

running machine: **saturn® 450/300rs**  
 manufacturer: h/p/cosmos® sports & medical gmbh / Germany  
 order number: cos30013-01va01  
 applications: endurance training walking and running,  
 stress device for performance testing,  
 gait analysis and gait training  
 control: via extern UserTerminal (TouchPanel display), MCU5,  
 integrated interface or via optional remote control;  
 running surface: special running surface, suitable for ski rollers, poles with  
 special syringes, roller skates, inline skates and cycles.  
 L: 450 cm (14ft 9.1") B: 300 cm (9ft 10.1")  
 special sizes available at extra charge  
 deck access height: dependent on depth of installation pit.  
 Access height without installation pit  
 approx. 130 cm (4ft 3.1")  
 - max. permissible load: 300 kg (660 lbs)  
 running belt:  
 - reinforced running belt with low roll resistance  
 - automatic belt centering and belt tensioning control  
 - improved anti slip characteristics  
 - thick running belt ca. 10 mm  
 - temperature resistant: permissible constant temperature  
 range -30...+80°C  
 - water and saltwater resistant,  
 particularly human perspiration  
 - 3 year warranty on the running belt by use with ski sticks  
 with a minimum ski tip diameter of 5.0 mm  
 lubrication: Automatic lubrication system between running deck and  
 running belt (running deck)  
 speed control: automatic speed control depending on the position of the  
 subject on the running deck; option at extra charge.  
 speed range: 0...40.0 km/h (0...11.1 m/s) (0...24.8 mph)  
 special speed available at extra charge:  
 0...30 km/h (0...18.6 mph)  
 0...50 km/h (0...31.06 mph)  
 0...60 km/h (0...37.28 mph)  
 0...80 km/h (0...49.71 mph)  
 speed control: automatic speed control depending on the position of the  
 subject on the running deck; option at extra charge.  
 acceleration: 7 acceleration / deceleration levels  
 between 131 s and 3 s from 0 to max. or from max. to 0;  
 equals 0.084... 3.70 m/s<sup>2</sup>  
 programmable via para control PC software  
 elevation: -4.0%...+25.0 % (-2.3°...+14.0°) hydraulic adjustment,  
 running direction: switch for reversing running belt direction at extra charge  
 motor system: 30 kW (40.8 PS) 3-phase AC motor,  
 elevation drive motor for hydraulic: 18.5 kW (25 PS).  
 maintenance free and brushless;  
 20 years warranty on main drive motor.  
 power transmission: frequency inverter, timing-belt drive  
 (very dynamic operation)  
 safety systems: CE0123; medical device directive 93/42/EEC +  
 2007/47/EC; MDD; machinery directive 2006/42/EC;  
 IEC 60601-1; EN 60601-1-2 (EMC approved);  
 EN 60601-1-6; EN 62304; EN 62353; ISO 20957-1;  
 EN 957-6; EN 14971; ISO 9001; EN ISO 13485;  
 emergency-off safety stop switch (mushroom push button  
 for drive system power-off); sensitive protection  
 (light barriers with stop function) at belt re-entry zones;  
 potential equalization bolt; sensitive protection  
 (light barriers with control light) for belt alignment;  
 transformer for potential-isolation from the mains;  
 integrated motor brake when power is on;  
 safety arch with 1x cos14903-03-M chest belt  
 system size M, fallstop and automatic stop of running belt  
 degree of protection: appliance class I (⊕) / type B ⚡ / IP 20  
 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 < 0.25 mA  
ambient condition: temperature: +10...+40 °C (-30...+50 °C on request)  
humidity: 30...70 % (up to 100 % on request)  
air pressure: 700...1060 hPa; 3,000 m (~10,000 ft) max.  
altitude without pressurization  
display (resolutions): TouchScreen display with operation mode,  
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)  
heart rate monitoring: POLAR W.I.N.D: coded, wireless transmitter;  
ECG-accurate measurement;  
automatic control of speed and elevation according to  
programmed target heart rate ("cardio mode")  
digital interface: 2x USB 2.0, 1x Ethernet RJ45 (100MBit/sec),  
2 x RS 232 com1 & com2 with 9600 bps: incl. PC-protocol,  
h/p/cosmos coscom® & printer protocol serial.  
option extra charge: USB-RS232-converter;  
programs: 42 programs / profiles  
- 6 exercise profiles (scalable, more than 100 variations)  
- 28 test profiles (UKK 2 km Walktest, Bruce, Graded test,  
Naughton, Ellestad, Gardner, Conconi, Ramp, etc.)  
- 8 free definable programs with 40 program steps each  
- up to 1000 free definable programs with  
up to 200 program steps each via para control 5 software  
PC software (incl.): h/p/cosmos para control® for display & remote control;  
including 2 x RS232 interface cable  
(1 x 5 m (16 ft 4.85")), 1 x 10 m (32 ft 9.70")).  
PC software:  
(extra charge) h/p/cosmos para analysis® & para motion®.  
accessory (incl.): PC software for monitoring, recording & motion analysis.  
user manual, drinking bottle holder with 10 h/p/cosmos 0.5 l  
bottles, service box, special oil,  
3x 5 m (16ft 4.85") PE potential equalization cable,  
remote control with magnetic holder  
(plugged on the treadmill)  
colour of frame: grey aluminium RAL 9007 (powder coated)  
handrail: steel tube handrails Ø 60 mm on both sides,  
over the whole treadmill surface with front-handrail crossbar.  
The handrail is detachable from the first third of the tread,  
other handrail designs at extra charge  
gantry at the front: approx. 75 cm (2ft 5.5") along the width of the running deck;  
for applications lactate analysis, ergospirometry,  
motion analysis, support for subjects through trainer.  
gantry at the side: right and left approx. 50 cm (1ft 7.7") along the width of the  
running deck.  
access ramp: L: 218 cm (7,15ft 1,8") x B: 275 cm (9ft 0,27")  
automatic ramp for ground-level access to the running  
surface on request at an extra charge.  
The exact specification depends on the treadmill equipment  
and the building.  
stage floor: safety cover for the machine and level entrance to the  
treadmill at 130 cm (4ft 3.1") at extra charge.  
voltage supply: 1 x 400 Volt AC 3~/N/PE 50/60 Hz 63 A  
1 x 400 Volt AC 3~/N/PE 50/60 Hz 35 A  
2 x 230 Volt AC 1~/N/PE 50/60 Hz 15-16 A  
Each with a separate dedicated circuit,  
line and separate protection;  
LAN DSL internet connection for remote  
access / maintenance  
power cabinet: W: 120 cm (3ft 11.2") D: 50 cm (1ft 7.7") H: 120 cm (3ft 11")  
for accommodation of electric components for inverter drive  
and safety arch and high power components:  
size of frame approx: L: 645 cm (21ft 1.9") W: 500 cm (16ft 4.9")  
H: 477 cm (15ft 7.8")  
depending on options and accessories, type of installation  
and additional options (e.g. gantries) the measurements  
may deviate.  
size control unit: D: 48 cm (1ft 6.9") W: 100 cm (3ft 3.3")  
H: 100 cm (3ft 3.3")

