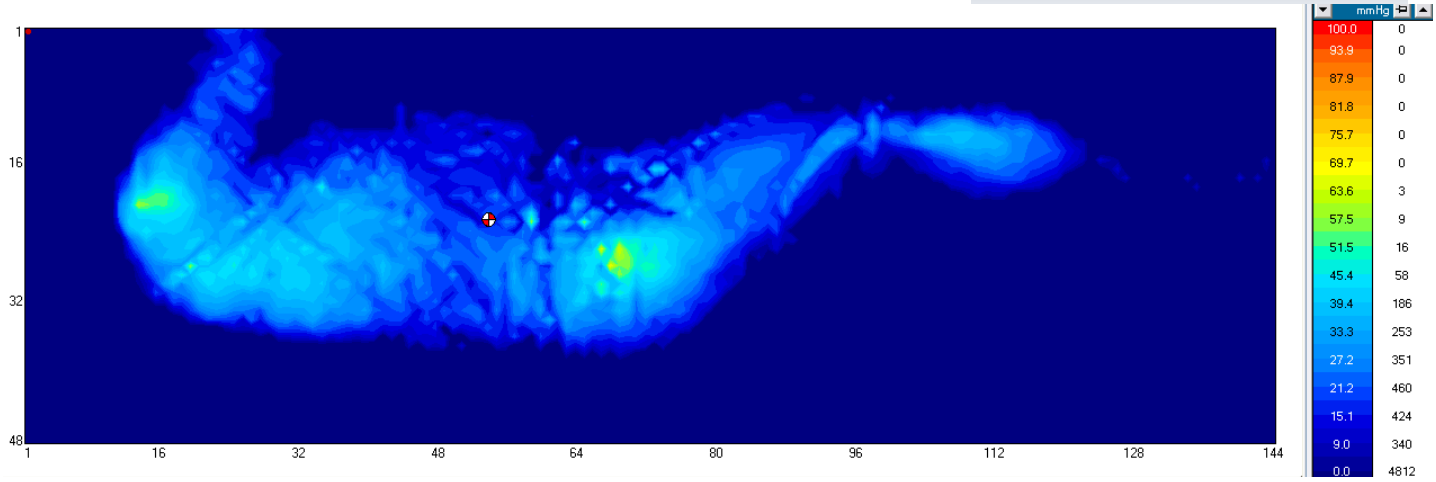


FIG 10: PREMIUM CARE – 97kg Male - Back position

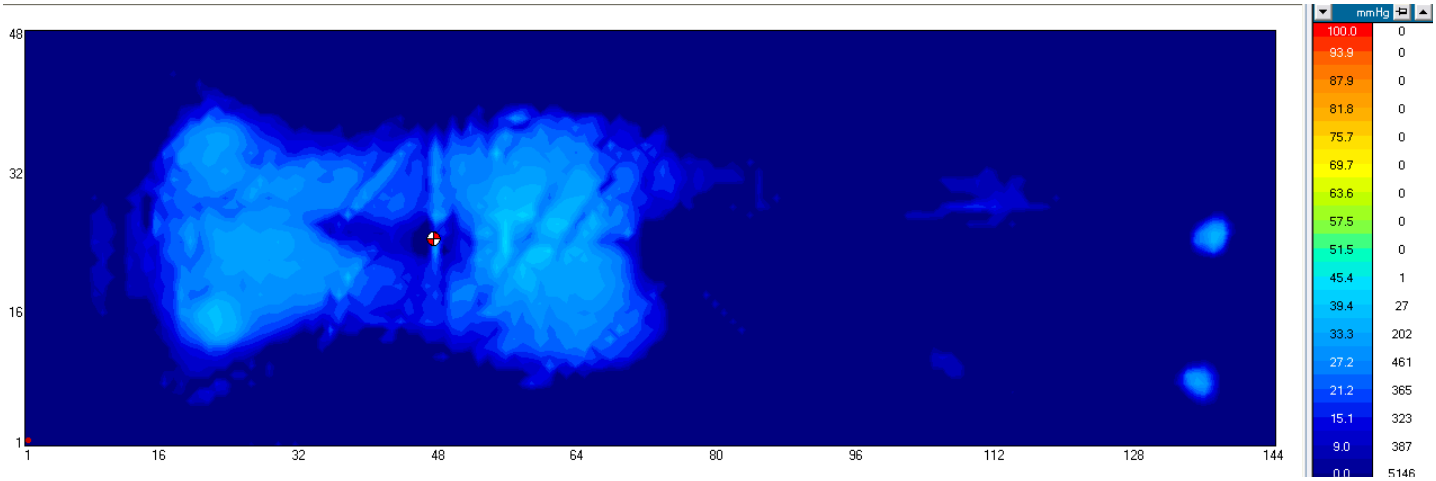


