

h/p/cosmos®



sports, diagnostics, medical and rehabilitation treadmills

ahead of time®



pluto® med with standard handrails

# reliable treadmills made in germany

German Engineering since 1988

Benefit from our experience since 1988 in building and servicing standard and customized treadmill solutions around the globe.



pluto® med with optional paediatric handrails [cos102400-01va01]

## h/p/cosmos standard

h/p/cosmos has been developing and building treadmills since 1988 in Germany for various fields including fitness, competitive sports, sports medicine, orthopedic and neurological rehabilitation, sport science, biomechanics, uniformed services, performance diagnostics, cardiopulmonary diagnostics and rehabilitation. This experience, maximum standards in quality and advanced technology are the foundation of our business and also reflected in the pluto® med treadmills.

The outstanding level of h/p/cosmos products and service as well as attractive prices form the h/p/cosmos standard.

## Stable and low-maintenance

With their stable frame, the treadmills are almost indestructible, very low-maintenance and offer both runner or patient a pleasant running feeling thanks to their state-of-the-art design. They also stand out due to their smooth running, their versatile functions, their powerful drive system and their timeless and user friendly design.

## Medical device (class IIb) and sports treadmills

Our treadmills are available as risk class IIb medical treadmills as well as sports treadmills. As a medical device, they are particularly suitable for the use in the fields of cardiology, neurology, cardiological rehabilitation and physiotherapy. The interface via coscom® v4 of the h/p/cosmos treadmill and ergometer series enables the connection to ECG, ergospirometry systems, blood pressure monitors and software programs.

## Customer-specific configuration for individual solutions

Treadmills off the peg can be many, at h/p/cosmos you can also get your individually assembled treadmill solution with a large selection of options and accessories. Too little budget for the desired configuration? Changed demands on the treadmill system due to new business areas or new areas of application? No problem, most options and accessories can also be retrofitted at a later date. With h/p/cosmos you are always on the right track, because you cannot make the wrong decision due to the flexible and modular design.



pluto® med with optional long handrails [cos102918-01] and safety arch fall prevention [cos10079-01va01]



# flexible handrail concept

Some of our best selling handrail configurations:



pluto® med  
with standard handrails



pluto® med  
with optional long handrails [cos102918-01]



pluto® med  
with optional adjustable handrails [cos102010va07]



pluto® med  
with optional paediatric handrails [cos102400-01va01]



pluto® med  
with optional very short handrails [cos103867]



pluto® med  
with optional speed handrails [cos103651]  
and extra wide footboards [cos103928]

The renewed h/p/cosmos handrail concept allows quick and flexible adaptations of the treadmill to various demands.

### Standard and long handrail

The ingeniously simple plug-in concept makes it a child's play to change the handrails and adapt them to the required application. As standard we deliver all treadmills of the pluto® series with handrails, which cover about half of the running surface length. By quickly loosening two hex head screws, the short handrail can be easily removed and replaced by the therapist or trainer with a long handrail (reaching to the end of the running surface), either on one side or on both sides (for extended safety when stepping onto the running deck).

### Adjustable handrail

h/p/cosmos treadmills can also be supplied with height and width adjustable handrails. This variant is ideal if you serve a heterogeneous clientele. They offer the different patient types (from children, to small and tall persons as well as for obese patients) optimal conditions for therapy and/or training. In combination with the optional arm support, you also enable patients to train more safely and without fear. As an additional feature, the optional arm support offers the possibility of a manual unweighting by the patient relieving partial body weight on these stable pads.

### Very short handrail

For special applications, the handrails can be completely removed. Due to safety reasons, a crossbar must then be used, which is mounted on two very short handrails or on speed handrails with additional grips for better jump-on and jump-off during hyperspeed sprint trainings. This variant makes sense, for example, if a video analysis is carried out in the sagittal plane or if an ECG stress test is carried out in cardiology (handrail might interfere with cable routing).

# options



## Additional options for your individual treadmill solution

The numerous additional options allow you to adapt h/p/cosmos treadmills exactly to your needs and your field of application. Some of our most successful options:

### Safety arch fall prevention

In the event of a fall, the patient is caught with a safety harness and the treadmill is automatically stopped.

### Unweighting system airwalk® ap (with optional emergency stop)

Unweighting system (dynamic and continuously adjustable approx. 0.5 ... 80 kg) and optional emergency stop (patient is caught in a vest or neopren short and the treadmill stops). For operation of the airwalk® ap, a compressor is needed.

### Reverse belt rotation

The running belt runs in the opposite direction. With the incline set at the same time, downhill running can be simulated. The option is available for all h/p/cosmos treadmills with incline option.

### Active gait correction robowalk® expander

The h/p/cosmos robowalk® is a patented expander-pulley system for h/p/cosmos treadmills. The test person's legs are connected to the force level and force vector adjustable rubber cables via cuffs and offer support and resistance during the walking and running movement. Especially the traction support by the rubber cords is a valuable help for patients and therapists to perform exercises physiologically and longer, thus improving the therapy success.

### Arm support (with additional stop button)

The individually adjustable arm supports give the patient stability and a feeling of safety. Arm support available with 3 joints for handrails with Ø 60 mm or for adjustable handrails.

### Additional keyboard

The patient can control the treadmill without removing the arms from the armrests. Therapists can control the treadmill externally from a comfortable position around the treadmill.

### Wheelchair ramp

Our wheelchair ramp enables patients to safely access the treadmill.



pluto® med with adjustable handrails [cos102550-01], airwalk® ap unweighting system [cos30028], robowalk® front [cos30022-02va04] and back [cos30023-03]



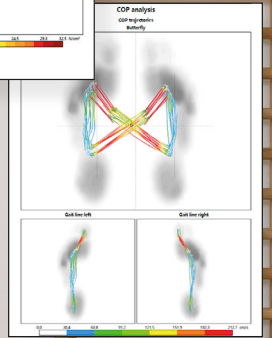
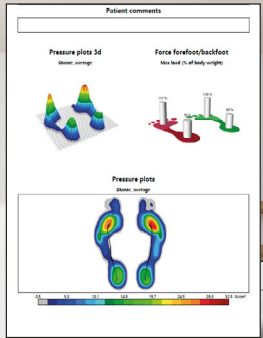
pluto® med with adjustable handrails [cos102550-01], airwalk® ap unweighting system [cos30028], robowalk front [cos30022-02va04], back [cos30023-03] and reverse belt rotation [cos10181-03]



arm support with 3 joints [cos12013-01] for all handrails (Ø 60 mm) and additional keyboard [cos104551]



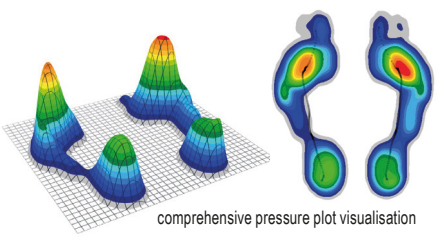
options



**zebris® pressure distribution**

The pluto® series treadmills can be equipped or retrofitted with an integrated pressure distribution platform from the German manufacturer zebris®.

This upgrade allows versatile applications for rehabilitation, training and analysis! Underneath the belt, a pressure sensor matrix is installed that contains several thousand calibrated, capacitive pressure sensors. The belt movement is compensated, so stable gait and roll-off parameters can be analysed and displayed in a comprehensive software interface as well as in reports - a well proven and established tool amongst therapists.



comprehensive pressure plot visualisation

**Gait training and adaptive visual cueing**

The initial gait analysis is carried out without any measuring preparations to be done on the patient. The measuring process can be observed on the screen in real-time. The report is automatically generated. In order to prepare the gait training using adaptive visual cueing, the parameters from the gait analysis (step length & width and foot rotation) are automatically transferred and can be individually adjusted according to training objectives. The values remain constant or gradually approach the target settings during the course of the training. During training the steps are projected onto the treadmill belt in the shape of the actual footprints, or alternatively as rectangles. Throughout the gait training the patient is instructed to position his or her feet as accurately as possible within the projected area. The gait training including visual stimulation/cueing is also possible when using an unweighting system and thus also allows for patients who are suffering from severe functional limitations to start therapy even at an early stage. The report documents the adherence to the target settings. On that basis, the target parameters can be adjusted to the patient's individual capability. For an optimal training control, two gait analyses are compared, e.g. before and after a training period.



adaptive visual cueing [cos101291-01] with projected steps on the treadmill belt

**Gait and coordination training using virtual feedback**

Physical and cognitive abilities are simultaneously demanded during dual-task-training in the virtual walking environment. The patient solves simple perceptual and memory tasks as well as arithmetic problems while walking and observing his or her footprints. Thus, reaction time and attentiveness are improved while simultaneously supporting automated walking. The various modules allow the training to be individually adapted to each patient.



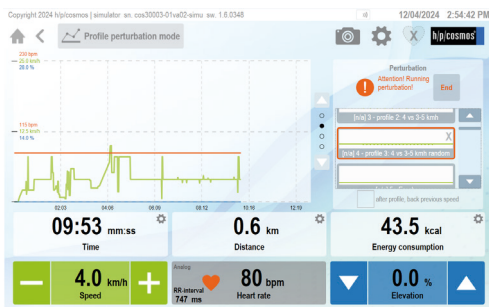
gait and coordination training on a treadmill using virtual feedback [cos101062] and dual-tasking



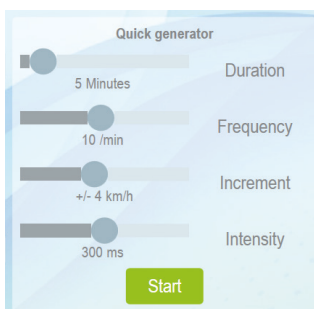
# perturbation applications



The user friendly interface with touchscreen allows an intuitive operation



Perturbation profiles - switching between selfmade and premade profiles



Quick Generator for a quick and reliable adjustment of perturbation parameters

## h/p/cosmos perturbation module

The h/p/cosmos perturbation module can provide extremely sudden changes of the speed. This can be as sudden and unexpected, that it is mandatory to use a fall prevention system, such as the h/p/cosmos safety arch with harness or the unweighting system h/p/cosmos airwalk® ap. Due to the powerful motor, the acceleration can be as fast as 17.36 m/sec<sup>2</sup> (for comparison: the sportscar Bugatti Veyron needs 2.6 sec from 0 ... 100 km/h, that equals 15.2 m/sec<sup>2</sup>). But most of the perturbation events within a training session will be on a lower level and allow a customized training to a wide spectrum of patients. In due course of the training progress, the intensity can be adjusted with a few clicks.

