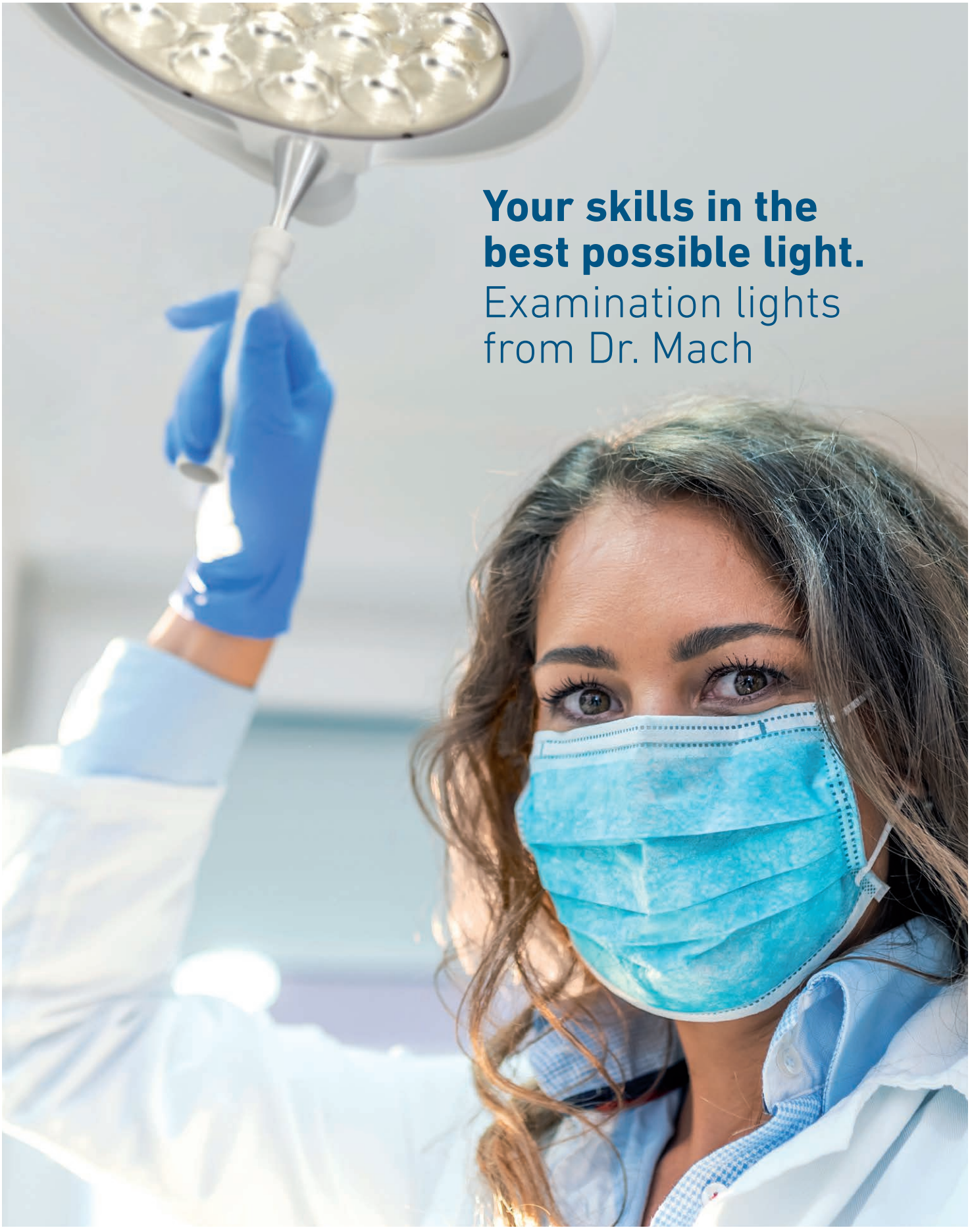
DR.MACH
GERMAN MED-LIGHT SOLUTIONS

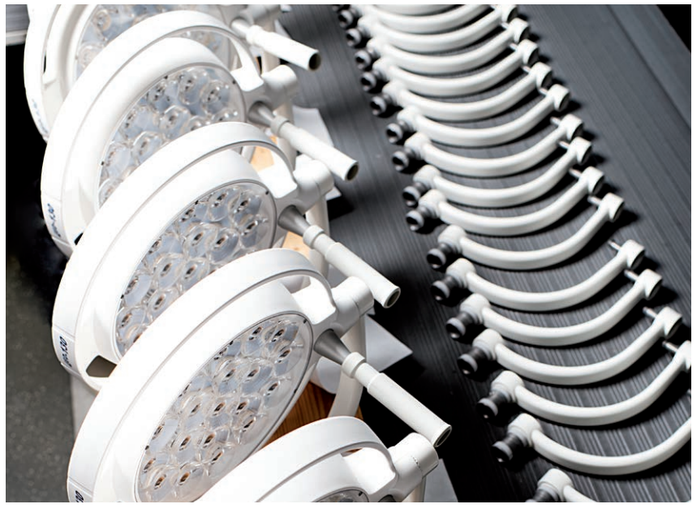


Your skills in the best possible light.

Examination lights from Dr. Mach



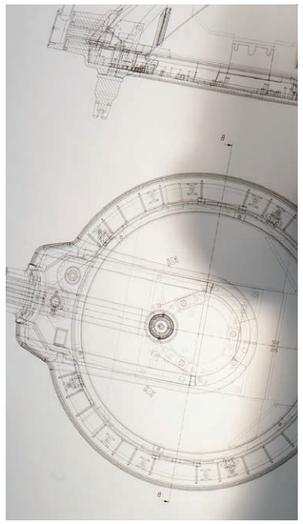


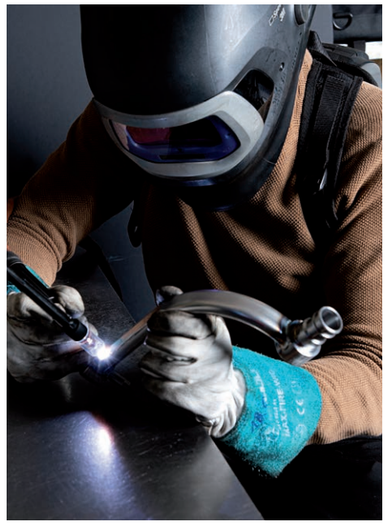














FIRST CLASS MEDICAL LIGHTS GO BY THE NAME OF – DR. MACH

Doctors worldwide operate, diagnose and treat patients with the aid of medical lights from Dr. Mach. For a very good reason: No other company offers a detailed portfolio of this kind under one roof. No other company has such a wealth of experience in the production and application of medical lights. And no other company offers doctors such quality and reliability. Dr. Mach was founded 75 years ago and today is still what it always has been: A specialised family business with unique know-how. With ultramodern machinery and a well-trained and skilled workforce from various specialist fields, we develop and manufacture at our headquarters on the outskirts of Munich. All of our lights are designed and produced in Germany and dispatched from our headquarters. This, along with endeavours to put the best lights at the disposal of doctors, is undoubtedly the reason why our lights are amongst the best in the world. And why they are to be found in operating theatres in Montreal, Berlin, Kuala Lumpur and the Antarctic – right around the world, to be precise.



Quality in numbers

Quality can be expressed in numbers and dates. In 75 years we have created and accomplished a huge amount. We have held hundreds of thousands of talks and equally as many consultations. We have had tens of thousands of meetings in which customer wishes and product improvements were considered. And we have equipped ten thousand doctors, practices and hospitals with modern lights – on all of the earth's continents, including Antarctica.

154,000

lux is the difference between our first light and our latest OT-light, the Mach LED 8MC – an increase from 6,000 to 160,000 lux.

14,560

days is the lifespan of the longest currently still in use medical light from Dr. Mach – in short: it has been in use for 40 years.

55

constructional components are needed to assembly our Mach LED 130 examination light in 29 precise work steps.



-32

degrees is the average temperature in winter at a research station in Antarctica where Dr. Mach OT-lights have been working reliably for years.

408,000

metres distant from the earth flies the highest Dr. Mach product in service: a monitor holder that works faultlessly even in the zero gravity of outer space.

