

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



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 [cos100680-01]

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.

options



zebris® pressure distribution

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

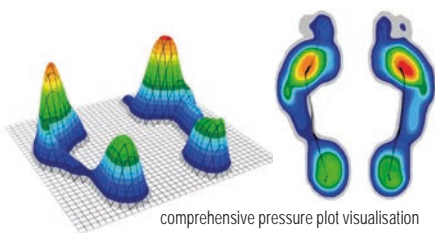
This upgrade allows versatile applications for rehabilitation, training and analysis! Underneath the belt, a pressure sensor matrix is installed that contains several thousand calibrated, capacitive pressure sensors. The belt movement is compensated, so stable gait and roll-off parameters can be analysed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

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.

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.



comprehensive pressure plot visualisation



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



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



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

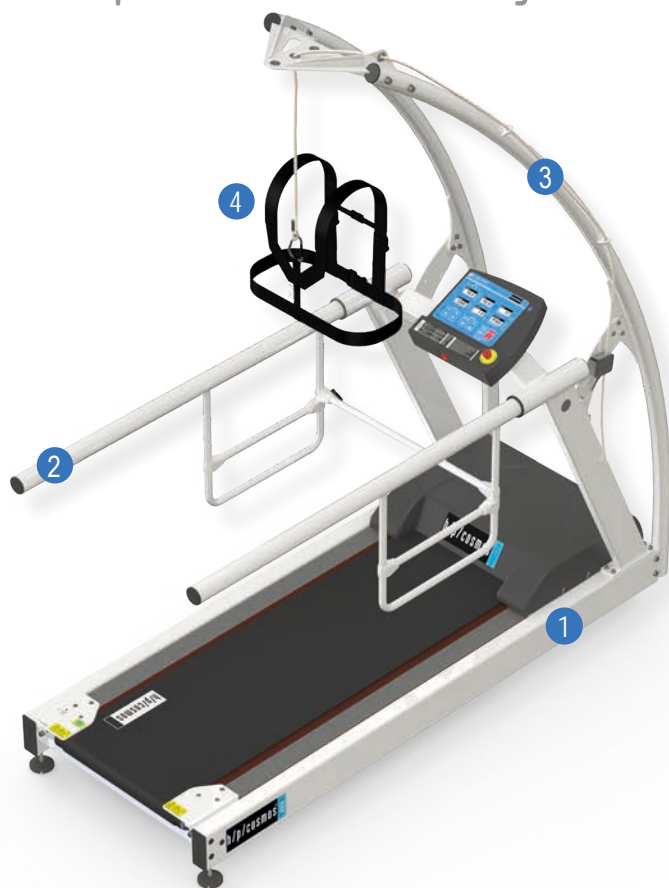
Discover the h/p/cosmos medical treadmill series pluto® med.

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 on our website for all details.



Model name	pluto® It med	pluto® med
Article number:	cos30027-01va02	cos30026-01va02
User Terminal/Control	no displays, no keyboard. Control via integrated interface and coscom v3/v4 protocol	UserTerminal MCU5 with keyboard and displays, integrated interface and coscom v3/v4 protocol
Device dimensions:	L: 209 x W: 86 x H: 131 cm	
Device weight:	approx. 228 kg	
Running surface:	L: 150 x W: 50 cm	
Max. user weight:	250 kg	
Speed range:	0...18 km/h (optional at extra charge: 0...22 km/h)	
Elevation:	0...+20% (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:	heart rate measurement optional at extra charge	pulse receiver available (5kHz)
Classification & safety for medical devices	CE 0123; risk class IIb; MDD 93/42/EEC; machinery directive 2006/42/EC; ISO 20957-1; EN 957-6; EN 14971; EN ISO 13485; IEC60601-1; EN 60601-1-2 (EMC approved); IEC 62304	
Classification & safety for sport devices	pluto®It cos30027-01va01	pluto® cos30026-01va01
	CE; machinery directive 2006/42/EC; EMC directive 2014/30/EU; ISO 20957-1; EN 957-6; EN 60335-1	