## Research

Because of the majority of fall causes, research has focused on sudden accelerations, decelerations or stops of the treadmill (Kurz et al., 2016; Liu, Bhatt & Pai, 2016; McCrum et al., 2017; Pigman et al., 2019). While slips and trips are the main cause in real life, interferences in other planes can also happen. Science and industry have created various technical equipment, nevertheless they are cost-intensive and realism and relevance are often questionable.



## Random factor

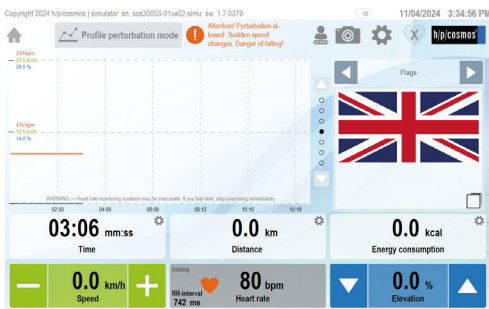
As in the real world the disturbances happen unexpectedly, the h/p/cosmos perturbation “quick generator” module includes a “random factor”. Subjects will not predict the exact time or kind of the next event.

## Individualization and progression matters

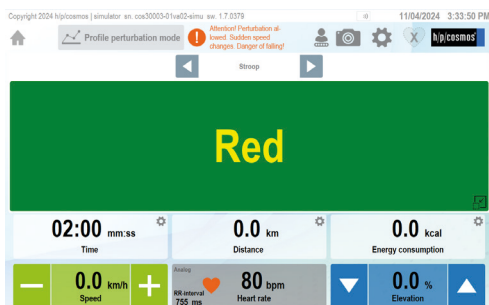
Single perturbation events or complex training sessions can be configured individually, within the profile editor. The fastest way to set up a gait stability training session, is to use the “quick generator”. Sliding bars for the total training duration, the frequency and intensity (speed change and length in milliseconds) can be defined easily. If the subjects tolerate the training well, the overall intensity can be increased in a controlled manner.



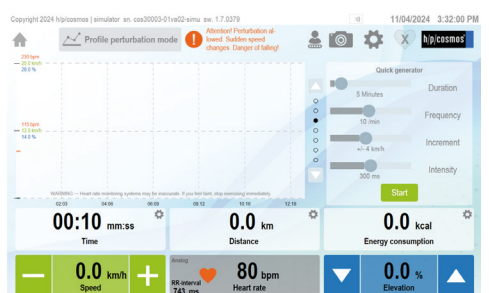
# evidence-driven development



Dual Tasking - name the country flag



Dual Tasking - Stroop Test



Quick Generator for quick and reliable adjustment of perturbation parameters

## Perturbation as an add-on feature

The perturbation module is an innovative add-on feature to h/p/cosmos treadmills of the latest generation with UserTerminal Touch Pro.

The treadmill can easily be retrofitted with the perturbation module, provided that the treadmill is equipped with either a safety arch or an airwalk® ap unweighting system with emergency stop and harness to prevent subjects from falling.

## Overview

Programmable via convenient user interfaces, the perturbation module enables therapists and trainers to perform a wide range of trainings without time consuming configuration or preparation:

- reactive stability training
- realistic slips and trips pattern in sagittal plane
- short events in milliseconds
- fixed pattern, activated by click
- random pattern for unpredictable trainings
- dual tasking and cognitive tests to distract
- highest patient safety, due to fall-stop and harness

Of course, the treadmill's standard functionalities are retained when the perturbation mode is deactivated, so no additional devices are needed to perform standard therapeutic or performance trainings such as

- non-perturbed rehabilitation training, endurance training walking or running
- gait analysis e.g. with optionally available pressure distribution
- cardio training, performance diagnostics



Random perturbation with a geriatric patient to improve his reactive stability



### Sabine & Hans Lamprecht | HSH Lamprecht GbR, 73230 Kirchheim/Teck, Germany

Back in 1987, Sabine and Hans Lamprecht opened their first physiotherapy in Kirchheim/Teck close to Stuttgart. With more than 30 years of experience, they made their name in the German speaking territories and beyond for their evidence driven and practically oriented therapy approaches. Their science based but practical approach is the foundation for their daily work as therapists as well as their activities as authors of various reference books and as lecturer at European universities.

Already in the second generation, 2019 marked a milestone with the opening of the new and extended therapy facility with additional floor space and updated equipment. The team of over 40 passionate specialists supports patients in the fields of physiotherapy, occupational and speech therapy.



A free webinar series with Sabine Lamprecht has been recorded in her therapy facility on gait training and therapy and is available here:



When working with neurologic and orthopaedic patients, reliable and safe technology is key – both for the patient and the therapist. For many years, our team relies on h/p/cosmos when it comes to treadmills and ergometers.

Within the past 5 years, we were able to update, retrofit and extend our equipment. We are now able to adapt our equipment to the very individual needs of our customers – no matter if tall or small which is decisive for therapy success! One highlight and eye-catcher in our therapy is the unweighting system airwalk® ap with the locomotion® treadmill as well as robowalk® expanders for active gait correction and training. The treadmill is an invaluable tool for neurologic therapy and enables us to provide early and safe return to therapy. In 2020, we were able to retrofit the existing system with a zebris pressure distribution platform and the visual cueing system, further extending the possibilities (e.g. for Parkinson's disease) and applications.

The h/p/cosmos pluto® med is daily used for gait training and therapy in our facility and the perfect companion to the locomotion®. Its smooth start and movement at very low speed – even with overweight patients – makes patients feel secure! Long handrails in combination with the adjustable arm supports allow a safe access onto the treadmill and a stabilisation and even light manual unweighting of the patient during the training.



**Sabine Lamprecht**  
M.Sc. Neurorehabilitation  
Founder & Owner  
HSH Lamprecht GbR





pluto® It med (no UserTerminal)  
with optional safety arch fall prevention

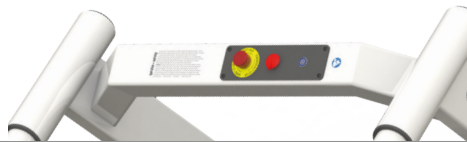


pluto® med  
with optional safety arch fall prevention

## technical comparison

### Discover the h/p/cosmos medical treadmill series pluto® med.

The pluto® med series offers a solid platform for a wide range of medical applications. The modular setup, a large variety of additional options and retrofittable accessoires allow individual solutions. Please review the full technical specifications in the back of this brochure for all details.



Model name	pluto® It med	pluto® med
Article number:	cos31002	cos31022
User Terminal/Control	no displays, no keyboard. Control via integrated interface and coscom v4 protocol	UserTerminal Touch with keyboard and displays, integrated interface and coscom v4 protocol
Device dimensions:	L: 210 x W: 86 x H: 139 cm	
Device weight:	approx. 240 kg	
Running surface:	L: 150 x W: 50 cm	
Max. user weight:	250 kg (optional at extra charge: 300 kg)	
Speed range:	0 ... 22 km/h	
Elevation:	0 ... +25% (optional at extra charge: -25 ... +25%)	
Drive motor system:	2.2 kW (3.0 HP) brushless 3-phase AC motor	
Power supply:	200 ... 240 Volt AC, 16A fuse type C, dedicated line	
Running belt:	PVC-running belt with slip resistant surface	
Wireless heart rate:	no heart rate receiver, HR-functions only via ext. device	Bluetooth® pulse receiver included (BLE)
Classification & safety for medical devices	CE 0123; risk class IIb; medical device regulation MDR (EU) 2017/745, machinery regulation (EU) 2023/1230; IEC 60601-1; EN 60601-1-2 (EMC tested); ISO 20957-1; ISO 20957-6; EN 14971;	
Classification & safety for sport devices	pluto® It   cos31001	pluto®   cos31021
	CE; machinery regulation (EU) 2023/1230; EN 60335-1; Directive 2014/30/EU (EMC tested); ISO 20957-1; ISO 20957-6	



## userterminal touch (pro) in practice



The combination of a 10.1" TouchScreen and a hardware keyboard allow an anytime secure handling of the treadmill - especially in situations of urgency.



The ergonomic position and setup of the UserTerminal Touch (Pro) enables therapists and trainers to customize the training or even profile with little time expenditure.



Gait stability training with optional perturbation module and safety arch fall prevention system with an elderly patient with Parkinson's disease

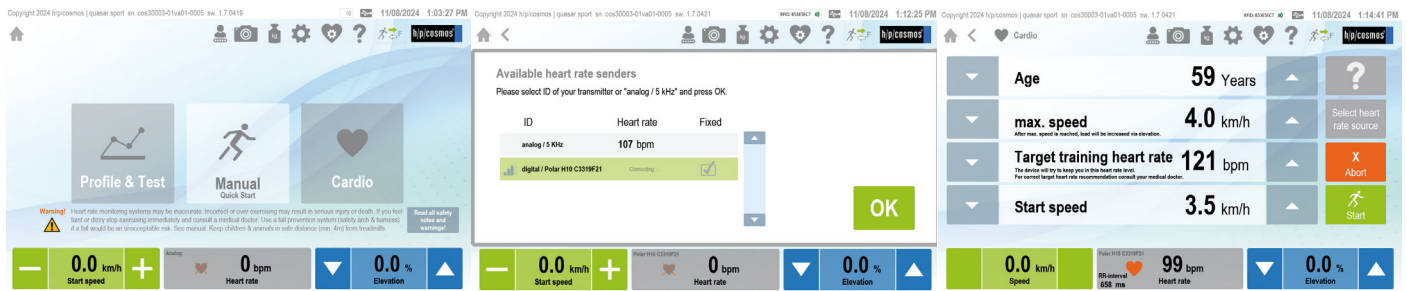
# userterminal touch (pro)



The UserTerminal Touch (Pro) is the powerful heart of the latest h/p/cosmos treadmill.

The central part of every treadmill is the UserTerminal. Apart from h/p/cosmos It devices, that come without userterminals, most h/p/cosmos treadmills of the current product cycle already rely on the UserTerminal Touch or the even more powerful UserTerminal Touch Pro. Focussing on a userfriendly, safe and stable interface, the 10.1" UserTerminal Touch has been a milestone in the history of h/p/cosmos!

