# h/p/cosmos®



those who want to learn to walk ... must walk

#### Those who want to learn to walk ... must walk!

Your patients desire fast and full recovery. They want to enjoy a pain free and healthy life. The result of your work can help to achieve these goals. Of course, while your expertise and experience is essential, the right choice of tools and methodology is important for the success of the therapy. And it must meet the demands from both patients and therapists!

Physiologically correct walking is one of the most important therapeutic goals. And those who want to learn to walk ... must walk!

Functional gait training for those with a limited ability to walk is only possible with high commitment and involves problems both for therapists and patients.

Those who can not walk overground can not walk on a normal treadmill either. The right treadmill system with specially designed aids and accessories allows a more targeted and more effective therapy. Your patients can train earlier, longer and more frequently with a lower burden to the patient and the therapist. Their treatment is supported and may be more effective and successful.



treadmill therapy with or without arm-support



locomotion therapy with un-weighting system and seats for therapists



treadmill therapy with un-weighting system



therapeutic bar training



# therapy & rehabilitation

# treadmill therapy

- physiological gait training safe and realistic
- early initiation of therapy with body weight support
- I therapeutic freedom by controlling the treadmill from a variety of positions
- I traceable results of treatment by simple documentation

system solution treadmill therapy

# physiological gait training - safe and realistic



- realistic exercises with fall prevention?
- safe mounting of the treadmill from wheelchair?
- early start to walking exercises but how?
- physiological gait training even with obese patients?

#### secure mounting even with crutches and out of a wheelchair

You know the situation: Some of your patients come on crutches or in wheelchairs to their therapy. The first difficulty will follow immediately when your patient mounts the treadmill their grip is transferred from the walking aids to the handrail. Wheelchair users need a way to support themselves on the handrail when getting up from the wheelchair.

The h/p/cosmos system for rehabilitation has a low entry height and long handrails that extend to the end of the walking surface. Patients with an impaired ability to walk can mount the treadmill more safely. A professional wheelchair ramp is optionally available as an accessory which allows comfortable access onto the running surface for most types of wheelchairs. See picture on page 22.

The h/p/cosmos mercury<sup>®</sup> med treadmill system comes with a running surface of L: 150cm (59.05") x W: 50cm (19.68") which meets the standards for many applications. For special demands larger deck size models like the h/p/cosmos quasar<sup>®</sup> med, the high performance h/p/cosmos pulsar<sup>®</sup> 3p or the oversize range h/p/cosmos venus<sup>®</sup> and h/p/cosmos saturn<sup>®</sup> with a deck size of up to L: 450cm x W: 300cm are available. Custom-made models designed for higher body weights and for special applications are manufactured by h/p/cosmos.





#### early start of therapy with body weight support

The course of therapy should start as early as possible and should be enjoyable for both the patient and the therapist. Therefore, body weight support of the patient is necessary in many cases.

The patented and individually adjustable h/p/cosmos arm supports allow for this type of weight support and give both stability and safety.

Supporting the elbows on the firm but cushioned U-shaped arm support and additionally holding the two ergonomic hand grips has tremendous positive impact on the comfort of the patient. It psychologically boosts the motivation to walk with fewer worries of stumbling or fear of failure and pain. Thus, the results of therapy can be improved significantly! The arm support is also frequently used for stroke patients or seniors without the need of unweighting.

The additional keyboard and additional stop button give both therapist and patient control at all times. Even if the therapist moves the additional keyboard down to the running deck to assist the patient, the patient still has access to the additional stop button in the hand grip and can stop the treadmill without leaving the safety of the arm support.

As soon as the progress of therapy allows, you can simply fold away the arm support and continue to use the system as a "normal" treadmill without restriction.







#### physiological gait training even with obese patients

The correct therapy treadmill must be able to start at very low speeds for obese patients as they can often only walk very slowly. Likewise patients with limited walking ability also need a slow and smooth start without any juddering.

The h/p/cosmos mercury<sup>®</sup> med treadmill is approved for patients weighing up to 200 kg (440 lbs, higher weight possible on request) and the powerful 3.3 kW (4.5 HP) drive motor allows a slow, patient-friendly start at speeds from 0.1 km/h. So all your patients can start their therapy slowly and more safely. Max. weight load on arm support is 140 kg (280 lbs).

### simple operation and control for both patient and therapist

Adjusting the speed and elevation or an immediate stop: both the therapist and patient need access to these functions at all times. The operation of the h/p/cosmos mercury<sup>®</sup> med is simple: it begins with start and with stop the treadmill stops, two buttons for speed (+ and -) and two more for elevation. This operation is clear for the therapist and the patient. The necessary safety for successful and stressless therapy.

#### more freedom of therapy by flexible control options

During therapy the therapist often needs to guide the patient's legs to optimise their movement. In doing so there is no access to the UserTerminal (control panel with keyboard and display) on the handrail. The additional keyboard can be mounted on the arm support for the patient, or either on the left or right of the motor hood. Even when the therapist is working with the patient's legs in an ergonomic position, he can control the treadmill start, stop, speed and elevation functions. An additional stop button is incorporated in the hand grip for the patient.

h/p/cosmos<sup>page 8</sup> cos100926-en







#### downhill to success optimal fall prevention through eccentric training

Walking downhill is often a difficult exercise for many patients and is frequently avoided. This can lead to accidents later on through lack of practice. Therefore practicing walking downhill in a safer therapeutic environment and utilizing modern accessories is a useful tool for fall prevention. The reverse belt rotation function allows your patients to practice their downhill walking in a convenient and supervised environment. Eccentric training causes an intense training stimulus. At the same time the demands on the cardiovascular system are not so high compared to walking uphill.

For those patients who have a weakness of the dorsiflexors, steep downhill training allows smoother walking and therefore effective training because the forefoot doesn't need to be lifted. Downhill walking widens the scope of applications and therapies for various other indications and goals.

# traceable results of treatment through fast documentation

The results of the treatment course should be well documented. This is not just important for patients and families, but also for the participating doctors and insurance companies. Good documentation must be readily available and easy to interpret.

As soon as the therapy session has finished and the stop button is pressed the h/p/cosmos satellite print, which is connected directly to the treadmill, prints the complete documentation. This allows easy and quick to understand documentation of treatment progress without significant expenditure of time. All relevant exercise results and data such as duration, speed, elevation, distance, heart rate, fitness index, date, time and even treadmill serial number for traceability are included in the printout, even without using any PC or software. Just write the patient's name and remarks by hand.

### system solution treadmill therapy



#### recommended configuration treadmill therapy h/p/cosmos mercury<sup>®</sup> med

pos.	qty.	order number	product description
1.	1	cos30000va08	running machine h/p/cosmos mercury <sup>®</sup> med running surface 150 x 50 cm, speed 0 22 km/h, elevation 0 25 %, drive motor 3.3 kW, interface port com1 for PC, ECG, ergospirometry-, blood-pressure system or printer - compatible to most of the systems worldwide, incl. PC software h/p/cosmos para control <sup>®</sup> for device control and monitoring
2.	1	cos10145	handrails long, 2 pillars (surcharge) as shown on picture above
3.	1	cos00098100045	reverse belt rotation for downhill simulation
4.	1	cos00098010025	2nd interface port COM2 for PC, ECG-, ergospirometry-, blood-pressure-monitor system or printer
5.	1	cos00097010035	interface cable RS232, 10 m
6.	1	cos12013	h/p/cosmos arm support with 3 joints, adjustable in height and width (patent no.: DE19916508A1)
7.	1	cos10107	h/p/cosmos additional stop-button for arm support, right
8.	1	cos100680	h/p/cosmos additional keyboard for arm support and for remote control, 6 keys, 2 m cable
9.	1	cos10111	mounting for additional keyboard on arm support
10.	1	cos11750	mounting for additional keyboard at the motor hood, right
11.	1	cos14327	mounting for additional keyboard at the motor hood, left
12.	1	cos14954	h/p/cosmos satellite print - printer-set for direct documentation without PC, incl. laser printer, RS232 interface converter with cable, printer rack/stand made of steel
13.	1	cos10223	potential equalization cable, 5 m (required for medical systems)
14.	1	cos10085	packing pallet & cardboard hood
15.	1	cos60098010021	shipping costs door to door within Europe, confirmed price on request
16.	1	cos15732	installation & instruction treadmill
			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 treadmill therapy: please ask your dealer for a quotation

Please refer to the information about prices, conditions, illustrations and recommended system configurations which can be found on page 36.

