

Don't Spread Yourself Thin



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Choose the right spreader for winter maintenance

As much as we hate to admit it, summer is all but gone, and winter is just around the corner. The time is nearly here to start prepping lawn mowers, edgers, trimmers and other equipment for storage, and to begin thinking about what you need to battle the oncoming winter.

Whether you're a landscaping/groundskeeping professional or someone charged with the responsibility of maintaining a commercial or institutional property, it's likely that one of your equipment staples is a spreader. If it isn't, why not? From a contractor's point of view, offering sand/salt spreading services can be just as lucrative, if not more so, when compared with plowing/snow-removal services. For the property manager or municipal official, spreading an ice control material is basically a necessity given today's litigious society.

The fact is that spreaders are becoming a given for any solid winter maintenance program, but with so many different types of end users and application demands, a one-size-fits-all approach to spreader selection simply isn't feasible. Fortunately, spreader manufacturers understand this and offer a seemingly endless amount of features and equipment configurations to cater to virtually any need. But, with this seemingly endless amount of differences, how do you choose the right spreader for your operation?

Photos by Mark Hall.



Larger, V-box style spreaders are ideal for contractors catering to larger jobs. Shown here is a unit with a poly-built hopper, a feature that is found on more and more of today's winter-maintenance spreaders.

Capacity isn't king

All too often, the first, and only, consideration people make when selecting a spreader is capacity. With truck-mounted spreaders having the ability to hold anywhere from 150 pounds to 2.5 tons of material, the equipment's capacity certainly must be considered. However, making a choice based solely on how much material a spreader can hold is a textbook case of putting the cart before the horse.

Several other factors must be taken into account, including the types of jobs or clients you will be addressing. If you are typically servicing driveways, sidewalks and other small residential applications, then a small tailgate spreader would likely be the preferred equipment. Likewise, for mall parking lots or commercial or institutional facilities, a larger, V-box style spreader may be a more effective choice.

For large applications, using a spreader that's too small will add unnecessary costs in several ways. First, the operator will have to stop to fill the spreader more often. This downtime could equate to higher labor costs. It also means a loss of time, which could mean lost profits and/or productivity. By spending more time to keep the spreader filled, that's less time on the job, meaning less customers or problem areas that can be adequately addressed. Furthermore, having to drive back and forth to refill the hopper is a waste of fuel.

On the other hand, having too large a spreader can present problems on smaller jobs. Smaller facilities generally have more confined areas requiring salt or sand. It's easier to negotiate these areas with an appropriately sized spreader that allows for maximum visibility in congested areas. Carrying a spreader that's too large will also have an adverse effect on fuel consumption. Anytime unnecessary payload is used, unnecessary fuel is burned.

There are a lot of questions that could be asked at this stage of the selection process, but it's best to just simplify and consider the application demands first. What size jobs need to be addressed? What amount of material is needed to cater to each of these applications in one pass? Answer these two questions and the capacity quandary is greatly minimized.

Material matters

Spreaders come in a wide range of styles and sizes, as well as materials, including steel, stainless steel and polyethylene (poly). Durability ranks as the greatest concern here.

Many contractors will spend more money to get a stainless steel spreader because they assume this offers a durability advantage over regular steel and poly alternatives. While it's certainly true that a stainless steel spreader won't have the same rust and corrosion issues that a steel spreader will, there have been dissenting opinions when it comes to comparing the durability of stainless steel and poly.

As with any new technology, there were certainly questions about poly

performance when it first hit the scene, especially in terms of durability. But, now that nearly every spreader manufacturer offers a poly-built line, the message is getting out: poly is just as durable. Even with this message resonating from many equipment manufacturers, deep-seated beliefs are tough to overcome, and some still assume stainless steel options are the most durable.

While durability may be a gray area, there is no debate that poly spreaders offer the advantage of weighing less than steel spreaders. This benefit is made clear when looking at gross vehicle weight (GVW) recommendations for any given truck. For instance, if a poly spreader weighs 550 pounds compared with a similar capacity 1,200-pound steel unit, using a poly spreader would allow the user to carry 700 pounds of extra material before reaching the recommended GVW.

Again, consider the fuel cost savings. With today's gas prices, and weight being a primary factor in a vehicle's fuel consumption, reducing the weight a vehicle has to carry by just a couple hundred pounds can make a big difference. How much of a difference? According to the U.S. Department of Energy, for every 100 pounds of extra weight having to be carried by a vehicle, the miles per gallon are reduced by up to 2 percent (roughly 8 cents per gallon). Now, consider a weight savings of 700 pounds and it's easy to see why poly construction continues to gain in popularity.