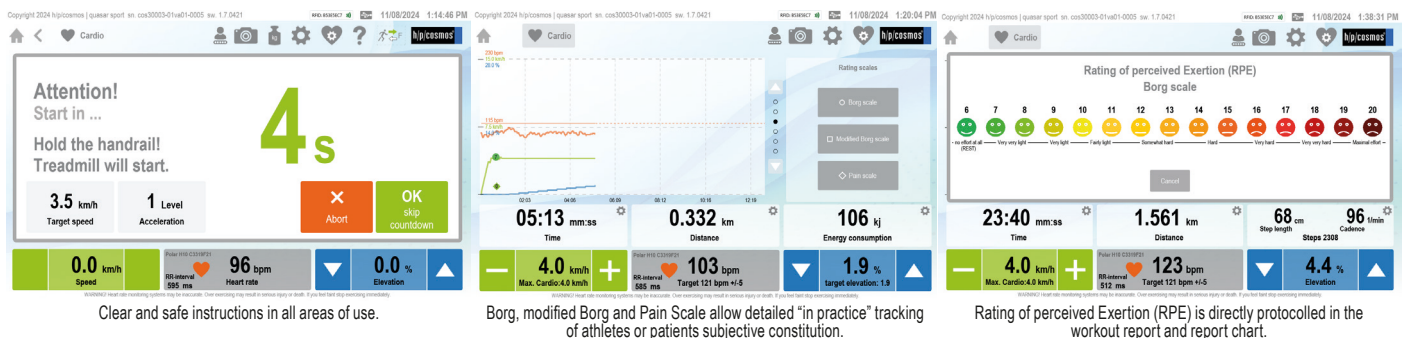
With the UserTerminal Touch and Touch Pro, innovative features like perturbation and dual tasking could be released and can be intuitively controlled with very short training. The 10.1" TouchScreen provides a good overview without blocking angles of view for therapists while the additional hardware keyboard guarantees perfect handling also with medical gloves or sweaty conditions.



Start screen with intuitive quick select buttons.

Selection of heart rate transmitters (5 kHz or Bluetooth).

Comprehensive programming interface of e.g. the cardio mode.



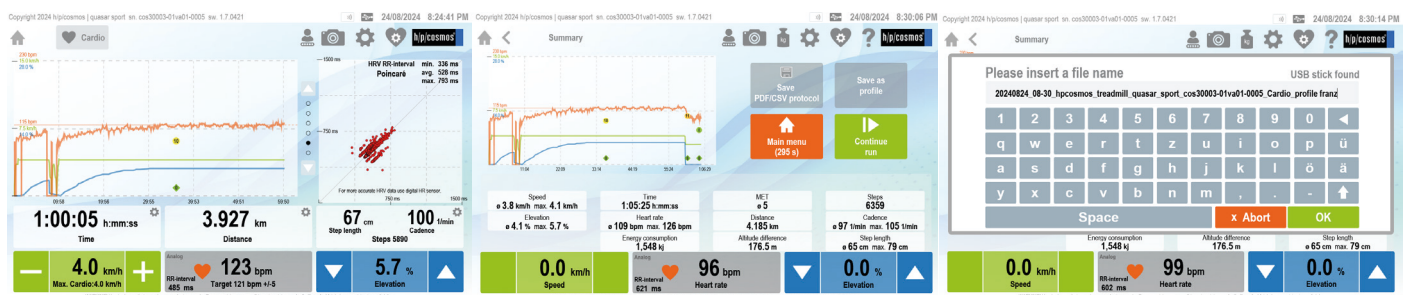
Clear and safe instructions in all areas of use.

Borg, modified Borg and Pain Scale allow detailed "in practice" tracking of athletes or patients subjective constitution.

Rating of perceived Exertion (RPE) is directly protocolled in the workout report and report chart.



Multi-purpose display allows a wide range of additional information and tests, e.g. programmable speed shortcuts, or optional dual tasking and cognitive tasks. The display for optional dual tasking screens or cognitive tasks can be extended to the full screen while keeping all important training parameters in scope.

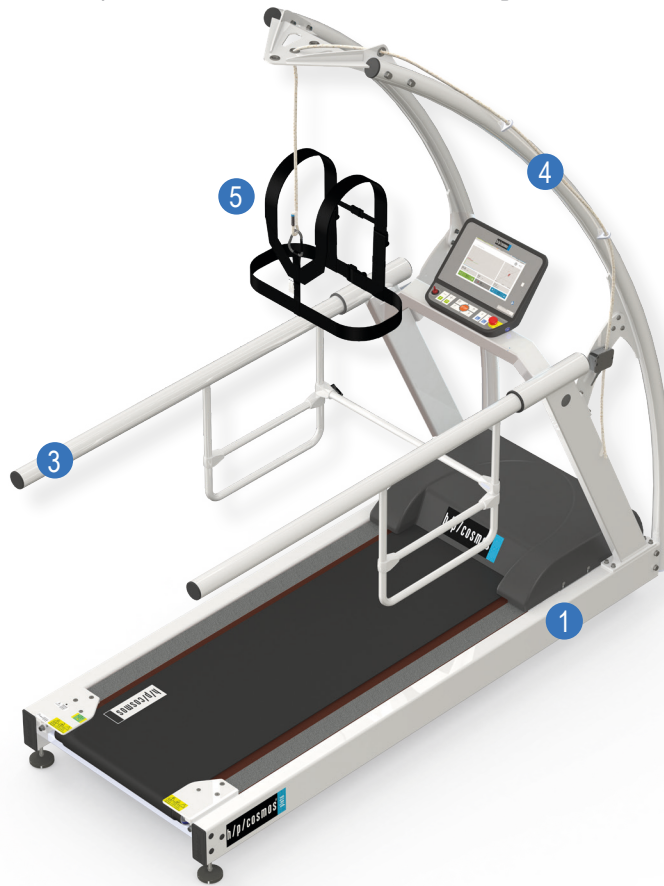


Clear graphs allow a detailed tracking of all relevant training parameters on one screen.

The summary screen provides an overview on the workout.

Personalization of reports (.pdf/.csv) enable traceability.

# configuration pluto® med: pediatric rehabilitation and diagnostics



## recommended configuration pediatric rehabilitation and diagnostics pluto® med

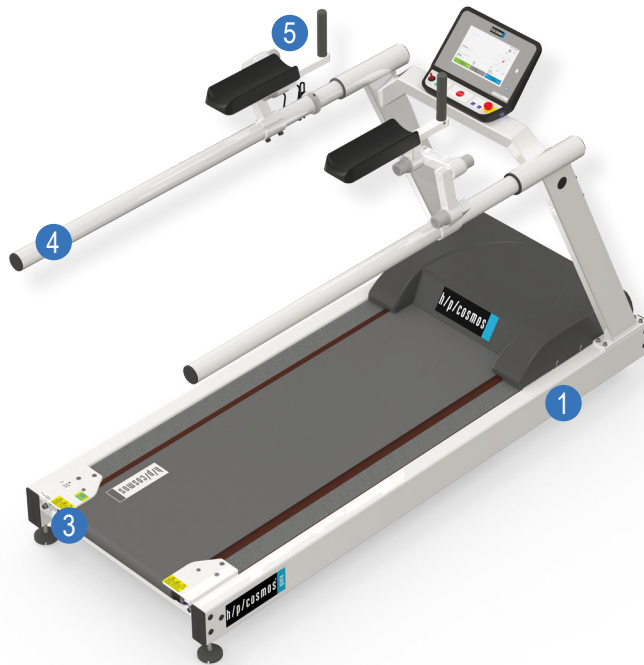
pos.	qty.	order number	product description
1.	1	cos31022	h/p/cosmos treadmill pluto® med - running surface 150 x 50 cm, speed range 0 ... 22 km/h, elevation 0 ... 25 %, UserTerminal Touch with keyboard and touch display, integrated interface and coscom® v4 protocol
2.	1	cos101000_touch_pro	Upgrade UserTerminal TouchPro, Upgrade of the UserTerminal Touch Basic to UserTerminal TouchPro for professional applications and special features
3.	1	cos102400-01va02	Handrail pediatric (long version), pluggable for treadmill 150/50 option consists of 2 side handrails with various grip positions as well as an adjustable cross bar
4.	1	cos10079-01va01	Safety arch 50 with harness & chest belt / stop function, fall protection for all applications (mandatory for high risk applications); running surface 50 cm wide
5.	1	cos14903-04-XXS	Chestbelt XXS for safety arch system - colour code: orange, for chest measurement approx. 45-65 cm
6.	1	cos14903-04-XS	Chestbelt XS for safety arch system - colour code: black, for chest measurement approx. 55-75 cm
7.	1	cos14903-04-S	Chestbelt S for safety arch system - colour code: red, for chest measurement approx. 65-95 cm
8.	1	cos102522va03	Packing treadmill 150/50 (SA), packed part assembled on pallet with cardboard hood, incl. safety arch (L: 274 cm / W: 122 cm / H: 94 cm)
9.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)
10.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel

E & OE. Subject to alterations without prior notice. The illustrations may show accessories and items of optional equipment which are not part of standard specification or the recommended configuration. Subject to our general terms of trade: [www.hpocosmos.com](http://www.hpocosmos.com)



mercury® med with UserTerminal Touch Pro, safety arch and perturbation module

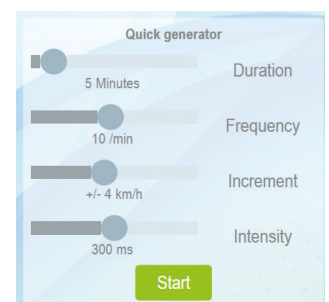
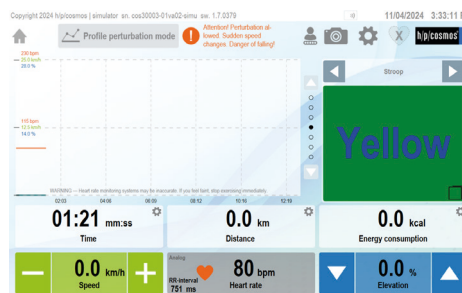
# configuration pluto® med: gait rehabilitation basic



