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## Engineering the Perfect Bra

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Metrology (from Greek 'metron' measure, and -logy) is the science of measurement,  
Meteorology is weather forecasting!!!

**“Man is the measure of all things”**  
Protagoras 490-421BC

**“When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind”**  
Lord Kelvin 1824-1907


1 Bra design

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## Optical shape measurement techniques

- Non-contact and real time
- Can provide information on displacement and range of movement
- Whether breasts are moving individually or affecting each other
- This information could revolutionise the bra industry as they do not have results or instrumentation systems like this




2 Bra design

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## Comparison of breathing with posture bra and sports bra

- The results show the Luf Bra (above) and Sports Bra (below) show the resulting fringe patterns produced by the technique.
- The images are both from the model at full in-breath position.
- The Sports bra can be seen to produce regular horizontal fringes, where the Luf bra more widely spread and diagonal fringes.
- The sports bra simply clamps the breasts tightly to the chest and moves as a single rigid beam



The 'Luf Bra'



Conventional sports bra

3 Bra design

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## What do LOE offer as part of the license

- Exclusive or non-exclusive use of the patent and the concepts it contains
- Commitment of staff and laboratory resource
- Use of new equipment for volume measurement and change of shape measurement
- A whole new way of thinking about bra design

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## Thank you for listening

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