FIG 11: PREMIUM CARE – 97kg Male - Side position

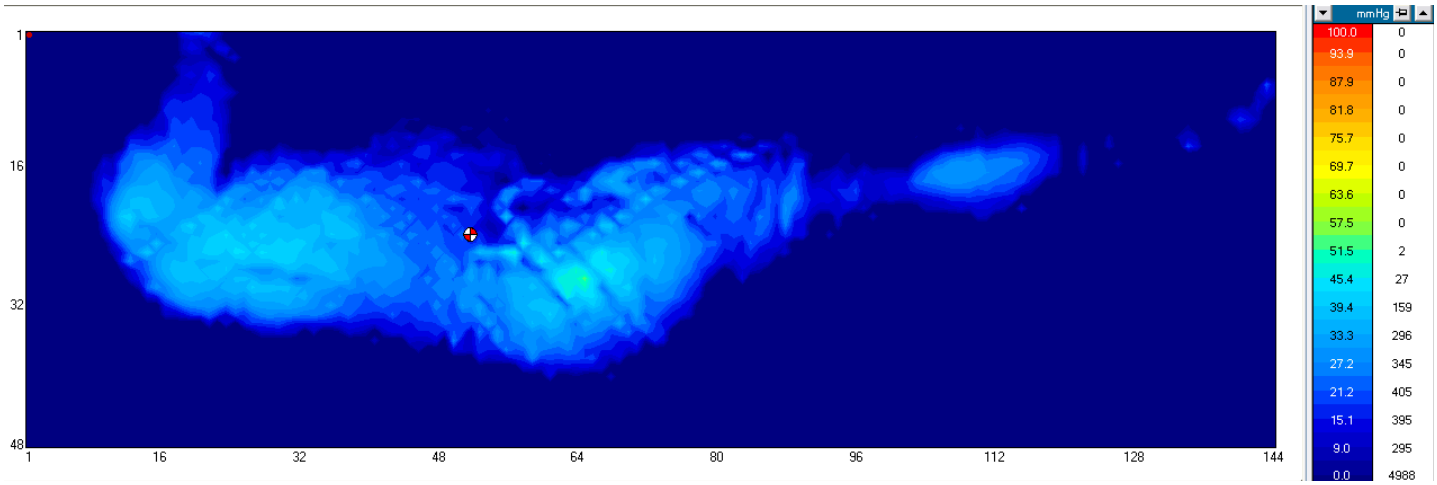


FIG 12: COOL FOAM PRESSURE DOWN – 125kg Male - Back position

