



## TECH TIP: STAKE PULLER

This tool has been in production and used in other parts of the world for more than 10 years. It has been finely tuned for high efficiency and will pull approximately 95% of all tent stakes in a given diameter.

### Important Point

Part of the intended efficiency of this product is that the strength to weight ratio has been calculated to make it a comfortable tool to drag around for all day use yet have reasonable strength for tent stake removal.

### Sizing the Puller

The stake puller is made in three sizes, one for 3/4" stakes, one for 1" stakes, and one for 1-1/4" stakes (extra small, small, and large).

### Pulling Efficiencies

The "C" shaped pulling head (mouth) is made of a special steel, tooled and grounded to a shape that allows the puller to grab the stake firmly. Over time, this may wear and need to be sharpened or cleaned with a grinding stone. After a long period of use, the head will need to be replaced in order to maintain the tool's efficiency.

### Proper Pulling Angle

This tool was designed to work in an upright manner. The pulling action will be in front of your body coming toward your chest or face using short strokes to "ratchet" the tent stakes straight out of the ground. The pulling head has also been designed to grip most double-headed stakes. When pulling double-heads, latch onto the stake between the head surfaces and use the first pulling stroke to lift the stake about six inches out of the ground. Then move the pulling head to the stake and, using short strokes, ratchet it out of the ground in a normal fashion.

### Important Cautions

- If you overload the tool by putting additional weight on the end of the lever or a longer prybar, you may potentially bend the main arm. When a stake becomes this difficult to pull, other mechanical devices such as a lift truck and/or wench should be used to remove the stake.
- Normal work precautions should be taken into consideration when operating any tent stake puller.
- Gloves are advised during operation.
- Eye protection should be provided when using the tool in the proper manner as described above.
- Do not use additional levers or excessive weight in prying the stake from the ground.
- Prevent back strain by using this tool in the proper manner described above.
- Always work with good footing because in all pulling operations, it is possible to slip off the stake and upset the operator.

### The Systematic Operation

The designers at Rainier Tent have been developing products for the tent industry for more than 30 years and have brought you many of the products in use today. The anchoring of tents and driving and pulling stakes must become systematic. It is important in any tent operation to select the proper size tent stakes to ensure the proper anchorage of the tents in your rental fleet and stick with those for all your tents in your rental fleet. The length and head configuration of the stake is much more important than changing the diameter slightly to improve holding power. The holding power difference between a 1" diameter stake and a 1-1/4" diameter stake is minimal. It is more important to become extremely proficient at driving and pulling the stakes rather than adding a few stakes when necessary to get the holding power needed for any tent operation. Under certain conditions when ground soil is extremely soft, screw anchors and/or duck bills may be required to get that desired holding capacity.



Extendable Handle



Replaceable Puller Jaw