## recommended configuration gait rehabilitation basic pluto® med

pos.	qty.	order number	product description
1.	1	cos31022	h/p/cosmos treadmill pluto® med - running surface 150 x 50 cm, speed range 0 ... 22 km/h, elevation 0 ... 25 %, UserTerminal Touch with keyboard and touch display, integrated interface and coscom® v4 protocol
2.	1	cos101000_touch_pro	Upgrade UserTerminal TouchPro, Upgrade of the UserTerminal Touch Basic to UserTerminal TouchPro for professional applications and special features
3.	1	cos101000_reverseva01	Reverse treadmill belt rotation, incl. running belt 5mm & belt centering rolls, max. reverse speed: 5 km/h
4.	1	cos102918-01	Handrail long - Handrail pluggable long. Option consists of 2 long handrails (not for USA/Canada)
5.	1	cos12013-01	Adjustable arm supports with scale - Forearm / elbow support and handle. For weight load reduction and/or for safety support, fixed on the handrails of the treadmill.
6.	1	cos102522va01	Packing treadmill 150/50 (SA), packed part assembled on pallet with cardboard hood (L: 230 cm / W: 109 cm / H: 87 cm)
7.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)
8.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel

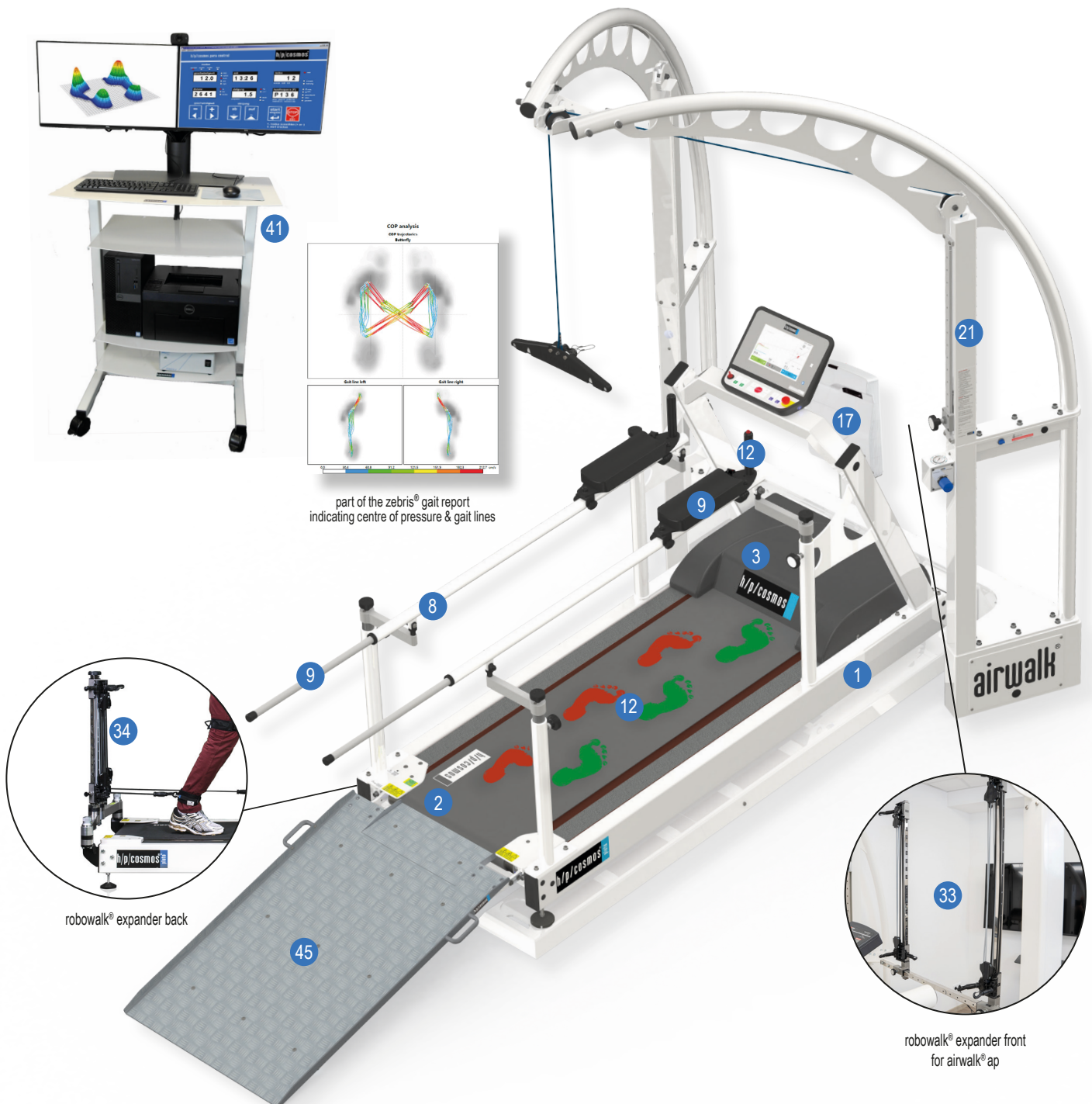
E & OE. Subject to alterations without prior notice. The illustrations may show accessories and items of optional equipment which are not part of standard specification or the recommended configuration. Subject to our general terms of trade: [www.hpocosmos.com](http://www.hpocosmos.com)



UserTerminal Touch Pro featuring a quick generator module for fast and easy perturbation setup and several tests (e.g. Stroop test)

# configuration pluto® med: gait rehabilitation premium

recommended configuration gait rehabilitation premium pluto® med



part of the zebris® gait report indicating centre of pressure & gait lines

robwalk® expander back

robwalk® expander front for airwalk® ap

pos.	qty.	order number	product description
1.	1	cos31022	h/p/cosmos treadmill pluto® med - running surface 150 x 50 cm, speed range 0 ... 22 km/h, elevation 0 ... 25 %, UserTerminal Touch with keyboard and touch display, integrated interface and coscom® v4 protocol
2.	1	cos101000_touch_pro	Upgrade UserTerminal TouchPro, Upgrade of the UserTerminal Touch Basic to UserTerminal TouchPro for professional applications and special features
3.	1	cos101000_reverseva01	Reverse treadmill belt rotation, incl. running belt 5mm & belt centering rolls, max. reverse speed: 5 km/h
4.	1	cos101000_brake_as	Electric motor brake for treadmill 150/50 G7, mainly prevents that the running belt can be driven manually when speed is set to "0"
5.	1	cos101000_metronome	Metronome, acoustic cueing for individually setting the cadence target
6.	1	cos101000sw_pert-V1.0	h/p/cosmos Perturbation Software, Special software feature for sudden deceleration and acceleration of the treadmill belt speed respectively of the belt
7.	1	cos101000_FTMS	Bluetooth FTMS Interface for UserTerminal Touch Pro
8.	1	cos102010-01va01	Handrails adjustable 150/50 (pluto G7), bar length 1500 mm, locking bar for height raster 25 mm for pluto® models 150/50 cm, H: 75 ... 120 cm / W: 38 ... 104 cm
9.	1	cos102899	Extension rods for adjustable handrail, the extension rods D= 25 mm offer another 550 mm length to the back
10.	1	cos102560	Arm supports for handrails adjustable, Forearm support with hand grip for adjustable handrails (originally equipped!)

# configuration pluto® med: gait rehabilitation premium

## recommended configuration gait rehabilitation premium pluto® med

11.	1	cos10107	<b>Additional stop-button right</b> , stop-button for hand grip in the arm support, right hand side
12.	1	cos100816-01	<b>Extension cable for additional keyboard</b> , Spiral cable extendable to 1,6 meters
13.	1	cos103335-01va02	<b>zebris® FDM pressure measuring platform 2i upgrade</b> for running deck 150/50, without treadmill option pressure distribution platform 101.6 x 49.5 cm, 3.120 sensors, 120 Hz, price only valid for initial fitting-out, incl. software zebris FDM for gait analysis
14.	1	cos100385d	<b>zebris® SyncCam</b> (camera without stand), video camera 30 Hz, synchronization cable, USB cable and power supply - without light system
15.	1	cos100385b	<b>zebris® stand for SyncCam or SyncLightCam</b> (mobile) mobile stand for SyncCam and SyncLightCam with integrated cable fixation
16.	1	cos100384	<b>zebris® FDM-Stance Modul</b> extra software module for stance & balance analysis for instrumented biomechanic treadmill or platform stand alone
17.	1	cos101291-01	<b>zebris® visual stimulation upgrade</b> for 150/50 (Rehawalk®) video projector, mounting and software for gait training through step projection on h/p/cosmos treadmill 150/50 cm
18.	1	cos101062	<b>zebris® software-module virtual training</b> (without monitor!) interactive gait training on a virtual forest path incl. five gait modules in different levels of difficulty for augmented feedback on the instrumented h/p/cosmos treadmill (without monitor, without stand)
19.	1	cos100770	<b>XLR Y-splitter 2 female / 1 male / 3-pin</b> , external-stop distributor adapter cable
20.	1	cos104551	<b>Additional keyboard with magnet holder</b> , mobile remote control with 6 keys with a approx. 2 m spiral cord
21.	1	cos30028	<b>airwalk® ap</b> , unweighting device dynamic up to approx. 80 kg, compressor or compressed air supply required (max. 250 kg / 551 lbs body weight), incl. vest & chest belt size M
22.	1	cos103058	<b>Compressor for airwalk® ap</b> , 8 bar
23.	1	cos102342-01	<b>Emergency stop for airwalk® ap</b> , additional function of airwalk ap also as fall prevention system (safety arch) with autom. treadmill belt stop
24.	1	cos100432-01	<b>Extension sling set 60 cm</b> for h/p/cosmos airwalk ap, i.e. for small subjects (children) in airwalk vest XS
25.	1	cos102785-01	<b>Express sling/loop 18 cm</b> , 1x express sling/loop 18 cm for extension of pulling rope
26.	1	cos10095-vest-S	<b>Vest S</b> for h/p/cosmos airwalk® (all models), size S (thorax circumference: 85-92 cm), colour code red
27.	1	cos10095-vest-L	<b>Vest L</b> for h/p/cosmos airwalk® (all models), size L (thorax circumference: 106-114 cm), colour code green
28.	1	cos10095-vest-XL	<b>Vest XL</b> for h/p/cosmos airwalk® (all models), size XL (thorax circumference: 116-130 cm), colour code blue
29.	1	cos10095-neo-S	<b>Neoprene shorts S</b> for h/p/cosmos airwalk® (all models), size S (waist: 55-92 cm)
30.	1	cos10095-neo-M	<b>Neoprene shorts M</b> for h/p/cosmos airwalk® (all models), size M (waist: 93-105 cm)
31.	1	cos10095-neo-L	<b>Neoprene shorts L</b> for h/p/cosmos airwalk® (all models), size L (waist: 106-114 cm)
32.	1	cos10095-neo-XL	<b>Neoprene shorts XL</b> for h/p/cosmos airwalk® (all models), size XL (waist: 115-123 cm)
33.	1	cos30022-02va04	<b>robowalk® expander front</b> for airwalk® ap, for the front area
34.	1	cos30023-03	<b>robowalk® expander back</b> (rear)
35.	1	cos101050-S	<b>Leg cuff thigh S</b> (250 - 390 mm), 1 pair
36.	1	cos101050-M	<b>Leg cuff thigh M</b> (350 - 510 mm), 1 pair
37.	1	cos101050-L	<b>Leg cuff thigh L</b> (490 - 750mm), 1 pair
38.	1	cos101051-XS	<b>Leg cuff shank XS</b> (140 - 270mm), 1 pair
39.	1	cos101745	<b>robowalk® manual pulling unit</b> with 125 cm expander rope, 1 pair of expander manual pulling units 125 cm (incl. 1 noose and 1 thigh cuff)
40.	1	cos101748-01	<b>Universal noose robowalk®</b>
41.	1	cos14970-03	<b>h/p/cosmos satellite PC med</b> DELL PC, 2x 24" LCD Monitor, COL Laser printer, potential isolation transformer, h/p/cosmos PC-rack with 4 casters
42.	1	cos102397	<b>LCD monitor TV 50"</b> (with a small monitor stand for table) for example for SpeedLab®, gaitway® display or for the virtual training module of zebris®
43.	1	cos101624	<b>Monitor stand mobile for LCD TV 32-60"</b> monitor stand (without monitor!) for additional TV / monitor (max. load: 30 kg), height: 180 cm.
44.	1	cos12769-01	<b>USB to RS232 converter</b> converter from USB to serial port RS232 (Sub-D 9-pin male)
45.	1	cos16186-02	<b>Wheelchair ramp</b> (L: 125 cm x W: 80 cm) enables the patients' wheelchair to be pushed onto the treadmill
46.	1	cos102522va04	<b>Packing treadmill 150/50</b> , full assembled with cardboard hood (L: 230 cm / W: 109 cm / H: 169 cm)
47.	1	cos102538va02	<b>Packing airwalk® ap</b> , part assembled, packed part assembled on pallet with cardboard hood
48.	1	cos60098010021	<b>transport / shipping charge</b> (please specify if truck, sea or air freight; for overseas sea shipment is recommended)
49.	1	cos101194	<b>installation, commissioning and instruction</b> through authorised and trained personnel
50.	1	cos101094	<b>1-day application workshop</b> , includes costs for specialist / referent. Not including flight, logistics, hotel, etc.

