## **EN-Tree Pulley**



The Enraf-Nonius EN-Tree assortment offers a complete gamma for medical training therapy (MTT). Medical training therapy is a concept that is used for:

- strengthening muscles
- mobilisation
- improving one's endurance
- improving one's co-ordination

MTT makes use of various aids and exercise systems. In addition to our EN-Dynamic exercise equipment and EN-Cardio training equipment, we offer a broad range of pulley systems. EN-Tree pulleys are ideal for MTT because every movement can be simulated and trained. In addition to isolated movements, pulleys can be used to mimic almost every movement that one makes in daily life. The EN-Tree systems are well accessible, they enable one to gradually increase the training programme and they require very little space.

The EN-Tree products pallet comprises various devices.

First of all, we offer 4 different pulleys:

- 1. EN-Tree Pulley (24 kg), the standard versatile pulley with a range of 0.25 kg to 24 kg.
- 2. EN-Tree Pulley Explosive (54 kg), the ideal pulley for training rapid explosive movements with a range of 0.33 kg to 18 kg
- 3. EN-Tree P, the pneumatic pulley for both power training as well as for training rapid explosive movements with a range of 0.66 kg (6.6N) to 24 kg! Moreover, the EN-Tree P can be adjusted fully automatically using the EN-Train system.
- 4. EN-Tree M, the measuring pulley, available in a normal or explosive version and equipped with software for the purpose of quantifying the exercises with the pulley.

We also offer a wide range of accessories for all of our pulleys. These accessories enable one to carry out very specific exercises.

We also offer an exercise bench in addition to the various pulleys. This bench is ideal for exercising with the EN-Tree pulleys. In addition, this bench is also ideal for mobilisation exercises and muscle-strengthening exercises without additional equipment. Thanks to its small size and the small wheels the EN-Tree Bench can easily be moved elsewhere.



- Multi-functional
- Accurate dosage of the exercise resistance
- Complete possibility to exercise on a surface area of 2.5m<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)



RENDERS MEDICAL TRAINING

**ACCESSIBLE FOR EVERYONE!** 



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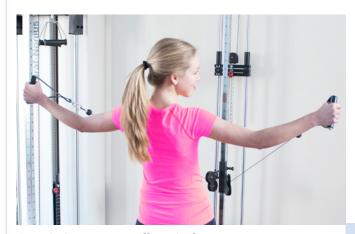
# **EN-Tree Pulley**



## 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 small steps. The EN-Tree Pulley, allows the exercise of almost every human movement. This includes mono-articular movements as well as complex displacements.



1455970 EN-Tree Pulley (24 kg)



1455971 EN-Tree Pulley MD (24 kg with cover)

nrat-Nonius





## **EN-Tree Pulley**



## EN-Tree Pulley Explosive (54 kg)

The EN-Tree Pulley Explosive is constructed for high speed, explosive movements, which occur for example during sports activities like tennis and soccer. This allows for 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 weight of 18 kg.



## 1455972 EN-Tree Pulley Explosive (54 kg)



1455973 EN-Tree Pulley Explosive MD (54 kg, with cover)



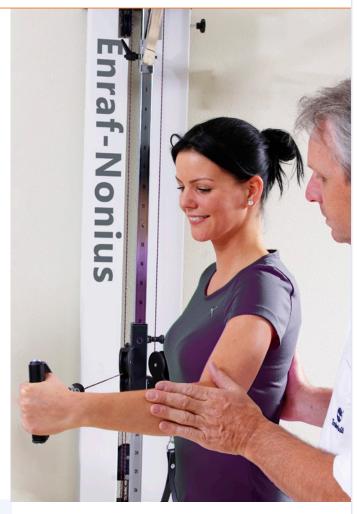
## **EN-Tree P**



The EN-Tree P (for pneumatic) is a pulley system that does not make use of the traditional weights, but rather a pneumatic resistance. In addition to the advantages of a traditional pulley system, such as versatility, requires little space and good accessibility, the pneumatic system like the EN-Tree P has a few more advantages:

- an extremely low minimum load
- a high maximum resistance (720 N)
- it is possible to increase the load in very small steps
- Silent during exercising
- no mass inertia due to the pneumatic resistance, making the EN-Tree P the ultimate Explosive pulley
- a pulley that can be fully controlled (and adjusted automatically) from EN-Train, enabling one to undergo consistent and controlled training sessions

With that, EN-Tree P is a unique system that offers added value to any all-round practice, with or without EN-Train.



### 1455974 EN-Tree P



### OTHER PRODUCT THAT MIGHT INTEREST YOU

#### **EN TRAIN**

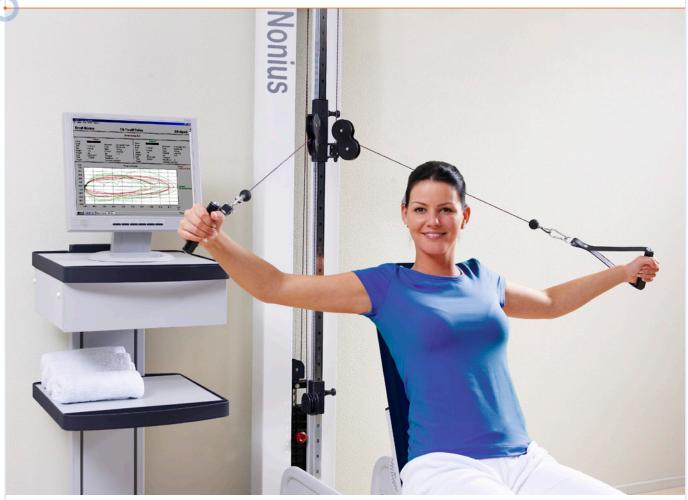
The EN-Train concept gives you full control over the active rehabilitation process, ensuring optimum treatment at all times. Training schemes can easily be compiled using the training recommendations already preprogrammed in EN-Train.

