

# ***Passion for motion***

**Everything for your exercise room**

Equipment for physiotherapy, rehabilitation and medical fitness



## Catalogue

Equipment for physiotherapy, rehabilitation and medical fitness

The equipment in this catalogue is only meant to be used by competent personnel (physiotherapy, rehabilitation or adjacent areas). The manufacturer cannot guarantee the suitability of the products for a specific therapeutic aims.

We continually strive to improve our products so that they meet contemporary requirements and so to ensure that they are certified by international testing authorities. Consequently, the information in this catalogue may not reflect the latest specifications of a product.

The products for medical application are given the CE logo (in accordance with the Medical Device Directive) in this catalogue. This logo is a guarantee of good products that have been specially developed and tested for therapeutic purposes and that are fabricated to the strictest quality standards. Ensure that you always use products for medical applications that have this logo.

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In the production of this catalogue, environmental aspects has been taken into account.

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## company - quality - history



Human beings move, and so movement is important for all of us. A disturbance in movement ability is a primary indication for treatment. Positively influencing the human locomotor system is consequently an important part of healthcare. Movement itself is an important starting-point in the process of improving human health. Appropriate and sensible exercise is an important element in preventive, curative and palliative care.

Motivated by a passionate interest in movement, Enraf-Nonius has been developing products for mobility experts for more than 80 years. Enraf-Nonius has a reputation as the company for physiotherapy and rehab products. Enraf-Nonius has a worldwide clientele of medical professionals, physiotherapists and movement experts. Over its long history Enraf-Nonius has grown into a valued supplier of products for the treatment of conditions of the locomotor apparatus and of systems for improving the quality of life.

Passive forms of treatment have an important role to play in many complaints of the posture and locomotor apparatus. In this field Enraf-Nonius does, of course, have a long tradition and an extensive product range. Active treatment forms, however, are also becoming increasingly important. Enraf-Nonius is anticipating this development with a range that really meets its users' requirements. Specifically for these users Enraf-Nonius is developing the tools for an effective treatment and an optimum implementation of our products. With Enraf-Nonius you can count on a bright future.



# Passion for Motion

Everything for the exercise room



From its passion for movement, Enraf-Nonius has developed products for both evaluation and exercise of motion and cardio respiratory strength.

Each and every one top quality products for focused and responsible exercise within your preventative, curative and palliative care. Equipment with which you have perfect control over the care process and that, together with EN-Track, offers the possibility for the most refined adjustment of the exercise and treatment programmes in your practice and exercise room.

The active products of Enraf-Nonius are the first choice for your medical fitness. The equipment meets the requirements of the Medical Device Directive (MDD) and thus guarantees medically responsible treatment.

In this "everything for the exercise room" catalogue, you can find all the products that can help you in the follow-up treatment, the active rehabilitation, the functional rehabilitation and the fitness activities of your centre. In addition, we would like to refer you to our "everything for your treatment room" catalogue in which you can find all the products that can help you in the one-on-one treatment of your patients.

You can of course also find our products and services on our international web site. Surf to [www.enraf-nonius.com](http://www.enraf-nonius.com).

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## EN-Track

The art of supervising exercising

The EN-Track concept gives you full control over the active rehabilitation process, ensuring optimum treatment at all times. Training schemes (including MTT, Strength Training, Cardiovascular Training and Freestyle Training Models) can easily be compiled using the training recommendations already pre-programmed in the EN-Track. These recommendations consist of special exercises for developing coordination, stabilisation, suppleness and stamina. The EN-Track also enables you to create exercises of your own for each phase of the recovery process.



Data is collected by the patients themselves and is added to their patient status entirely automatically. The basic concept can be adapted to suit individual needs, thus guaranteeing a personalised but fully automatic monitoring of every patient. Needless to say, the ultimate training goal and the steps selected to achieve it are all fully user-definable. During the training phase, feedback of results is guaranteed.

Whenever you need to, you can intervene to adjust the treatment programme. Not only can you individualise the concept to suit your patient's needs, you can also easily adapt the functioning of the concept to suit your own requirements.

In EN-Track, there are tests to determine initial values and training protocols linked to these aimed at power, condition, duration, interval or fat burning. On the basis of these tests and objectives, you can plan out a full exercise programme for both patients (medical fitness) and clients (general fitness and well-being). EN-Track makes it possible to have exercise programmes adapted progressively and automatically to the capability of the user. This adaptation is checked so that overload is avoided. This also makes EN-Track exceptionally well suited to both fitness and medical fitness objectives.



EN-Dynamic and EN-Track:  
For patient and client!

- Quality management of the exercise programme
- Clear insight into patient's progress at all times
- All training principles can be freely interpolated
- Possibility of standardising exercise protocols
- Sensible and logical training build-up
- Safe training build-up
- No manual record-keeping
- No loose workout forms
- Feedback on all exercises
- Excellent reporting facilities
- Easy-to-use software program

#### Ordering data

- 1411801 EN-Track installation kit
- 1411805 EN-Track software
- 3444103 EN-Track chipcards, 10 pieces
- 3444104 Chipcard drive for EN-Track (USB)

#### Standard accessories

- 1411751 Operating manual EN-Track installation



#### EN-Strength

A multi-functional pneumatic pulley and a complete series of automatically settable pneumatic exercise units with equipment for the upper and lower extremities and for the trunk. EN-Strength was specially developed for use both by patients (in rehabilitation) and clients (in fitness and well-being).



#### EN-Cardio

A complete series of automatically adjustable cardio respiratory exercise equipment, ranging from ergometer bikes to rehabilitation belts. All EN-Cardio equipment works with the EN-Track concept and is perfect for use in both rehabilitation and post-rehabilitation.



#### EN-Tree

A complete series of multi-functional pulley systems with which you exercise with both isolated mono-articular and complex multi-articular movements. The EN-Tree series comprises various forms of implementation that allow perfect training with explosive movements as well as traditional power exercises.



#### EN-Free

With EN-Free, it is possible to integrate every form of exercise within the EN-Track concept. This means you can, for example, seamlessly incorporate ball exercises, trampoline exercises or training, for example, in the fully automated exercise concept. With EN-Free, you are totally free in your choice of forms of exercise.



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## For patient and client



EN-Dynamic. An extreme solid high-tech range made of superior material. The result of top engineering you can depend on for years to come. EN-Dynamic is optimal exercise for everybody. For the young and the old, for patients and customers, for beginners and athletes. EN-Dynamic instruments offer the ideal starting position to do exercises in the best way. With an active sitting position,

plenty of support, an accurate dosed load and a minimum in movement compensation during the exercise.