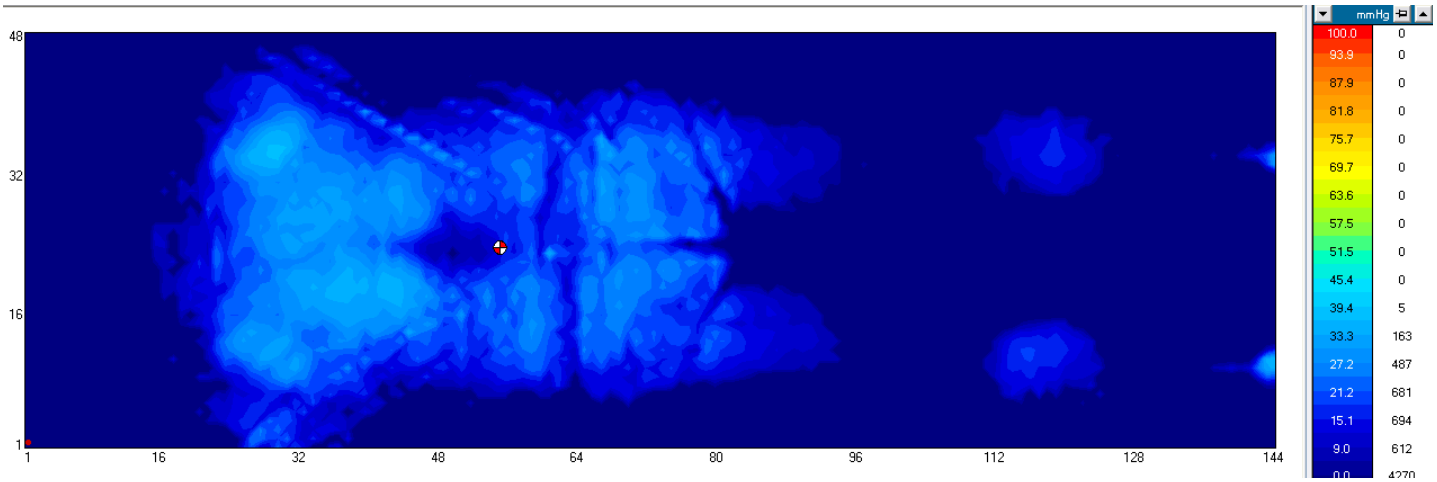


FIG 13: COOL FOAM PRESSURE DOWN – 125kg Male - Side position

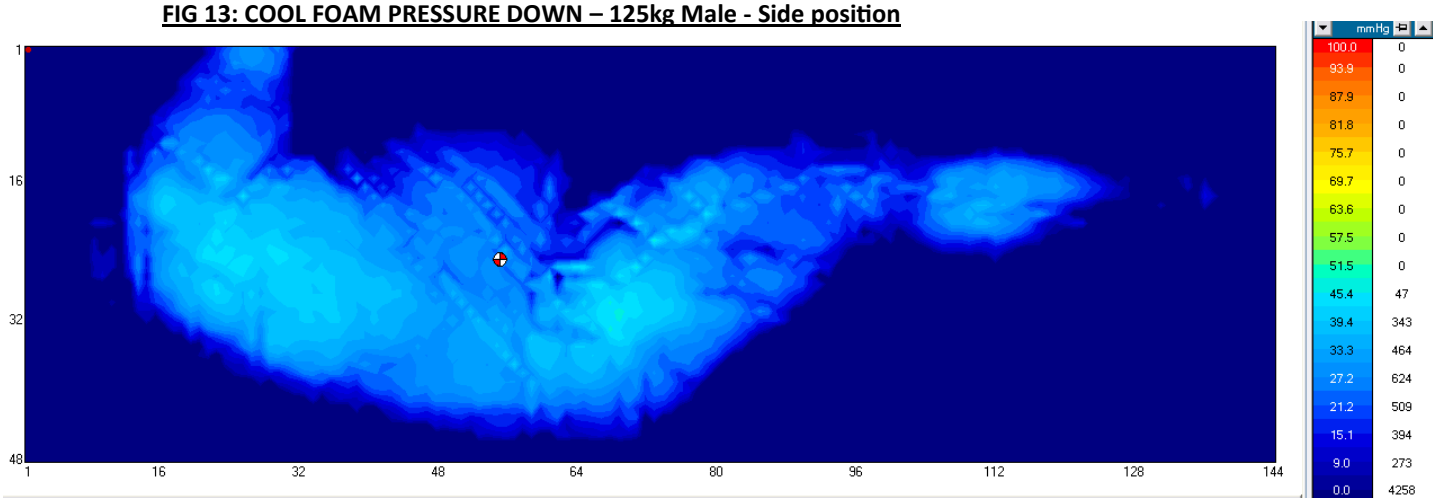


