



Patented Multi-Bar Tensioning System with Front Patent Pending Slider Adjustable Radius for pinning in place along the front horizontal Z-Bar with holes. The Rear Slider and Tension Bar are positioned just above the pavement and do not pin in place, They are held by tightening the T-Handle Nut and Bolt allowing it to move backwards or up should it contact an obstacle in the pavement (raised manhole, other monument or curb) so it does not break the PVC or bend a Slider or Z Bar.

Nonwoven Geotexiles have a high elongation and require significant stretching for a smooth installation. Your GAC machine is equipped with Mounque Barazone's **PATENTED MULTI-BAR TENSIONING SYSTEM (top pictures)** now with the **PATENT PENDING SLIDER AND RADIUS ADJUSTMENT for pinning the front Tension Bar in place.** Fiberglass Hybrid Mats, GeoGrids and Grid Composites have low or no elongation and high modulus and do not stretch. They wrinkle with any amount of impendence or resistance during an installation and require little or no tension during unrolling. Mounque Barazone developed an OPTIONAL PATENT PENDING MULTI-BAR ROLLER SYSTEM (bottom pictures) now with the **PATENT PENDING SLIDER AND RADIUS ADJUSTMENT for pinning the front roller in place.** It replaces the **PATENTED MULTI-BAR TENSION SYSTEM** used with high elongation paving fabric. **THE PATENTED ROTATING SPINDLE ROLL HOLDERS** are adjusted for maximum braking for paving fabric with the **PATENTED MULTI-BAR TENSION SYSTEM**. A minimal adjustment and little pressure on the disc brakes is required with very little tension, only enough to keep the roll from free wheeling for the high modulus materials of Grids, Gridfabric Composites and Hybrid Mats

The **PATENTED MULTI-BAR TENSIONING SYSTEM SLIDERS** attached to the **Patented Z-Bars** with the quarter round ends that the stretching pipe clamps onto are removed. They are replaced with the pictured **OPTIONAL PATENT PENDING MULTI-BAR ROLLER SYSTEM sliders with 8 neoprene bearings.** There are two sets of bars for both the front and back. The front have the new **PATENT PENDING RADIUS SLIDERS** for pinning to the front **Patented Z-Bar** at different holes for different angles to eliminate movement or lossening and dropping down. The back bar for either system does not have **THE PATENT PENDING RADIUS ON THE SLIDER.** That bar is positioned very low just above the pavement. **It is not fixed in place intentionally other than by the tightened T-Handle nut and Bolt.** If the operator hits an object that is raised in the road (manhole, other monument) or a curb it is best that the rear bar lossen and move backward. Then the bar can be repositioned. This avoids the PVC pipe or roller from breaking or any machine parts being damaged or bent if it hits something.

OPTIONAL PATENT PENDING MULTI-BAR ROLLER SYSTEM. The straight center slider has two bearings and is on one side of the center Patented Z-Bar tubing. The outer sliders mount to the outer Patented Z-Bars and are off set with one bearing. These bearings accommodate 2 inch (5.08 CM) schedule 40 PVC pipe that slides over them for a press fit. Placed over the 2 inch (5.08 CM) PVC pipe is a 2.5 inch (6.35 CM) PVC schedule 40 pipe. Use 1 set screw to secure the pipes together into one roller pipe, 2 inch (5.08 CM) inside and 2.5 inch (6.35 CM) outside. Additional set screws will cause more flexing of the pipes and elongate the holes. The set screw is solely to keep the Larger PVC Pipe from rotating on the Smaller inner PVC Pipe.

The outer off-set sliders with bearings line up with the end of the cones and brushes and are mounted to the outside of the outer 2 inch (5.08 CM) Z Bar tubing. The PVC Roller Pipes don't telescope. They must be the correct width of the material. If there are different size rolls then different sets of PVC Roller Pipes are required. If using a short roll centered then the center double bearing slider may be removed and only the two outer rollers used with one pipe. As material gets wider and flexing on the pipe is evident then the middle slider and 2 sets of pipes are necessary. The center roller can also be used with one outer off set roller when a short roll is off set to one side.

Telescope the machine out a few inches past the pipe. Place the inner 2 inch (5.08 CM) pipe over the middle bearings and then telescope the machine inward with the outer bearing press fitting into the pipe and locking the roller pipes in place on the inner and outer bearings.

The roller pipes are not identical widths for the machine set up. Thee middle slider with dual bearings is attached to one side of the center Z Bar 2" (5.08 CM) tubing. That roller pipe will be 2 3/8 inches (6.0325 CM) shorter and the other side roller pipe will be 2 3/8" inches (6.35 CM) longer. For 10 feet (3.048 M) one side will be 4 feet 9 5/8" (1.4637 M) and the other side will be 5 feet 2 3/8 inches (1.5843 M).

In 2020 we added the new patent pending multi-hole radius to the front sliders for both systems. These pin to the Z bars with holes for the Roller System Sliders and the Sliders for the Patented Multi-Bar Tensioning System. Fabric installations for over 40 years found the Bolt and T-Handle with spring washers were sufficient to hold them in place with no movement unless the back bar close to the ground struck an object or a curb. The movement backward is preferential. With the advent of stiffer and heavier Hybrid Mats, Grids and Gridfabric Composites the weight and force exceeded the bolt and T handle nuts capacity to hold the front bars in position. Movement developed and the PVC tensioning bar and roller bar could move out of position and misalign and drop down during installation. The addition of the new radius and pin in place has eliminated this problem. The front bars may be pinned in place from straight to various upward angles up to 45 degrees with full or partial extension of the slider. The bars are set just below the bottom of the fabric diameter. The more diameter the further back the slider and lower the bar, but the angle stays the same. Laborers can insert the roll onto the machines Patented Rotating Spindle Roll Holders Patent Pending 2 Step 2.25 inch to 5.25 inch Cones without lifting the roll above and then below the bar.



The sliders for both the **PATENTED MULTI-BAR TENSION SYSTEM AND PATENT PENDING ROLLER SYSTEM;** for both front and back bars and rollers; can be adjusted along the **PATENTED Z-BARS** with **the T-Handle Nuts and Bolts** for different positions and heights from fully extended to partially extended at 3/4, 2/3, 1/2, 1/3, 1/4 and various different front and rear angles upward, straight, forward and back.

Patented Pending Multi-Bar Roller System with Front Patent Pending Slider Adjustable Radius for pinning in place along the front horizontal Z-Bar with holes. The Rear Slider and Roller Bar are positioned just above the pavement and do not pin in place, They are held by tightening the T-Handle Nut and Bolt allowing it to move backwards or up should it contact an obstacle in the pavement (raised manhole, other monument or curb) so it does not break the PVC or bend a Slider or Z Bar.







Patented Multi-Bar Tension System for PVC Bars Front Slider with Patent Pending Radius Adjustment and Back Slider without Radius



Experimental 2 Short Roll Installation System with Older Roller System