25

steps is the distance from the CEO's office to the production hall.





A reliable visual examination is often the basis for a sound diagnosis. The accurate recognition of structure and colour during diagnosis is conditional on having perfect illumination. The ability to distinguish the subtlest colour nuances and recognise detailed structures and changes is always a matter of having the correct light. Optimal lighting thus plays a key role as a work tool. Who would know this better than Dr. Mach? For decades we have dedicated ourselves to providing doctors with the perfect light. To this end, we have developed numerous different lights that meet the most exacting medical demands. Easy to handle, with a wide range of functions and absolutely reliable. With an examination light from Dr. Mach you are able to concentrate on what is essential: using your knowledge to maintain the health of your patient.





“It’s a great feeling to have a luminaire that reliably delivers the perfect light. Just by examination I can recognise conspicuous features and begin the right course of treatment.”

Dr. med. univ. Katharina Bisanz

Specialist for plastic and aesthetic surgery

1 Handling:
All of the examination lights’ functions can be operated easily and intuitively. This is true for both the control panel and the (model-dependent) rotating handle.



2 Light intensity:
Computer-calculated lenses and a faceted multiple lens system create pinpoint luminous fields and uniform illumination. The light intensity is individually adjustable on many of the lights.

3 Colour temperature:
The optimal light colour ensures an unaltered and natural colour rendition in the area under examination.



Mach LED 130
with a standard handle

Standard handle: The examination lights Mach LED 115, Mach LED 120 and Mach LED 130 and their variants are supplied with a non-removable ergonomically optimised handle. With the focusable light variants, the size of the light field can be varied by turning the handle.

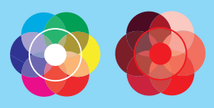
Mach LED 150
with a sterilisable handle

The examination light Mach LED 150 and its variants are always supplied with a removable, sterilisable handle (optional on Mach LED 120 and Mach LED 130 – state model when ordering). With the focusable light variants, the size of the light field can be varied by turning the handle.



Highlights of the Dr. Mach examination lights: LED 110, 115, 115C, 120, 120F, 130, 130F, 130 Plus, 150, 150F, 150FP and 150MC

Dr. Mach examination lights are amongst the best and most reliable in the world. For all of your requirements and needs, we are able to offer a suitable light with the appropriate features.



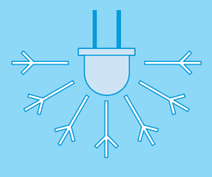
Almost perfect colour rendition:
With our superior colour rendition values, the doctor is able to easily recognise the subtlest colour nuances in tissue. The colour spectrum of the wound is rendered naturally with rich contrast. The light is also noticeably gentler on the eyes.



Faceted multiple lens system:
The numerous computer-calculated faceted lenses ensure uniformity and keep the shadow in the light field to a minimum. Separately arranged optical systems, each with one LED module, generate their own light field. This increases the contrast and thereby enhances recognition of detail in the wound area.



Control panel on the light housing
(not with models Mach LED 110/ LED 115/ LED 115C):
The following light functions can be controlled electronically:
- Switching on/off
- Electronic brightness control
- Colour temperature adjustment (only with Mach LED 150MC)



Cool light:
The LED technology is much more efficient than conventional light sources such as halogen lamps. The heat radiation is reduced to a minimum without using any expensive filter technique. The temperature increase in the surgeon's head area is barely noticeable.

Focusing (optional; not available for Mach LED 110/ LED 115/ LED115C):
The light field can be focused by turning the handle. The focusable light beam allows spot illumination of deepest wound channels with high light intensity and exact matching of the light field diameter to the surgical situation.



Handling:
During development of the new LED examination lights, great attention was paid to easy handling and easy of maintenance. Furthermore, the flow-enhancing open-ring shape prevents any build-up of heat in the surgeon's head area and thus creates optimal conditions for laminar-flow systems. The light can be positioned exactly to the wound field by means of the handle.



Long life-span/Low power consumption:
The life-span of more than 60,000 operating hours reduces many times over the cost of exchanging or replacing the previously used halogen bulbs. By using LED technology, the power consumption can sometimes be reduced by more than 50%.