#### running machine: h/p/cosmos mercury® med order number: cos30000va08 running for sports, sports medicine, cardiology, applications: rehabilitation. stress tests & medicine. WITH UserTerminal (display & keyboard), MCU5, stand alone and/or remote control via interface. L: 150 cm (59.05") W: 50 cm (19.68") running surface: access H: 18 cm (7.09") - shock load reduction for the joints - belt surface with non slip material - max. permissible load: 200 kg (440 lbs) up to 400 kg (880 lbs) on request 0...22.0 km/h (0...6.1 m/s) (0...13.6 mph) speed range: special speed up to 30 km/h on request. 7 levels (3...131 sec. from 0 to max. speed) also for acceleration: deceleration (for manual or program mode) 0...25 % (0...14.0°) adjustable electr., resolution 0.1 %; elevation: (-25 %...+25 % when using optional reverse belt rotation) running direction: switch for reversing running belt direction (option, extra charge); running belt must be adjusted for reverse belt rotation. Max. permissible reverse speed 5 km/h if no safety-harness with fall-stop prevention system is used. motor system: 3.3 kW (4.5 HP) 3-phase A.C.; motor maintenance free and brushless 20 years warranty on main drive motor frequency inverter, poly-V-belt, power transmission: very quiet operation safety systems: CE0123; guideline 93/42/EEC + GL 2007/47/EC; MDD; machinery directive 2006/42/EC; DIN EN 60601-1; CE0123 DIN EN 60601-1-1; DIN EN 60601-1-2 (EMCapproved); DIN EN 60601-1-4; DIN EN 60601-1-6; DIN EN 62304; DIN EN 62353; EN 957-1; EN 957-6; DIN EN ISO 9001; DIN EN ISO 14971; DIN EN ISO 13485; emergency-offswitch (mains off), potential equalisation bolt, transformer for potential-isolation from the mains safety class / -category: I / IP20 / B IIb medical device / SIA (EN 957) classification: 0.2 mA leakage current: +10...+40 °C (-30...+50°C on request) ambient condition. 30...70 % humidity (up to 100 % on request) 700...1060 hPa barometric pressure 3,000 m (~10,000 ft) max. altitude without pressurization 6 LCD displays, 4 LEDs for operation mode, 20 LEDs display (resolutions): for display of units & profile no, steps, etc. speed (0.1 km/h or m/sec or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1% or degrees) distance (1 meter...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) POLAR wireless. 1 channel receiver ECG-accurate heart rate monitoring. measurement and display beat-to-beat; automatic control of speed and elevation according to programmed target heart rate ("cardio mode") 1 x RS 232 com1 with 9600 bps: incl. PC-protocol, interface digital: h/p/cosmos coscom® & printer protocol serial. option extra charge: USB-RS232-Converter; com2; com3 with 115.200 bps; com4.

h/p/cosmos mercury® med

specifications

programs:	<ul> <li>42 programs / profiles</li> <li>6 exercise profiles (scalable, 131 variations)</li> <li>28 test profiles (UKK 2km walktest, Bruce, graded test, Naughton, Ellestad, Gardner, etc.)</li> <li>8 free definable programs with 40 progr. steps each</li> </ul>		
free PC software:	h/p/cosmos para control <sup>®</sup> for display & remote control incl. 1x RS232 interface cable 5 m.		
software (extra charge):	h/p/cosmos para graphics®, h/p/cosmos para analysis® & h/p/cosmos para motion®. PC software for monitoring, recording & analysis.		
accessory (free of charge):	user manual, bottle holder with 2 h/p/cosmos 0.5 l; bottles, service box incl. special oil, 5 m PE-cable		
colour of frame:	grey aluminium RAL 9007 (powder coated);		
handrails:	steel tube handrails 60 mm diameter on both sides		
voltage supply:	230 Volt AC 1~/N/PE 50/60 Hz 15A fuse breaker, dedicated line		
size of frame:	L: 210 cm (82.67") W: 82 cm (32.28") H: 136 cm (53.53")		
net weight:	approx. 200 kg (440 lbs)		
gross weight:	approx. 300350 kg (660770 lbs)		

Optionally available at extra charge: Special frame colours, other handrail designs, special specifications, special voltage supply, special deck sizes and accessories. Weight and package specifications can deviate according to options, accessories and packing. E&OE. Subject to alterations without prior notice.

Warning! Commissioning and instruction only to be conducted by h/p/cosmos trained and authorized personnel. For special applications, at higher speeds or for subjects with higher risk of falling, or if there is not enough safety space behind the treadmill, a fall prevention system (e.g. safety arch with harness & chest belt) is obligatory. Keep min. L: 2 m (78.74") x W: 1 m (39.37") safety space behind treadmills! No children on or near to treadmills.







# treadmill therapy with un-weighting

- earlier start of treatment in an ergonomic environment
- optimal therapy through adjustable un-weighting
- safety and support also for children
- I traceable results of treatment by simple documentation

system solution treadmill therapy with un-weighting

# success through adjustable un-weighting





- physiological gait training even with children?
- natural gait even with body weight support?
- safe mounting of the treadmill out of a wheelchair?
- early start to walking exercises but how?

### easy mounting and stable for large and small

Every patient is different: bigger or smaller, different body shapes and of course individual incapacities. Some use wheelchairs, others need crutches and if your patients are children you need a highly flexible and especially motivating treadmill solution.

The h/p/cosmos therapy system is equipped with adjustable handrails that improve safety to both tall and short patients both whilst mounting the treadmill and during the therapy.

### best results through individual and physiological support

The course of therapy should start as early as possible and be enjoyable for the therapist and patient. This treatment must always be adjusted to the skills and progress of the patient - and ensure natural walking. The adjustable un-weighting level of the h/p/cosmos airwalk<sup>®</sup> allows individual optimization of your therapy sessions. Adjustment is made with an air control valve and a pressure meter gives the reading of the un-weighting. The dynamics of the central one-point suspension supports natural up and down movement of the upper body during walking. 360° rotations in both directions for sidesteps and reverse walking under safe conditions are also possible.







Through this, natural walking is possible even during un-weighting. The h/p/cosmos airwalk<sup>®</sup> system vests were designed for best possible unrestricted movement, are easy to clean and are available in all sizes - even for children.

The central one-point suspension allows the patient to turn on the treadmill and train walking sideways and backwards. Velcro straps for quick attachment to the vest and the leg cuffs give the therapist the possibility to correct the trained movements, for example by supporting rotation force of the legs to inner or outer direction through stretchable straps for gait corrections. With some additional equipment there is a very broad spectrum of treatment options available. Ideas, examples and suggestions can be found in the h/p/cosmos airwalk<sup>®</sup> user manual and the specially developed "h/p/cosmos airwalk<sup>®</sup> application manual" which is available on request from h/p/cosmos.