configuration pluto® med: pediatric rehabilitation and diagnostics



recommended configuration pediatric rehabilitation and diagnostics pluto® med

pos.	qty.	order number	product description		
1.	1	cos30026-01va02	h/p/cosmos treadmill pluto® med running surface 150 x 50 cm, speed range 0 ... 18 km/h, elevation 0 ... 20 %, UserTerminal MCU5 with keyboard and display, integrated interface and coscom® v3/v4 protocol		
2.	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		
3.	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		
4.	1	cos14903-04-XXS	Chestbelt XXS for safety arch system colour code: orange, for chest measurement approx. 45-65 cm		
5.	1	cos14903-04-XS	Chestbelt XS for safety arch system colour code: black, for chest measurement approx. 55-75 cm		
6.	1	cos14903-04-S	Chestbelt S for safety arch system colour code: red, for chest measurement approx. 65-95 cm		
7.	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)		
8.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)		
9.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel		
			total price net, excluding VAT, excluding custom duties		
			VAT (19 % in Germany, other VAT and/or custom duties may apply in other countries)		
			system price h/p/cosmos solution for gait training: please ask your dealer for a quotation		

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configuration pluto® med: gait rehabilitation basic



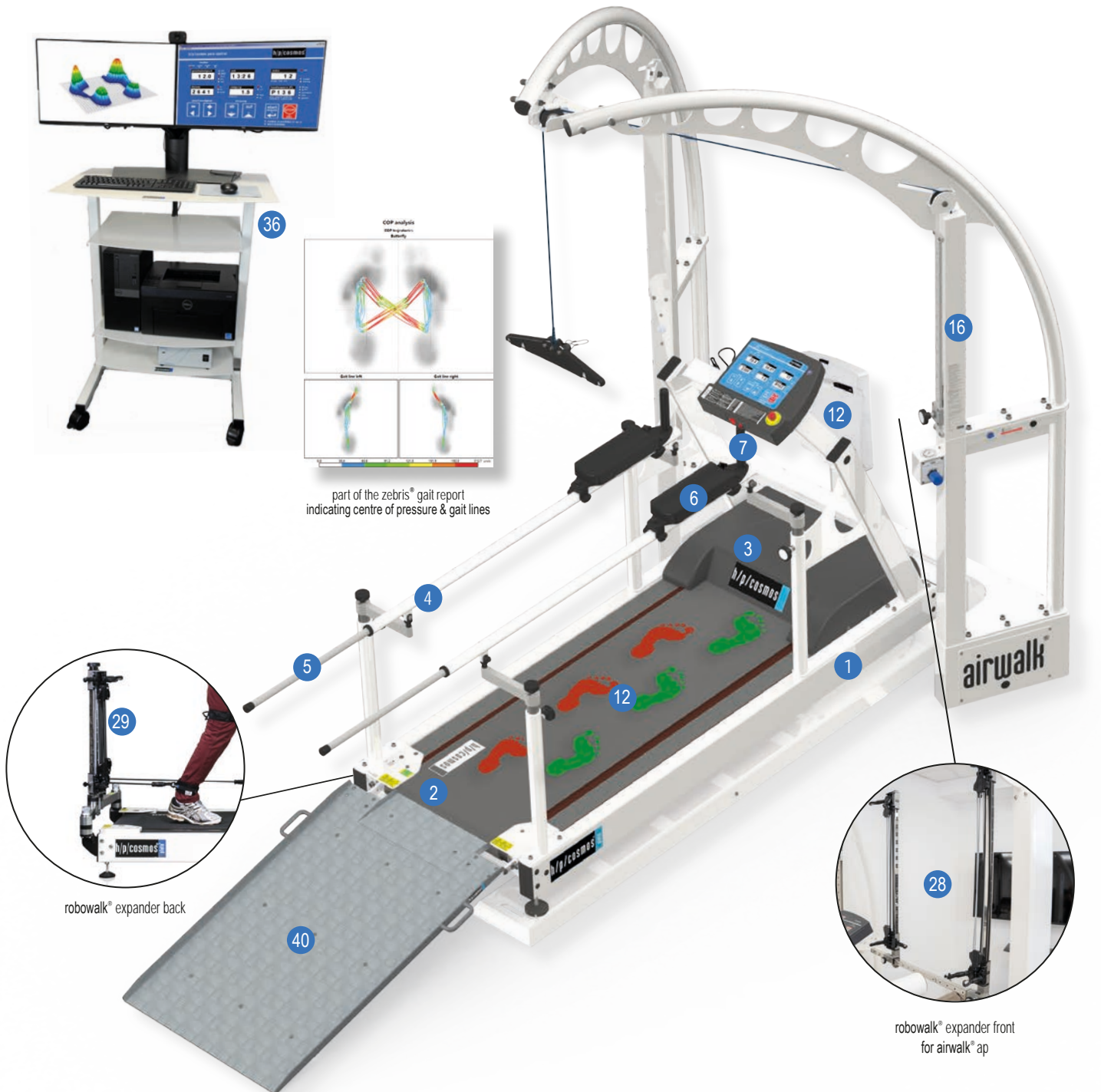
recommended configuration gait rehabilitation basic pluto® med

