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Riker Rope Roller

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Firehouse Magazine

Modern reels have allowed firefighters to store, organize, deploy and retrieve a variety of equipment. From breathing air lines to booster hose, reels make the job faster and easier.

In the same way, the Riker Rope Roller lets firefighters store, organize, deploy and retrieve a search line. This allows firefighters to conduct a search and exit quickly, then do it again. Firefighters know that the greater the area they search, the better the chance of saving a fire victim.

Photo by John G. Riker
The Rope Roller stores search rope in an organized state, ready for use.

Firefighters who enter burning buildings during search and rescue operations are unable to see because of the dense smoke. Touch and sounds guide them as they crawl along the floor searching for victims. Moving slowly and cautiously they search, trying to avoid pitfalls and obstacles such as furniture, machinery, entanglement and open stairwells.

During their operation they are expected to report conditions, ventilate, force doors and remove obstacles that may hinder the advancement of the engine company's line. These can be strenuous activities causing a rapid depletion of the firefighters' air supply.

Firefighters wearing full turnout gear can crawl about two feet per second. Self-contained breathing apparatus (SCBA) supplies the firefighter with air. Firefighters use their air supply advancing farther into the hazardous area.

The alarm on an SCBA will sound when the air pressure in the bottle reaches about one-fourth of its capacity. This means they have one-fourth the time to exit the fire area as they had to enter it.

Are firefighters expected to find their way faster going out than going in? If firefighters need assistance, can others locate them quickly without exhausting their own air supply? Search ropes provide a lifeline to safety in atmospheres where visibility is zero. Search ropes can help firefighters to speed up operations on the fireground. Using the

Photo by John G. Riker

The search rope is easily wound up on a spool, much in the same manner as winding a fishing line.

rope, firefighters can exit a dangerous area faster. This provides for greater safety. There is less stress and fatigue. There is an increase of SCBA airtime. More work can be accomplished and a greater area can be covered in a shorter time period. Using the rope will guide firefighters if they become lost or disoriented.

Using a rope as an indicator will help firefighters and the FAST team entering an area where additional help is required. The search rope is not new to the fire service; it's just getting back to basics. Using the rope along with modern electronics such as the thermal imaging camera can increase productivity and safety on the fire ground. So can the mix of traditions and technologies, experience and enthusiasm.

Search ropes have been a reliable, basic piece of firefighting equipment. The rope roller is intended to improve the search operation. Train to survive.

The Riker Rope Roller

Rope bags have aided firefighters for many years. But because it bounces around in a compartment of a moving fire truck, rope stored in a bag often becomes tangled. Also, once deployed, a bag must be repacked in order to be used again at a different location. This takes valuable time.

The Rope Roller stores the rope in an organized state ready for use. Once deployed, the Rope Roller allows firefighters to retrieve the search rope quickly and move on to another location. The rope provides a margin of safety. The roller provides a more rapid operation covering a greater area in less time.

The rope can be readily deployed and retrieved. The rope is simply pulled from the roller in the same manner that it would be as if it were in a bag.

A rope roller may be constructed by following these steps:

1. Obtain a length of plastic PVC pipe.
2. Cut a window in the side of the pipe.
3. Secure both ends with caps.
4. Drill holes in each cap and insert a piece of PVC pipe one inch longer than the base. This will act as a spool to wind the rope on.
5. Fasten tees on both ends.
6. Drill a hole in the spool. Insert the rope and secure it with a knot.
7. Attach a handle.
8. Clearly label the amount of rope that is on the roller. Place a company ID tag on the end of the line.

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