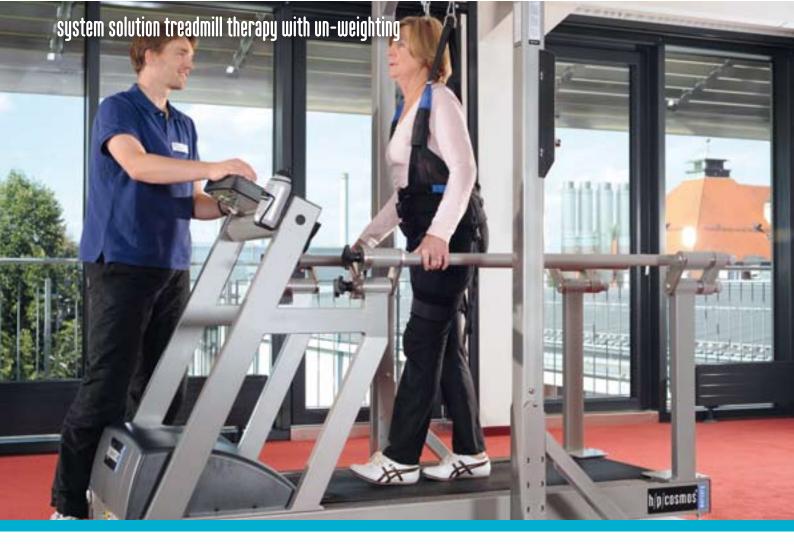
#### physiological gait training even with obese patients

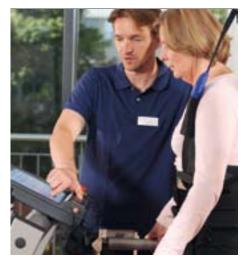
The correct therapy treadmill must be able to start at very low speeds for obese patients as they can often only walk very slowly. Likewise patients with limited walking ability also need a slow start without any juddering.

The h/p/cosmos mercury<sup>®</sup> med treadmill is approved for patients up to 200 kg (440 lbs) body weight and the very powerful 3.3 kW (4.5 HP) drive motor allows a slow, patient-friendly start at speeds from 0.1 km/h.

In addition a special version of the h/p/cosmos airwalk<sup>®</sup> for un-weighting of up to 160 kg (350 lbs) and also a specially designed arch version for free access to the patient from the side is possible. So you can respond to almost any patient's and therapist's needs.

A great variety of applications is ensured through various modes like balance mode, static and dynamic un-weighting. An optional and almost noiseless air compressor supplies the required power for the h/p/cosmos airwalk<sup>®</sup> 70 and 160 models.







# simple operation and control for both patient and therapist

Adjusting the speed and elevation or an immediate stop: both the therapist and patient need access to these functions at all times.

The operation of the h/p/cosmos mercury<sup>®</sup> med is simple: it begins with start and with stop the treadmill stops, two buttons for speed (+ and -) and two more (up and down) for elevation. This operation is clear for the therapist and the patient. The LCD displays with excellent contrast give clear readings of all data even under bright sunlight conditions close to windows of the therapy room. An emergency magnetic stop with lanyard connected to the patient also can be utilized. However, thin lanyards may stop the running machine but never can prevent the subject from falling. The h/p/cosmos airwalk or the h/p/cosmos safety arch system can do so by catching the patient's full body weight in emergency case automatically. The necessary safety for successful and stressless therapy must be on top of the priority list of all of us.

#### more freedom of therapy by flexible control options

During therapy the therapist often needs to guide the patient's legs to optimise their movement. In doing so there is no access to the UserTerminal (control panel with keyboard and display) on the handrail. The additional keyboard can be mounted either on the left or right of the motor hood. Even when the therapist is working with the patient's legs in an ergonomic position, he can control the treadmill start, stop, speed and elevation functions.

With an optionally extension cord for the additional keyboard or with the free h/p/cosmos para control software the treadmill can fully be controlled also from the therapist standing in distance behind the treadmill.

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#### downhill to success optimal fall prevention through eccentric training

Walking downhill is often a difficult exercise for many patients and is frequently avoided. This can lead later on to accidents through lack of practice. Therefore practicing walking downhill in a safer therapeutic environment and utilizing modern accessories is a useful tool for fall prevention. The reverse belt rotation function allows your patients to practice their downhill walking in a convenient and supervised environment. Eccentric training causes an intense training stimulus. At the same time the demands on the cardiovascular system are not so high compared to walking uphill.

For those patients who have a weakness of the dorsiflexors, steep downhill training allows smoother walking and therefore effective training because the forefoot doesn't need to be lifted. Also different muscle groups are engaged during eccentric training. Downhill walking widens the scope of applications and therapies for various other indications and goals.

# traceable results of treatment through fast documentation

The results of the treatment course should be well documented. This is not just important for patients and families, but also for the participating doctors and insurance companies. Good documentation must be readily available and easy to interpret. However, time limits in daily work makes it difficult to cope up with good documentation for all daily therapy results.

As soon as the therapy session has finished and the stop button is pressed the h/p/cosmos satellite print, which is connected directly to the treadmill, prints the comprehensive documentation. This allows easy and quick to understand documentation of treatment progress without significant expenditure of time. Alternatively, for computer based and stored documentation the optionally available h/p/cosmos para graphics PC software is also an excellent tool. It allows remote control and graphical documentation and comparison of graphs through overlay at the same time.

system solution treadmill therapy with un-weighting



#### recommended configuration treadmill therapy with un-weighting system h/p/cosmos mercury® med

pos.	qty.	order number	product description
1.	1	cos30000va08	running machine h/p/cosmos mercury <sup>®</sup> med running surface 150 x 50 cm, speed 0 22 km/h, elevation 0 25 %, drive motor 3.3 kW, interface port com1 for PC, ECG, ergospirometry-, blood-pressure system or printer - compatible to most of the systems worldwide, incl. PC software h/p/cosmos para control <sup>®</sup> for device control and monitoring
2.	1	cos10145	handrails long, 2 pillars (surcharge)
3.	1	cos10030	optionally (alternatively to pos. 2) as shown on picture above (surcharge): handrails adjustable (for therapy with children and persons of short stature)
4.	1	cos00098100045	reverse belt rotation for downhill simulation
5.	1	cos00098010025	2nd interface port COM2 for PC, ECG-, ergospirometry-, blood-pressure-monitor system or printer
6.	1	cos00097010035	interface cable RS232, 10 m
7.	1	cos100680	h/p/cosmos additional keyboard for remote control, 6 keys, 2 m cable
8.	1	cos11750	mounting for additional keyboard at the motor hood, right
9.	1	cos14327	mounting for additional keyboard at the motor hood, left
10.	1	cos10092	h/p/cosmos airwalk 70, pneumatic unweighting-system, incl. 1 vest size M
11.	1	cos10112	vest XSmall for h/p/cosmos airwalk light blue for waist size for children
12.	1	cos10095	vest Small for h/p/cosmos airwalk, red for waist size 5580 cm (2232")
13.	1	cos10096	vest Medium for h/p/cosmos airwalk, blue for waist size 81112 cm (3244")
14.	1	cos10097	vest Large for h/p/cosmos airwalk, yellow for waist size 112145 cm (4457")
15.	1	cos 13752	replacement cable assembly for h/p/cosmos airwalk® 35, 70 and 160
16.	1	cos10094	compressor for h/p/cosmos airwalk 70 or 160 (not required if suitable compressed air supply available)
17.	1	cos12607-00	base plate 150/50 for h/p/cosmos airwalk (not required for floor fitting)
18.	1	cos14954	h/p/cosmos satellite print - printer-Set for direct documentation without PC, incl. laser printer, RS232 interface converter with cable, printer rack/stand made of steel
19.	3	cos10223	potential equalization cable, 5 m (required for medical systems)

(continued on next page)

20.	1	cos10084	packing pallet & cardboard hood
21.	1	cos60098010021	shipping costs door to door within Europe, confirmed price on request
22.	1	cos60098010013	travel costs (flight, rail, vessel, etc.) ticket within Europe* (for overseas additional charge)
23.	10	cos60098010008	travel costs per hour for service engineer within Europe* (for overseas estimate 20 hours)
24.	8	cos60098010003	labour costs per hour for 1 service engineer for system installation at customer's site
25.	2	cos60098010015	hotel expenses (estimated costs, can be deducted if customer provides accommodation)
26.	1	cos14320	presenter / workshop for 1 day practical work with unweighting and treadmills
			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 treadmill therapy with un-weighting: please ask your dealer for a quotation

Please refer to the information about prices, conditions, illustrations and recommended system configurations which can be found on page 36.