Examination lights Mach LED 110, 115





Options

Rail model with fixation clamp for supply rails
Wall model with wall fixation
Mobile model on five castor stand

Mach LED 110

Light intensity at 0.5 meter distance	30,000 lux
Colour temperature	4,000 Kelvin
Colour rendering index Ra	97
Light field diameter	10 cm
Lamp head diameter	12 cm
Number of LEDs	3

Mach LED 115C

Light intensity at 0.5 meter distance	60,000 lux
Colour temperature	3,700, 4,000, 4,300 Kelvin
Colour rendering index Ra	97
Light field diameter	11 cm
Lamp head diameter	22 cm
Number of LEDs	7

Mach LED 115

Light intensity at 0.5 meter distance	60,000 lux
Colour temperature	4,000 Kelvin
Colour rendering index Ra	97
Light field diameter	11 cm
Lamp head diameter	22 cm
Number of LEDs	7





Design

Aesthetics meets ergonomics: Our spot lights are designed to be easy and intuitive to use.

Control panel

Various functions can be controlled via the convenient control unit on housing of the power supply unit of the LED 115: switching on/off, electronic brightness control and colour temperature adjustment (only LED 115C).

Colour temperature

The adjustment of the colour temperature in the steps 3,700, 4,000 and 4,300 Kelvin allows individual setting of the colour temperatures (only LED 115C).

Examination lights Mach LED 120



Options

Ceiling model
Wall model with wall fixation
Mobile model on four castor stand
Mobile model with short arm on five castor stand

Mach LED 120

Light intensity at 1 meter distance	40,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	96
Light field diameter	15 cm
Lamp head diameter	29 cm
Number of LEDs	12

Mach LED 120F

Light intensity at 1 meter distance	50,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	96
Light field diameter	13 – 18 cm
Lamp head diameter	29 cm
Number of LEDs	12





Design
Aesthetics meets ergonomics: Our spot lights are designed to be easy and intuitive to use.

Handle
The iconic Dr. Mach handle not only allows optimal handling and perfect positioning of the light field but can also be rotated to focus (optional).

Focus
The stable and clearly defined area of focus facilitates precise work from different angles and perspectives.

Examination lights Mach LED 130



Options

Ceiling model
Wall model with wall fixation
Mobile model on four castor stand
Mobile model with short arm on five castor stand

Mach LED 130

Light intensity at 1 meter distance	60,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	96
Light field diameter	14 cm
Lamp head diameter	33 cm
Number of LEDs	19

Mach LED 130 Plus

Light intensity at 1 meter distance	100,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	96
Light field diameter	12 cm
Lamp head diameter	33 cm
Number of LEDs	19

Mach LED 130F

Light intensity at 1 meter distance	70,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	96
Light field diameter	13 – 19 cm
Lamp head diameter	33 cm
Number of LEDs	19





100,000 lux

Light intensity

Computer-calculated faceted lenses offer maximum uniformity and high contrast of the light – with a brightness up to 100,000 lux.

Handle

The iconic Dr. Mach handle not only allows optimal handling and perfect positioning of the light field but can also be rotated to focus (optional).

Focus

The stable and clearly defined area of focus facilitates precise work from different angles and perspectives.

Examinations lightsMach LED 150



Options

Ceiling model
Wall model with wall fixation
Mobile model on four castor stand

Mach LED 150

Light intensity at 1 meter distance	110,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	97
Light field diameter	19 cm
Lighting body diameter	40 cm
Number of LEDs	26

Mach LED 150MC

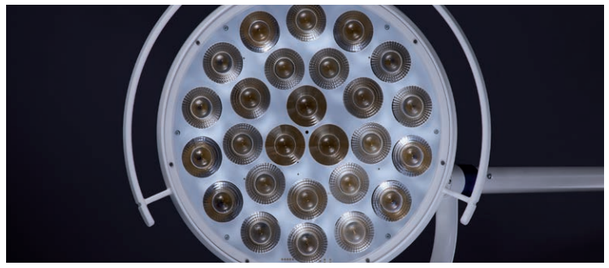
Light intensity at 1 meter distance	110,000 lux
Colour temperature	3,750, 4,000, 4,250, 4,500, 4,750 Kelvin
Colour rendering index Ra	97
Light field diameter	21 cm
Lighting body diameter	40 cm
Number of LEDs	26