pos.	qty.	order number	product description		
1.	1	cos30026-01va02	h/p/cosmos treadmill pluto® med running surface 150 x 50 cm, speed range 0 ... 18 km/h, elevation 0 ... 20 %, UserTerminal MCU5 with keyboard and display, integrated interface and coscom® v3/v4 protocol		
2.	1	cos103330va01	Reverse treadmill belt rotation, incl. running belt 5mm & belt centering rolls, max. reverse speed: 5 km/h		
3.	1	cos102918-01	Handrail long Handrail pluggable long. Option consists of 2 long handrails (not for USA/Canada)		
4.	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.		
5.	1	cos102522va01	Packing treadmill 150/50 (SA), packed part assembled on pallet with cardboard hood (L: 230 cm / W: 109 cm / H: 87 cm)		
6.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)		
7.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel		
			total price net, excluding VAT, excluding custom duties		
			VAT (19 % in Germany, other VAT and/or custom duties may apply in other countries)		
			system price h/p/cosmos solution for gait training: please ask your dealer for a quotation		

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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	cos30000-02va02	h/p/cosmos treadmill pluto® med running surface 150 x 50 cm, speed range 0...18 km/h, elevation 0...20 %, UserTerminal MCU5 with keyboard and display, integrated interface and coscom® v3/v4 protocol		
2.	1	cos103330va02	Reverse treadmill belt rotation, incl. running belt 5mm & belt centering rolls, max. reverse speed: 5 km/h		
3.	1	cos104173	Motor brake prevents the majority of belt movement at target speed = "0" (e.g. treadmill stop/pause), with exception of a few cm / inch.		
4.	1	cos102010va07	Handrails adjustable bar length 1500 mm, locking bar with height raster 25 mm, H: 75...120 cm / W: 38...104 cm		
5.	1	cos102899	Extension rods for adjustable handrail D= 25 mm offer another 550 mm length to the back		
6.	1	cos102560	Arm supports for handrails adjustable, forearm support with hand grip for adjustable handrails		
7.	1	cos10107	Additional stop-button right, stop-button for hand grip in the arm support, right hand side		

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configuration pluto® med: gait rehabilitation premium