specifications	h/p/cosmos mercury med			
running machine:	h/p/cosmos mercury® med			
order number:	cos30000va08			
applications:	running for sports, sports medicine, cardiology, rehabilitation, stress tests & medicine. WITH UserTerminal (display & keyboard), MCU5, stand alone and/or remote control via interface.	heart rate monitoring:	POLAR wireless, 1 channel receiver ECG-accurate measurement and display beat-to-beat; automatic control of speed and elevation according to programmed target heart rate ("cardio mode")	
running surface:	L: 150 cm (59.05") W: 50 cm (19.68") access H: 18 cm (7.09") - shock load reduction for the joints - belt surface with non slip material - max. permissible load: 200 kg (440 lbs)	interface digital:	1 x RS 232 com1 with 9600 bps: incl. PC-protocol, h/p/cosmos coscom <sup>®</sup> & printer protocol serial. option extra charge: USB-RS232-Converter; com2; com3 with 115.200 bps; com4.	
	up to 400 kg (880 lbs) on request	programs:	42 programs / profiles - 6 exercise profiles (scalable, 131 variations)	
speed range:	022.0 km/h (06.1 m/s) (013.6 mph) special speed up to 30 km/h on request.		<ul> <li>- 28 test profiles (UKK 2km walktest, Bruce, graded test, Naughton, Ellestad, Gardner, etc.)</li> </ul>	
acceleration:	7 levels (3131 sec. from 0 to max. speed) also for	free DC software	- 8 free definable programs with 40 progr. steps each	
elevation:	deceleration (for manual or program mode) 025 % (014.0°) adjustable electr., resolution 0.1 %;	free PC software:	h/p/cosmos para control <sup>®</sup> for display & remote control incl. 1x RS232 interface cable 5 m.	
	(-25 %+25 % when using optional reverse belt rotation)	software (extra charge):	h/p/cosmos para graphics®, h/p/cosmos para analysis® &	
running direction:	switch for reversing running belt direction (option, extra		h/p/cosmos para motion <sup>®</sup> . PC software for monitoring, recording & analysis.	
	charge); running belt must be adjusted for reverse belt rotation. Max. permissible reverse speed 5 km/h if no safety-harness with fall-stop prevention system is used.	accessory (free of charge):	user manual, bottle holder with 2 h/p/cosmos 0.5 l; bottles, service box incl. special oil, 5 m PE-cable	
motor system:	3.3 kW (4.5 HP) 3-phase A.C.;	colour of frame:	grey aluminium RAL 9007 (powder coated);	
	motor maintenance free and brushless 20 years warranty on main drive motor	handrails:	steel tube handrails 60 mm diameter on both sides	
power transmission:	frequency inverter, poly-V-belt, very quiet operation	voltage supply:	230 Volt AC 1~/N/PE 50/60 Hz 15A fuse breaker, dedicated line	
safety systems:	CE0123; quideline 93/42/EEC+GL 2007/47/EC; MDD;	size of frame:	L: 210 cm (82.67") W: 82 cm (32.28") H: 136 cm (53.53")	
C€0123	machinery directive 2006/42/EC; DIN EN 60601-1;	net weight:	approx. 200 kg (440 lbs)	
	DIN EN 60601-1-1; DIN EN 60601-1-2 (EMC pproved); DIN EN 60601-1-4; DIN EN 60601-1-6; DIN EN 62304;	gross weight:	approx. 300350 kg (660770 lbs)	
	DIN EN 62353; EN 957-1; EN 957-6; DIN EN ISO 9001; DIN EN ISO 14971; DIN EN ISO 13485; emergency-off- switch (mains off), potential equalisation bolt, transformer for potential-isolation from the mains	Optionally available at extra charge: Special frame colours, other handrail designs, special specifications, special voltage supply, special deck sizes and accessories. Weight and package specifications can deviate according to options, accessories and packing. E&OE. Subject to alterations without prior notice.		
safety class / -category:	I / IP20 / B		nd instruction only to be conducted by h/p/cosmos trained For special applications, at higher speeds, or for subjects	
classification:	Ilb medical device / SIA (EN 957)		if there is not enough safety space behind the treadmill, a	
leakage current:	0.2 mA		safety arch with harness & chest belt) is obligatory.	
ambient condition:	+10+40 °C (-30+50°C on request) 3070 % humidity (up to 100 % on request) 7001060 hPa barometric pressure 3,000 m (~10,000 ft) max. altitude without pressurization	Keep min. L: 2 m (78,74") x W: 1 m (39,37") safety space behind treadmills! No children on or near to treadmills.		
display (resolutions):	6 LCD displays, 4 LEDs for operation mode, 20 LEDs for display of units & profile no, steps, etc. speed (0.1 km/h or m/sec or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1% or degrees) distance (1 meter999.9 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)			





# locomotion therapy

- locomotion training optimized for patient and physiotherapist
- earlier initiation of therapy with the wheelchair access ramp, adjustable handrails and un-weighting
- healthier work for therapists through therapy seats and footrests
- I traceable results of treatment through simple documentation









- an early start into locomotion therapy but how?
- getting up safely from a wheelchair?
- manual locomotion without back pain for the physiotherapist?
- Iocomotion therapy ergonomic and motivating for therapist?

#### safer start to the therapy - also from a wheelchair

Those who want to learn to walk ... must walk! Therefore, functional training on a treadmill is a key component of a neurological treatment facility. At the same time locomotion in practice is not always easy to implement. It starts when a wheelchair patient begins their therapy.

Getting onto the treadmill deck can be a challenge already. Therefore h/p/cosmos has equipped the system with an ergonomic wheelchair ramp. Furthermore the handrails contain telescopic extensions which can be pulled out 55 cm (21.65") to give additional support to the patients. They can assist and hold the handrails in many cases even during mounting the treadmill on the ramp. And they are happy to help if we give them such tools.

Then they can stand up directly out of the wheelchair with support from the h/p/cosmos airwalk<sup>®</sup> vest and un-weighting system holding on to the individually adjusted handrails. Thus, the therapy can start successfully without much effort.

#### early start of therapy with body weight support

In neurological rehabilitation it is important for the patient to start exercising as early as possible. Therefore an individual and optimal un-weighting system is crucial for the patient. The h/p/cosmos airwalk un-weighting system supports a natural gait pattern. The single-point suspension allows dynamic up and down movement when walking and at the same time allows freedom in movement and body rotations where wanted. Additional fixation straps







for further stabilization may be utilized if desired and if recommended for the patient. The un-weighting, depending on the progress of therapy, can be adjusted electronically between 1 kg and 75 kg (2.2 and 165 lbs). The treadmill itself starts at 0.1 km/h speed and is driven by a very powerful 3.3 kW (4.5 HP) drive motor. Even heavy patients at low speeds can exercise smoothly without juddering.

The remote control for electronically re-adjustment of un-weighting has magnet holder and is can be positioned on either side for the seated therapists. This is really important during therapy! With the h/p/cosmos system therapists can perform frequently required re-adjustments of parameters from seating position.

#### improved ergonomics for healthier therapist

Due to an un-ergonomic working position and the difficulty of manipulating the patient's legs the therapist may find it difficult or even impossible to work with normal treadmills in manual locomotion therapy. Especially after several consequential sessions the therapists experience fatigue and often pain in shoulders and in the back. These problems can get worse when working with spastic patients. It may even lead to an early termination of the therapy.Therefore h/p/cosmos has developed a very sophisticated and ergonomic solution, which cares for the therapist first. We understand that only motivated and healthy therapists can serve the patient's needs best.

The simple to adjust rotating therapist seats – with excellent lumbar support – and corresponding foot supports on both sides of the treadmill allow the therapist to sit comfortably and firmly positioning themselves optimally.

For locomotion therapy the specially designed seats are positioned very close to the center of the deck, so the posture of the therapist is optimized. Very wide running surfaces would lead to further problems, therefore h/p/cosmos recommends the 50cm (19.68") wide deck for this application and not the 65 cm deck of the h/p/cosmos quasar® med.No obstructive bars from un-weighting frames or other obstacles give the therapist un-interrupted access to the patient's legs. The arch design of the h/p/cosmos airwalk se 135 perfectly supports that. This is also important for lateral motion analysis.





# simple operation and control for therapist and patient

Altering the speed, changing the elevation and stopping - the therapist must always have access to these functions.

Frequently standing up of the therapists during locomotion therapy for re-adjustment of un-weighting, speed and elavation parameter would interrupt the manual motion support to the patient's legs. It would mean confusion and burden to patient and therapist and would make the therapy much less attractive and effective. Therefore this shall be avoided.