FIG 14: PRESSURE DOWN – 125kg Male - Back position

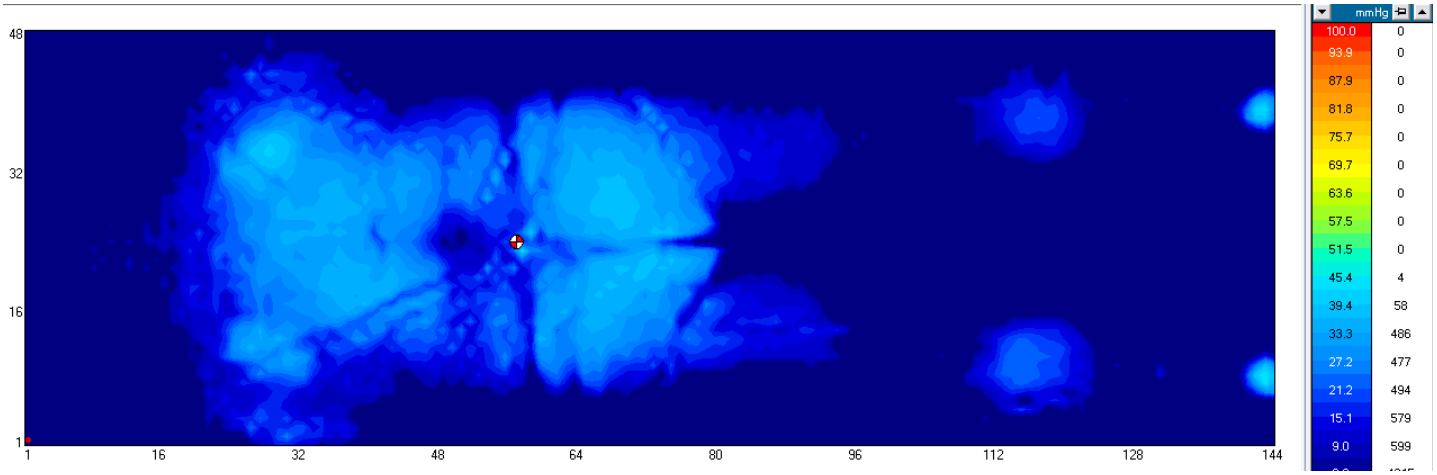


FIG 15: PRESSURE DOWN –125kg Male - Side position

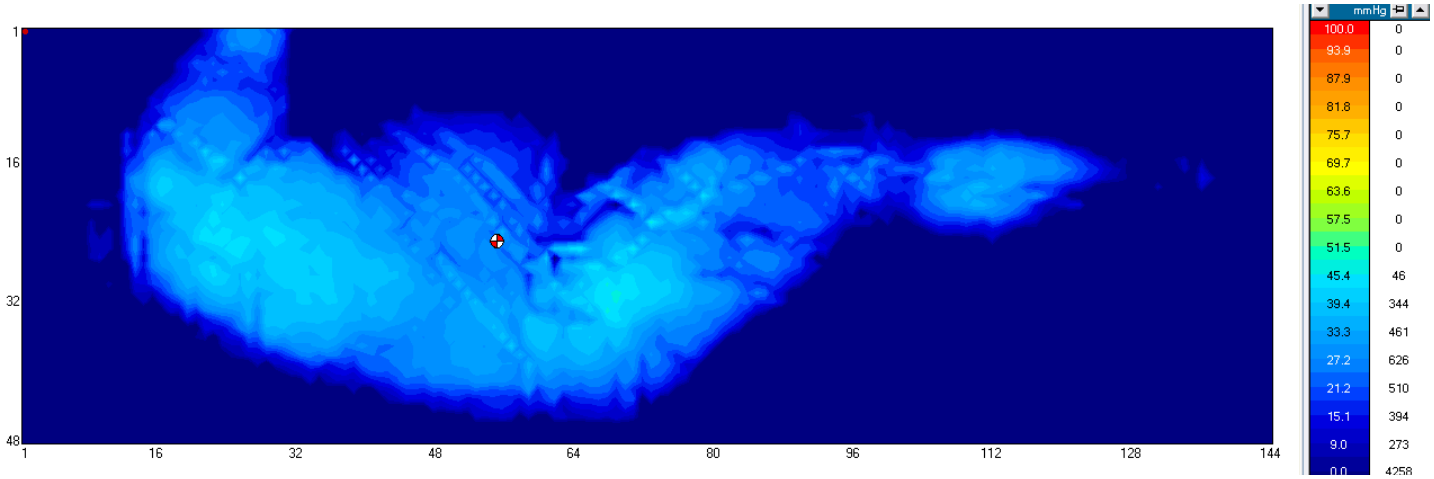