recommended configuration gait rehabilitation premium pluto® med

pos.	qty.	order number	product description		
8.	1	cos103335-01va02	zebris® FDM pressure measuring platform 2i upgrade 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		
9.	1	cos100385d	zebris® SyncCam (camera without stand), video camera 30 Hz, synchronization cable, USB cable and power supply - without light system		
10.	1	cos100385b	zebris® stand for SyncCam or SyncLightCam (mobile) mobile stand for SyncCam and SyncLightCam with integrated cable fixation		
11.	1	cos100384	zebris® FDM-Stance Modul extra software module for stance & balance analysis for instrumented biomechanic treadmill or platform stand alone		
12.	1	cos101291-01	zebris® visual stimulation upgrade for 150/50 (Rehawk®) video projector, mounting and software for gait training through step projection on h/p/cosmos treadmill 150/50 cm		
13.	1	cos101062	zebris® software-module virtual training (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)		
14.	1	cos100815-01	Additional keyboard with magnet holder, mobile remote control with 6 keys with a approx. 2 m coiled cord		
15.	1	cos100816	Extension cable for additional keyboard, Spiral cable extendable to 2 meters		
16.	1	cos30028	airwalk® ap, 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		
17.	1	cos103058	Compressor for airwalk® ap, 8 bar		
18.	1	cos102342-01	Emergency stop for airwalk® ap, additional function of airwalk ap also as fall prevention system (safety arch) with autom. treadmill belt stop		
19.	1	cos100432-01	Extension sling set 60 cm for h/p/cosmos airwalk ap, i.e. for small subjects (children) in airwalk vest XS		
20.	1	cos102785-01	Express sling/loop 18 cm, 1x express sling/loop 18 cm for extension of pulling rope		
21.	1	cos10095-vest-S	Vest S for h/p/cosmos airwalk® (all models), size S (thorax circumference: 85-92 cm), colour code red		
22.	1	cos10095-vest-L	Vest L for h/p/cosmos airwalk® (all models), size L (thorax circumference: 106-114 cm), colour code green		
23.	1	cos10095-vest-XL	Vest XL for h/p/cosmos airwalk® (all models), size XL (thorax circumference: 116-130 cm), colour code blue		
24.	1	cos10095-neo-S	Neoprene shorts S for h/p/cosmos airwalk® (all models), size S (waist: 55-92 cm)		
25.	1	cos10095-neo-M	Neoprene shorts M for h/p/cosmos airwalk® (all models), size M (waist: 93-105 cm)		
26.	1	cos10095-neo-L	Neoprene shorts L for h/p/cosmos airwalk® (all models), size L (waist: 106-114 cm)		
27.	1	cos10095-neo-XL	Neoprene shorts XL for h/p/cosmos airwalk® (all models), size XL (waist: 115-123 cm)		
28.	1	cos30022-02va04	robwalk® expander front for airwalk® ap, for the front area		
29.	1	cos30023-03	robwalk® expander back (rear)		
30.	1	cos101050-S	Leg cuff thigh S (250 - 390 mm), 1 pair		
31.	1	cos101050-M	Leg cuff thigh M (350 - 510 mm), 1 pair		
32.	1	cos101050-L	Leg cuff thigh L (490 - 750mm), 1 pair		
33.	1	cos101051-XS	Leg cuff shank XS (140 - 270mm), 1 pair		
34.	1	cos101745	robwalk® manual pulling unit with 125 cm expander rope, 1 pair of expander manual pulling units 125 cm (incl. 1 noose and 1 thigh cuff)		
35.	1	cos101748-01	Universal noose robwalk®		
36.	1	cos14970-03	h/p/cosmos satellite PC med DELL PC, 2x 24" LCD Monitor, COL Laser printer, potential isolation transformer, h/p/cosmos PC-rack with 4 casters		
37.	1	cos102397	LCD monitor TV 50" (with a small monitor stand for table) for example for SpeedLab®, gaitway® display or for the virtual training module of zebris®		
38.	1	cos101624	Monitor stand mobile for LCD TV 32-60" monitor stand (without monitor!) for additional TV / monitor (max. load: 30 kg), height: 180 cm.		
39.	1	cos12769-01	USB to RS232 converter converter from USB to serial port RS232 (Sub-D 9-pin male)		
40.	1	cos16186-02	Wheelchair ramp (L: 125 cm x W: 80 cm) enables the patients' wheelchair to be pushed onto the treadmill		
41.	1	cos102522va04	Packing treadmill 150/50, full assembled with cardboard hood (L: 230 cm / W: 109 cm / H: 169 cm)		
42.	1	cos102538va02	Packing airwalk® ap, part assembled, packed part assembled on pallet with cardboard hood		
43.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)		
44.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel		
45.	1	cos101094	1-day application workshop, includes costs for specialist / referent. Not including flight, logistics, hotel, etc.		
			total price net, excluding VAT, excluding custom duties		
			VAT (19 % in Germany, other VAT and/or custom duties may apply in other countries)		
			system price h/p/cosmos solution for gait training: please ask your dealer for a quotation		