The range also has unmatched precision of pneumatics. This means there is no peak load in the early stages and an ideal power training is possible in a later period. No more laborious weights, being compact and silent are three more great advantages of the pneumatic function. Being able to increase the resistance in small steps and that there is no inertia are extra benefits. This makes power training pure.



- Adjustable from a seated position: the load is set by a simple push on a button
- Provides clear feedback to the user: the force is displayed digitally and the number of repetitions are counted automatically
- The large green letters are also visible for persons with visual limitations
- Compact
- With the chipcards, the resistance and number of repetitions are set automatically
- Simple to operate and accurately adjustable
- No unnecessary high peak forces
- Silent during exercising.
- Minimal increments are possible, thus accurate setting and smooth progression
- Wide range of load setting: from extremely light to very heavy
- Manually adjustable



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## The difference between a piece of fitness equipment and EN-Dynamic

### Ergonomic resistance curve

In the design of the equipment, optimal account was taken of the ergonomic resistance curve and the muscle-length-diagram.

### No inertia

Due to the lack of inertia, the training and power training are in the purest form.

### No peak forces

Due to a pneumatic resistance across the whole movement path, peak forces are avoided and this is favourable for training sessions in the commencement phase of rehabilitation. In addition, the EN-Dynamic equipment is also exceptionally well suited to power training in the final phase of rehabilitation.

**EN-Dynamic**  
for sportspeople

**EN-Dynamic**  
for rehabilitation

**EN-Dynamic**  
for older people

**EN-Dynamic**  
for health

### Small dimensions and quietness

The equipment is compact, light in weight and, due to the mainly frontal step-up possibilities, easily accessible to less healthy people. The lack of noise is a relief in the dynamic exercise room.



### Resistance in small steps

The resistance is adjustable in small steps so that the exercise doses can be accurately set, overload is avoided and the intensity can be built up extremely gradually. The extremely low starting resistance also makes the EN-Dynamic exceptionally well suited to older people.

## Low Back Trainer



**Ordering data**  
1455902 EN-Dynamic Low Back Trainer  
1455904 EN-Dynamic Abdominal Trainer

**technical specifications**  
Range: 0 - 80 x 10 N (kgf)  
Size: 160x90x130 cm  
Weight: 120 kg  
Power supply: direct plug-in adapter, input voltage 230 V / 50 Hz, output 12 V - 10 W

## Abdominal Trainer



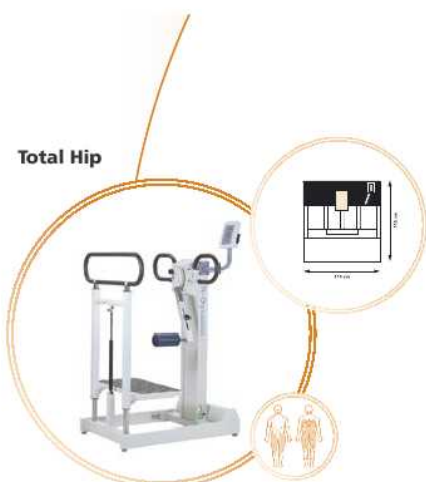
**technical specifications**  
Range: 0 - 80 x 10 N (kgf)  
Size: 160x90x140 cm  
Weight: 120 kg  
Power supply: direct plug-in adapter, input voltage 230 V / 50 Hz, output 12 V - 10 W



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# EN-Dynamic Lower Extremity

## Total Hip



## Leg Press



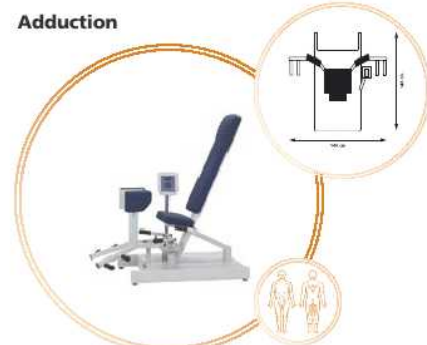
## Leg Extension



## Abduction



## Adduction



### Seated Leg Curl



### Squat



#### Ordering data

1455911 EN-Dynamic Total Hip  
1455905 EN-Dynamic Leg Extension  
1455912 EN-Dynamic Seated Leg Curl  
1455909 EN-Dynamic Abduction  
1455908 EN-Dynamic Adduction  
1455913 EN-Dynamic Seated Leg Press  
1455915 EN-Dynamic Squat

#### Optional accessories

1411800 EN-Dynamics installation kit  
3444488 Adapter 230V EUR  
3444489 Adapter 230/12V - BS1 (GB) for EN-Dynamic and EN-Train  
3444668 Compressor for EN-Dynamic  
1455940 ROM limiter EN-Dynamic Squat

Technical Specifications				
		Range	Size	Weight
EN-Dynamic Total Hip	1455911	0 - 36 x 10 N (kgf)	110x115x170 cm	120 kg
EN-Dynamic Leg Extension	1455905	0 - 100 x 10 N (kgf)	140x90x140 cm	105 kg
EN-Dynamic Seated Leg Curl	1455912	0 - 70 x 10 N (kgf)	140x90x140 cm	105 kg
EN-Dynamic Abduction	1455909	0 - 60 x 10 N (kgf)	140x140x140 cm	85 kg
EN-Dynamic Adduction	1455908	0 - 60 x 10 N (kgf)	140x140x140 cm	85 kg
EN-Dynamic Seated Leg Press	1455913	0 - 200 x 10 N (kgf)	220x90x140 cm	105 kg
EN-Dynamic Squat	1455915	0 - 200 x 10 N (kgf)	250x80x150 cm	265 kg

Power supply: direct plug-in adapter, input voltage 230 V / 50 Hz, output 12 V - 10 W



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## EN-Dynamic Upper Extremity

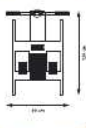
### Shoulder Press



### Pull Down



### Rowing



### Triceps Dips



## Chest Press



### Ordering data

1455901 EN-Dynamic Chest Press  
1455903 EN-Dynamic Pull Down  
1455907 EN-Dynamic Shoulder Press  
1455906 EN-Dynamic Rowing  
1455914 EN-Dynamic Triceps Dips  
1455910 EN-Dynamic Fly

### Optional accessories

1411800 EN-Dynamics installation kit  
3444488 Adaptor 230V EUR  
3444489 Adaptor 230/12V - BSI (GB) for EN-Dynamic and EN-Train  
3444668 Compressor for EN-Dynamic

