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Safety First: Creating a Better Work Environment

Choosing the correct tarping system for your roll-off truck can help you or your fleet become safer. Like with most equipment, there are varying degrees of safety. Be sure to review the three configurations or styles of tarping systems, and consider the advantages or risks associated with each.

By Chad Rea

SAFETY BY DEFINITION IS THE CONDITION OF BEING safe—freedom from danger, risk or injury. According to the National Safety Council, in 2019, work-injury costs were at approximately $171 billion dollars, about $1,100 per worker, $42,000 per medically consulted injury. However, financial costs aside, workplace safety also creates a better working environment, happier employees and helps protect a company's most valuable assets—its employees.

You are probably wondering how choosing the correct tarping system for your roll-off truck can help you or your fleet become safer. Like with most equipment, there are varying degrees of safety on each style of tarping system, with no one style being 100 percent safe. However, with proper operator training, certain styles will have less risk of injury involved when operating the system. First, we will review the three configurations or styles of tarping systems, then we can discuss the advantages or risks associated with each.

Styles of Tarping Systems

Following is a quick review of the three leading styles of tarping system for roll-off trucks.

Manual Tarping System

A tarping system that a driver or person has to manipulate, replace or operate by hand. Examples of a manual system would be a side-to-side roll tarp or PBR (belt and ratchet) tarp that is operated by a crank. Hand tarps covering a container would also be included in this category.

Semi-Automatic Tarping System

This is a tarping system that is a combination of a hand operated and mechanically operated system. Oftentimes, the mechanically operated function on these systems would be spring or crank-

The SWAT® is a fully adjustable automatic tarping system for all 15 to 40 cubic yard containers. Made with precision-cut pivot gears and rack to help eliminate slippage, increase longevity and decrease cost. Its hard pipe cylinders with nitride-coated rams help reduce hose damage, and the flanged gear pin design ensures pins stay in place. The extreme-duty tarp roller features three mounting options: spline, square nut and threaded slot, and extended-life bearings. The wider tower mounting plate fits most plate hoist configurations and helps cut installation time. The SWAT® is powder coated for a premium finish and protection, and the low-profile arms help avoid damage from wide containers and compactors.

The Quick-Flip™ III is an automatic roll-off tarping system with unbreakable pivot arms and electric hydraulic-powered gantry and electric tarp roller. The Quick-Flip™ III brings to the market three models designed specifically for roll-off trucks and trailers. Available models include Single-Axle Model, Multi-Axle Model and Roll-Off Trailer Model. Photos courtesy of Donovan.

operated. Some examples of semi-automatic tarp system would be an arm-less tarping system similar to a Hy-Tower system or hand crank system that is mounted directly on the container or some type of gantry on the roll-off truck frame.

Fully Automatic Tarping System

These tarping systems are operated one hundred percent mechanically, oftentimes hydraulically, with an electric motor, or a combination of both. Examples of fully-automatic tarping systems would be the steel arm rack and pinion design, or the aluminum arm system with hydraulic operated gantry and electric motor operating the tarp to cover and uncover.

Choosing Your Best Solution

According to the National Safety Council, in 2019, the three leading causes of workplace injury were:

1. Overexertion and bodily reaction: **31.03%**
2. Falls, slips and trips: **27.47%**
3. Contact with objects and equipment: **25.83%**

When deciding the best tarping system for your operation, consider this injury data. A manual tarp may have less upfront cost and sometimes no install cost, but in the long run it may end up costing you more. Since manual systems are operated by hand, you greatly increase the risk of the above injuries. A good example of a manual system would be just a routine hand tarp. When using a hand tarp to cover a container for transportation, operators are usually climbing up on a container, which increases the risk for slips and falls, pulling and pushing the tarp by hand, increasing the risk of overexertion and increasing the chances of a contact with objects (in the container) and equipment like the container itself. The average cost for a medically consulted injury was $42,000 in 2019—far less than any fully-automated tarp system.

A semi-automatic tarping system is safer, but also comes with increased risk. Most times a semi-automatic tarp system will have a push/pull mechanism to extend the tarp over the load or crank mechanism to return the tarp to the housing. With both of these actions, you increase your chances of an overexertion injury. Many times, the environment that the operator is working in with these tarping systems is less than ideal. For example, at a landfill or transfer station, you run the risk of falling, slipping, or tripping hazards when the operator is working with the tarping system.

While there is not a single tarping system that is one hundred percent injury proof, the safest style of tarping system is going to be a fully automatic one. The reason for this is that it can typically be operated from some type of switch or spool valve from the ground just outside the cab. There is still some risk depending on the make and model of tarping system, which would allow the tarp return arms to impede on the operator's workspace, and there are other environmental risks to consider as well such as trip and falls hazards, situations caused by certain types of weather and unsafe use of equipment. The safest option of fully automatic tarping system is going to be operating it via a remote option. In some instances, this allows the operator to control the system safely from the cab of the truck or, at a minimum, able to stand away from the truck as the tarp system runs.

Safety Never Takes a Day Off

Other steps to improve safety such as routine maintenance or PMIs, proper training and mandatory use of proper equipment also need to be put in place to maintain a safe working environment. The selection of the correct tarping system is just one part of the overall commitment to workplace safety for roll-off drivers. Safety never takes a day off, so why should your tarping system be any different?

Chad Rea *is National Sales Manager, Solid Waste for Shurco/Donovan (Yankton, SD). He has more than 10 years of experience helping all types of customers in the tarping industry. If you are currently in the market for a system, Chad can put you in touch with one of the company's ShurCo/Donovan dealers. Not all tarp manufactures offer remote options with their tarping systems, but Donovan's SWAT roll-off tarper meets that demand. The SWAT is the only steel arm system on the market that can be operated by a remote and, in turn, this increases driver safety and retention. Chad can be reached at crea@shurco.com or connect socially with him on LinkedIn at www.linkedin.com/in/chad-rea-b68928bb/. For more information, visit www.shurco.com.*