E & OE. Subject to alterations without prior notice. The illustrations may show accessories and items of optional equipment which are not part of standard specification or the recommended configuration.  
Subject to our general terms of trade: [www.hpcosmos.com](http://www.hpcosmos.com)

# configuration pluto<sup>®</sup>: fitness



## recommended configuration fitness pluto<sup>®</sup> sport

pos.	qty.	order number	product description
1.	1	cos31021	<b>h/p/cosmos treadmill pluto<sup>®</sup> sport</b> - running surface 150 x 50 cm, speed range 0 ... 22 km/h, elevation 0 ... 25 %, UserTerminal Touch Pro with keyboard and display, integrated interface and coscom <sup>®</sup> v4 protocol
2.	1	cos101000_touch_pro	<b>Upgrade UserTerminal TouchPro</b> , Upgrade of the UserTerminal Touch Basic to UserTerminal TouchPro for professional applications and special features
3.	1	cos103928	<b>Footboard extra wide (both sides) 150/50</b> for safe on and off stepping during fitness trainings and exercises For speed & sprint training safety arch is an obligatory requirement.
4.	1	cos102522va01	<b>Packing treadmill 150/50</b> , packed part assembled on pallet with cardboard hood (L: 230 cm / W: 109 cm / H: 87 cm)
5.	1	cos60098010021	<b>transport / shipping charge</b> (please specify if truck, sea or air freight; for overseas sea shipment is recommended)
6.	1	cos10194	<b>installation, commissioning and instruction</b> through authorised and trained personnel

E & OE. Subject to alterations without prior notice. The illustrations may show accessories and items of optional equipment which are not part of standard specification or the recommended configuration. Subject to our general terms of trade: [www.hpcosmos.com](http://www.hpcosmos.com)



special colours (all RAL colours) on request and at extra charge  
pluto<sup>®</sup> in special matt black for motion analysis (cos103019)



## specifications airwalk® ap

unweighting device:	airwalk® ap
manufacturer:	h/p/cosmos sports & medical gmbh / Germany
order number:	cos30028
applications:	body weight support (during treadmill therapy/training) fall protection (during treadmill therapy/training) unweighted and/or secured balance training unweighted and/or secured functional and gait training overspeed/hyperspeed and excess frequency training
control:	pneumatic valve with rotary knob
max. body weight:	250 kg (551 lbs) valid for frame and rope textiles such as vest and shorts excluded
max. body height:	200 cm (6,5 ft.) (standard) 225 cm (7,4 ft.) (optionally at extra charge) possible restrictions with treadmill inclination >10%
body weight support:	dynamic, continuously adjustable at 6 bar: max. 50 kg (110 lbs) at 8 bar: max. 70 kg (150 lbs) at 10 bar: max. 90 kg (200 lbs) optionally at extra charge at 8 bar: max. 120 kg (265 lbs) vertical amplitude approx. 70 cm (2.3 ft.) max. rotation 1 x 360°
safety systems:	CE medical device regulation MDR (EU) 2017/745; ISO 20957-1; EN 14971; EN ISO 13485
classification:	medical device risk class I according to MDR, active therapeutic medical device
usage class:	S, I according to ISO 20957-1
ambient conditions:	temperature: +10...+30 °C humidity: 30...75 % air pressure: 700...1060 hPa
display:	analog manometer on device (standard)
resolution:	approx. 2.5 kg (5 lbs)
accessories (incl.)	instructions for use, 1 unweighting vest cos10095-vest-M (size M, thorax circumference 93...105 cm) 1 safety harness cos14903-M (size M, chest circumference 85 ... 115 cm) further sizes XXS ... XL at extra charge neoprene pants size. S, M, L at extra charge [cos10095-neo]
compatibility:	h/p/cosmos treadmills pluto®, mercury®, locomotion®, quasar®, pulsar® external devices only with written confirmation by h/p/cosmos treadmill not within scope of delivery
frame color:	standard: pure white RAL 9010 (powder coated)
comp. air supply:	coupling plug acc. to ISO4414
size of frame:	L: 236...276 cm (7.7 ... 9.1 ft.) (depending on treadmill) W: 177 cm (5.8 ft.) H: 273 cm (9.0 ft.) (standard) individual height (e.g. 248 cm or 298 cm) optionally at extra charge
net weight:	approx. 310 kg (683 lbs)
gross weight:	see separate position
optionally available:	compressor 0.8 bar (0...116 psi) (cos103058) attention: 8 bar pressure correspond to max. 70 kg support compressor 0...10 bar (0...145 psi) (cos103016) 10 bar compressor incl. soundproofing hood

Weight and dimensions may differ depending on accessories.

E&OE. Subject to alterations without prior notice.

Alternative: connection to existing compressed air system with 8...10 bar.

Furthermore optionally available at extra charge: emergency stop for running belt of an h/p/cosmos treadmill, pneumatic spring mode, robowalk expander, max. body weight support 160 / 240 kg (353 / 529 lbs), special frame colours, other options and accessories.

Weight and package specifications can deviate according to options, accessories, packing and way of transport. E&OE. Subject to alteration without notice.

**Warning!** Installation, commissioning, instruction, maintenance and repair work only to be conducted by h/p/cosmos trained and authorised personnel. Inspect the rope (cos 102317) at least once a month visually for wear or damage. Rope has to be replaced annually or even earlier at first sign of wear or damage. For any application where falling might cause an unacceptable risk (e.g. newly operated hip patients, invasive probes, osteoporosis, etc.) the subject has to be secured by a safety harness [cos14903] additionally. For more information see the instructions for use.



## specifications pluto® sport

treadmill	<b>pluto® sport</b>
manufacturer:	h/p/cosmos sports & medical gmbh / Germany
country of origin:	Germany
EUDAMED SRN:	not applicable for sports devices
order number:	cos31021
UDI-DI	40505880036548 / GS1
Basic UDI-DI:	4050588cos31000R4
product family:	treadmill h/p/cosmos 150/50 G7
EMDN Code:	not applicable for sports devices
UMDNS Code:	not applicable for sports devices
GMDN Code:	not applicable for sports devices
applications:	endurance training walking and running
control:	UserTerminal with keyboard and touch display, alternatively via integrated interface coscom® v4
running deck:	L x W: 150 x 50 cm (4' 11.1" x 1' 7.6") access height: 23 cm (9.1") - running belt with slip resistant surface - max. permissible load: 250 kg (551 lbs) - max. permissible load: 300 kg (660 lbs) at extra charge
speed range:	0.0 ... 22.0 km/h (0.0 ... 6.1 m/s) (0.0...13.6 mph)
acceleration:	7 acceleration / deceleration levels (0.053...2.315 m/s <sup>2</sup> ) levels 1 to 4 enabled, levels 5 to 7 at extra charge
elevation:	0 ... 25 % (0 ... 14.0°) motorized adjustment (-25 % ... +25 % when using optional reverse belt rotation)
running direction:	reverse belt rotation at extra charge without fall prevention the max. speed for reverse belt rotation is limited to 5 km/h (3.1 mph)
drive motor:	2.2 kW (3 HP) 3-phase AC motor, maintenance free and brushless For high-performance applications we recommend models with a 3-phase 3x400 Volt power supply and a running surface min. 190/65 cm
power transmission:	frequency inverter, poly-V-belt, very quiet operation
safety systems:	CE; machinery regulation (EU) 2023/1230; EN 60335-1; EN 60601-1-2 (EMC tested); ISO 20957-1; ISO 20957-6; EN 14971; emergency-stop mushroom push button (drives power off) emergency-stop with pull-cord and clip
degree of protection:	appliance class I (⊕) / type B (⚡) / IP 20
classification:	sports and fitness device; not for medical, not for therapeutic applications
usage class:	S, I according to ISO 20957-1
accuracy class:	A (high accuracy) according to ISO 20957-6
earth leakage current:	< 2.5 mA
ambient condition:	temperature: +5 ... +40 °C (-30 ... +50 °C on request) humidity: 0 ... 85 % (up to 100 % on request) air pressure: 700 ... 1,060 hPa; 3,000 m (~10,000 ft) max altitude without pressurization
display (resolution):	25.9 cm / 10.1" (1280x800), color touch display
parameter: (It-devices via PC)	speed, time, elevation, distance, heart rate, heart rate variability energy consumption, altitude, power, pace, METs, diagram view of heart rate and load parameter, parameter export to USB
units:	metric / imperial
heart rate monitoring:	heart rate receiver included, BLE - Bluetooth® automatic control of speed and elevation according to programmed target heart rate („cardio mode“)
interfaces:	LAN / RJ45, RS232, USB RFID / NFC Reader (optional at extra charge) Bluetooth® (optional at extra charge)
programs: (It-devices via PC)	programs / profiles (predefined) - exercise profiles (scalable) - many test profiles (UKK Walktest, Conconi, Graded test, Gardner, Naughton, Ellestad, Cooper, Balke, Bruce, etc.) - freely definable programs also for further processing
PC software (incl.):	h/p/cosmos para control® for display & remote control;
accessories (incl.):	instruction for use on USB stick, service kit, 5 m LAN cable
frame color:	pure white RAL 9010 (powder coated)