Technical Specifications				
		Range	Size	Weight
EN-Dynamic Chest Press	1455901	0 – 120 x 10 N (kgf)	135x105x140 cm	100 kg
EN-Dynamic Pull Down	1455903	0 – 80 x 10 N (kgf)	140x120x180 cm	105 kg
EN-Dynamic Shoulder Press	1455907	0 – 60 x 10 N (kgf)	140x120x180 cm	135 kg
EN-Dynamic Rowing	1455906	0 – 100 x 10 N (kgf)	120x 90x115 cm	100 kg
EN-Dynamic Triceps Dips	1455914	0 – 100 x 10 N (kgf)	130x 72x140 cm	96 kg
EN-Dynamic Fly	1455910	0 – 65 x 10 N (kgf)	130x120x140 cm	100 kg

Power supply: direct plug-in adapter, input voltage 230 V / 50 Hz, output 12 V - 10 W

## Fly



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# EN-TreeP

Unique pulley with air resistance



- Compact, functional exercise unit on a surface area of 2m<sup>2</sup>
- Multi-functional exercise unit for dynamic as well as non-dynamic functional movements
- Double cords for varied stabilization, co-ordination, rotation and mobilization exercises
- Provides clear feedback to the user: the force is displayed digitally and the number of repetitions are counted automatically
- The large green letters are also visible for persons with visual limitations
- Manual adjustable
- Automatic adjustable with the EN-Track chipcard
- No unnecessary high peak forces
- Silent during exercising
- Minimal increments are possible, thus accurate setting and smooth progression
- Wide range of load setting: from extremely light to very heavy

### Ordering data

1412995 EN-TreeP

### Standard accessories

3443305 Set of 2 handgrips

### Optional accessories

3443306 Set accessories for EN-Tree Pulley  
3443307 Pull Down accessory  
3443308 Lat Pulley handgrip  
3443309 Triceps handgrip  
3443310 Ankle strap, 37 cm  
3443313 Leather strap, 73 cm  
3443383 Bent triceps bar  
3443383 Wrist trainer  
3444488 Adaptor 230V EUR  
3444489 Adaptor 230/12V - BSI (GB) for EN-Dynamic and EN-Train  
3446189 Exercise stool, height 65 cm  
3447695 Foot sling  
3496253 Row handle

### Technical specifications

Dimensions: 218x39x35 cm (HxWxD)  
Weight: (w. covers): 60 kg  
Height adjustment for rope: 0-200 cm  
Load increments: 40 to 720 N, in steps of 10 N  
For 1 cord end: display value divided in 6  
For 2 cord ends: display value divided in 3



# EN-Free

Accompaniment for free exercises by EN-Track.



In the normal load/loadability scheme, exercises are also included that very closely approach the varied ADL situation. These exercises cannot always be performed on standard equipment. EN-Free ensures that these exercises can also be included in the programme. Two units have been specially developed for

this, with which each free exercise can be controlled via EN-Track and with feedback on them also available.

With EN-Free, you can include each form of exercise you deem desirable within your centre in EN-Track; whether it be forms of exercise with a trampoline, an exercise bar, bar-bells or simply free mat exercises, everything can be included in EN-Track. With EN-Free, you are completely free in the compilation of your exercise programme.

- Routing through your facility
- Compose your own exercises
- Safe and supervised training



Ordering data  
1446901 EN-Free

#### Optional accessories

1446902 Pillar for EN-Free  
1446903 Wall-fixing for EN-Free  
3444111 Mains connecting cable, EUR  
3444132 Adapter ENA 1810 100-240V (Sonopuls 490/491, EN-Free)

#### Technical specifications

Mains adapter: 230 V / 12 V  
Dimensions: 21x18,5x6 cm (HxWxD)  
Weight: 1,2 kg



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## EN-Cardio Bike Reha



The Bike Reha is the bicycle for cardio respiratory training, rehabilitation and sports training in general. This ergometer cycle is exceptionally well suited to a wide group of patients and clients due to the exceptional adjustability, the low mounting level and the easy test modules.

On the Bike Reha, patients with limited movement can also exercise optimally. The low mounting level, the horizontal and vertical adjustability of the saddle and the handlebars and the adjustable cranks contribute to this. In addition, this cycle is exceptionally well suited to heart-lung patients for example, since it is possible to set an exceedingly low resistance of just 20 watts.



On the Bike Reha, overloading of the rehabilitating patient is avoided since the "coupling" can be kept constant. For ergometer cycles without coupling control, a reduction in the number of rotations per minute leads to an increase in the pedal resistance. If a patient starts to pedal more slowly, it may be that for these ergometers the resistance becomes so high that there is the danger of overload. In addition, it is extremely frustrating for the rehabilitating patient, since when they become tired the exercise becomes even harder. With the Bike Reha and the coupling position, this is avoided and your patients will be able to rehabilitate in a safe and pleasant way.

The Bike Reha is also interesting for (professional) sportspeople. The resistance can be varied from 20 to some 400 watts and the cycle offers options to perform various tests such as the VO2-Max, and the 3- and 12-minute tests. This means it is possible to obtain insight in an easy way into various aspects of the condition of the patient and the client.

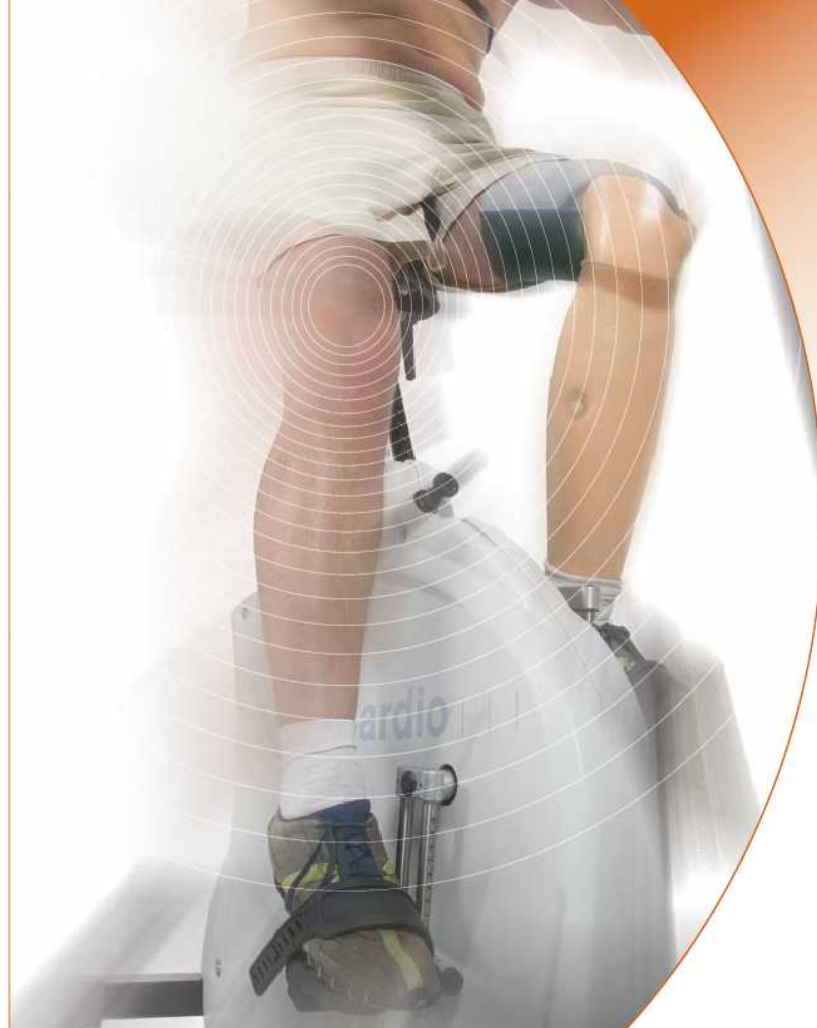
The Bike Reha can also be controlled from the EN-Track concept so that the entire training can be put together beforehand in a simple

