

# lympha-mat®

GRADIENT

Gradient intermittent compression for specific treatment of lymphatic oedema

## 12-level system

- $\cdot \ gradient \ treatment \ pressure$
- · overlapping air chambers
- · pneumatic controlled system

passion for compression

www.lymphamat.de





## **The Gradient System**

Next to manual lymphatic drainage, intermittent pneumatic compression has been firmly integrated into upto-date physical decongestion therapy. Its effectiveness is demonstrated and documented in numerous studies.

The 12-level system lympha-mat® GRADIENT has been established and successful for many years. It is known worldwide for its pneumatic pressurization with the gradient principle, and for its overlapping air chamber system integrated in the treatment sleeves.

**lympha-mat**® GRADIENT is suited for all kinds of limb oedema, having its focal point in the treatment of lip-oedema, lymphatic oedema and mixed forms – in clinical, ambulant and domestic fields.

This gradient treatment pressure generates a physiologically effective pressure gradient whereby the fluid mobilised by the pressure built up in the overlapping chambers can disperse unhindered and without return flow. A significantly minimized pressure at the sleeve's end relieves the adjacent drainage area and is highly positive on lymphatic oedema.

The concept of gradient intermittent compression is a result of extensive medical research. It was developed following the manufacturing of compression stockings and thrombosis stockings.

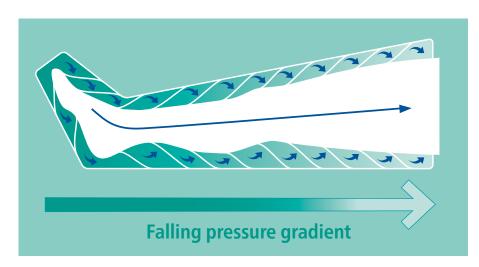
The air chambers have hand's breath and overlap at 50%. In combination with gradient pressure they prevent interchanging flowing which has an unphysiological strain on the valves, and effectively promote the venous and lymphatic reflux. The tissue is decongested, metabolism and gas exchange are significantly improved.

The convincing therapy results of **lympha-mat®** GRADIENT set new standards in pneumatic decongestion therapy.

## The Principle

In one compression cycle, a sleeve's twelve overlapping chambers successively filled with air in twelve levels, ascending in a proximal direction.

All the chambers remain filled with air until the last chamber has attained the desired pressure. The air is then released simultaneously from all twelve chambers, and after an interval the inflation cycle begins once again.





#### **The Treatment Sleeves**

The modern treatment sleeves that are easy to use result from our 30 years of experience in the field of intermittent compression.

Our light-weight sleeves consist of only high-quality materials which are extremely robust, easy to clean, disinfectable and fully tolerated by the body. They meet DIN EN ISO standards and thus pass strict biological tests.

The internal air chamber system contains twelve overlapping air chambers produced in long-life polyurethane. It is covered with a special textile which is dirt-repellant and easy to clean in daily use. Multiple plugs, zippers and Velcro fastenings simplify the handling.

If additional decongestion of abdominal and pelvic area is required, the 24-chamber-compression trousers or a combination of hip and leg sleeves is recommended.



## **The Therapy Device**

**lympha-mat**® GRADIENT is a byword for modern and effective decongestion therapy in twelve levels. The gentle and quickly noticeable effects of the **lympha-mat**® GRADIENT system make it one of today's preferential therapy devices. Easy handling and up-to-date therapy sleeves characterize this product, which has been valued by doctors and patients alike.

**lympha-mat**® **DIGITAL** GRADIENT is a perfected and high-performance therapy device for users in clinics and medical practices. Compression cycles, pressure loads, intervals and length of therapy are choosable according to the individual clinical picture. A patient-operated switch allows the interruption of therapy at any time, keeping the set treatment parameters.

**lympha-mat® 300** GRADIENT, developed especially for domestic use, is robust and high-performing. The gradient pressurization decongests gently over twelve levels, and the fixed interval of 15 seconds gives time enough to exploit the lymphangiomotoric cycles.

#### **Supportive Home Therapy**

... is necessary in some cases and makes good economic sense. In case of chronic diseases, the therapy can be continued at home as directed by the doctor, providing considerable support. This reduces the number of physiotherapy sessions necessary and compensates in therapy-free periods. The patient is best equipped and can independently determine when to start the daily treatment. In case of acute complaints the patient can react instantly.

Home therapy is expedient in the case of increasing need of therapy, chronic syndromes, drug intolerance (e.g. diuretics), or intolerance of permanent compression.



**leg sleeve** with 12 air chambers full-length zip, Velcro fastening Size M: thigh circumference 75 cm, length 85 cm Size L: thigh circumference 88 cm, length 85 cm available as a short version



**arm sleeve** with 12 air chambers Velcro fastening upper arm circumference up to 58 cm, length 71 cm special sizes available



**hip sleeve** with 6 or 12 air chambers variable Velcro fastening on front and rear seperate air chamber for the groin hip circumference adjustable up to 150 cm, length 38 cm expansion fitting available



**Expansion fitting** with one air chamber for 12-chamber leg sleeve for 24-chamber compression-trousers circumference expansion 13 cm



**compression-trousers** with 24 air chambers hip circumference up to 145 cm thigh circumference 83 cm available in size S



#### **Indications**

- thromboembolic prophylaxis
- post-thrombothic syndrome
- ulcus cruris
- venous oedema
- post-traumatic oedema
- minor lymphatic oedema
- lipoedema
- mixed forms of oedema
- peripheral arterial occlusive disease under strict observation
- sensory disturbance caused by hemiplegia

#### **Contraindications**

- decompensated cardiac insufficiency
- extensive thrombophlebitis,
  thrombosis or suspected thrombosis
- erysipelas
- severe unstabilised hypertension
- acute soft-part-trauma of extremities
- neuropathy
- occlusive processes in the sector of lymphatic drainage
- compartment syndrome
- Acute phlegmon

2 years device guarantee. The units and treatment sleeves are maintenance-free.



#### lympha-mat® DIGITAL GRADIENT



- connection for 3 treatment sleeves
- simultaneous treatment of 2 legs and hip possible
- gradient pressurisation over twelve levels
- membrane keyboard / digital display
- exact setting of the individual treatment parameters possible
- two different compression speeds
- pressure setting 20 120 mmHg
- breaks can be adjusted between 5 and 90 seconds
- integrated timer / automatic disconnection
- patient-operated switch (remote control)
- high-performance unit for continuous operation
- dimensions: w 37 cm, h 18 cm, d 25 cm
- weight: 6.1 kg

# lympha-mat®300 GRADIENT





#### recognized therapeutic aid

- connection for 3 treatment sleeves
- simultaneous treatment of 2 legs and hip possible
- gradient pressurisation over twelve levels
- pressure setting 20-100 mmHg
- integrated timer / automatic disconnection
- 15 sec. interval
- dimensions: w 26 cm, h 16 cm, d 25 cm
- weight: 4.6 kg