room ceiling height: (without access ramp)  
approx. L: 1050 cm x W: 1050 cm x H: 500cm  
approx. L: 34.4ft 5.39" x W: 34.4ft 5.39" x H: 16.4ft 4.85"  
(with access ramp)  
approx. L: 1200 cm x W: 1050 cm x H: 500cm  
approx. L: 39.4ft 4.44" x W: 34.4ft 5.39" x H: 16.4ft 4.85"

running surface level: approx. 370cm (12ft 1.67")

installation & sizes: Installation in pit or walkway around the system is recommended. The room and building and infrastructure has to be prepared according to drawings and specifications of h/p/cosmos at the customer's expenses and at the customer's risk. Installation at extra charge and obligatory through h/p/cosmos technicians. Additional costs may arise for crane, special installations and special building design.

net weight: approx. 10.000 kg (22.046 lbs)  
gross weight: approx. 12.000...15.000 kg (26.455...33.069 lbs)

#### **Installation:**

Installation and commissioning is not included in the price. Installation does not include any preparation of the building and/or power supply and/or the pit and/or the stage floor (walkway). A stage floor is obligatory for covering the free space around the treadmill. The building, pit, walkway and necessary connections (power, LAN, concrete floor, etc.) has to be prepared by the customer at the customer's expenses prior to the shipment based on the technical specs and drawings from h/p/cosmos. Installation costs may change significantly in case the building or infrastructure is not ready in time, or in case the bringing in of the parts or the installation process faces difficulties which were unknown at the date of the order or in case any special custom made design will arise after date of the original order. A car crane has to be supplied at the customer's expenses for approx. 2 to 4 full days for unloading and for bringing in the individual parts. The customer has to provide boreholes and cable tubes in his building at his expensed and based on the demand and drawings of h/p/cosmos.

It is recommended to provide an extra room with isolation against noise level for installation of the hydraulic aggregate / generator. Measurements min.:  
L: 250 cm (98.43") x W: 250 cm (98.43") x H: 200 cm (87.74").  
Additional costs may arise for additional cranes, special circumstances during installation or the design of the building or the access to the building.

Optionally available at extra charge are special frame colours, other handrail designs, special voltage supply and 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.

**Warning!** Installation, commissioning, instruction, maintenance and repair work only to be conducted by h/p/cosmos trained and authorized personnel. For treadmills with oversized deck (width >65 cm), 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.