FIG 16: PREMIUM CARE – 125kg Male - Back position

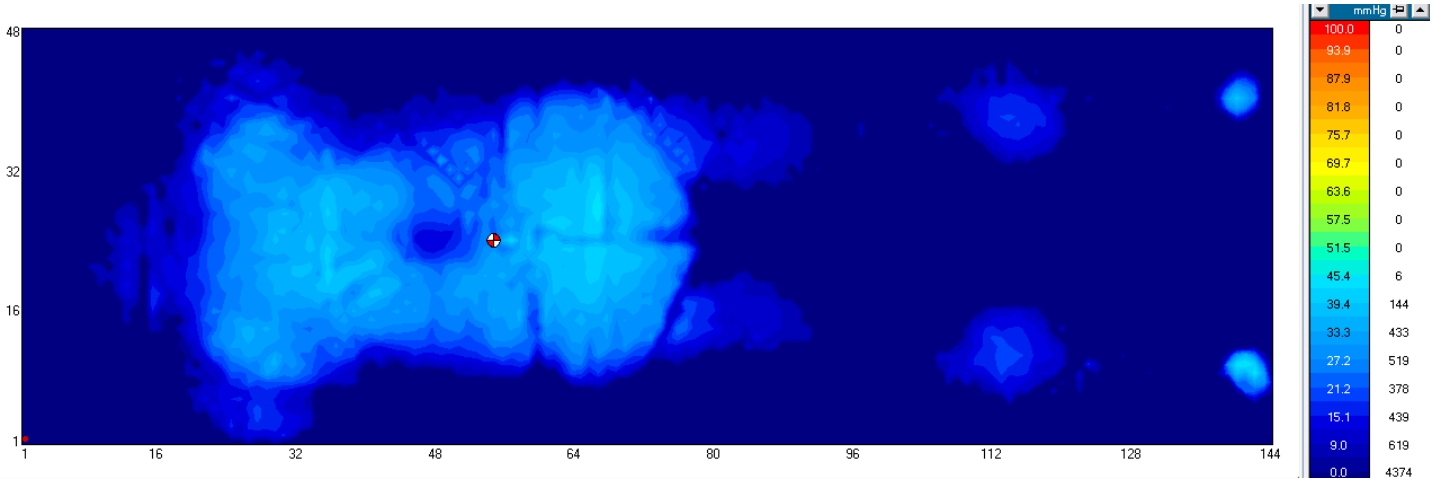
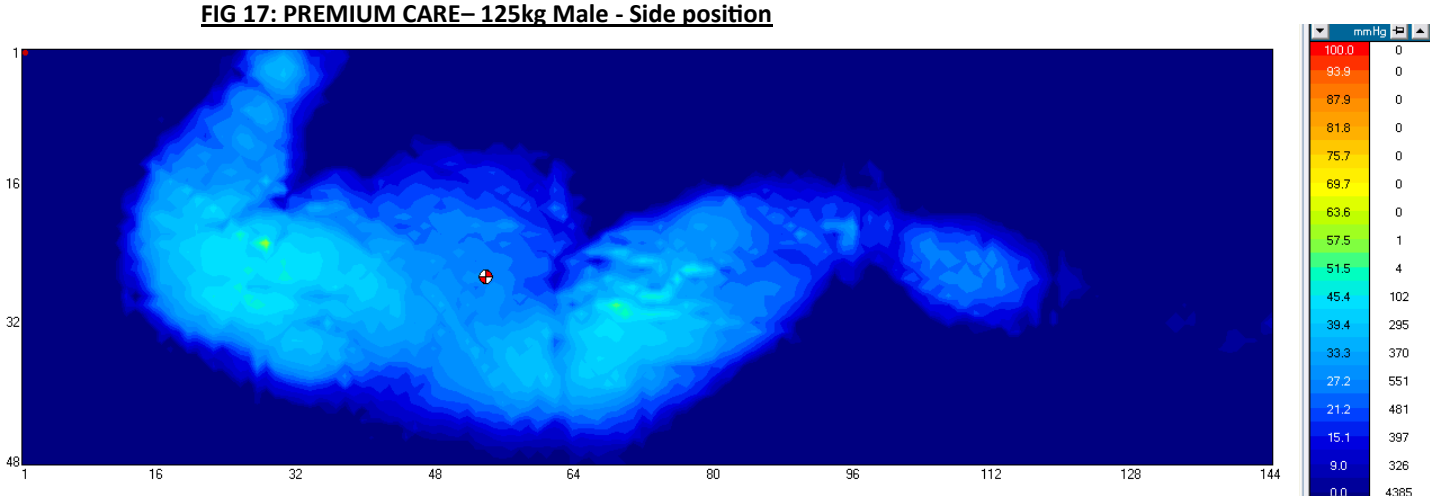