To simplify this, the additional keyboard and the additional stop can be placed by therapist quickly and easily in the desired position. Both controls come with a flexible magnetic attachment and additional velcro strap for secure mounting and fast changing of positions either on the handrails (facing up or down) or on the vertical telescope pillars or even on the nearby tubes of the arch shaped unweighting system frame.



### downhill for optimal therapeutic results

Among other potential uses in therapy, especially for patients with weakness of the dorsiflexors, the possibility of walking downhill with a sufficient gradient is a big help.

By using the reverse belt rotation the incline of the treadmill can be used as a downhill gradient up to 15% in this system. With the single point suspension un-weighting system the patient just turns round on the treadmill in no time. By simply turning a key switch, the running belt moves in the opposite direction. The automatic belt centering alignes the running belt during reverse and downhill operation on the h/p/cosmos locomotion<sup>®</sup> treadmill.







# traceable results of treatment through fast documentation

The results of the treatment course should be well documented. This is not just important for patients and families, but also for the participating doctors and insurance companies. Good documentation must be readily available and easy to interpret.

As soon as the therapy session has finished and the stop button is pressed the h/p/cosmos satellite print, which is connected directly to the treadmill, prints the comprehensive documentation. This allows easy and quick to understand documentation of treatment progress without significant expenditure of time. All relevant exercise results and data such as duration, speed, elevation, distance, heart rate, fitness index, date, time and even treadmill serial number for traceability are included in the printout, even without using any PC or software. Just write the patient's name and remarks by hand.

Optionally the h/p/cosmos locomotion 150/50 DE med treadmill can be equipped with sophisticated force plates and additional gait analysis software. This allows measuring and visualization of vertical ground reaction forces, force distribution, centre of pressure, step length and stride length and a variety of time based and other valuable biomechanical parameters. This makes up for a state of the art biomechanical gait analysing system for therapy, research and sports and can be even combined with motion analysing components and EMG through the h/p/cosmos coscom<sup>®</sup> interface standard. Find details for this in separate h/p/cosmos brochures for biomechanics, gait and motion analysis.



#### recommended configuration locomotion therapy h/p/cosmos locomotion 150/50 DE med

pos.	qty.	order number	product description
1.	1	cos30001va02	running machine h/p/cosmos locomotion 150/50 DE med running surface 150 x 50 com, speed 010.0 km/h, elevation -15+15%, reverse belt rotation; adjustable thera- pist seats with ergonomic lumbar support and corresponding foot rests, adjustable handrails in height and width with gas spring support, extra emergency stop, extra keyboard, drive motor 3.3 kW, interface port com1 and com2, electronic motor brake, movable user terminal; h/p/cosmos para control PC software for remote control
2.	1	cos14663	wheelchair ramp for easy access to the running surface; suitable for wheelchairs with a width of up to 78 cm (30.71"); footprint of wheelchair ramp: (L x W): 120 x 80 cm (47.24" x 31.50")
3	1	cos16487	3rd interface port RS232 com3 with 115,200 bps for PC, ECG-, ergospirometry-, blood-pressure-monitor system or printer
4.	1	cos14954	h/p/cosmos satellite print - printer-set for direct documentation without PC, incl. laser printer, RS232 interface converter with cable, printer rack/stand made of steel
5.	3	cos10223	potential equalization cable, 5 m (required for medical systems)
6.	1	cos00097010035	interface cable RS232, 10 m
7.	1	cos10084	packing pallet & cardboard hood for treadmill
8.	1	cos30017va01	unweighting system h/p/cosmos airwalk 135se, dynamic spring elec. unweighting system, patient weight: max. 135 kg (297 lbs), patient height: max. 200 cm (6' 6,72"), dynamic un-weighting range: 175 kg (2.2165 lbs) (infinitely adjustable) footprint of unweighting system with treadmill and with wheelchair ramp: L 354 x W 207 cm (11' 7.37" x 6' 9.48") footprint of unweighting system with treadmill without wheelchair ramp: L 234 x W 207 cm (7' 8.12" x 6' 9.48")
9.	1	cos10112	vest XSmall for h/p/cosmos airwalk light blue for waist size for children
10.	1	cos10095	vest Small for h/p/cosmos airwalk, red for waist size 5580 cm (2232")
11.	1	cos10096	vest Medium for h/p/cosmos airwalk, blue for waist size 81112 cm (3244")
12.	1	cos10097	vest Large for h/p/cosmos airwalk, yellow for waist size 112145 cm (4457")
13.	1	cos100320	replacement un-weighting rope for h/p/cosmos airwalk® se
14.	1	cos100573	crate for transport h/p/cosmos airwalk <sup>®</sup> 135se
15.	1	cos60098010021	shipping costs door to door within Europe (confirmed price on request)
16.	1	cos6009810013	travel costs (flight, rail, vessel, etc.) ticket within Europe* (for overseas additional charge)

17.	10	cos60098010008	travel costs per hour for service engineer within Europe* (for overseas estimate 20 hours)
18.	8	cos60098010003	labour costs per hour for 1 service engineer for installation at customer's site
19.	3	cos60098010015	hotel expenses (estimated costs, can be deducted if customer provides accommodation)
20.	1	cos14320	presenter / workshop for 1 day practical work with unweighting and treadmills
			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 locomotion therapy: please ask your dealer for a quotation

Please refer to the information about prices, conditions, illustrations and recommended system configurations which can be found on page 36.