manner, the settings of the cycle are automatically performed with the aid of a chip card and the results can be clearly displayed in the software.

Even without the EN-Track concept with the automatic settings, the Bike Reha is exceptionally easy to operate. A sophisticated and extensively tested interface ensures that everyone, young or old, can easily get going with this exercise equipment.

In short: The Bike Reha is indispensable to any practice!

- Low instep
- Uniformity in operation
- Clear display
- Ergonomic design
- Wear-resistant eddy-current brake
- Pulse monitoring, standard with ear-clip and built-in wireless Polar chest-strap receiver
- Low-noise belt-drive
- Smart-card technology
- Handlebar horizontal and vertical adjustable
- Saddle horizontal and vertical adjustable



**Ordering data**  
 3446665 Bike Reha  
 3446670 Bike Reha incl. hand/pulse measurement  
 3446676 Bike Reha Track, incl. adjustable cranks  
 3446675 Bike Reha Track, incl. hand/pulse measurement and adjustable cranks

**Optional accessories**  
 3446676 Adjustable cranks  
 3446675 Bike Reha Track, incl. hand/pulse measurement and adjustable cranks  
 3496161 Document holder  
 3446670 Hand/pulse measurement  
 3496839 Chest-belt for heartbeat registration  
 3496840 Elastic strap for chest belt for heartbeat registration

**Technical specifications**  
 Mains voltage: 230 V  
 Power supply: via power cord (230 V EUR)  
 Frequency: 50 Hz  
 Power consumption: approx. 40 VA  
 Braking principle: process-controlled eddy-current brake  
 Load: 20 - 400 W (resolution: 5 W increments) rpm-independent from 35 - 110 rpm 6 - 60 Nm (resolution: 0.5 Nm increments) rpm-independent from 35 - 110 rpm  
 Min. adjustable power: 20 W  
 Heart rate monitoring: Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)  
 Dimensions: 118x55x115 cm (LxWxH)  
 Weight: approx. 55 kg  
 Saddle height (adjustable): 50-110 cm (EN975-1 and -5)  
 Steering column height (adjustable): 75-115 cm  
 Crank length: 33.5 ± 1.5 cm  
 Max. patient weight: 150 kg / 330 lbs



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## EN-Cardio Step



The Step is a step ergometer with dependent pedals, so the left and right leg must be used in combination for optimum performance. If one leg is performing less, than this can be compensated for by the other leg. Uniformity in operation

- Clear display
- Ergonomic design
- Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)
- Smart-card technology

## Stair



The Stair is a step ergometer with independent pedals, so the left and right leg work independently. Even if the user has asymmetric mobility (i.e. limitations in one of the joints of the lower extremity) this ergometer can still be used to excellent effect. Uniformity in operation

- Clear display
- Ergonomic design
- Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)
- Smart-card technology

## Crosswalker



The Crosswalker is a total workout ergometer in which both the upper and lower extremities are fully involved in the power generation. By combining these two ballistic movements, extra-high demands are made on the user's cardio-respiratory capacity. Uniformity in operation

- Clear display
- Ergonomic design
- Wear-resistant eddy-current brake
- Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)
- Low-noise belt-drive
- Smart-card technology

# Cruiser



The Cruiser is a total workout ergometer in which both the upper and lower extremities are fully involved in the power generation. By combining these two ballistic movements, extra-high demands are made on the user's cardio-respiratory capacity.

Thanks to the other movement module Cruiser will form a welcome change from the Cross-walker.. Uniformity in operation

- Clear display
- Ergonomic design
- Wear-resistant eddy-current brake
- Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)
- Low-noise belt-drive
- Smart-card technology

**Ordering data**  
**3446666** Step  
**3446638** Step with horn-shaped handlebars  
**3446671** Step with horn-shaped handlebars, incl. hand/pulse measurement

**Ordering data**  
**3446667** Stair  
**3446639** Stair with horn-shaped handlebars  
**3446672** Stair with horn-shaped handlebars, incl. hand/pulse measurement

**Ordering data**  
**3446668** Crosswalker  
**3446673** Crosswalker incl. hand/pulse measurement

**Ordering data**  
**3446669** Cruiser

**Optional accessories**  
**3496161** Document holder  
**3496163** hand/pulse measurement  
**3496839** Chest-belt for heartbeat registration  
**3496840** Elastic strap for chest belt for heartbeat registration

**Optional accessories**  
**3496161** Document holder  
**3496163** hand/pulse measurement  
**3496839** Chest-belt for heartbeat registration  
**3496840** Elastic strap for chest belt for heartbeat registration

**Optional accessories**  
**3496161** Document holder  
**3496163** hand/pulse measurement  
**3496839** Chest-belt for heartbeat registration  
**3496840** Elastic strap for chest belt for heartbeat registration

**Optional accessories**  
**3496161** Document holder  
**3496839** Chest-belt for heartbeat registration  
**3496840** Elastic strap for chest belt for heartbeat registration