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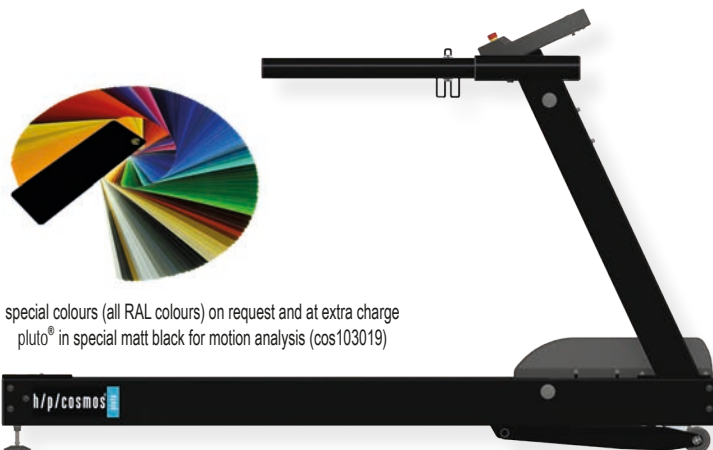
configuration pluto®: fitness



recommended configuration fitness pluto®

pos.	qty.	order number	product description		
1.	1	cos30026-01va01	h/p/cosmos treadmill pluto® running surface 150 x 50 cm, speed range 0 ... 18 km/h, elevation 0 ... 20 %, UserTerminal MCU5 with keyboard and display, integrated interface and coscom® v3/v4 protocol		
2.	1	cos103928	Footboard extra wide (both sides) 150/50 for safe on and off stepping during fitness trainings and exercises For speed & sprint training safety arch is an obligatory requirement.		
3.	1	cos102522va01	Packing treadmill 150/50 , packed part assembled on pallet with cardboard hood (L: 230 cm / W: 109 cm / H: 87 cm)		
4.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)		
5.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel		
			total price net, excluding VAT, excluding custom duties		
			VAT (19 % in Germany, other VAT and/or custom duties may apply in other countries)		
			system price h/p/cosmos solution for gait training: please ask your dealer for a quotation		

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special colours (all RAL colours) on request and at extra charge
pluto® 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 directive MDD 93/42/EEC + 2007/47/EC; machinery directive 2006/42/EG; ISO 20957-1; EN 14971; EN ISO 13485
classification:	medical device risk class I according to MDD, 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.

