

# Modern medical examination LED luminaire

The new Luxo LHH



# Modern medical examination luminaire

The new LHH is a natural development of our original medical examination luminaire, which is in daily use by medical professionals all over the world.

It is the highly flexible self-balancing arm in conjunction with excellent light output that has given our LHH diagnostic luminaires their vast popularity among the medical profession. The frictionless horizontal and vertical movement and the ease of use make the LHH the most flexible examination luminaire on the market – and the best in its class. The use of modern LED light sources has made it possible to reduce the size of the new lamp head, compared with the original. The reduced size and new LED technology provides for even better viewing conditions, and unrivalled performance.

## For demanding viewing conditions

LHH is designed especially for demanding viewing conditions that require exceptionally good light such as medical examination and minor procedures. It has widespread applications throughout the health sector, in hospitals, health centers and consulting rooms.

## Exact positioning

LHH has a covered spring balanced arm for easy cleaning and safe and easy positioning. The flexibility and precision of the spring balanced arm means that LHH can be positioned exactly where the light is required. The light sources are positioned well inside the lamp head, in order to avoid glare.

The switch is positioned exactly where the thumb will find it when the hand grabs the handle. This makes the handling intuitive and easy. The direction of the handle indicates the direction of the beam. LHH is fully dimmable as standard.

## Approved medical device

LHH is approved as a medical device according to IEC/EN 60601-1 Medical electrical equipment - Part 1: General requirements for basic safety and essential performance and IEC/EN 60601-1-2 Electromagnetic compatibility – requirements and tests.

## All-metal construction

LHH is made of powder-coated metal, such as aluminium and steel. The light source is covered with tempered glass. This means that LHH can be cleaned with any detergent in use at a hospital, including acetone.