#### **ORDERING DATA**

1411811 EN-Train installation kit

Also see the seperate product leaflets at **WWW.ENRAF-NONIUS.COM** 





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-Tree M, the unique unit for extremely accurate physical therapy and rehabilitation.

The EN-Tree M is the measurement edition of the well-known EN-Tree Pulley, the ideal aid for functional training and rehabilitation. The EN-Tree M 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
- $\bullet \quad \text{assessment of normal or abnormal movement patterns from the graphs;} \\$
- 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.



## **EN-Tree M**



1455975 EN-Tree M Standard MD (24 kg, with cover)



1455976 EN-Tree M Explosive MD (54 kg, with cover)







## **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
- Inclinable, length-adjustable backrest
- Equipped with inclinometer
- Adjustable seat cushions
- Seat cushions gently inclinable

## TECHNICAL SPECIFICATIONS

Dimensions (hxwxl): 48x47x134 cm 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°

### 3443356 EN-Tree Bench





## Accessories EN-Tree



		EN-Tree 24 kg	EN-Tree 54 kg	EN-Tree P	EN-Tree M 24 kg	EN-Tree M 54 kg
3446189	Exercise stool, height 65 cm	Х	х	Х	Х	Х
3443306	Set accessories for EN-Tree Pulley (1)	Х	х	Х	Х	Х
3443305	Set of 2 handgrips	х	х	Х	Х	Х
3443307	Pull down accessory	Х	х	Х	Х	Х
3443308	Lat Pulley handgrip	Х	х	Х	Х	Х
3443309	Triceps handgrip	Х	х	х	х	х
3447695	Foot sling	Х	х	Х	Х	Х
3443310	Ankle strap, 37 cm	Х	х	Х	Х	х
3443313	Leather strap, 73 cm	Х	х	Х	Х	Х
3445553	Padded hip belt	Х	х	Х	Х	х
3445552	Padded ankle belt	Х	х	Х	Х	Х
3443383	Wrist trainer	Х	х	Х	Х	х
3443381	Bent triceps bar	х	х	Х	Х	Х
3496253	Row handle	Х	х	х	Х	х
3443385	Set of free weights (100 and 200 g)	Х			Х	
3443386	Set of free weights (300 and 600 g)		х			Х
3444008	Mains adaptor 230V/9V - EUR					Х
3444032	Mains adaptor 240V/9V - UK					Х
3444019	Mains adaptor 115V/9V - US					Х

(1) = 3443307 + 3443308 + 3443309 + 3443310





































## **EN-Tree**



### **TECHNICAL SPECIFICATIONS**

Articlenu	umber		Provided with cover	Dimensions (hxwxd) in cm	Weight	Height adjustment for rope	Adjustable weight / load	Effective weight/ load with one cord end	Effective weight/ load with two cord ends combined	Max. effective weight
1455970	T.	EN-Tree Pulley (24 kg)		218x33x30	47	0-200	1 kg - 24 kg	А	В	24 kg
1455971		EN-Tree Pulley MD (24 kg, with cover)	х	218x33x30	60	0-200	1 kg - 24 kg	А	В	24 kg
1455972	1	EN-Tree Pulley Explosive (54 kg)		218x39x35	82	0-200	2 kg - 54 kg	С	D	18 kg
1455973	4	EN-Tree Pulley Explosive MD (54 kg, with cover)	х	218x39x35	97	0-200	2 kg - 54 kg	С	D	18 kg
1455974	Cartification (Cartification)	EN-Tree P	х	218x39x35	60	0-200	40 - 720 N	E	F	24 kg
1455975	J. F.	EN-Tree M Standard MD (24 kg, with cover)	х	218x33x30	60	0-200	1 kg - 24 kg	А	В	24 kg
1455976	100 P	EN-Tree M Explosive MD (54 kg, with cover)	х	218x39x35	97	0-200	2 kg - 54 kg	С	D	18 kg

A = 0.25 - 0.5 - 0.75 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 kg

B = 0.5-1-1.5-2-4-6-8-10-12-14-16-18-20-22-24 kg

C = 0.33-1-1.6-2.3-4.3-5-5.6-6.3-7-7.6-8.3-9 kg

D = 0.66-2-3.33-4.66-6-7.3-8.6-10-11.3-12.6-14-15.33-16.66-18 kg

 $\mathsf{E} = 6.7\text{-}8.3\text{-}10\text{-}11.7\text{-}13.3\text{-}15 \ \mathsf{etc} \ ... \ 120 \ \mathsf{N} \ (\sim\!0,67\text{-}0.83\text{-}1\text{-}1.17\text{-}1.33 \ \mathsf{etc} \ ...12 \ \mathsf{kg})$ 

 $F = 13.3 \text{-} 16.6 \text{-} 20 \text{-} 23.3 \text{-} 26.6 \text{ etc } \dots \text{ 240 N ($\sim$1.33$-} 1.66$-2$-2.33 \text{ etc } \dots \text{ 24 kg)}$ 

### **Installation requirements EN-Tree**

EN-Tree should be mounted to the wall with 4 screws and plugs. The wall should be firm enough to resist forces up to 950 N (thus do not attach it to carton-board or thin wooden walls). Leave about 2.5  $\mbox{m}^2$  free around every pulley for optimal exercise.

## Installation requirements EN-Tree M

The EN-Tree M needs a computer for full operation. The computer can be obtained locally.

