

What is the Rocket Rope?

The Rocket Rope is a dynamic multi-purpose-training device designed to assist athletes in both the acceleration and top-speed areas of speed, while simultaneously training the secondary athlete with an increase in applied power. The Rocket Rope is designed for use with a minimum of two athletes and a third athlete and/or coach.

The Rocket Rope system utilizes a durable nylon cord looped around a high revolution pulley and attached to adjustable waist belts. It is versatile enough to use on any surface and features enough nylon cord for up to 30-yard overspeed bursts. It can be easily snapped on and off and can be used with an automatic release system once the sprint is completed.

The Rocket Rope allows for training of two athletes at the same time using only one piece of equipment. While one athlete is performing a resisted sprint (resisted by the weight of the other athlete attached to the opposite end of the Rocket Rope), which is key to developing explosion and power, the other athlete will be working on an overspeed burst (pulled at a faster rate due to the mechanical advantage achieved through the use of the pulley). The overspeed burst will help the athletes' neuromuscular system adapt to training at a much higher rate of speed than it is accustomed. The muscles of the athletes system will fire in a much faster sequence, therefore training the neuromuscular system to be more proficient at higher speeds. This in turn helps the athlete gain a biomechanical advantage as they become faster, due to the more efficient control that they have acquired. The use of a third athlete or coach will help enhance the overall benefits of the drill by varying the assistance to tailor to the individual athlete, which is known as individual specificity training.

Safety Considerations:

- Consult a physician before beginning this workout program or any other physical activity.
- Always warm-up the body and specific muscle regions before beginning a workout.
- Do not over work yourself; more is not always better. Technique is much more important than overuse. Train Smart, Not Long!
- Never play around while working out. Training equipment, when used properly is very beneficial for conditioning and improved athletic skills, but misuse can result in serious injury. It is imperative that all athletes, coaches, and those supervising workouts understand the proper guidelines when using training equipment.
- Always inspect fittings and flexicord before each workout. 95% of flexicord wear and tear will first be noticeable at the two connection points.

Care and Maintenance:

To maintain maximal life of flexicord products the following guidelines must be adhered to:

- Never allow flexicord to be exposed to extreme weather conditions (heat, cold, and moisture can reduce the usable life of flexicord products).
- Allowing flexicord products to be used; set or dragged across dirt, gravel, or concrete surfaces will also decrease flexicord life.
- Athletes must be careful too never over stretch flexicord greater than 3 times its original length. Alpha Dog Sports takes no responsibility for injury due to persons not properly adhering to this condition.

- Upon completion of each workout, flexicord should be cleaned of any dirt or debris it may have been exposed to during use. The flexicord product should be stored indoors (preferably) in a climate-controlled environment. Under normal use, flexicord is guaranteed for 1 year. Normal use is considered one athlete using the flexicord product up to three times a week.

Setting up the Rocket Rope System

Before the drill is performed, it is important to unwind the cord from the spool and lay the Rocket Rope system in a V-configuration. Make sure there are no knots in the cord. Prior to the workout the nylon cord should be "run through" the pulley system. The athlete at the point of the V should connect the belt directly to the pulley system. One end of the nylon cord should be attached to the other belt and the opposite end should be attached to the anchor handle. (Figure 1 & 2)

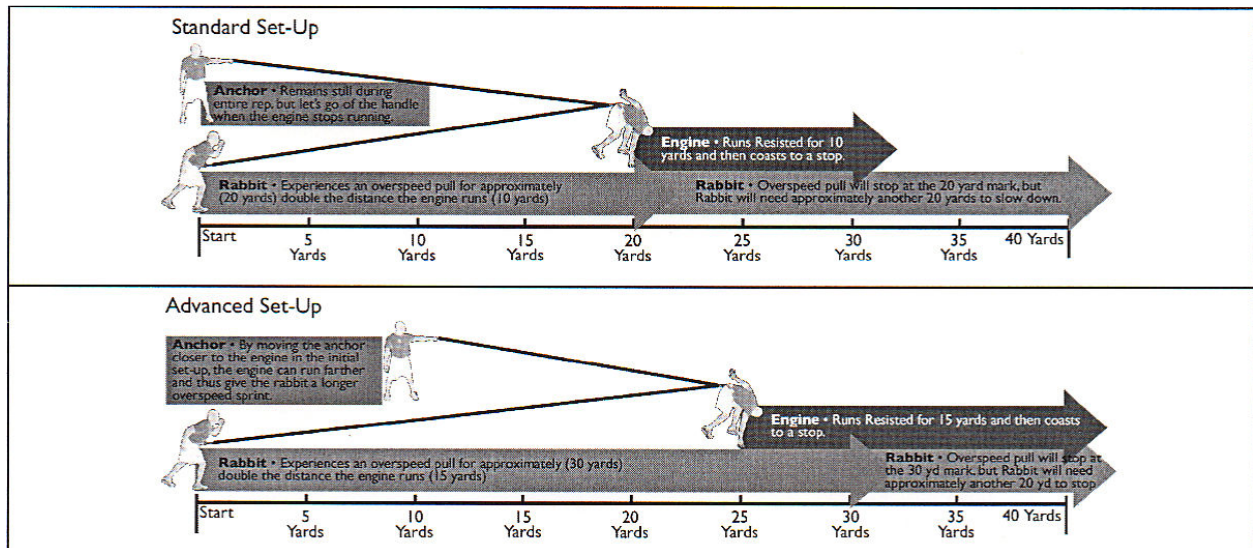


Figure 1



Figure 2

The athletes should secure the waist belts by snugly fitting the belt around their waist and pulling out all excess. The athlete at the point of the V is considered the "puller" or resistance trained athlete. This athlete should have the D-ring on the belt facing to the rear. (Figure 3)