specifications	h/p/cosmos locomotion <sup>®</sup> 150/50 DE med		
running machine:	h/p/cosmos locomotion <sup>®</sup> 150/50 DE med with therapist seats, fo	ot rests and adjustable handrails	
order number:	cos30001va02		
applications:	running for sports, sports medicine, locomotion therapy, cardiology, rehabilitation, stress tests & medicine. WITH rotatable UserTerminal (6 displays & keyboard), MCU5 stand alone and/or remote control via interface.	heart rate monitoring:	POLAR wireless (option extra charge), 1 channel receiver ECG-accurate measurement and display beat-to-beat; automatic control of speed and elevation according to programmed target heart rate ("cardio mode")
running surface:	L: 150 cm (59.05") W: 50 cm (19.68") access H: 19 cm (7.48") - shock load reduction for the joints - reinforced running belt with profiled surface, 5 mm (0.2") thick, material real rubber	digital interface: programs:	1 x RS 232 com1 with 9600 bps: incl. PC-protocol, h/p/cosmos coscom <sup>®</sup> & printer protocol serial. option extra charge: USB-RS232-converter; com2; com3 with 115.200 bps 42 programs / profiles
	<ul> <li>max. permissible load: 200 kg (440 lbs)</li> <li>up to 400 kg (880 lbs) on request</li> </ul>	programo.	<ul> <li>- 6 exercise profiles (scalable, 131 variations)</li> <li>- 28 test profiles (UKK 2km walktest, Bruce, graded</li> </ul>
speed range:	010.0 km/h (02.8 m/s) (06.2 mph)		test, Naughton, Ellestad, Gardner, etc.)
acceleration:	7 levels (3131 sec. from 0 to max. speed) also for deceleration (for manual or program mode)	free PC software:	<ul> <li>- 8 free definable programs with 40 progr. steps each h/p/cosmos para control<sup>®</sup> for display &amp; remote control incl. 1 x RS232 interface cable 5 m</li> </ul>
elevation:	-15+15 % (-8.5+8.5°) adjustable electr., resolution 0.1 % up to -15 % when using reverse belt rotation.	software (extra charge):	h/p/cosmos para graphics <sup>®</sup> , h/p/cosmos para analysis <sup>®</sup> &
running direction:	switch for reversing running belt direction as standard. Max. permissible reverse speed for this machine is	Soliware (extra charge).	h/p/cosmos para motion <sup>®</sup> . PC software for monitoring, recording & analysis.
	5 km/h (3.1 mph)	accessory (free of charge):	
electronic motor brake:	prevents almost all movement of running belt when speed is set to 0 km/h caused by elevation/gravity or		magnetic fastening, user manual, service box including special oil, 5m PE-cable
	when mounting or dismounting the treadmill	colour of frame:	grey aluminium RAL 9007 (powder coated)
motor system: power transmission:	<ul> <li>3.3 kW (4.5 HP) 3-phase A.C. motor,</li> <li>(maintenance free and brushless</li> <li>20 years warranty on main drive motor)</li> <li>frequency inverter, poly-V-belt,</li> </ul>	handrails:	both sides steel tube 40 mm (1.57") ø, gas-spring support and scales, adjustment in height 70115 cm (27.5645.28") and width 43114 cm (16.9344.88"), with 2 telescope bar extensions 55 cm (21.65") for
p	very quiet operation		wheelchair users
safety systems:	CE0123; guideline 93/42/EEC+GL 2007/47/EC; MDD;	voltage supply:	230 Volt AC 1~/N/PE 50/60 Hz 15A fuse, dedicated line
C€0123	machinery directive 2006/42/EC; DIN EN 60601-1; DIN EN 60601-1-1; DIN EN 60601-1-2 (EMC approved); DIN EN 60601-1-4; DIN EN 60601-1-6; DIN EN 62304; DIN EN 62353; EN 957-1; EN 957-6; DIN EN ISO 9001; DIN EN ISO 14971; DIN EN ISO 13485; emergency-off- switch (mains off), potential equalisation bolt,	size of frame:	L: 218 cm (85.83") without wheelchair ramp L: 338 cm (133.07") incl. optional wheelchair ramp W: 100 cm (39.37") without therapist seats W: 128 cm (50.39") incl. 2 therapist seats (standard) H: 144 cm (56.69") including UserTerminal treadmill with unweighting system and with wheelchair
	transformer for potential-isolation from the mains	footprint:	ramp: L: 354 x W: 207 cm (139.37 x 81.5")
safety class / -category: classification:	I / IP20 / B		treadmill with unweighting system without wheelchair ramp: L: 234 x W: 207 cm (92.13 x 81.5")
leakage current:	IIb medical device / SIA (EN 957) 0.2 mA	net weight treadmill:	approx. 376 kg (827 lbs)
ambient condition:	+10+40 °C (-30+50°C on request)	U U	
	3070 % humidity (up to 100 % on request) 7001060 hPa barometric pressure	gross weight treadmill: approx. 460510 kg (10121122 lbs) Optionally available at extra charge: Special frame colours, other handrail de:	
data (resolutions):	3,000 m (~10,000 ft) max. altitude without pressurization 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/sec or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1% or degrees) distance (1 meter 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)	Weight and package specif packing. E&OE. Subject to <b>Warning!</b> Commissioning a and authorized personnel. with higher risk of falling, or fall prevention system (e.g.	ial voltage supply, special deck sizes and accessories. fications can deviate according to options, accessories and alterations without prior notice. and instruction only to be conducted by h/p/cosmos trained For special applications, at higher speeds or for subjects r if there is not enough safety space behind the treadmill, a safety arch with harness & chest belt) is obligatory. (W: 1 m (39.37") safety space behind treadmills! eadmills.

anasifiaationa	h/s/ssemes sinusll/® ss 125		
specifications	h/p/cosmos airwalk® se 135		
unweighting system:	h/p/cosmos airwalk® se 135		
order number: applications:	cos30017va01 patient-lift for static and dynamic body weight support, for locomotion therapy, neurology, rehabilitation, coordination training, balance training, sports performance and speed training for fitness and competitive sport.	size of frame:	L: 223263 cm (87.67103.54") depending on treadmill L: 195 (76.8") for non h/p/cosmos treadmills W: 207 cm (81.5") H: 267 respectively 296 cm (105.11" or 117.32" depending on traverse normal or high.
patient weight:	max. user weight load 135 kg (297 lbs)	net weight un-weighting:	approx. 390 kg (858 lbs) without treadmill
subject scale:	electronic weight display with an accuracy of approx. ± 2 kg. due to rope elasticity and friction of the rope pulleys (indirect measurement via pulleys) the weight measurement system is of limited use as a user scale.	gross weight un-weighting:	
weight support:	static: approx. 1135 kg (2.2297 lbs) continuous- ly adjustable lifting/lowering/carrying of the patient (e.g. wheelchair transfer or balance exercise mode); dynamic: approx. 175 kg (2.2165 lbs) continuously adjustable vertical speed of patient lifter approx 30 - 50 mm/s during dynamic exercise mode	special specifications, spec package specifications car E&OE. Subject to alteration Warning! Commissioning and authorized personnel.	cial voltage supply and special accessories. Weight and deviate according to options, accessories and packing. In without notice. and instruction only to be conducted by h/p/cosmos trained
subject size / system height:	max. user height 200 cm (78.7"); standard system height 267 cm (105.11"); at an elevation of more than 10% use may be limited by the running-machine model, the height of the user and the kind of (sportive) exercise being conducted. a higher traverse is available at extra cost for users of up to 220 cm (86.61"). system height with higher traverse is 298 cm (117.32")	of falling or if there is not e system (e.g. un-weighting obligatory. Inspect the rope at least or Rope has to be replaced a	higher speeds or for subjects with higher risk nough safety space behind the treamill, a fall prevention system or safety arch with harness & chest belt) is nee a month visually for wear or damage. nnually or even earlier at first sign of wear or damage. d the device in case of the use of a treadmill: /: 1 m (39.37")
useable range:	vertically approx. 18 cm (7.09") for dynamic un-weighting limitations - see patient size optional high traverse for patients of up to 220 cm (86.61") available		eadmills and/or other moving machines and equipment.
rope:	polyester rope with 8 mm ( $0.32^{\circ}$ ) ø (to change annually or earlier in case of first signs of wear)		
operation:	<ul> <li>electrical remote control with magnetic attachment (cable length approx. 250 cm (98.43")) with 4 buttons for:</li> <li>patient lift (up/down or raising/lowering of the patient, setting of the dynamic work range)</li> <li>unweighting (increase/decrease of the unweighting)</li> </ul>		
safety systems: C€0123	CE0123; guideline 93/42/EEC+GL 2007/47/EC; MDD; machinery directive 2006/42/EC; DIN EN 60601-1; ISO EN 10535 (patient lifters), potential equalisation bolt; mechanical quick release (for safety in case of failure of the electrical control)		
data (resolutions):	1 LCD digital display for weight in kg 1 mechanical display for position in working range 1 mechanical display for position in preset unweighting		
free accessories:	user operation and service manual, h/p/cosmos airwalk application manual, 1 unweighting vest cos10096 (size M, waist 81112 cm / 31.89"44.09") other sizes XS, S, L and XL on request		
compatible running machines:	<ul> <li>(not included in price of h/p/cosmos airwalk®)</li> <li>h/p/cosmos mercury®, h/p/cosmos locomotion®, h/p/cosmos quasar® range, h/p/cosmos pulsar® range in differing specifications</li> <li>h/p/cosmos venus® 200/75 if mounted in a pit.</li> <li>treadmills from other manufacturers: only if authorized by relevant agency!</li> </ul>		
colour of frame:	grey-aluminium RAL 9007 (powder coated)		
voltage supply:	230 Volt AC 1~/N/PE 50/60 Hz 10A fuse, dedicated line, max. current consumption: 3 Ampere		





# therapeutic bar training

- easily adjustable handrail bars to complement your current treatment offer
- simple, continuous height adjustment with gas spring support
- reproducible settings through integrated reading scale
- best results through independent width adjustment of the handrails

# easily adjustable handrail bars

system solution therapeutic bar training





- walking bars effortlessly adjustable with one hand?
- handrails in V-form for optimal results?
- optimal setting for hemiparesis patients?

### easy and continuous adjustment with gas spring support

Whether in the gym, in the corridor or as a separate training system – walking bars are the ideal complement to the available treatments. The individual settings for height, width and angle of the handrails are crucial for best results, and they have to be quickly and easily adjusted during a busy working day.

