

Stiffening System

The Stiffening System

Any long post Steadicam sled, whether single or multi-section, suffers from increased flexing. The longer a post, the more it flexes — unfortunately by the cube law. Doubling the post length makes the rig eight times more flexible!

The carbon fiber telescoping post is very stiff, but it will need extra rigidity under certain situations. The heavier the camera or the more violent the moves, the more help is required.

The stiffening system consists of attachment points on the monitor, the battery mount, the bottom of the sled, and just underneath the tilt head; and a length of lightweight Vectran™ line.



Vectran is a polymer cable that is as strong as steel, but it has one-fifth the weight and is much more flexible.

The Vectran line is laced from one side of the battery mount down around a pin at the base of the sled, up around the spreader on the monitor, further up to a hook just under the tilting head, and down the other side, around the pin at the bottom of the sled, and back up to the battery where the line is tensioned and secured under a special washer.



The Vectran line is given its final tension by extending the telescoping posts slightly, pulling out the monitor rods as shown, and/or by tilting the sled horizontal with the monitor down and retightening the line.



The stiffening system is very useful with normal length sleds when the shot has violent moves or high stresses, such as during a vehicle shot on rough roads.