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®

treadmill	pluto®
manufacturer:	h/p/cosmos sports & medical gmbh / Germany
order number:	cos30026-01va01
applications:	endurance training walking and running
control:	via UserTerminal MCU5 with keyboard and display, integrated interface or via optional remote control
keyboard:	6 keys for manual control, easily controllable with medical gloves and under sweaty conditions
running surface:	L: 150 cm (4ft 11.06") W: 50 cm (1ft 7.69") access height: 23 cm (9.06") - running belt with slip resistant surface - max. permissible load: 250 kg (551 lbs)
speed range:	0.0...18.0 km/h (0.0...5.0 m/s) (0.0...11.2 mph) available at extra charge: 0.0...22.0 km/h (0.0...6.1 m/s) (0.0...13.6 mph)
acceleration:	7 acceleration / deceleration levels between 131 s and 3 s from 0 to max. or from max. to 0; equals 0.038... 1.66 m/s ² levels 1 to 4 enabled, levels 5 to 7 on request adjustable via treadmill or remote control
elevation:	0.0...20.0 % (0.0...11.31°) motorized adjustment available at extra charge: 0.0...25.0 % (0.0...14.03°)
running direction:	switch for reversing belt direction at extra charge. Max. permissible reverse speed 5 km/h (3.1 mph) if no safety-harness with fall-stop prevention system is used.
motor systems:	2.2 kW (3 PS) 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 directive 2006/42/EC; EMC directive 2014/30/EU; EN 60335-1; ISO 20957-1; EN 957-6; emergency-off safety stop switch (mushroom push button for drive system power-off); emergency stop switch (safety lanyard with actuator, pull cord and clip)
degree of protection:	appliance class I (⊕) / IP 00
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 EN 957-6
earth leakage current:	< 1.5 mA
ambient condition:	0...+40 °C; 20...90 % humidity, 700...1060 hPa air pressure 3,000 m (~10,000 ft) max. altitude without pressurization
display (resolutions) parameter:	6 LCD displays, 4 LEDs for operation modes, 20 LEDs for display of units & profile no., steps, etc. speed (0.1 km/h or m/s or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1 % or degrees) distance (1 m...999.9 km or miles), METS (1 MET) program step/number, energy (1 kJ/kcal), fitness index (1) power (1 Watt), heart rate (1 bpm / beat per minute) optional
resolution:	1 decimal place
units:	metric / imperial
heart rate monitoring:	pulse receiver available (5kHz), heart rate chest belt optional at extra charge.
digital interface:	1x RS 232 com1 with 9600 bps: incl. PC-protocol, h/p/cosmos coscom® v3/v4, USB-RS232-converter; com2; com3 with 115200 bps; com4. optional at extra charge
programs:	6 exercise profiles (scalable, more than 100 variations) 11 test profiles (UKK 2 km Walktest, Bruce, Graded test, Naughton, Ellestad, Gardner, Conconi, Ramp, etc.) 20 free definable programs with 40 program steps each
PC software (incl.):	h/p/cosmos para control® for display & remote control; including 1 x RS232 interface cable 5m (16 ft 4.85")
PC software: (extra charge)	h/p/cosmos para graphics®, para analysis® & para motion®. PC software for control, monitoring, recording & analysis
accessory (incl.):	instruction for use on USB media-stick, lubrication oil, allen-key
colour of frame:	pure white RAL 9010 (powder coated)

handrails:	steel tube handrails Ø 60 mm on both sides, length: 620 mm; square cross-tube between pillars. Other lengths and designs at extra charge. Front crossbar (D: 30 mm) at extra charge.
voltage supply:	200 ... 240 Volt AC 1~/N/PE 50/60 Hz 16A type C fuse; dedicated circuit, line and protection
size of frame:	L: 210 cm (6ft 11") W: 86 cm (2ft 9.9") H: 130 cm (4ft 3.2")
net. weight:	device approx. 215 kg (474 lbs)
gross weight:	device approx. 320...350 kg (704...770 lbs)



Weight and dimensions may differ depending on accessories.