#### push the button

The h/p/cosmos parawalk<sup>®</sup> has integrated gas piston height adjustment. Adjusting the height is child's play - even with just one hand. The width and angle of the hand rails can be adjusted quickly by lifting the locking lever, pushing the adjustment button for setting the height and after adjustment locking the lever again - that's it.

### reproducible settings with integrated scale

Once you have found the perfect setting for a patient you will want use this at the next visit straight away. Therefore, the pillars of the h/p/cosmos parawalk<sup>®</sup> have an integrated reading scale. With the help of the scale you can exactly determine the current position and reproduce simply at the next training session.



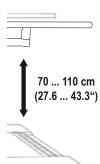


#### the optimum length

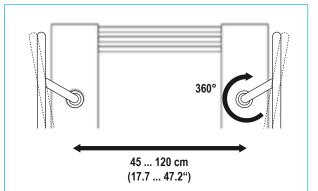
Depending on the space available, the positioning, the patients and therapy target, you will need the optimal walking rail design.

To meet these different needs and requirements the h/p/cosmos parawalk is available with bar lengths of 3, 4 and 5 meters (118.11, 157.48 and 196.95").





The h/p/cosmos parawalk has integrated gas pistons allowing easy height adjustment from 70 cm to 110 cm with safe locking levers.



page 31 cos100926-en **h/p/cosmos** 

### system solution therapeutic bar training



#### recommended configuration therapeutic bar training 4 meter h/p/cosmos parawalk®

pos.	qty.	order number	product description	
1.	1	cos30019va01	h/p/cosmos parawalk 4m parallel bars with wooden plate gas-spring support; very smooth operation; adjustable areas: in width 45120 cm (17.747.2") approx., in height 70110 cm (27.6 43.3") approx., readable scales (marks) on all 4 pillars, height and width adjustable independently, locking options through levers, minor access wood plate, multi bonded wood plate birch, can be mounted on even floor without cross base plate (including mounting material)	
2.	1	cos100917	packing h/p/cosmos parawalk 4m (13' 1.48") in wooden crate	
3.	1	cos60098010021	shipping costs door to door within Europe, confirmed price on request	
			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 treadmill therapy: please ask your dealer for a quotation	

Please refer to the information about prices, conditions, illustrations and recommended system configurations which can be found on page 36.

#### alternative 1: configuration therapeutic bar training 3 meter h/p/cosmos parawalk®

pos.	qty.	order number	product description	
1.	1	cos30018va01	h/p/cosmos parawalk 3m parallel bars with wooden plate (Description see above)	
2.	1	cos100916	packing h/p/cosmos parawalk 3m (9' 10.11") in wooden crate	
3.	1	cos60098010021	shipping costs door to door within Europe, confirmed price on request	
			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 treadmill therapy: please ask your dealer for a quotation	

Please refer to the information about prices, conditions, illustrations and recommended system configurations which can be found on page 36.



#### alternative 2: configuration therapeutic bar training 5 meter h/p/cosmos parawalk®

pos.	qty.	order number	product description	
1.	1	cos30020va01	h/p/cosmos parawalk 5m parallel bars with wooden plate (Description see above)	
2.	1	cos100916	packing h/p/cosmos parawalk 5m (16' 4.85") in wooden crate	
3.	1	cos60098010021	shipping costs door to door within Europe, confirmed price on request	
			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 treadmill therapy: please ask your dealer for a quotation	

Please refer to the information about prices, conditions, illustrations and recommended system configurations which can be found on page 36.

#### specifications parallel bars h/p/cosmos parawalk® 4 meter

parallel bars:	h/p/cosmos parawalk 4m with wooden plate*
order number:	cos30019va01
applications:	medical parallel-bar-system for rehabilitation and mobility training
walking surface (length):	400 cm (157.50")
walking surface (width):	variable handrail width independently adjustable from 45 120 cm (17.70 47.20")
handrails:	material both sides steel tube 40 mm (1.57") ø
handrail heigth:	variable handrail heigth independently adjustable from 70 110 cm (27.56 43.30"), readable scales (marks) on all 4 pillars
maximum user weight:	400 kg (880 lbs)
medical category:	medical product class I
colour:	white colour RAL9010 (special colour on request)
weight:	net: 300 kg (660 lbs); gross: 480 kg (1058.2 lbs)

#### specifications parallel bars h/p/cosmos parawalk® 3 meter

parallel bars:	h/p/cosmos parawalk 3m with wooden plate*
order number:	cos30018va01
applications:	medical parallel-bar-system for rehabilitation and mobility training
walking surface (length):	300 cm (118.10")
walking surface (width):	variable handrail width independently adjustable from 45 120 cm (17.70 47.20")
handrails:	material both sides steel tube 40 mm (1.57") ø
handrail heigth:	variable handrail heigth independently adjustable from 70 110 cm (27.56 43.30"), readable scales (marks) on all 4 pillars
maximum user weight:	400 kg (880 lbs)
medical category:	medical product class I
colour:	white colour RAL9010 (special colour on request)
weight:	net: 291 kg (640 lbs); gross: 451 kg (994.3 lbs)

#### specifications parallel bars h/p/cosmos parawalk® 5 meter

para	allel bars:	h/p/cosmos parawalk 5m with wooden plate*
ord	er number:	cos30020va01
арр	lications:	medical parallel-bar-system for rehabilitation and mobility training
wal	king surface (length):	500 cm (196.85")
wal	king surface (width):	variable handrail width independently adjustable from 45 120 cm (17.70 47.20")
han	drails:	material both sides steel tube 40 mm (1.57") ø
han	drail heigth:	variable handrail heigth independently adjustable from 70 110 cm (27.56 43.30"), readable scales (marks) on all 4 pillars
max	kimum user weight:	400 kg (880 lbs)
me	dical category:	medical product class I
colo	our:	white colour RAL9010 (special colour on request)
wei	ght:	net: 350 kg (770 lbs); gross: 550 kg (1212.5 lbs)

\* The wooden plate is made of birch ply and has ramps on both ends. The parallel bars can be installed without the wooden plate and without cross members for unobstructed walking directly on the floor, but need to be bolted on the floor. Mounting material is included. When using the cross members and wooden plate, no bolting is required and the system is free standing. The ramp is 35 mm (1.38") high.

Warning! Commissioning and instruction only to be conducted by h/p/cosmos trained and authorized personnel.



h/p/cosmos is specialized in even difficult installations, such as bringing systems in with a crane or delivered in parts through narrow staircases.

Also installations in pits or constructions of walkways and stages around the treadmill can be provided on request.

The h/p/cosmos service team and the trained and authorized distributors support customers also in preventive maintenance, service and repair work on the equipment. More than 22 years of experience ensure highest class service. This is especially valuable since most h/p/cosmos running machines reach a lifetime of 15 to 20 years and longer.

And our service helps our customers to stay in compliance with requirements for safety, accuracy, reliability and durability of the equipment.

Already before deciding for the right system, trained personnel is available at your disposal for recommendations of system configurations to achieve best possible results and your goals. Our expert team, where many of them are with h/p/ cosmos for 10 to 15 years and some of them even longer, will also answer your questions about installation requirements, regulatory affairs, compatibility of interfaces and other important issues.

Installation and commissioning is performed with a very clear protocol including pictures and checklist, which will even allow you later on to train new colleagues in your facility by utilizing again the same professional commissioning protocol and guidebook.



h/p/cosmos saturn® 300/125r pit installation



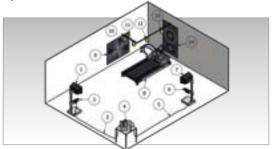
crane delivery of h/p/cosmos saturn®



safety tester



h/p/cosmos technical team



drawing example for motion analysis lab

#### run ahead of time!®

Established 1988 in Nussdorf-Traunstein (South of Germany) h/p/cosmos stands for convincing technology, advanced design and safety in the production of running machines, ladder-ergometers, sprint trainers (sprint ergometers), sports performance training and diagnostic systems as well as rehabilitation equipment. In the course of time, h/p/cosmos developed into a specialist for running machines and accessories in sports, medicine and research. Designed to last, functionality, precision engineering and the safety of the devices delight fitness people, athletes and coaches, patients and physicians worldwide.

