Broomfield offers various standard designs of Constant Tension Dereelers for round or rectangular conductors or can offer custom designed models tailored to specific materials and applications.

These designs, a few of which are shown to the right, can accommodate many different sizes and styles of supply spools and the tensioning upon the conductor may be set and will remain constant, independent of the diameter of the conductor layer on the supply spool.

Due to the design, there is a “dancer” feature that allows for fluctuation in the linear speed of the conductor caused by the winding form shape or winder acceleration/deceleration without affecting the tension upon it. A dancer also may allow for faster winding with better placement control, especially when winding upon rectangular forms. This is usually accomplished with a sliding carriage that provides the conductor tension and also provides electrical feedback back to the dereeler that holds the supply spool, which will power the spool to either pay off or take up the conductor according to the pull of the winder.

In applications where the conductor may be taken back up onto the supply spool for many turns, we provide a system to move the supply spool back and forth so that the conductor is more evenly dispersed between spool flanges as it is wound back on the supply spool. For heavier tension ranges, the tension is provided by air pressure. For lighter tension ranges, a mechanical weight assembly may provide the tension. Tensions are available from 1Kg (2.2 lbs) up to application requirement.

Options:
- Electronic tension sensing and digital readout.
- Electronic linear wire-length counter and digital readout.
- Special pulleys for handling materials such as kevlar, fibers, wider conductors, tapes and others.