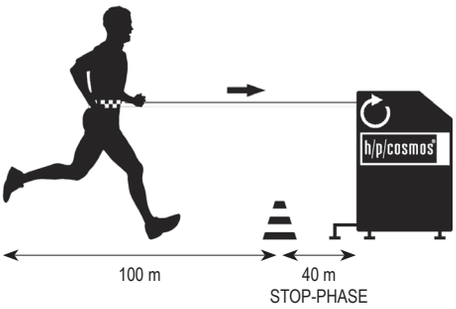
quicker through over-frequency and tensile resistance training



- **over-frequency training on a tartan track or grass – but how?**
- **tensile resistance and tensile support training with constant load over 100 meters?**
- **controlled and variable loads during sprints?**
- **constant loads under variable speeds?**

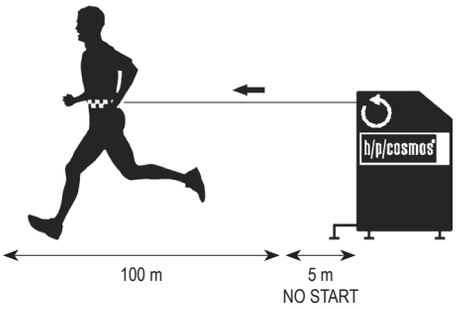
quicker through over-frequency (hyperspeed / overspeed) training

If you want to be fast you must train your speed. And if you want to sprint faster you need to train at higher speeds. Although that sounds simple it is difficult to implement in practice. Downhill running can't achieve these goals due to the changed biomechanics and is of course not portable and not variably adjustable. Pulling ropes and bungees have been used for many years but they cannot offer measurable and constant tensile support over distances of up to 100 meters.

Exactly this problem is solved by the h/p/cosmos comet® 3p.

It has been developed specifically for sprint training with over-frequency. The special feature is the constant, accurate and electronically adjustable tensile support given to the athlete no matter how fast or far away he is. During the start phase especially with lower tensile support, an elastic rope connection is necessary and helps to keep the 100 m long and thin rope tight in the acceleration phase.

As a result the tensile support can be correctly adjusted for every athlete in every training phase by means of the potentiometer. The level of tensile support can be adjusted by the coach during the sprint with the potentiometer so that different phases can be accented. The 160 m long rope allows 100 m sprints with enough safety margin for the slow down phase at the end of the sprint. An integrated logic control prevents accidental shut down at full load and is an additional safety feature together with the emergency shut down switch. The h/p/cosmos comet® 3p is a must have for every SpeedLab®.



more explosive through tensile resistance training

For tensile resistance training there are a variety of training resources: dragging car tyres, weight plated or even small parachutes. However, as with tensile support, there is also a problem here: the tensile resistance is not constant and cannot be adjusted and many times the resistance can also result in an unpleasant jerk.

improvement of the individual maximum speed

One of the major advantages of the h/p/cosmos comet® sprint trainer is, that the tensile resistance and or support is independent from the speed or running direction and can be adjusted easily with the electronic potentiometer.

This is possible due to a very dynamic and powerful servo drive. Even the very fast changing and „pulsating“ load situation during running movement require a fast and automatic adaption of the load during the ground contact due to the electronic regulation.

In contrast to a sledge wich is pulled over the ground, the comet® does not know any kind of „jerking“ of the load.

The runner determines the speed and direction, not the equipment.

With up to 30 kg (294 Newton) tensile resistance the equipment can also be used effectively for top athletes. Higher levels of tensile resistance are available on request of up to 100 kg (980 N). The rope itself is approved for loads up to max. 100 kg.

Additionally changes to the tensile support (rope pulling the runner) and tensile resistance (runner pulls the rope) can be made manually.

The comet® combines well established training methodologies with sophisticated electronic equipment which is easily adjustable and offers reproducible results.

It opens the door to new methods and dimensions in the development of neuromuscular coordinative training in combination with power enhancement training.

recommended configuration **sprint training** h/p/cosmos comet® 3p

pos.	qty.	order number	product description
1.	1	cos30015va02	**sprint trainer h/p/cosmos comet® 3p**
2.	5	cos14665-01	waist belt, size S (colour code red, for waist circumference 650 ... 950 mm) for h/p/cosmos comet
3.	5	cos12571-01	waist belt, size M (colour code blue, for waist circumference 850 ... 1050 mm) for h/p/cosmos comet
4.	5	cos14666-01	waist belt, size L (colour code yellow, for waist circumference 1000 ... 1300 mm) for h/p/cosmos comet
5.	5	cos14903-03-L	chest belt system, size L (colour code yellow, for chest measurement approx. 105 ... 135 cm) for safety arch harness and comet
6.	5	cos14903-03-M	chest belt system, size M (colour code blue, for chest measurement approx. 85 ... 115 cm) for safety arch harness and comet
7.	5	cos14903-03-S	chest belt system, size S (colour code red, for chest measurement approx. 65 ... 95 cm) for safety arch harness and comet
8.	2	cos12518	spare rope 180m for sprint trainer h/p/cosmos comet®
9.	1	cos11376	packing comet on pallet + bubble wrap, device fully assembled
10.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)
11.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel
12.	1	cos101341	1 full day workshop treadmill applications in speed & agility
			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 sprint training: please ask your dealer for a quotation

Please refer to the information about product specifications which can be found on page 137.