### Satisfaction is not enough - we want our customers and the users to be enthusiastic about our systems.

All h/p/cosmos running machines are equipped with an interface port and software h/p/cosmos para control for remote control and monitoring.

h/p/cosmos is setting standards in reliability and durability.

#### Warranty for h/p/cosmos running machines:

20 years for drive motor and against frame breakage3 years for all parts

Wireless heart rate control, maintenance free and powerful drive systems with maintenance free 3-phase AC motor and reverse belt rotation to simulate downhill running, patented arm-support with incorporated reading scales and keyboard, the unique safety arch design are only a few examples for the pioneering work h/p/cosmos did and still does. The profit for the user has always been given special emphasis.

A milestone for intelligent solution has been laid by h/p/cosmos in August 1992. With h/p/cosmos coscom, an interface protocol has been created, which many other manufacturers incorporate in their systems today. Since then the h/p/cosmos running machines and many other devices are able to communicate with different PC-programs, ECG, EMG, motion analysis- and spirometry systems. The h/p/cosmos coscom<sup>®</sup> protocol and the coscom.dll is published on the web at www.coscom.org

One key to the success of h/p/cosmos is specialization. By focusing on different fields of application for running machines, h/p/cosmos is setting up standards for innovation, technology, safety and support.

As specialists for running machines we are able to react to our clients wishes fast and flexible. Innovative concepts can be implemented and realized as intelligent solutions in very short time.

Individual designed running machines with over-length, over-width or high-speed levels up to 80 km/h (50 mph) (for cycling) are on duty worldwide.



sales and service building



production building

With special solutions for wheelchair patients, skiers and cyclists we can fall back on years of experience. It is out of question that we are able to build unique running machines. Keeping top safety and technology up is a matter of fact. Our own internal ISO9001 and EN13485 certified management system starts already with the supervision of the development of any new device and ranges until post market surveillance (PMS), clinical evaluation of medical products and post market clinical follow up (PMCF) which is obligatory for many medical devices.

The meticulous documentation of all manufacturing phases of each running machine and other h/p/cosmos devices goes up to the service at the customer's place. All device history files for treadmills are archived and accessible for at least 20 years which supports customers and service partners.

The close cooperation of our specialists from different departments, such as research and development, production, sales & services, guarantees the precision and perfection, which we made our main objective. The constant exchange of information with our customers forms the basis to achieve and keep our high objective.

h/p/cosmos is certified according to ISO 9001 since the year 1998 and followed by EN 13485 certification until now.

More information you can find on the internet: www.h-p-cosmos.com



# h/p/cosmos®

#### Other applications for which h/p/cosmos is the specialist for high performance systems:



WARRANTY: If an h/p/cosmos product does not operate properly, h/p/cosmos will repair or replace it at no charge, for up to one year from shipment date. Furthermore registration and a documented maintenance record (for example through maintenance contract or through authorized technicians) will extend the warranty for treadmill parts only to 3 years and 20 years on treadmill drive motor and main treadmill frame breakage. In the course of replacement or repair, h/p/cosmos may send you written recommendations of how to prevent re-occurrence of a problem. h/p/cosmos reserves the right to withdraw the warranty if the recommendations are not followed. The customer is responsible for transport charges both to and from h/p/cosmos in all cases, local service may be available for which labour may be charged. This warranty is exclusive and in lieu of all other warranties whether written, oral or implied, including the warranty of fitness for any particular purpose. h/p/cosmos shall not be liable for any other damages, whether indirect, consequential or incidental arising from the sale or use of its product. h/p/ cosmos may modify this warranty by signing a specific written description of any modifications.

SAFETY: Please make sure that you read the user manual before operating any item of h/p/cosmos equipment, it contains both operating instruction and service requirements. Clinical staff should instruct their patients, and fitness staff or other professional staff should instruct their members and users in the use, safety and warnings of the equipment before use. Make sure that you have read and understood the safety requirements before using the equipment.

LIABILITY: Failure to comply with the conditions listed below shall absolve h/p/cosmos sports & medical gmbh from any responsibility for the safety, reliability and performance of this equipment. Each operator must read and understand the user manual before using the equipment for the first time. Each user must be instructed in the proper use of the equipment and its accessories. The electrical and mechanical installation of the equipment must comply with the local or national requirements and all installation guides from all respective manuals delivered with the equipment. The equipment must be used in accordance with the instructions for use. We recommend that operators of h/p/cosmos equipment are trained and certified by h/p/cosmos or their appointed agents before use of the equipment. Please contact h/p/cosmos for further details.

All h/p/cosmos running machines are manufactured by h/p/cosmos in Nussdorf-Traunstein/Germany. Accessories may be imported goods. Abbreviations: It = without terminal (no display and no keyboard), r = for bicycle and wheelchair use. Wheelchair stabilizer is obligatory and is optional accessory! rs = ski & spikes use.

UMDNS-Code: 14-141 running machines / customs tariff no. sports running machines: 9506 9110 / customs tariff no. medical running machines: 9018 1910

\* Use dedicated power supply with dedicated fuse for each running machine (treadmill). 230 volts 16 A types may also be operated at 220 or 240 volts 15 A. Special voltages available. We recommend a dedicated line 3 phase 400 volt connection and 3-phase treadmill for high speed, fast acceleration and for heavier subjects due to higher performance.

EU, MDD & REGULATORY AFFAIRS INFORMATION: Devices of the sports category must not be used for medical applications. When linking medical treadmills with other devices (ECG, PC, etc.) then only potential isolated interfaces are allowed. Accessory equipment connected to the analog and digital interfaces must be certified according to the respective IEC standards, e.g. IEC 950 for data processing equipment and IEC 601-1 for medical equipment. Furthermore all configurations shall comply with the valid version of the system standard IEC 601-1-1 and EN 62304. Everybody who connects additional equipment to the signal input port or signal output port or via any other linkage possibility, configures a medical system and is therefore responsible that the system complies with the requirements of the valid version of the system standard IEC 601-1-1. (MDD: 13.6.c, IEC 601-1: 6.8.2.c, 19.2.b, 10.2.c). All equipment within a medical system and with metal housing must be linked with potential equalization cables in star form and then connected to the potential equalization bar of the medical used room.

All norms and standards listed in this brochure refer to validity date (year/month) as is was standard at the time/date when this brochure/document was printed. In case there was a transitional period of 2 valid norm editions at that time, then please ask h/p/cosmos or refer to the details as stipulated on the CE declaration of conformity of the product for the precisely validity/issue date of the norm/standard.

DISCLAIMER: All system configurations in this brochure are non binding and may not neccessarily meet all demands of the user's and/or patient's and/or subject's application and needs. h/p/cosmos is not liable for any mismatch and/or deviation. For a more precisely system configuration recommendation please send precisely demands to h/p/cosmos in writing.

All technical specifications, descriptions, equipment options and images of devices, options and accessories are not binding, and do not represent any guarantee of features and may differ from the product and delivery.

All pictures and configurations shown in this brochure are not binding and may deviate from standard version of the delivered equipment and/or may be available only at extra charge and/or may have been replaced by modified version and/or supply may have been stopped meanwhile.

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For software and all other intellectual property rights disclaimers as written in the respective manuals apply. All rights reserved for software, pictures, videos and other media

DELIVERY: The delivery (manufacturing) time for h/p/cosmos running machines up to deck size 190/65cm is 2 to 3 weeks in general. Other models and devices on request. Shipment time 2 to 7 days in Europe and 3 to 5 weeks via sea freight for overseas. Shipment time 2 to 7 days approx. for air freight.

PRICES: All prices net, EXW (ex works) h/p/cosmos factory Germany, in EURO. Valid from 01.02.2011 until 31.12.2011 only for Germany. Prices in other countries can vary significantly. Transport, packing, VAT, import taxes, custom duties, L/C and bank fees, installation and instruction are not included. Possession of this price list or brochure does not constitute an offer to sell; it is for information only. Property and ownership of goods shall remain with the seller and shall not pass to the buyer until full payment of the price has been received. Full terms of trading available on request. E & OE. Subject to alterations without prior notice.

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**Brochure design:** 

