

New Mexico Dirtbags

We came up with this stand when we received our first large sandbag order (6,000 bags). Our prototype got thrown together in a couple of hours – and 5 years later, it's weathered & a little beat up, but it's still going strong.

Your stand has a few refinements over our first. It's about 36" high, constructed of 2x4 fir and held together with decking screws. We've rubbed it down with teak oil and used spar varnish to seal the end-grain, the footings, and the top of the box to give the wood some protection from rain and from wicking up moisture from wet ground. If you'll be working in an area where there's a lot of moisture & want your stand to last, you might want to paint or varnish it. Keeping it off the ground, indoors, or covered is of course a good idea.

We've adjusted the sizing of the box which snugly holds the traffic cone/funnel. We discovered that traffic cones come in a variety of sizes. If you ever find (for some reason) that you need a new cone, you can get the 28" replacement at Lowe's – that's what we include. Further, we tweaked the sizing so that the box will hold a standard 5-gallon bucket as well as a bucket sieve for screening your own plaster.

We also moved the two side braces further down to make it easier for one person to use the stand to fill bags. You place a piece of plywood or a couple of boards horizontally across the braces to serve as a shelf. The empty bag sits atop this shelf with the cone's spout about 2/3 in the bag. Your fill material fills up the lower 1/3 of the bag & the rest fills the cone; you then lift the cone up and the contents will drop into the bag. Depending on where you cut your cone, results may vary. If your bag falls over as you're filling it, you might need to raise the bag up a little more with a couple of extra boards on the shelf.

A good place to start re: cutting your cone's tip is about 9-10 inches from the tip. This gives you an initial opening of about 4 1/2" to 5". Cutting off more (wider opening) will give your funnel more flow, but obviously will make the cone shorter, which might – if you plan to use the stand solo - require you to elevate your shelf (see above).

The best formula for optimum speed & efficiency in filling bags is to have three people. One person stays busy shoveling fill material into several 5-gallon buckets with pre-measured lines inside. Another grabs a bucket & pours it into the cone/funnel. The third person holds the bag underneath until it fills & then pulls it out & hands it off to the bucket pourer (who sets the bag off to one side), then fits another empty bag to be filled. After awhile, everyone can break to tie bags or trade off jobs so they're not using the same muscles all day. Three people can crank out 100 or more bags per hour of dry or free-flowing material. It works just as well with two people, or one.

Calculating how many bags per hour when using wet fill – such as mud for earthbags – is harder, and depends on how goopy and/or sticky your mix is as well as the size of your cone's opening. If your fill is sticky (typical with high clay content), you can add a little more water to make it less viscous, and/or rig up a plunger – a hoe, a stick, a bathroom plunger, whatever – to stick down into the funnel & help force the fill down into the bag. You can also periodically wipe the inside of the cone with vegetable oil or spray it with WD-40 to keep things flowing.

If you'd prefer to use a shovel to fill the cone instead of a bucket, it'll help to figure out what works with your particular fill material and how full you want your bags to be (3, 3 1/2, 4 shovelfuls, whatever). Standardizing your bag fill makes everything easier – calculating how many bags you'll need, the actual building, and it spares you from having to stop filling & check to see if your bag is too full or not full enough.

One new option includes a kit to hold & unreel your barbed wire. We drill a couple of holes in the legs and include a length of conduit. By inserting the conduit in the holes, you have a spindle to hold your barbed wire rolls that lets you safely unreel long lengths without the barbed wire whiplashing. Throw a couple of filled bags on the opposite footing or cross-braces for weighting (or have someone hold the stand) so your stand won't tip over while you're unreeling the wire. (Please don't stand on it – it's lightweight conduit & will bend. If you want to use it for a step, replace it with a 19" long 1/2" piece of heavy steel pipe.) To prevent gouging of the stand's legs by the barbed wire as you're unreeling it, we add steel plates. We also attach clamps to hold your conduit spindle when not in use, and include steel retaining pins to lock your spindle so it doesn't slide out of the holes.

You can opt for a hammer holster and included a rubber mallet – helpful for encouraging slow-moving fill material in the cone by giving it a few good solid whacks. The holster bracket also holds your bolt cutters.

We (or you) can add several horizontal 2x4s to one side to use your stand as a stepladder, which can be handy as your walls go up (not compatible with barbed wire option). And the addition of wheels to one set of legs can convert your stand into a cart to haul your bags, tampers, and other tools & supplies to your building site.

We've put some thought into this bag filler's design. Let us know if you have any problems or suggestions on how to make it better. Feel free to experiment.