handrails:	steel tube handrails Ø 60 mm on both sides, over min. 1/3 of treadmill length, other handrail designs optional at extra charge
voltage supply:	200 ... 240 Volt AC 1~N/PE 50/60 Hz 16 A fuse dedicated circuit, line and protection
dimensions:	L x W x H: 210 x 86 x 120 cm (6' 10.7" x 2' 9.86" x 3' 11.24")
mass of device:	approx. 225 kg (530 lbs)
packing size:	approx. L x W x H: 230 x 110 x 90 cm (7' 6.6" x 3' 7.3" x 2' 11.4") depending on accessories and requirements
mass of packaging:	approx. 75 ... 265 kg (165 ... 585 lbs) depending on accessories and requirements

Weight and dimensions may differ depending on accessories.

E&OE. Subject to alterations without prior notice.

Optionally available at extra charge are special frame colours, other handrail designs, special voltage supply, other options and accessories. Weight and package specifications can deviate according to options, accessories packing and way of transport. E&OE. Subject to alterations without prior notice. Please consider the natural and physical performance limitations of the single phase 230 volt power supply. The single phase 230 volt power supply is sufficient up to normal fitness or therapy applications. For all special high performance applications (speed running, controlled jump-ons, sidesteps, heavy subjects at higher speed, extreme elevations, etc.), we recommend models with a 3-phase, 3x400 volt power supply (for example model h/p/cosmos quasar med 3p, pulsar 3p, venus or saturn).

**Warning!** Installation, commissioning, instruction, maintenance and repair work only to be conducted by h/p/cosmos trained and authorised personnel. For treadmills with oversized deck (width >65cm), for children, special applications, without sufficient safety space behind the treadmill, for subjects and / or patients with health or other limitations (e.g. visual impairment, etc.), for running at high speed and / or for all individuals, where a fall triggers a dangerous risk of injury or death (e.g. newly operated hip patients, invasive probes, etc.), a fall prevention system is obligatory (e.g. safety arch with chest belt and harness or a weight support system). For more information see the instructions for use. Safety space behind the treadmill: min. L: 2 m (6ft 6.74") x treadmill width. Children are only allowed to be on the treadmill, if under permanent supervision and secured by a fall prevention system.



## specifications pluto® med

treadmill	<b>pluto® med</b>
manufacturer:	h/p/cosmos sports & medical gmbh / Germany
country of origin:	Germany
EUDAMED SRN:	DE-MF-000006147
order number:	cos31022
UDI-DI	40505880036616 / GS1
Basic UDI-DI:	4050588cos31000R4
product family:	treadmill h/p/cosmos 150/50 G7
EMDN Code:	Z129006: Treadmills for physiotherapy and/or diagnostic uses
UMDNS Code:	14-141 Running Machine
GMDN Code:	33015 EXERCISER, TREADMILL, LINE-POWERED
applications:	endurance training walking and running stress device for performance testing, gait analysis and gait training
control:	UserTerminal with keyboard and touch display, alternatively via integrated interface coscom® v4
running deck:	L x W: 150 x 50 cm (4' 11.1" x 1' 7.6") access height: 23 cm (9.1") - running belt with slip resistant surface - max. permissible load: 250 kg (551 lbs) - max. permissible load: 300 kg (660 lbs) at extra charge
speed range:	0.0 ... 22.0 km/h (0.0 ... 6.1 m/s) (0.0...13.6 mph)
acceleration:	7 acceleration / deceleration levels (0.053...2.315 m/s²) levels 1 to 4 enabled, levels 5 to 7 at extra charge
elevation:	0 ... 25 % (0 ... 14.0°) motorized adjustment (-25 % ... +25 % when using optional reverse belt rotation)
running direction:	reverse belt rotation at extra charge without fall prevention the max. speed for reverse belt rotation is limited to 5 km/h (3.1 mph)
drive motor:	2.2 kW (3 HP) 3-phase AC motor, maintenance free and brushless For high-performance applications we recommend models with a 3-phase 3x400 Volt power supply and a running surface min. 190/65 cm
power transmission:	frequency inverter, poly-V-belt, very quiet operation
safety systems:	CE 0123: medical device regulation MDR (EU) 2017/745, machinery regulation (EU) 2023/1230; IEC 60601-1; EN 60601-1-2 (EMC tested); ISO 20957-1; ISO 20957-6; EN 14971; emergency-stop mushroom push button (drives power off) emergency-stop with pull-cord and clip, potential equalization bolt; transformer for potential-isolation from the mains
degree of protection:	appliance class I (⚡) / type B ⚠ / IP 20
classification:	medical device risk class IIb according to MDR, active therapeutic medical device and active diagnostic medical device
usage class:	S, I according to ISO 20957-1
accuracy class:	A (high accuracy) according to ISO 20957-6
earth leakage current:	< 0.2 mA
ambient condition:	temperature: +5 ... +40 °C (-30 ... +50 °C on request) humidity: 0 ... 85 % (up to 100 % on request) air pressure: 700 ... 1,060 hPa; 3,000 m (~10,000 ft) max altitude without pressurization
display (resolution):	25.9 cm / 10.1" (1280x800), color touch display
parameter: (It-devices via PC)	speed, time, elevation, distance, heart rate, heart rate variability energy consumption, altitude, power, pace, METs, diagram view of heart rate and load parameter, parameter export to USB
units:	metric / imperial
heart rate monitoring:	heart rate receiver included, BLE - Bluetooth® automatic control of speed and elevation according to programmed target heart rate („cardio mode“)
interfaces:	LAN / RJ45, RS232, USB RFID / NFC Reader (optional at extra charge) Bluetooth® (optional at extra charge)
programs: (It-devices via PC)	programs / profiles (predefined) - exercise profiles (scalable) - many test profiles (UKK Walktest, Conconi, Graded test, Gardner, Naughton, Ellestad, Cooper, Balke, Bruce, etc.) - freely definable programs also for further processing

PC software (incl.):	h/p/cosmos para control® for display & remote control;
accessories (incl.):	instruction for use on USB stick, service kit, 5 m LAN cable, 5 m PE-cable
frame color:	pure white RAL 9010 (powder coated)
handrails:	steel tube handrails Ø 60 mm on both sides, over min. 1/3 of treadmill length, other handrail designs optional at extra charge
voltage supply:	200 ... 240 Volt AC 1~/N/PE 50/60 Hz 16 A fuse dedicated circuit, line and protection
dimensions:	L x W x H: 210 x 86 x 120 cm (6' 10.7" x 2' 9.86" x 3' 11.24")
mass of device:	approx. 240 kg (530 lbs)
packing size:	approx. L x W x H: 230 x 110 x 90 cm (7' 6.6" x 3' 7.3" x 2' 11.4") depending on accessories and requirements
mass of packaging:	approx. 75 ... 265 kg (165 ... 585 lbs) depending on accessories and requirements

Weight and dimensions may differ depending on accessories.

E&OE. Subject to alterations without prior notice.

Optionally available at extra charge are special frame colours, other handrail designs, special voltage supply, other options and accessories. Weight and package specifications can deviate according to options, accessories packing and way of transport. E&OE. Subject to alterations without prior notice. Please consider the natural and physical performance limitations of the single phase 230 volt power supply. The single phase 230 volt power supply is sufficient up to normal fitness or therapy applications. For all special high performance applications (speed running, controlled jump-ons, sidesteps, heavy subjects at higher speed, extreme elevations, etc.), we recommend models with a 3-phase, 3x400 volt power supply (for example model h/p/cosmos quasar med 3p, pulsar 3p, venus or saturn).

**Warning!** Installation, commissioning, instruction, maintenance and repair work only to be conducted by h/p/cosmos trained and authorised personnel. For treadmills with oversized deck (width >65cm), for children, special applications, without sufficient safety space behind the treadmill, for subjects and / or patients with health or other limitations (e.g. visual impairment, etc.), for running at high speed and / or for all individuals, where a fall triggers a dangerous risk of injury or death (e.g. newly operated hip patients, invasive probes, etc.), a fall prevention system is obligatory (e.g. safety arch with chest belt and harness or a weight support system). For more information see the instructions for use. Safety space behind the treadmill: min. L: 2 m (6ft 6.74") x treadmill width. Children are only allowed to be on the treadmill, if under permanent supervision and secured by a fall prevention system.



