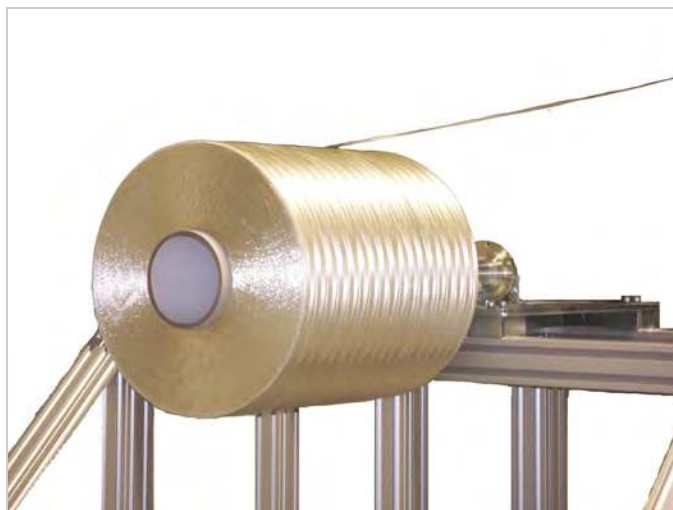


# PC Series Precursor Tensioning Creel System

## Features

- Unwinding type electrical tension control
- Tension control systems include
  - feedback load cell control
  - ultrasonic diameter measurement
  - manual torque adjustment
- Tension set by main control panel, can be changed simultaneously for all positions or in zones depending on requirement
- Minimal contact with the fiber = minimal damage to the fiber
- Custom designed frame structures and fiber routing to accommodate customer requirements



## Applications and Fiber Types

- For carbon fiber production plants and pilot line facilities for carbon fiber
- PAN precursor 3K up to 80K

## Specifications

|                          |  |
|--------------------------|--|
| Tension control types    | Model PC-CTF: feedback tension control with load cell<br>Model PC-CTD: diameter detection tension control with ultrasonic sensor<br>Model PC-CTV: manual or PLC controlled tension with torque adjust controller |
| Tension Range            | Determined upon each application.  |
| Speed Range              | max 20 (m/min)   |
| Compatible Package Sizes | Max 736.6mm (29" ) traverse<br>Max 800 mm (31.5" ) outer diameter<br>Max 350kg packages<br>Other sizes available upon request  |
| Compatible Package Cores | ID: 133, 140, 144mm cores<br>Core sleeve adapters available for requirements to run multiple type cores  |
| Creel Framework          | Frame configuration examples shown on next page.<br>Standard and custom configurations available   |
| Fiber guiding            | Pin combs, eyelet guides, and yarn guide rollers   |
| Optional equipment       | Below equipment available also.<br>Manual package loading systems<br>Provisions for box precursor<br>Automated loading systems<br>Core adapters<br>Data acquisition systems                                      |

Please contact Izumi International, Inc. for special requirements

## Component Details

PC-CTF Series Creel



Picture above shows tension load cell for PC-CTF type creel.

- Large roller, shallow angle to prevent fiber damage
- Feed-back control provides high accuracy tension
- Prevents loose tension and overfeed caused by packages with poor weight distribution

PC-CTD Series Creel



Picture above shows ultrasonic sensor for PC-CTD type creel.

- Ultrasonic sensor enables automatic torque adjustment depending on diameter measurement
- No contact to prevent fiber damage.
- Sensor can be provided for limited positions or all positions, depending on customer requirements.

CTS Setting Unit

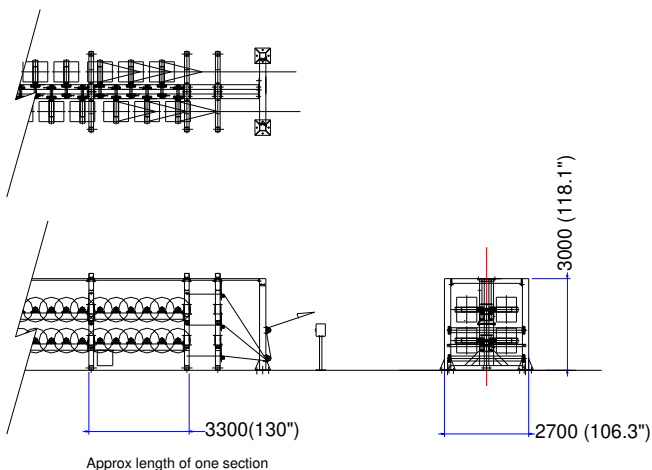


Picture above shows basic tension setting interface for all PC series creels.

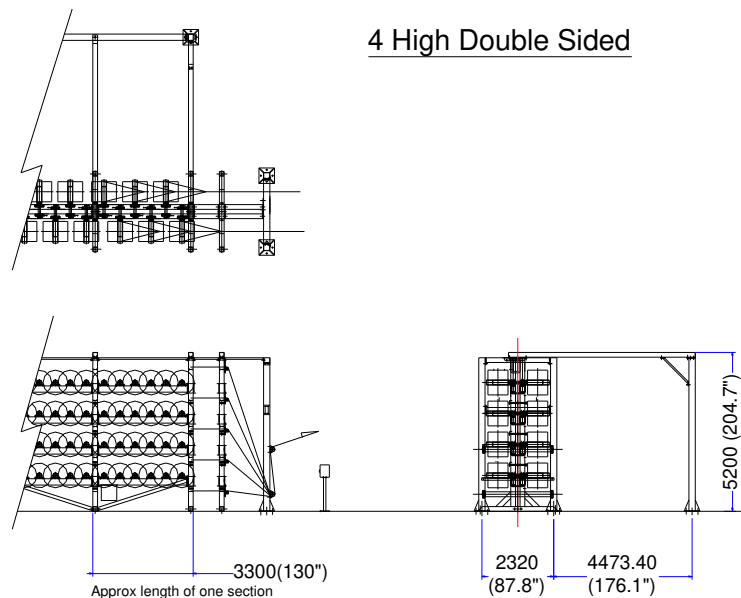
- Simple digital interface for easy tension control
- Basic initial parameters input via CTS unit.
- Other HMI interface available upon request as well as interfacing with customer control system.

## Layout Drawing

2 High Double Sided



4 High Double Sided



Above drawing shows approximate dimensions for 2-high and 4-high PC series creel with dia 800mm package.

Other configurations are possible, please consult Izumi International for special requirements.

**UNITS: mm (inch)**