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	pluto® med
manufacturer:	h/p/cosmos sports & medical gmbh / Germany
order number:	cos30026-01va02
applications:	endurance training walking and running, stress device for performance testing, gait analysis and gait training
control:	via UserTerminal MCU5 with keyboard and display, integrated interface or via optional remote control
keyboard:	6 keys for manual control, easily controllable with medical gloves and under sweaty conditions
running surface:	L: 150 cm (4ft 11.06") W: 50 cm (1ft 7.69") access height: 23 cm (9.06") - running belt with slip resistant surface - max. permissible load: 250 kg (551 lbs)
speed range:	0.0...18.0 km/h (0.0...5.0 m/s) (0.0...11.2 mph) available at extra charge: 0.0...22.0 km/h (0.0...6.1 m/s) (0.0...13.6 mph)
acceleration:	7 acceleration / deceleration levels between 131 s and 3 s from 0 to max. or from max. to 0; equals 0.038... 1.66 m/s ² levels 1 to 4 enabled, levels 5 to 7 on request adjustable via treadmill or remote control
elevation:	0.0...20.0 % (0.0...11.31°) motorized adjustment available at extra charge: 0.0...25.0 % (0.0...14.03°)
running direction:	switch for reversing belt direction at extra charge. Max. permissible reverse speed 5 km/h (3.1 mph) if no safety-harness with fall-stop prevention system is used.
motor systems:	2.2 kW (3 PS) 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 directive MDD 93/42/EEC; machinery directive 2006/42/EC; EMC directive 2014/30/EU; IEC 60601-1; EN 60601-1-2 (EMC tested); IEC 62304; EN 14971; ISO 20957-1; EN 957-6; emergency-stop mushroom push button (for drive system power-off), emergency-stop switch (safety lanyard with actuator, pull-cord and clip); potential equalization bolt; transformer for potential-isolation from the mains.
degree of protection:	appliance class I  / type B  / IP 00
classification:	medical device risk class IIb according to MDD, 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 EN 957-6
earth leakage current:	< 0.2 mA
ambient condition:	0...+40 °C; 20...90 % humidity, 700...1060 hPa air pressure 3,000 m (~10,000 ft) max.altitude without pressurization
display (resolutions) parameter:	6 LCD displays, 4 LEDs for operation modes, 20 LEDs for display of units & profile no., steps, etc. speed (0.1 km/h or m/s or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1 % or degrees) distance (1 m...999.9 km or miles), METS (1 MET) program step/number, energy (1 kJ/kcal), fitness index (1) power (1 Watt), heart rate (1 bpm / beat per minute) optional
resolution:	1 decimal place
units:	metric / imperial
heart rate monitoring:	pulse receiver available (5kHz), heart rate chest belt optional at extra charge.
digital interface:	1x RS 232 com1 with 9600 bps: incl. PC-protocol, h/p/cosmos coscom® v3/v4 USB-RS232-converter; com2; com3 with 115200 bps; com4. optional at extra charge
programs:	6 exercise profiles (scalable, more than 100 variations) 11 test profiles (UKK 2 km Walktest, Bruce, Graded test, Naughton, Ellestad, Gardner, Conconi, Ramp, etc.) 20 free definable programs with 40 program steps each
PC software (incl.):	h/p/cosmos para control® for display & remote control; including 1 x RS232 interface cable 5m (16 ft 4.85")

PC software: (extra charge)	h/p/cosmos para graphics®, para analysis® & para motion®. PC software for control, monitoring, recording & analysis
accessory (incl.):	instruction for use on USB media-stick, lubrication oil, allen-key, 5m (16 ft 4.85") PE potential equalization cable
colour of frame:	pure white RAL 9010 (powder coated)
handrails:	steel tube handrails Ø 60 mm on both sides, length: 620 mm; square cross-tube between pillars Other lengths and designs at extra charge Front crossbar (Ø 30 mm) at extra charge
voltage supply:	200...240 Volt AC 1~/N/PE 50/60 Hz 16A type C fuse; dedicated circuit, line and protection
size of frame:	L: 210 cm (6ft 11") W: 86 cm (2ft 9.9") H: 130 cm (4ft 3.2")
net. weight:	device approx. 228 kg (503 lbs)
gross weight:	device approx. 320...350 kg (704...770 lbs)



Weight and dimensions may differ depending on accessories.

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).

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specifications pluto® It med