Technical specifications				
	Step	Stair	Crosswalker	Cruiser
Mains voltage	230 V	230 V	230 V	230 V
Power supply	via power cord (230 V EUR)	via power cord (230 V EUR)	via power cord (230 V EUR)	via power cord (230 V EUR)
Frequency	50 Hz	50 Hz	50 Hz	50 Hz Permitted voltage variation: ± 10%
Power consumption	approx. 70VA	approx. 70VA	approx. 40VA	approx. 40VA
Braking principle	process-controlled hydraulic brake	process-controlled eddy current brake	process-controlled eddy current brake	process-controlled eddy current brake
Load	12 speed dependent levels. Speed from 0-53 m/min or 0-160 steps/min	12 speed dependent levels. Speed from 0-53 m/min or 0-160 Stairs/min	0 - 400 W (resolution: 5 W increments) rpm-independent from 35 - 110 rpm 5 - 60 Nm (resolution: 0.5 Nm increments) rpm-independent from 35 - 110 rpm Min. adjustable power: 20 W	0 - 400 W (resolution: 5 W increments) rpm-independent from 35 - 60 rpm 6 - 60 Nm (resolution: 0.5 Nm increments) rpm-independent from 35 - 60 rpm Min. adjustable power: 20 W
Dimensions	107x73x150 cm (LxWxH)	107x73x150 cm (LxWxH)	190x55x177 cm (LxWxH)	220x55x125 cm (LxWxH)
Weight	approx. 50 kg	approx. 55 kg	approx. 80 kg	approx. 100 kg
Max. patient weight	150 kg / 330 lbs	150 kg / 330 lbs	150 kg / 330 lbs	150 kg / 330 lbs
Heart rate monitoring	Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)	Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)	Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)	Pulse monitoring, standard with earclip and built-in wireless Polar receiver (chestbelt is optional)
Exercise modes	constant level, constant heart rate	constant level, constant heart rate	constant torque, constant power, constant heart rate	constant torque, constant power, constant heart rate
Parameters displayed during training	time, heart rate, speed, distance, level.	time, heart rate, speed, distance, level.	time, heart rate, speed, distance, work, power, resistance and RPM.	time, heart rate, speed, distance, work, power, resistance and RPM.



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# EN-Cardio Mill

Cardio-respiratory exercise equipment, treadmill

The Mill is extremely suitable for a wide range of rehab and training purposes, such as active rehabilitation, mobilization, cardio-respiratory rehabilitation and/or general training and fitness.



The Mill features:

- straightforward operation
- easily readable display
- low mounting height
- sprung running surface
- powerful AC motor, 2.1 HP
- programmable
- heart rate control and monitoring with a Polar® chest band
- modular construction

There is a choice of two basic models: one fitted with the EN-Track interface and one without this interface (thus suitable for stand-alone use)

In their standard implementations, both models meet the following specifications:

- speeds adjustable from 0.5 to 18 km/h
- approved and authorised for medical use
- easy to operate and an extremely well laid out operating panel
- programmable operating unit
- possibility for heartbeat controlled training (with a Polar® transmitter and receiver (included))
- emergency stop via emergency button (standard model)
- hip belt with safety switch (for automatic stop if the client cannot maintain the running speed of the belt)

The basic models can be extended or modified with the following options:

1. speed range extra fast or extra slow
2. various front and side supports
3. various types of height adjustments
4. an access platform
5. and extra de luxe emergency stop



#### Ad 1. speed range normal or extra slow

In addition to the standard model with the wide speed range from 0.5 to 18 km/h, it is also possible to select:



**3446687**  
Speed Reha, an extra slow implementation from 0.1 to 12 km/h. Ideal for re-education and running training.



**3446688**  
Speed Sport, and extra fast implementation from 0.5 to 20 km/h. Ideal for condition training and for use by top athletes.



#### Ad 2. various front and side supports

**3446555**  
Coated side supports with a fixed height of 85 cm.



**3446533**  
Coated side supports, adjustable in height (77 – 88 cm) and in width (48 – 98 cm).



**3446677**  
With additional PVC-coated side supports with a fixed height of 85 cm.



**3446674**  
With additional PVC-coated side supports, adjustable in height (77 – 88 cm) and in width (48 – 98 cm).



**3446685**  
U-shaped front/side support with caps.



**3446686**  
Additional PVC-coated standard front support.



#### Ad 3. various types of height adjustments

**3446681**  
Electrical height adjustment from 0% to 25%.



**3446683**  
Special chocks on the back so that, in combination with the electrical height adjustment, a setting range from -10% to +15% can be achieved.



#### Ad 4. an access platform

**3446556**  
With this platform, you make the running belt highly accessible to people with ambulation assistance devices.



#### Ad 5. a de luxe emergency stop

**3446689**  
Very large "de luxe" emergency stop.

#### Ordering description

**3446692 EN-Mill Standard**  
Basic model of the Mill as described above.

**3446678 EN-Mill Track**  
Basic model of the Mill as described above and fitted with EN-Track interface.

The Mill can be extended with one or more extras. Consult your Enraf-Nonius representative for these.

#### Technical specifications

**3446692 en 3446678 Mill**

Supply voltage:	230 V ± 10%, 50-60 Hz.
Driving force:	frequency-controlled rotary-field electromotor
Motor capacity:	1500 W
Max power consumption:	10 A
Min./max. speed:	0.5 – 18 km/h
Belt area:	50 x 150 cm (eff.)
Max permissible client weight:	135 kg
Dimensions:	212 x 80 x 138 cm (lxwxh)
Weight:	145 kg

**3446678 has EN-Track compatibility:** fully compatible and integrated in EN-Track v6 or up



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## EN-Tree Pulley Explosive 54 kg



With EN-Tree products, active exercise is possible for almost anyone. Healthy individuals, patients with specific exercise requirements and wheelchair users can enter into their own training programs. This is possible because of the wide variety of load application and the ease of adaptation of the EN-Tree to every individual's need. The EN-Tree Pulley allows an increase of the weight in very small steps.

The EN-Tree Pulley allows the exercise of almost every human movement. This includes mono-articular movements as well as complex displacements. The EN-Tree Explosive Pulley is constructed for high speed, explosive movements, which for example occur during sports activities like tennis and soccer. This allows high velocity movement without high inertia. The EN-Tree Explosive provides the optimal balance between acceleration and resistance for high speed training. The EN-Tree Explosive is provided with 54 kg of weight, which effectively means a maximum of 18 kg to spare. Multi-functional.