## specifications pluto® It med

treadmill	<b>pluto® It med</b>
manufacturer:	h/p/cosmos sports & medical gmbh / Germany
country of origin:	Germany
EUDAMED SRN:	DE-MF-000006147
order number:	cos31002
UDI-DI	40505880035862 / GS1
Basic UDI-DI:	4050588cos31000R4
product family:	treadmill h/p/cosmos 150/50 G7
EMDN Code:	Z129006: Treadmills for physiotherapy and/or diagnostic uses
UMDNS Code:	14-141 Running Machine
GMDN Code:	33015 EXERCISER, TREADMILL, LINE-POWERED
applications:	endurance training walking and running stress device for performance testing, gait analysis and gait training
control:	NO UserTerminal, control via integrated interface coscom® v4
keyboard:	no keyboard
running deck:	L x W: 150 x 50 cm (4' 11.1" x 1' 7.6"), access height: 23 cm (9.1") - running belt with slip resistant surface - max. permissible load: 250 kg (551 lbs) - max. permissible load: 300 kg (660 lbs) at extra charge
speed range:	0.0 ... 22.0 km/h (0.0 ... 6.1 m/s) (0.0...13.6 mph)
acceleration:	7 acceleration / deceleration levels (0.053...2.315 m/s <sup>2</sup> ) levels 1 to 4 enabled, levels 5 to 7 at extra charge
elevation:	0 ... 25 % (0 ... 14.0°) motorized adjustment (-25 % ... +25 % when using optional reverse belt rotation)
running direction:	reverse belt rotation at extra charge without fall prevention the max. speed for reverse belt rotation is limited to 5 km/h (3.1 mph)
drive motor:	2.2 kW (3 HP) 3-phase AC motor, maintenance free and brushless For high-performance applications we recommend models with a 3-phase 3x400 Volt power supply and a running surface min. 190/65 cm
power transmission:	frequency inverter, poly-V-belt, very quiet operation
safety systems:	CE 0123; medical device regulation MDR (EU) 2017/745, machinery regulation (EU) 2023/1230; IEC 60601-1; EN 60601-1-2 (EMC tested); ISO 20957-1; ISO 20957-6; EN 14971; emergency-stop mushroom push button (drives power off) emergency-stop with pull-cord and clip, potential equalization bolt; transformer for potential-isolation from the mains
degree of protection:	appliance class I (Ⓛ) / type B (⚡) / IP 20
classification:	medical device risk class IIb according to MDR, active therapeutic medical device and active diagnostic medical device
usage class:	S, I according to ISO 20957-1
accuracy class:	A (high accuracy) according to ISO 20957-6
earth leakage current:	< 0.2 mA
ambient condition:	temperature: +5 ... +40 °C (-30 ... +50 °C on request) humidity: 0 ... 85 % (up to 100 % on request) air pressure: 700 ... 1,060 hPa; 3,000 m (~10,000 ft) max altitude without pressurization
display (resolution):	NO UserTerminal, no integrated display
parameter: (It-devices via PC)	speed, time, elevation, distance, heart rate, heart rate variability energy consumption, altitude, power, pace, METs, diagram view of heart rate and load parameter, parameter export to USB
units:	metric / imperial
heart rate monitoring:	no heart rate receiver, HR-functions only via PC / ext. device
interfaces:	LAN / RJ45, RS232, USB
programs: (It-devices via PC)	programs / profiles (predefined) - exercise profiles (scalable) - many test profiles (UKK Walktest, Conconi, Graded test, Gardner, Naughton, Ellestad, Cooper, Balke, Bruce, etc.) - freely definable programs also for further processing
PC software (incl.):	h/p/cosmos para control® for display & remote control;
accessories (incl.):	instruction for use on USB stick, service kit, 5 m LAN cable, 5 m PE-cable
frame color:	pure white RAL 9010 (powder coated)

handrails:	steel tube handrails Ø 60 mm on both sides, over min. 1/3 of treadmill length, other handrail designs optional at extra charge
voltage supply:	200 ... 240 Volt AC 1~N/PE 50/60 Hz 16 A fuse dedicated circuit, line and protection
dimensions:	L x W x H: 210 x 86 x 120 cm (6' 10.7" x 2' 9.86" x 3' 11.24")
mass of device:	approx. 240 kg (530 lbs)
packing size:	approx. L x W x H: 230 x 110 x 90 cm (7' 6.6" x 3' 7.3" x 2' 11.4") depending on accessories and requirements
mass of packaging:	approx. 75 ... 265 kg (165 ... 585 lbs) depending on accessories and requirements

Weight and dimensions may differ depending on accessories.

E&OE. Subject to alterations without prior notice.

Optionally available at extra charge are special frame colours, other handrail designs, special voltage supply, other options and accessories. Weight and package specifications can deviate according to options, accessories packing and way of transport. E&OE. Subject to alterations without prior notice. Please consider the natural and physical performance limitations of the single phase 230 volt power supply. The single phase 230 volt power supply is sufficient up to normal fitness or therapy applications. For all special high performance applications (speed running, controlled jump-ons, sidesteps, heavy subjects at higher speed, extreme elevations, etc.), we recommend models with a 3-phase, 3x400 volt power supply (for example model h/p/cosmos quasar med 3p, pulsar 3p, venus or saturn).

**Warning!** Installation, commissioning, instruction, maintenance and repair work only to be conducted by h/p/cosmos trained and authorised personnel. For treadmills with oversized deck (width >65cm), for children, special applications, without sufficient safety space behind the treadmill, for subjects and / or patients with health or other limitations (e.g. visual impairment, etc.), for running at high speed and / or for all individuals, where a fall triggers a dangerous risk of injury or death (e.g. newly operated hip patients, invasive probes, etc.), a fall prevention system is obligatory (e.g. safety arch with chest belt and harness or a weight support system). For more information see the instructions for use. Safety space behind the treadmill: min. L: 2 m (6ft 6.74") x treadmill width. Children are only allowed to be on the treadmill, if under permanent supervision and secured by a fall prevention system.



h/p/cosmos® treadmills	order number	running surface l/w	speed	elevation	power supply *	UserTerminal display	CE
pluto® lt med	cos31002	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1- / 16 Amp.	no	CE 0123
pluto® med	cos31022	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1- / 16 Amp.	10,1" touch & keyboard	CE 0123
pluto® ef med (emotion fitness touch-display)	cos31012	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1- / 16 Amp.	7" touch	CE 0123
stratos® med	cos31032	150 / 50 cm	0 ... 22 km/h	0 %	200 ... 240 Volt AC 1- / 16 Amp.	10,1" touch & keyboard	CE 0123
mercury® med	cos31042	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1- / 16 Amp.	10,1" touch & keyboard	CE 0123
stellar® med, with UserTerminal 10,1" TouchPro	cos30003-01va06	170 / 65 cm	0 ... 25 km/h	0 %	230 Volt AC 1- / 15 Amp.	10,1" touch & keyboard	CE 0123
quasar® med, with UserTerminal 10,1" TouchPro	cos30003-01va02	170 / 65 cm	0 ... 25 km/h	0 ... 28 %	230 Volt AC 1- / 15 Amp.	10,1" touch & keyboard	CE 0123
stellar® med 190/65, with UserTerminal 10,1" TouchPro	cos30004-01va06	190 / 65 cm	0 ... 25 km/h	0 %	230 Volt AC 1- / 15 Amp.	10,1" touch & keyboard	CE 0123
pulsar® med, with UserTerminal 10,1" TouchPro	cos30004-01va02	190 / 65 cm	0 ... 25 km/h	-25 ... +25 %	230 Volt AC 1- / 15 Amp.	10,1" touch & keyboard	CE 0123

Treadmills for climate chambers available on request (for all sizes as an option at extra charge for climatic conditions from -35°C ... +55°C and 20% ... 95% humidity) with external UserTerminal.

h/p/cosmos® neurological rehabilitation treadmills	order number	with adjustable handrails, therapists seats on both sides and foot rest				UserTerminal display	CE
locomotion® 150/50 DE med	cos30001-01va02	150 / 50 cm	0 ... 10 km/h	-25 ... +25 %	230 Volt AC 1- / 15 Amp.	15,6" touch	CE 0123
locomotion® 190/65-3P DE med	cos30024va04	190 / 65 cm	0 ... 25 km/h	-25 ... +25 %	400 Volt AC 3- / 15 Amp.	15,6" touch	CE 0123

h/p/cosmos® high-performance treadmills	order number	running surface l/w	speed	elevation	power supply *	UserTerminal display	CE
quasar® med 3p, with MCUS (6 displays)	cos30003va26	170 / 65 cm	0 ... 40 km/h	0 ... 28 %	400 Volt AC 3- / 15 Amp.	yes	CE 0123
pulsar® lt 3p med, with MCUS	cos30004va02	190 / 65 cm	0 ... 40 km/h	-25 ... +25 %	400 Volt AC 3- / 15 Amp.	no	CE 0123
pulsar® med 3p, with MCUS (6 displays)	cos30004va04	190 / 65 cm	0 ... 40 km/h	-25 ... +25 %	400 Volt AC 3- / 15 Amp.	yes	CE 0123

h/p/cosmos® oversize treadmills	order number	running surface l/w	speed	elevation	power supply *	UserTerminal display	CE
venus® 200/75	cos30005-01va05	200 / 75 cm	0 ... 40 km/h	-35 ... +35 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
venus® 200/75 r	cos30005-01va06	200 / 75 cm	0 ... 40 km/h	-35 ... +35 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
venus® 200/100	cos30006-01va05	200 / 100 cm	0 ... 40 km/h	-35 ... +35 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
venus® 200/100 r	cos30006-01va06	200 / 100 cm	0 ... 40 km/h	-35 ... +35 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 250/75	cos30007-01va05	250 / 75 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 250/75 r	cos30007-01va06	250 / 75 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 250/100	cos30008-01va05	250 / 100 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 250/100 r	cos30008-01va06	250 / 100 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 250/125 rs	cos30009-01va03	250 / 125 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 300/75	cos30010-01va05	300 / 75 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 300/75 r	cos30010-01va06	300 / 75 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 300/100	cos30011-01va05	300 / 100 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 300/100 r	cos30011-01va06	300 / 100 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123
saturn® 300/125 rs	cos30012-01va03	300 / 125 cm	0 ... 40 km/h	-27 ... +27 %	400 Volt AC 3- / 32 Amp.	15" touch	CE 0123

Further oversize treadmills and specialised running machines with custom dimensions and specifications available on request.