treadmill	pluto® It med
manufacturer:	h/p/cosmos sports & medical gmbh / Germany
order number:	cos30027-01va02
applications:	endurance training walking and running, stress device for performance testing, gait analysis and gait training
control:	via integrated interface and coscom v3/v4 protocol or via para control PC software or optional remote control only; MCU5 located in the engine room, WITHOUT UserTerminal, no displays, no keyboard
keyboard:	no keyboard
running surface:	L: 150 cm (4ft 11.06") W: 50 cm (1ft 7.69") access height: 23 cm (9.06") - running belt with slip resistant surface - max. permissible load: 250 kg (551 lbs)
speed range:	0.0...18.0 km/h (0.0...5.0 m/s) (0.0...11.2 mph) available at extra charge: 0.0...22.0 km/h (0.0...6.1 m/s) (0.0...13.6 mph)
acceleration:	7 acceleration / deceleration levels between 131 s and 3 s from 0 to max. or from max. to 0; equals 0.038... 1.66 m/s ² levels 1 to 4 enabled, levels 5 to 7 on request adjustable via treadmill or remote control
elevation:	0.0...20.0 % (0.0...11.31°) motorized adjustment available at extra charge: 0.0...25.0 % (0.0...14.03°)
running direction:	switch for reversing belt direction at extra charge. Max. permissible reverse speed 5 km/h (3.1 mph) if no safety-harness with fall-stop prevention system is used.
motor systems:	2.2 kW (3 PS) 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 directive MDD 93/42/EEC; machinery directive 2006/42/EC; EMC directive 2014/30/EU; IEC 60601-1; EN 60601-1-2 (EMC tested); IEC 62304; EN 14971; ISO 20957-1; EN 957-6; emergency-stop mushroom push button (for drive system power-off), emergency-stop switch (safety lanyard with actuator, pull-cord and clip); potential equalization bolt; transformer for potential-isolation from the mains.
degree of protection:	appliance class I  / type B  / IP 00
classification:	medical device risk class IIb according to MDD, 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 EN 957-6
earth leakage current:	< 0.2 mA
ambient condition:	0...+40 °C; 20...90 % humidity, 700...1060 hPa air pressure 3,000 m (~10,000 ft) max.altitude without pressurization
display (resolutions) parameter:	only via PC software: 6 LCD displays, 4 LEDs for operation modes, 20 LEDs for display of units & profile no., steps, etc. speed (0.1 km/h or m/s or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1 % or degrees) distance (1 m...999.9 km or miles), METS (1 MET) program step/number, energy (1 kJ/kcal), fitness index (1) power (1 Watt), heart rate (1 bpm / beat per minute) optional
resolution:	1 decimal place
units:	metric / imperial
heart rate monitoring:	heart rate measurement optional at extra charge, heart rate chest belt optional at extra charge.
digital interface:	1x RS 232 com1 with 9600 bps: incl. PC-protocol, h/p/cosmos coscom® v3/v4 USB-RS232-converter; com2; com3 with 115200 bps; com4. optional at extra charge
programs:	6 exercise profiles (scalable, more than 100 variations) 11 test profiles (UKK 2 km Walktest, Bruce, Graded test, Naughton, Ellestad, Gardner, Conconi, Ramp, etc.) 20 free definable programs with 40 program steps each
PC software (incl.):	h/p/cosmos para control® for display & remote control; including 1 x RS232 interface cable 5m (16 ft 4.85")

PC software: (extra charge)	h/p/cosmos para graphics®, para analysis® & para motion®. PC software for control, monitoring, recording & analysis
accessory (incl.):	instruction for use on USB media-stick, lubrication oil, allen-key, 5m (16 ft 4.85") PE potential equalization cable
colour of frame:	pure white RAL 9010 (powder coated)
handrails:	steel tube handrails Ø 60 mm on both sides, length: 620 mm; square crosstube between pillars Other lengths and designs at extra charge Front crossbar (Ø 30 mm) at extra charge
voltage supply:	200...240 Volt AC 1~/N/PE 50/60 Hz 16A type C fuse; dedicated circuit, line and protection
size of frame:	L: 210 cm (6ft 11") W: 86 cm (2ft 9.9") H: 130 cm (4ft 3.2")
net. weight:	device approx. 228 kg (503 lbs)
gross weight:	device approx. 320...350 kg (704...770 lbs)

Weight and dimensions may differ depending on accessories.

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).

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sports / athletics



sports
quasar®



cycling & athletics
saturn® med 300/100r



performance diagnostics
pulsar® med 3p



German Engineering since 1988



inline skating
saturn® med 300/125r



functional training
pulsar® med 3p + robowalk®



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



wheelchair
saturn® med 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



therapeutic bar training
parawalk®

special applications



**environmental & climate
chambers**
quasar® med 3p with
external UserTerminal



biomechanics
gaitway® 3d



military / army
quasar® special version



speed training
sprint trainer comet®



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

h/p/cosmos dealer contact:

manufacturer

h/p/cosmos sports & medical gmbh
Am Sportplatz 8
83365 Nussdorf-Traunstein
Germany

phone: +49 86 69 86 42 0
fax: +49 86 69 86 42 49

sales@hpcosmos.com
www.hpcosmos.com

skype: @hpcosmos.com (search & select name)
youtube: youtube.com/hpcosmos
twitter: twitter.com/hpcosmos
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