- Accurate dosage of the exercise resistance
- Complete possibility to exercise on a surface area of 2m<sup>2</sup>
- Extremely smooth dual-bearing rollers
- Height adjustable with indicator
- Adjustable cord extension
- Very thin but extremely solid cord (less resistance from the rollers)
- Reduces force and displacement by a factor 6 and thus allowing high velocity movement without high inertia



#### Ordering data

- 3443354 EN-Tree Pulley Explosive 54 kg
- \* 3443370 EN-Tree Pulley Explosive MDD 54 kg, with cover

#### Standard accessories

- 1410750 Operating manual EN-Tree and EN-TreeM
- 3443305 Set of 2 handgrips

#### Optional accessories

- 3443306 Set accessories for EN-Tree Pulley
- 3443307 Pull Down accessory
- 3443308 Lat Pulley handgrip
- 3443309 Triceps handgrip
- 3443310 Ankle strap, 37 cm
- 3443313 Leather strap, 73 cm
- 3443355 EN-Tree Train
- 3443356 EN-Tree Bench
- 3443381 Bent triceps bar
- 3443383 Wrist trainer
- 3443386 Set of free weights for the 54 kg EN-Tree
- 3445552 Padded ankle band
- 3446189 Exercise stool, height 65 cm
- 3447695 Foot sling
- 3496253 Row handle

#### Technical specifications 3443354

- Dimensions: 218x39x35 cm (HxWxD)
- Weight: 82 kg
- Height adjustment for rope: 0-200 cm
- Weights: 2 kg until 54 kg
- For 1 cord end: 0.33-1.1-6.2-3.4-3.5-5.6-6.3-7.7-6.8-3.9 kg
- For 2 cord ends combined: 0.66-2.3-3.4-6.6-6-7.3-8.6-10-11.3-12.6-14-15.33-16.66-18 kg

#### Technical specifications 3443370

- Dimensions: 218x39x35 cm (LxWxD)
- Weight (w.o. covers): 97 kg
- Height adjustment for rope: 0-200 cm
- Weights: 2 kg until 54 kg
- For 1 cord end: 0.33-1.1-6.2-3.4-3.5-5.6-6.3-7.7-6.8-3.9 kg
- For 2 cord ends combined: 0.66-2.3-3.4-6.6-6-7.3-8.6-10-11.3-12.6-14-15.33-16.66-18 kg



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## EN-Tree Pulley 24 kg



With EN-Tree products, active exercise is possible for almost anyone. Healthy individuals, patients with specific exercise requirements and wheelchair users can enter into their own training programs. This is possible because of the wide variety of load application and the ease of adaptation of the EN-Tree to every individual's need. The EN-Tree Pulley allows an increase of the weight from 0,25 to 24 kg in 30 small steps. The EN-Tree Pulley, allows the exercise of almost every human movement. This includes mono-articular movements as well as complex displacements. Multi-functional

- Accurate dosage of the exercise resistance
- Complete possibility to exercise on a surface area of 2m<sup>2</sup>
- Extremely smooth dual-bearing rollers
- Height adjustable with indicator
- Adjustable cord extension
- Very thin but extremely solid cord (less resistance from the rollers)
- Adjustable ROM

#### Ordering data

- 3443353 EN-Tree Pulley 24 kg
- \* 3443369 EN-Tree Pulley MDD 24 kg, with cover

#### Standard accessories

- 1410750 Operating manual EN-Tree and EN-TreeM
- 3443305 Set of 2 handgrips

#### Optional accessories

- 3443306 Set accessories for EN-Tree Pulley
- 3443307 Pull Down accessory
- 3443308 Lat Pulley handgrip
- 3443309 Triceps handgrip
- 3443310 Ankle strap, 37 cm
- 3443313 Leather strap, 73 cm
- 3443355 EN-Tree Train
- 3443356 EN-Tree Bench
- 3443381 Bent triceps bar
- 3443383 Wrist trainer
- 3443385 Set of free weights for the 24 kg EN-Tree
- 3446189 Exercise stool, height 65 cm
- 3447695 Foot sling
- 3496253 Row handle

#### Technical specifications 3443353

- Dimensions: 218x33x30 cm (HxWxD)
- Weight: 47 kg
- Height adjustment for rope: 0-200 cm
- Weights: 1 kg until 24 kg
- For 1 cord end: 0.25-0.5-0.75-1-2-3-4-5-6-7-8-9-10-11-12 kg
- For 2 cord end: 0.5-1-1.5-2-4-6-8-10-12-14-16-18-20-22-24 kg
- Range: 0.25-24 kg

#### Technical specifications 3443369

- Dimensions: 218x33x30 cm (LxWxD)
- Weight (w.o. covers): 60 kg
- Height adjustment for rope: 0-200 cm
- Weights: 1 kg to 24 kg
- For 1 cord end: 0.25-0.5-0.75-1-2-3-4-5-6-7-8-9-10-11-12 kg
- For 2 cord end: 0.5-1-1.5-2-4-6-8-10-12-14-16-18-20-22-24 kg
- Range: 0.25-24 kg



# EN-Tree Bench

## Two-section MTT training bench

The stable basis for MTT – suitable for both therapeutic support and personal use.. Practical and easily adjustable

- Inclinal, length-adjustable backrest
- Equipped with inclinometer
- Adjustable seat cushions
- Seat cushions gently inclinable



# EN-Tree Train

## MTT angle/mobilization bench

Two-section MTT angle/mobilization bench. Both sections are easily adjustable.

The EN-Tree Train is suitable for all the most frequently used exercises.. Resistance adjustable in small steps (both pro- and degressively) thanks to wide choice of starting-positions

- The two sections are independently adjustable
- Both sections have an inclinometer
- Section with face-hole is adjustable from -80° to +75°
- Leg-part upwardly adjustable from -25° to +15°
- Fitted with height-adjustable bolsters.



**Ordering data**  
3443356 EN-Tree Bench

**Standard accessories**  
3443358 Operating manual EN-Tree bench

**Technical specifications 3443356**  
Dimensions: 48x47x134 cm (HxWxL)  
Weight: 25 kg  
Maximum load per section in its lowest position: 135 kg  
Angle adjustment: - back section 0° to 75°  
- leg-section 0° and 7°

**Ordering data**  
3443355 EN-Tree Train

**Standard accessories**  
3443359 Operating manual EN-Tree train

**Technical specifications 3443355**  
Dimensions: 82x56x143 cm (HxWxL)  
Weight: 37 kg  
Angle adjustment: - trunk-section -80° to +75°  
- leg-section -25° to +15°  
Maximum load per section: 135 kg  
Position of the rolls in relation to the end of the leg section: - parallel to the top 0 to 27 cm  
- at a right angle to the top -45 to +24 cm



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# EN-TreeM Pulley 24 kg



In physical therapy and rehabilitation it is very important to quantify the functional capacity of the human muscular-skeletal system. This is in order to determine the appropriate individual load during exercise therapy or to evaluate the progress during rehabilitation. Custom systems for the measurement of functional capacity require many square meters of floor space and high investments. To make measurement techniques available for every therapist Enraf-Nonius offers the EN-TreeM, the unique unit for extremely accurate physical therapy and rehabilitation.