Treadmills for climate chambers available on request (for all sizes as an option at extra charge for climatic conditions from -35°C ... +55°C and 20% ... 95% humidity) with external UserTerminal.

h/p/cosmos® biomechanics treadmills	with pressure measurement plates & gait analysis software (medical PC & printer not included)					UserTerminal display	CE
stratos® med	cos31032	150 / 50 cm	0 ... 22 km/h	optional	200 ... 240 Volt AC 1- / 16 Amp.	10,1" touch & keyboard	CE 0123
+ gaitway 3d med biomechanic-upgrade + 3 component (F <sub>x,y,z</sub> ) force measurement, requires additional subframe: [cos102999_subframe] / [cos102999_subframe_elev], with or without elevation	cos102999_150-50_MCU6va02						
stellar® med, with UserTerminal 10,1" TouchPro	cos30003-01va06	170 / 65 cm	0 ... 25 km/h	optional	230 Volt AC 1- / 15 Amp.	10,1" touch & keyboard	CE 0123
+ gaitway 3d med biomechanic-upgrade + 3 component (F <sub>x,y,z</sub> ) force measurement, requires additional subframe: [cos102999_subframe] / [cos102999_subframe_elev], with or without elevation	cos102999_170-65_MCU6va02						

Further biomechanic upgrades for example with pressure distribution sensor plates, see gaitway, noraxon, zebris.

h/p/cosmos® torqualizer® med ergometer series	order number	brake system	power range** optionally 750 W	rpm 1/min speed range	power supply *	max. user weight	CE
torqualizer® med 1200 with UserTerminal 10,1" TouchPro	cos30021va02	hybrid	6 ... 1200 watts **	20 ... >140 rpm **	100 ... 240 volts AC / 6 Amp.	150 kg	CE 0123
torqualizer® cycle ef med 900	cos30021ef-med900	hybrid	15 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE 0633
torqualizer® arm ef med 900 stand model incl. crank lever adjustable in length	cos30030ef-med900	hybrid	15 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE 0633
torqualizer® arm ef med 900 wall model incl. crank lever adjustable in length	cos30030ef-med900-wm	hybrid	15 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE 0633
torqualizer® recumbent ef med 900	cos30031ef-med900	hybrid	15 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE 0633
torqualizer® cross ef med 900	cos30032ef-med900	hybrid	(15) 100 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE 0633
torqualizer® stair ef med 900	cos30033ef-med900	hybrid	sinking rate	4 ... 27 ml/min	grid independent (cordless)	150 kg	CE 0633

\* We recommend a dedicated line 3 phase power connection (400 Volt AC3-N/PE 50/60 Hz 16 to 32A fuse) and 3-phase device for high speed, fast acceleration, special applications and for heavier subjects due to higher performance. For all single phase powered treadmills the natural performance limitations of single phase voltage supply apply due to the law of physics. For professional performance diagnostics, athletic training and high performance applications we strongly recommend running machines with 3-phase voltage power supply from model size min. pulsar 3p, venus or saturn. \*\* measured and calibrated up to 900 watts. Depending on gearings and revolutions per minute. Tolerances may occur on loads above 900 watts.

# h/p/cosmos® product list 2025 (sports)

sports

h/p/cosmos® treadmills	order number	running surface l/w	speed	elevation	power supply *	UserTerminal display	CE
pluto® lt sport	cos31001	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1~ / 16 Amp.	no	CE
pluto® sport	cos31021	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1~ / 16 Amp.	10,1" touch & keyboard	CE
pluto® ef sport (emotion fitness touch-display)	cos31011	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1~ / 16 Amp.	7" touch	CE
stratos® sport	cos31031	150 / 50 cm	0 ... 22 km/h	0 %	200 ... 240 Volt AC 1~ / 16 Amp.	10,1" touch & keyboard	CE
mercury® sport	cos31041	150 / 50 cm	0 ... 22 km/h	0 ... 25 %	200 ... 240 Volt AC 1~ / 16 Amp.	10,1" touch & keyboard	CE
stellar®, with UserTerminal 10,1" TouchPro	cos30003-01va05	170 / 65 cm	0 ... 25 km/h	0 %	230 Volt AC 1~ / 15 Amp.	10,1" touch & keyboard	CE
quasar®, with UserTerminal 10,1" TouchPro	cos30003-01va01	170 / 65 cm	0 ... 25 km/h	0 ... 28 %	230 Volt AC 1~ / 15 Amp.	10,1" touch & keyboard	CE
stellar® sport 190/65, with UserTerminal 10,1" TouchPro	cos30004-01va05	190 / 65 cm	0 ... 25 km/h	0 %	230 Volt AC 1~ / 15 Amp.	10,1" touch & keyboard	CE
pulsar® sport, with UserTerminal 10,1" TouchPro	cos30004-01va01	190 / 65 cm	0 ... 25 km/h	-25 ... +25 %	230 Volt AC 1~ / 15 Amp.	10,1" touch & keyboard	CE
saturn® 450/300 rs sport, with UserTerminal 10,1" TouchPro	cos30013-02va01	450 / 300 cm	0 ... 40 km/h	-4 ... +25 %	400 Volt AC 3~ / 64 Amp.	10,1" touch & keyboard	CE

h/p/cosmos® biomechanics treadmills	with pressure measurement plates & gait analysis software (medical PC & printer not included)				UserTerminal display	CE	
stratos® sport	cos31031	150 / 50 cm	0 ... 22 km/h	optional	200 ... 240 Volt AC 1~ / 16 Amp.	10,1" touch & keyboard	CE
+ gateway 3d sport biomechanic-upgrade + 3 component (Fx,y,z) force measurement, requires additional subframe: [cos102999_subframe] / [cos102999_subframe_elev], with or without elevation	cos102999_150-50_MCU6va01						
stellar®, with UserTerminal 10,1" TouchPro	cos30003-01va05	170 / 65 cm	0 ... 25 km/h	optional	230 Volt AC 1~ / 15 Amp.	10,1" touch & keyboard	CE
+ gateway 3d sport biomechanic-upgrade + 3 component (Fx,y,z) force measurement, requires additional subframe: [cos102999_subframe] / [cos102999_subframe_elev], with or without elevation	cos102999_170-65_MCU6va01						
pulsar® sport 3p, with MCU5 (6 displays)	cos30004va07	190 / 65 cm	0 ... 40 km/h	optional	400 Volt AC 3~ / 15 Amp.	yes	CE
+ gateway 3d biomechanics upgrade 3 component (Fx,y,z) force measurement requires additional subframe: [cos102999_subframe] / [cos102999_subframe_elev], with or without elevation	cos102999_190-65						

Further biomechanic upgrades for example with pressure distribution sensor plates, see gateway, noraxon, zebris.

h/p/cosmos® ladder ergometer	order number	height of climb: 235cm, rung width: 49.5cm / interval: 24.4cm	power supply *	UserTerminal display	CE
discovery®	cos30014va02	"endless" ladder ergometer for climbing	230 Volt AC 1~ / 15 Amp.	yes	CE

h/p/cosmos® sprint trainer / rope traction device	order number	traction force- and traction resistance-training	power supply *	UserTerminal display	CE
comet®	cos30015va01	sprint trainer concentric/eccentric. 180 meter rope, 1-phase	230 Volt AC 1~ / 15 Amp.	yes	CE
comet® 3p	cos30015va02	sprint trainer concentric/eccentric. 180 meter rope, 3-phase	400 Volt AC 3~ / 15 Amp.	yes	CE

h/p/cosmos® torqualizer® ergometer series	order number	brake system	power** optionally 750 W	rpm 1/min speed range	power supply *	max. user weight	CE
torqualizer® 1200 with UserTerminal 10,1" TouchPro	cos30021va01	hybrid	6 ... 1200 watts **	20 ... >140 rpm **	100 ... 240 volts AC / 6 Amp.	150 kg	CE
torqualizer® cycle ef 900	cos30021ef-900	hybrid	25 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE
torqualizer® arm ef 900 stand model incl. crank lever adjustable in length	cos30030ef-900	hybrid	25 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE
torqualizer® arm ef 900 wall model incl. crank lever adjustable in length	cos30030ef-900-wm	hybrid	25 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE
torqualizer® recumbent ef 900	cos30031ef-900	hybrid	25 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE
torqualizer® cross ef 900	cos30032ef-900	hybrid	(15) 100 ... 500 watts	15 ... 140 rpm	grid independent (cordless)	150 kg	CE
torqualizer® stair ef 900	cos30033ef-900	hybrid	sinking rate	4 ... 27 m/min	grid independent (cordless)	150 kg	CE

All options for torqualizers, see torqualizer.

\* We recommend a dedicated line 3 phase power connection (400 Volt AC3-/N/PE 50/60 Hz 16 to 32A fuse) and 3-phase device for high speed, fast acceleration, special applications and for heavier subjects due to higher performance. For all single phase powered treadmills the natural performance limitations of single phase voltage supply apply due to the law of physics. For professional performance diagnostics, athletic training and high performance applications we strongly recommend running machines with 3-phase voltage power supply from model size min. pulsar 3p, venus or saturn. \*\* measured and calibrated up to 900 watts. Depending on gears and revolutions per minute. Tolerances may occur on loads above 900 watts.

sports / athletics



**sports**  
quasar®



**cycling & athletics**  
saturn® 300/100r



**performance diagnostics**  
pulsar® med



German Engineering since 1988



**inline skating**  
saturn® 300/125r



**functional training**  
pulsar® med + robowalk®



**cross country skiing**  
skating / biathlon  
saturn® 450/300rs



**wheelchair**  
saturn® 300/125r



**speed training / speedlab®**  
quasar® 3p



**fitness**  
pluto® / mercury® / quasar® / pulsar®



**motion analysis**  
quasar® med



**expander training**  
robomove®



**bike ergometer**  
torqualizer®



**biomechanics**  
gait parameters  
optogait

rehabilitation



**active gait correction**  
robowalk® expander / mercury® med



**senior fitness**  
mercury®



**orthopaedic rehabilitation**  
mercury® med / arm support / airwalk® ap



**cardiac rehabilitation**  
mercury® med



**body weight supported**  
treadmill therapy  
airwalk® ap / mercury® med



**angiology**  
mercury® med



**gait analysis / biomechanics**  
gaitway® 3d with force and  
pressure measurement



**cardiovascular stress**  
testing / CPET  
mercury® med



**locomotion therapy**  
locomotion® med 150/50



**bike ergometer**  
torqualizer® 1200  
medical certification pending

special applications



**environmental & climate**  
chambers  
quasar® med with  
external UserTerminal



**biomechanics**  
gaitway® 3d



**military / army**  
quasar® special version



**speed training**  
sprint trainer comet®



**fire fighter ladder**  
training & fitness  
discovery®

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