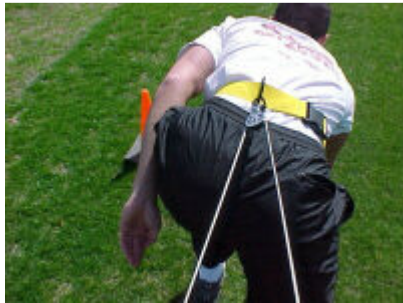


Figure 3

The "pullee" or overspeed-trained athlete should have the D-ring in the front. (Figure 4) All slack should be walked out of the cord, as the cord should be taunt.



Figure 4

It is imperative that the lines are not crossed over and that the cord is not wrapped around the pulley. (Figure 5) The resistance runner should check to see if the overspeed runner is READY, and then proceed to a three-point stance with the free hand raised. (Figure 6)



Figure 5



Figure 6

The overspeed runner should be in a two-point stance prepared to sprint at any second. As the resistance runner drops their hand, they should simultaneously sprint forward for approximately 8-12 yards full speed. (Figure 7) The resistance runner will feel a great amount of resistance at first, but should continue to accelerate through the entire distance without hesitation. As the resistance runner approaches their mark they should continue forward and decelerate without turning around to watch the sprint. They should face forward at all times.



Figure 7

When the resistance runner takes off, the overspeed runner should not fight the pull, but actually glide with the motion. It is important for the overspeed runner to fire as fast as possible and try to stretch out their stride length, while maintaining proper top speed mechanics. (Figure 8) Some keys to top speed mechanics are an erect upright spine, hips underneath the center of gravity, and a pulling motion with the feet. The athlete should concentrate on proper lift mechanics by bringing the thigh parallel to the ground with toes pointed upward and the top of the cycle and feet landing underneath the hips and "clawing" the ground when at the bottom of the cycle.



Figure 8

The overspeed runner should take a slight angle to the side of the resistance runner to avoid a collision when nearing the end of the "overburst" sprint. (Figure 9) The third athlete or coach that

is anchoring the Rocket Rope should release the handle when the overspeed runner becomes approximately 4-7 yards within the resistance runner. (Figure 10)



Figure 9



Figure 10

The advantages of using the third individual are the ability to vary the resistance. The anchor can step forward to decrease assistance, or can step backwards to increase assistance. If the cord is not released both athletes could become bound on the same path, and serious injury could occur.

Caution

Make sure you are warmed up and have done some stretching before using the Rocket Rope. Some full speed free sprints must be performed before proceeding to the overspeed training. Know the proper form and techniques of the exercise before attempting Rocket Rope training activities. Using improper form and techniques will prohibit improvement and may cause injury.

Use extreme caution during overspeed workouts.

Even if you are in excellent physical condition, give yourself a couple of weeks to build up to full overspeed workouts. The partner and/or coach should always be aware not to pull an athlete beyond the athlete's capability. Failure to take these precautions may result in an injury. Always use moderation on overspeed.

Inspect the nylon cord of the Rocket Rope. Look at the ends (loops) of the Rocket Rope before use. If the nylon cord is worn or frayed, replace it before next use. Inspect the connecting parts (snap rings and D-rings). Make sure they are fastened correctly and securely. Always make sure the anchor strap is fastened to a secure object or held securely by the third athlete or coach.

Always use the Rocket Rope under the supervision of an adult who is familiar with the rules of use contained within these instructions. Failure to use this product with proper supervision can result in serious injury to the user should misuse of the product occur.

For safety reasons, it is important to match athletes of similar speed when working together. If one of the athletes is considerably faster than the other, additional precautions need to be taken when the faster athlete is pulling the slower athlete in an overspeed sprint. The faster athlete must be aware that the slower athlete may fall if towed at a speed greater than the slower athlete is capable of maintaining.

The Rocket Rope is an item that should only be used after the athlete is in near peak condition. One of the most common mistakes is for an athlete to workout with the Rocket Rope with no previous training. This will cause possible injury and may setback the entire training process. Below is a 6-week sample workout:

	Puller	Pullee	Free Sprints (40 yds)
Week 1	2	2	2
Week 2	2	2	2
Week 3	3	3	3
Week 4	3	3	3
Week 5	4	4	4
Week 6	5	5	5

The best method to achieve an efficient workout with adequate rest between sets is to have four athletes rotate from handle position to puller to pullee and then to the free sprint. By using four athletes the sets continue to go as the 4th individual runs the free sprint