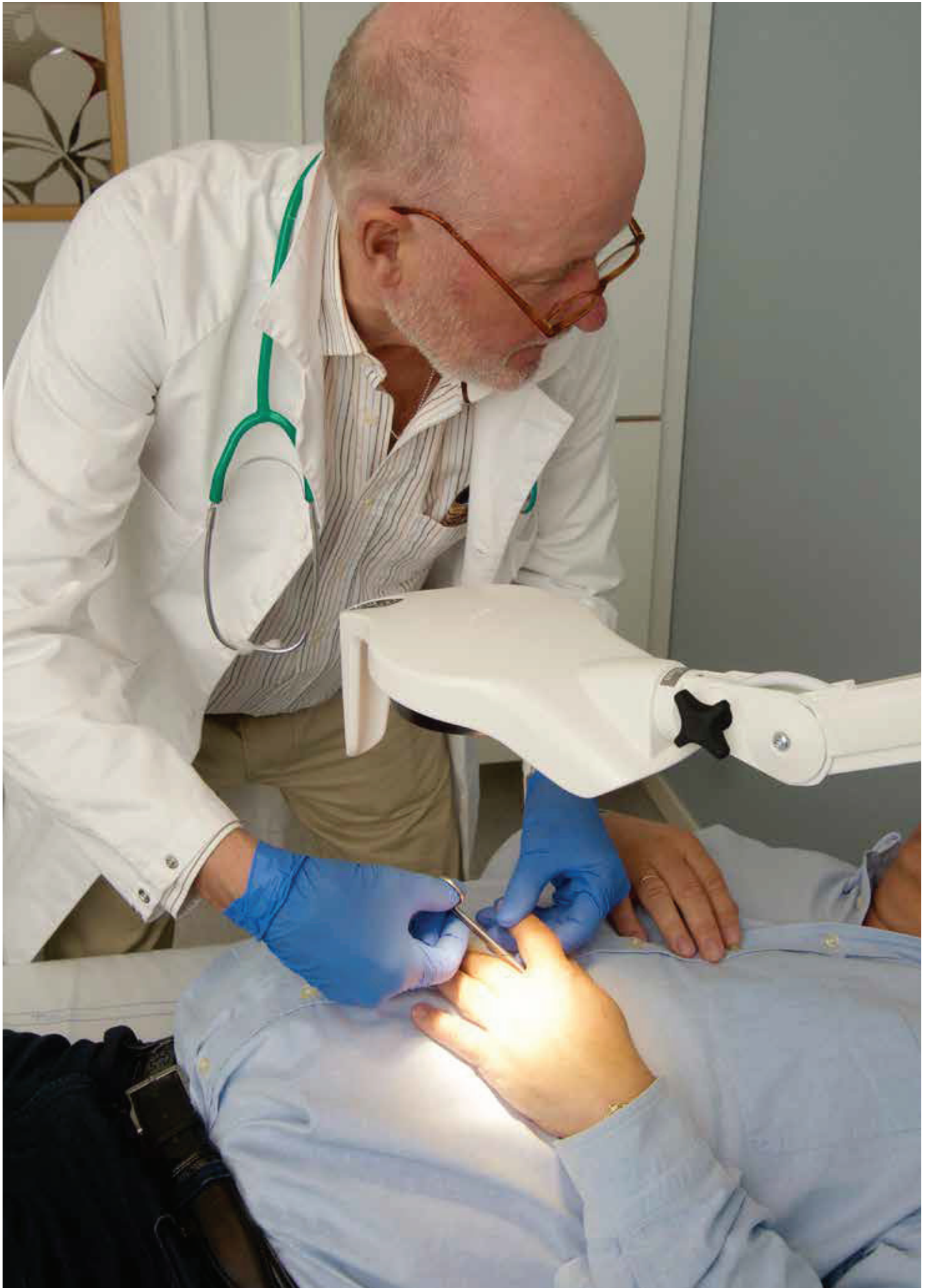
## Easy replacement

The new LHH features the same arm construction and spigot as the traditional version. This means that all brackets and clamps can be reused with this new version.

### Design: Aleksander Borgenhov

Aleksander Borgenhov is one of Norway's most award winning industrial designers. His work has resulted in a wide range of successful products, including furniture, lighting, commercial goods, sports equipment, health & medical, marine & offshore. He has designed several of our most recent luminaires, including a complete series of illuminated magnifiers and a task light.







#### Adjustable colour temperature

LHH is available with adjustable colour temperature.

## Excellent light quality

LHH has a colour rendering index (CRI) of more than 95. The R9 colour rendering value, which is important for the reproduction of the colour red, is as high as 99.

According to EN 12464-1 Lighting of indoor work spaces, the lux requirement for examinations in a hospital or medical centre application is 1000 lux, and the colour rendering index should be minimum CRI 90. This can easily be achieved with the LHH examination light.

#### Available with adjustable colour temperature

A version of LHH with adjustable colour temperature is available. This makes it possible to switch between warm white and cool white light, depending on the task at hand. The warm white setting is ideal for dermatological examinations, while the cool white setting is ideal for the recognition of blood vessels.

According to IEC 60601-2-41 Particular requirements for the safety of surgical luminaires and luminaires for diagnosis, the CRI index should be above CRI 85. The colour coordinates (and hence the correlated colour temperature) should lie within the range 3000 to 6700 K. LHH meets all of these requirements.

## Protected by SteriTouch®



LHH is painted with SteriTouch® antimicrobial powder coating, which prevents the growth of bacteria, biofilm and mould. Based on ionic silver technology, the antimicrobial performance remains continuously effective throughout the product's lifetime.

SteriTouch® is a leading brand in established and proven antimicrobial technology, holding numerous approvals. Laboratory testing has been carried out independently to international standards, demonstrating over 99% efficacy against MRSA and E. coli over 24 hours.

SteriTouch® represents an excellent additional measure to routine cleaning, providing a permanent and invisible barrier to pathogens.





## LED – light source of the future

With the introduction of LED, the international lighting industry has gained a new light source that is more energy efficient than fluorescent tubes and other conventional light sources. The efficiency and life span of LED continues to improve, and LED luminaires are virtually maintenance free.