Another consideration is that steel and stainless steel spreaders require moving parts, such as chains and belts, along with an engine to put it all in motion. On the other hand, some of the poly spreaders on the market are now fully electric powered. Therefore, there are no chains, pulleys or engines to maintain or repair. Furthermore, one less engine to fuel obviously results in reduced expenses.



Some tailgate-mounted spreaders are available with a swing-away accessory that allows the contractor to open a truck's tailgate without having to remove the spreader.



If one is typically servicing driveways, sidewalks and other smaller residential or commercial applications, a tailgate spreader would likely be the preferred equipment.

Go with the flow

For all the effort that can go into proper selection, the spreader can quickly become the wrong spreader if it is not used correctly. Proper selection is simply a matter of choosing a spreader with the capabilities to handle the material that needs to be distributed.

Poor material flow will result in a logjam at the back of a spreader. There are two ways this problem can develop. The first is just having the wrong

spreader for the material. Sand or any type of bulk material shouldn't be expected to flow well out of a gravity-fed unit. Moisture will cause the material to clump together, inhibiting the spreading process. Bag material has a better chance of getting through the gravity-fed unit without a problem, because it comes in a smaller size, it's a cleaner material and will likely be free of moisture right out of the bag.

Spreaders handling bulk material should be equipped with a system to keep the material moving, but some systems work better than others when dealing with material that tends to clump together. For instance, some conveyor belt systems experience clogging issues at the discharge shoot because they continuously pull material and potentially overload the area. Other systems feature a vibrator to break up the bulk and an auger system that pulls material. Of course, the importance of this choice depends on the materials typically being used for the majority of applications.

The importance of size

The size aspect of spreader selection not only comes into play when considering capacity, but also when taking into account how the spreader will be mounted on the vehicle. While a spreader is an essential part of a snow and ice management program, the user may want the ability to use the truck to carry bag material or additional equipment, depending on the application.

Some tailgate-mounted spreaders are available with a swing-away accessory that allows the truck's tailgate to open without having to remove the spreader. This gives the ability to load bagged material into the truck bed. Additionally, this configuration allows for easy loading and unloading of other equipment, such as a snow thrower or sidewalk sweeper.

Material storage capabilities are a consideration when looking at larger bulk spreaders. Some larger spreaders used on dump trucks and other large-duty vehicles still allow space to carry pallets of bagged material. For those who don't have a place to store bulk material, or perhaps don't have the number of jobs or workload to justify using bulk material, these spreaders give them the flexibility to have material on hand and ready to go, rather than having to make a trip to pick up a fresh load of bulk sand or salt. They also offer the possibility of carrying other equipment.

The largest bulk spreaders typically take up an entire truck bed and offer nothing in the way of additional storage space. They also require at least two people or a lift truck to remove. For large contractors or municipalities with a fleet of trucks, this may not be an issue, since they may have trucks dedicated to salting, sanding, etc. But, for smaller operations with trucks that may have multiple uses, particularly when transitioning between seasonal applications, any amount of flexibility is welcomed.

Stay in control

Speaking of flexibility, what about the ability to control how the material is spread? A heavy or light snow, or varying degrees of ice buildup, will proportionally dictate using a lighter or heavier volume of material, but not

all spreaders offer the same degree of control.

Although most spreaders have the ability to control the distance the material is being pitched, volume control is another matter. Because there is no way to speed up or slow down the flow of material through a gravity-fed unit, the only recourse for applying more material is to drive slower or double-pass the application area. By the same token, the only way to apply less material is to increase the rate of travel.

In spreaders with conveyor systems, the volume can be adjusted through a two-step process. First, the conveyor system must be sped up or slowed down. Secondly, a rate gate must be set higher or lower to control the volume of material going into the discharge shoot.

With auger-fed spreaders, the process is a bit simpler. These units typically allow the volume of material coming out of the spinner to be controlled by adjusting the speed that the auger pulls material.

Again, with any other variable, the right choice comes down to how much control the user needs for the application. For some, gravity-fed units offer enough to fit their needs. For others, these same units would limit productivity and efficiency.

In the end, if one considers each of the major equipment variables, tempered by the greatest overall need, the right spreader becomes a simple choice.

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