Mach LED 150F

Light intensity at 1 meter distance	110,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	97
Light field diameter	16 – 24 cm
Lighting body diameter	40 cm
Number of LEDs	26

Mach LED 150FP

Light intensity at 1 meter distance	130,000 lux
Colour temperature	4,500 Kelvin
Colour rendering index Ra	97
Light field diameter	16 – 23 cm
Lighting body diameter	40 cm
Number of LEDs	26





130,000 lux

Light intensity
Computer-calculated faceted lenses offer maximum uniformity and high contrast of the light – with a brightness up to 130,000 lux.

Handle
The iconic Dr. Mach handle not only allows optimal handling and perfect positioning of the light field but can also be rotated to focus (optional).

K°

Colour temperature
The adjustment of the colour temperature in the steps 3,750, 4,000 and 4,750 Kelvin allows individual setting of the colour temperatures (only LED 150MC).

Suspensions and configurations

Our examination lights offer various combination and suspension options. Different methods of fixation and support arms are available. Here are some examples.

1 **Mach LED 130**
5-foot mobile stand

2 **Mach LED 120**
Wall model

3 **Mach LED 130**
Ceiling model

4 **Mach LED 120**
4-foot mobile stand

5 **Mach LED 150**
Ceiling model

6 **Mach LED 150**
4-foot mobile stand

7 **Mach LED 110**
5-foot mobile stand

8 **Mach LED 110**
Wall model

9 **Mach LED 115**
Rail model

10 **Mach LED 115**
5-foot mobile stand

1



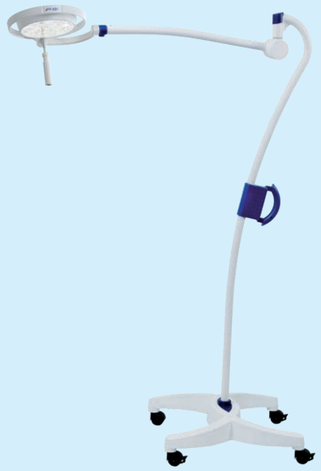
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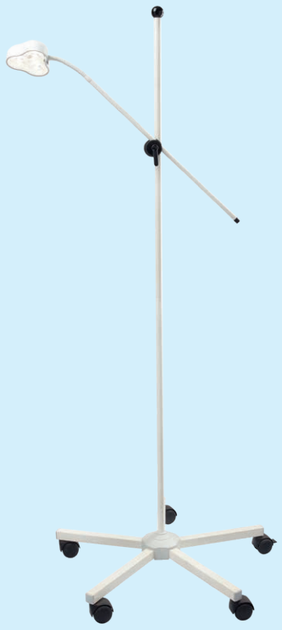
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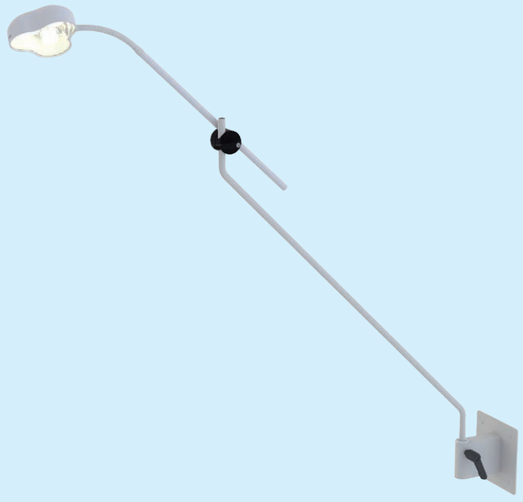