Our LED luminaires have long duration and low energy consumption since we only use the very best LED components, which are tested in our own laboratories. Equally important is our experience and know-how about the design of optics and thermal control, so that the luminaires will perform to standard over a long period of time.

### Extremely energy efficient

Light emitting diodes are not only small and robust. LHH's LEDs are extremely energy efficient, and have an incredible life span of 50 000 hours or more. The powerful LED module has an excellent light output giving more than 24 000 lux @ 1 metre.



### Intuitive and ergonomic

The switch is positioned exactly where the thumb will find it when the hand grabs the handle.



#### Arms for vertical movement

Arms for wall or ceiling mounting always tilt forward, and are designed for maximum vertical movement.



#### Arms for horizontal movement

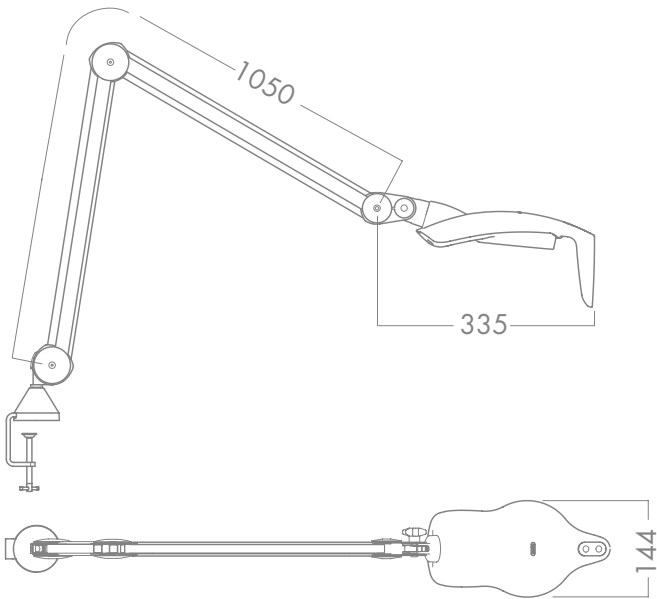
Table mounted arms and arms for trolley stands are designed for maximum horizontal movement.

## Perfect balance

Medical products are used in a dynamic environment and need a great level of flexibility. Luxo pioneered self-balancing arms more than 75 years ago, and we have constantly improved them ever since. Intricate internal spring systems ensure smooth and easy positioning. LHH's arm will always stay in the right position without drifting.

The ability to place the light exactly where it is needed is a hallmark of our spring balanced arms. These arms have a virtually maintenance free construction, and are easy to install.





Light source: LED  
 Colour rendering: CRI >95  
 R9: 99 at 4000K with 100% power  
 Lifetime: Minimum 50 000 hours  
 CCT: 4000 K  
 Tuneable version 4000/4500/3500 K  
 Lux @ 1 metre: Approx. 25 000 lux  
 Tuneable version minimum 16 000 lux  
 Switch: On/off and seamless dimming  
 Colour: White  
 Approvals: LHH is approved as a medical device and carries the Medical CE mark

**Selection of items**

Article no.	Type
LHG026524	LHH G2 W105 Wh 108 940 EU
LHG026525	LHH G2 T105 Wh 108 940 EU
LHG026526	LHH G2 C105 Wh 108 940 EU
LHG026536	LHH G2 W105 Wh 108 935-945 CCT EU
LHG026537	LHH G2 T105 Wh 108 935-945 CCT EU
LHG026538	LHH G2 C105 Wh 108 935-945 CCT EU

Please see our web for more variants and details



**Trolley**  
 LHH can be mounted on a trolley and easily moved around.



**Ceiling mount**  
 Using a ceiling mount saves valuable space and adds a wide radius of movement.

**Options and accessories**

LHH is available for wall, ceiling or table/trolley mounting. We offer a wide selection of specialized brackets for all mounting purposes. Please refer to our web site and make sure to order the correct option for your application.

**LED technology**  
 The LED technology is in rapid development, and we are upgrading our LED solutions on a continuous basis. Please refer to our web site for the latest updates on the LED technology featured in this product.