The EN-TreeM is the measurement edition of the well-known EN-Tree Pulley, the ideal aid for functional training and rehabilitation. The EN-TreeM accurately determines position, velocity, force, power and work. With these parameters you can quantify the functional capacity of your patients with a PC.

In the powerful software you can compose various test- and training protocols. To analyse the test and training results a professional and complete package is provided which allows you to assess optimum individual treatment.

The goals of treatment can be determined by:

- left-right comparison;
- assessment of normal or abnormal movement patterns from the graphs;
- comparison of test results between individuals.

Progress during rehabilitation can be monitored by comparing the results of different tests recorded in time.

For a reliable reproduction of a training session or a test you initiate the pulley set-up as well as the positioning of the patient.. Multi-functional

- Extensive data-aquisition and software for analysis
- Accurate dosage of the exercise resistance
- Complete possibility to exercise on a surface area of 2m<sup>2</sup>
- Extremely smooth dual-bearing rollers
- Height adjustable with indicator
- Adjustable cord extension
- Very thin but extremely solid cord (less resistance from the rollers)
- Reduces force and displacement by a factor 6 and thus allowing high velocity movement without high inertia



#### Ordering data

- 3443361 EN-TreeM Pulley 24 kg
- \* 3443365 EN-TreeM MDD 24 kg, with cover
- 3443363 EN-TreeM MDD 54 kg
- \* 3443367 EN-TreeM MDD 54 kg, with cover

#### Standard accessories

- 1410702 Operating manual EN-TreeM software
- 1410750 Operating manual EN-Tree and EN-TreeM
- 1410807 Software EN-TreeM
- 3443305 Set of 2 handgrips
- 2570239 PC cable
- 1410804 Foot stickers

#### Optional accessories

- 3443306 Set accessories for EN-Tree Pulley
- 3443307 Pull Down accessory
- 3443308 Lat Pulley handgrip
- 3443309 Triceps handgrip
- 3443310 Ankle strap, 37 cm
- 3443313 Leather strap, 73 cm
- 3443355 EN-Tree Train
- 3443356 EN-Tree Bench
- 3443381 Bent triceps bar
- 3443383 Wrist trainer
- 3443385 Set of free weights for the 24 kg EN-Tree
- 3444008 Mains adaptor 230V/9V - EUR
- 3444019 Mains adaptor 115V/9V - US
- 3444032 Mains adaptor 240V/9V - UK
- 3446189 Exercise stool, height 65 cm
- 3447695 Foot sling
- 3496253 Row handle

#### technical specifications 3443361

Dimensions:	218x33x30 cm (LxWxD)
Weight (w.o. covers):	47 kg
Height adjustment	
for rope:	0-200 cm
Weights:	1 kg until 24 kg
For 1 cord end:	0.25-0.5-0.75-1-2-3-4-5-6-7-8-9-10-11-12 kg
For 2 cord end:	0.5-1-1.5-2-4-6-8-10-12-14-16-18-20-22-24 kg
Range:	0.25-24 kg



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## EN-Vibe



Vibration training (Whole Body Vibration or WBV) is a highly effective and flexible training concept within physiotherapy, well-being and sport. Vibration training influences the muscles, blood vessels, cartilage, bones and hormones. This major effect on the various physiological systems makes the vibration plate a unique piece of exercise equipment.

The action of the vibration plate is based on the 'strain reflex'. The mechanical vibration of the vibration plate is transferred to the body so that the muscles involuntarily contract and expand intensively and continuously. 'Involuntarily' means automatically and this reaction of the body to the vibration plate cannot therefore be stopped. Due to the high frequency of the vibration, the effect of this reaction is also very strong and is of course much more rapid than the normal voluntary movements so that the "movement dose" per unit of time is much greater.

Just compare it for a moment with an exercise of the leg muscles. If you have 30 seconds of time and perform, for example, simple step exercises with a speed of about 2 steps a second, your leg muscles will have performed 120 contractions (60 concentric and 60 exocentric con-

tractions). A frequency of 30 Hz means 30 muscle contractions per second, so when you perform an exercise for 30 seconds, you have 900 muscles contractions (reactive contractions).

In addition to this direct mechanical action on the muscles, training on the vibration plate also results in a number of physiological effects that are extremely desirable, such as:

- Reduced breakdown of muscle proteins
- Increased excretion of hormones
- Improved regenerative processes
- Improvement of blood flow and lymph drainage
- Reduced bone decalcification

Finally, but not least; vibration training is also fun! Due to the intense sensation that people experience during the training, people feel good doing it!

The EN-Vibe features include:

- Excellent durability
- Powerful frequency-controlled motor
- Extensive set up capabilities
- Exceptionally easy operation



Ordering data  
3444844 EN-Vibe

Standard accessories  
3445080 Operating manual EN-Vibe  
xxxxxxx EN-Vibe therapy poster  
xxxxxxx EN-Vibe absorbing mat  
xxxxxxx EN-Vibe belts (2 pieces)

#### Technical specifications

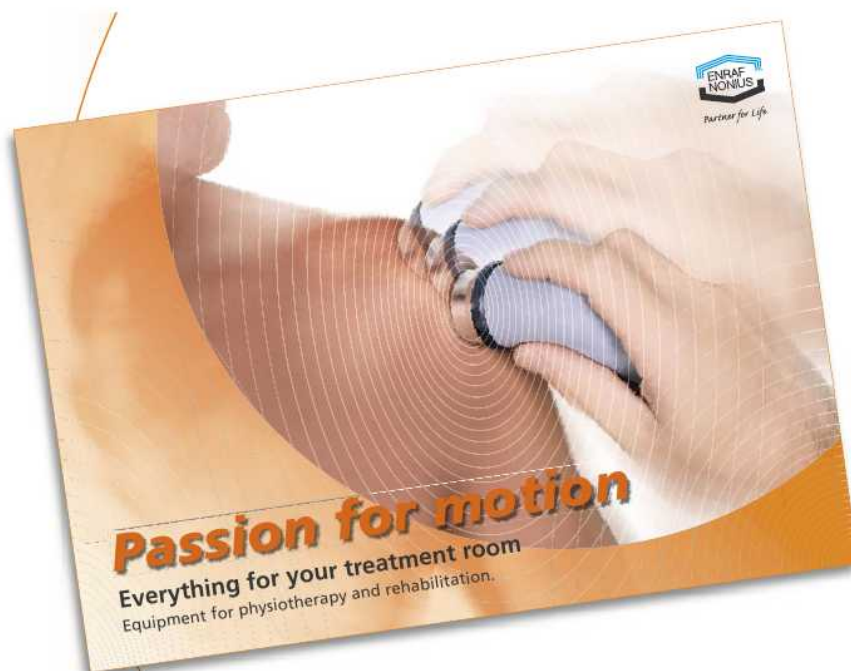
Dimensions: approx. 70 x 70 x 140 cm  
(w x d x h)  
Dimensions plate: approx. 70 x 40 x 23 cm  
(w x d x h)  
Weight: approx. 100 kg  
Frequency settings: 30, 40, 50 Hz  
Time settings: 30, 45, 60 sec  
Intensity settings: high - low  
Voltage: 230 Volt - 50 Hz (± 5%)  
Current consumption: maximum 1.2 Amperes  
Power: 400 VA  
Fuse: 6.3 Ampere slow blow fuse  
(9T/6.3A / 230 V, size 5 x 20 mm)