FIG 17: PREMIUM CARE– 125kg Male - Side position



Important notes:

- Interface measurements alone should not be used in making decisions about pressure distribution for individual subjects. Results may vary from subject to subject and will depend on the type of measuring device used.
- These estimates should only be used for design purposes as they are subject to change as the surface properties can change in use. The results may be used for comparison only and are not considered absolute measurements.
- Although it is generally estimated, that capillary closing pressure can be between 35 mmHg & 50 mmHg in light to medium weight, healthy subjects, in each case however, this limit can be lower or higher as the maximum interface pressure limit is not standardised (i.e. the level of pressure that prevents occlusion of the underlying blood supply will vary for each individual).
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Pressure Management Mattresses

These Results indicate that all RB Day & Sons pressure management mattresses significantly reduce the likelihood for Decubitus / Bed-Sore s in a standard weight range (0—125 kilos)

All foams used are treated with internationally renowned Ultra Fresh ™ anti-microbial system which is effective against dust mites, bacteria, mould and mildew.

All foams are free from pesticides and approved by the National Asthma Council's Sensitive Choice® Program.

RB Day & Sons mattresses use the unique Sanitized ™ coated fabric covers which are designed for waterproofing, comfort, durability and more importantly superior infection control.

Reflex is

- Flexible and gentle to the skin
- Closed to bacteria
- Resistant to blood, urine, oil and fat
- Fire retardant
- Effective against MRSA

Mattress covers have a 2 year warranty except in the case of trolley mattresses which have a 12-month warranty.

All mattress configurations undergo extensive pressure mapping, durability, hardness and flammability testing. This rigorous process is conducted to NATA (National Association of Testing Authority) laboratory standards using the indentation force deflection method at 65% compression.

DURABILITY ASSESMENT FOR ALL ABOVE UNITS ARE AVAILABLE UPON REQUEST IN WHICH WE INDICATE TO HAVE A FATIGUE RATE (FAILURE TO RECOVER) OF LESS THAN 5% IN ALL PRESSURE MANAGEMENT MATTRESSES