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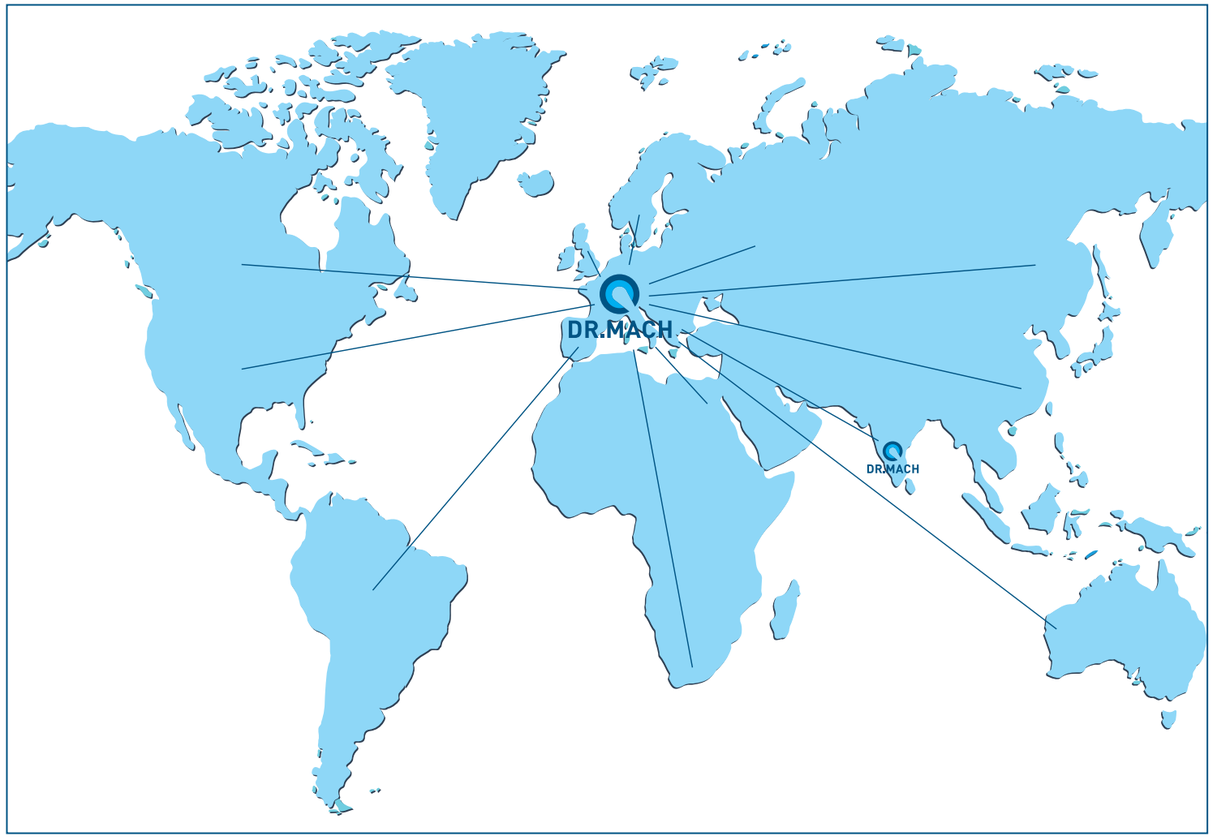


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At home all over the world. In over 100 countries and on all continents, Dr. Mach OT-lights are synonymous with exceptional quality, reliability and engineering excellence. Together with our partner distribution networks, we sell and maintain Dr. Mach medical lights for doctors from all spheres. For decades our name has stood for:

Made in Germany – used all over the world.

Your quick link to Dr. Mach. For all queries concerning our medical lights or our company, please contact our **head office: +49 (0)8092 2093 0**

Or send us an **email: info@dr-mach.de**

This way to your contact person

Sustainability for man and the environment. Dr. Mach lights are people-oriented: Light that enables doctors to preserve health and save lives. We absolutely pursue the notion of a people-centric approach: to employees, the environment and commercial responsibility. Our commitment in this regard grows steadily:

The solar-panel system on the roof of our new company headquarters produces just under 100kWh. The waste heat from our manufacturing machinery is used as an energy source and our building insulation meets the strict efficiency standard KFW 55.

We place external preparation and legwork preferentially with establishments in the region that employ people with cognitive and physical limitations. We regularly sponsor local clubs and charitable institutions.

And we continually strive to increase our involvement – for the health of people and the natural world.



Dr. Mach GmbH & Co. KG I Phone +49 (0)8092 20930 I www.dr-mach.de

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