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## Passion for Motion

Everything for the treatment room



**Passion for motion**  
Everything for your treatment room  
Equipment for physiotherapy and rehabilitation.





With an intense passion for movement, Enraf-Nonius has been developing products for the physical specialist for more than 80 years. Enraf-Nonius is renowned for its products for physiotechnical applications and for its complete range of treatment benches.

Many forms of physical stimulation can help the body in the regeneration or quality improvement of tissue. Electricity, vibration, radiation and thermal regulation of widely varying forms and applications have shown their effectiveness in recent decades. The focused and effective application of the various physical stimuli has been extensively described and there is now well-supported evidence for the use of the various forms for many selected conditions.

Enraf-Nonius has an extensive offer in the field of physiotechnical applications. World famous names in physiotherapy such as Endomed, Sonopuls, Myomed and Curapuls are from the Enraf-Nonius stable. With more than 80 years of experience in the field of developing and marketing physiotechnical equipment, you can be assured of reliable products that have been optimally adapted to your wishes and that will keep going for a very long time.

As well as physiotechnical equipment, Enraf-Nonius is also strong in the development

of treatment couches. During treatment, the client and patient expect comfort, but they must also be able to lie in the optimal position for best effect. A treatment couch must also be so adjustable that the load on the person performing the treatment is minimised. In the development of the Manumed treatment couches, account was taken of all these factors.

The unique construction of the Manumed is characterised by a balanced blend of stability, adjustability and comfort. The Manumed treatment couch makes the ideal comfortable workplace of and for people.

In this "everything for the exercise room" catalogue, you can find all the products that can help you in the follow-up treatment, the active rehabilitation, the functional rehabilitation and the fitness activities of your centre. In addition, we would like to refer you to our "everything for your treatment room" catalogue in which you can find all the products that can help you in the one-on-one treatment of your patients.

You can of course also find our products and services on our international web site. Surf to [www.enraf-nonius.com](http://www.enraf-nonius.com).

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## Functional - Reliable - Durable



### Functional

Enraf-Nonius has its own Research & Development division and develops products in response to clients' wishes and needs.

That means that we closely monitor all international trends.

The contribution of the knowledge of experts and training institutes the world over is also extremely important.

All new or updated forms of therapy are evaluated for their immediate need and their future possibilities. This enables Enraf-Nonius to monitor developments and innovations and to continue to offer you the best possible functional products.

### Reliable

Enraf-Nonius is a reliable partner, a "Partner for Life". Enraf-Nonius stands for quality.

Good quality is essential both for you and for us.

For you – as a medical professional, physiotherapist and/or motion expert – quality is important because your everyday professional practice depends on the proper functioning of our products. For your patients or clients quality is important because, during their treatment, they

depend on the correct functioning of our products for improvements in their health. For us, as a producer of medical engineering products, quality is important because our continued existence as a company obviously depends on your success!

That's why Enraf-Nonius goes to a lot of trouble over quality. We're ISO-certified (ISO 9001:2000 en ISO 13485:2003) – naturally. This certification is regularly checked by independent bodies to ensure that standards are maintained.

But at Enraf-Nonius we take quality even further. Our quality awareness is high. The processes required to achieve a high-quality product and provide optimum service are smoothly integrated. In this process the feedback we receive from you, our clients, is continuously used to improve our performance.

To us performance means more than just a product that works in an attractive packaging. Our quality awareness and the organization that is built around it are always present – from the initial idea as far as your purchase. It's not for nothing that Enraf-Nonius has the motto 'Partner for life'.

### Durable

Since as long ago as 29 November 1925 (the foundation date of the Eerste Nederlandse Röntgen Apparaten Fabriek (First Dutch X-Ray Equipment Factory, or ENRAF), Enraf-Nonius has made products and worked on customer relationships that are durable and long-lasting.

Enraf-Nonius supplies the Netherlands and exports worldwide to more than 100 countries with the aid of a long-lasting network of exclusive and highly specialized distributors. We are only able to achieve this international collaboration by providing products and services that continue to keep their value. With Enraf-Nonius products, you are assured of many years of the right functionality, reliability and durability. Not for nothing does Enraf-Nonius employ the slogan "Partner for life".



Want to make sure you're always up to date on products, applications, exhibitions and other highlights? Then make [www.enraf-nonus.com](http://www.enraf-nonus.com) into one of your browser Favourites!

At [www.enraf-nonus.com](http://www.enraf-nonus.com) you'll be able to find descriptions of the very latest versions of our products. The Enraf-Nonius website contains our updated catalogue. Should products change, software updates become available or new products be added to the package then you'll find these at [www.enraf-nonus.com](http://www.enraf-nonus.com).

At our website you'll also find regular descriptions of our products as well as case studies and real-life applications. The website is also the quickest way of finding one of our authorized dealers. Wherever you might be in the world there's always an Enraf-Nonius repre-

sentative near you, who can not only help you with your purchase of the best equipment for physiotherapy and rehab but who can also assist with potential applications of the Enraf-Nonius products and with service on Enraf-Nonius products.

Finally, the Enraf-Nonius website can serve as your 'portal' for linking quickly to other interesting sites, so that you're always well informed about exhibitions and meetings in your specialist field and have access to many other useful pieces of information besides.

Add this link to your Favourites today or make it your homepage

[www.enraf-nonus.com](http://www.enraf-nonus.com)



**Enraf-Nonius International**  
Vanseweg 127  
3047 AT Rotterdam  
P.O. Box 12080  
3004 GB Rotterdam  
The Netherlands  
Tel. : +31-(0)10 - 203 06 00  
Fax : +31-(0)10 - 203 06 99  
E-mail : [info@enraf-nonus.nl](mailto:info@enraf-nonus.nl)  
Website : [www.enraf-nonus.com](http://www.enraf-nonus.com)

Your distributor:

Visit us at <http://www.enraf-nonus.com>