Creel Accessories Specification

Cygnet Texkimp supplies a number of custom accessories to assist with the operation of our systems. These items are generally offered as optional extras to a creel system. They are also commonly supplied as aftermarket spare and replacement parts.

Our most popular creel accessories are detailed below:

<table>
<thead>
<tr>
<th>Yarn/Tow Preparation - Arrangement and alignment of yarn/tow from creel prior to reaching downstream processes</th>
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<tr>
<td><strong>Condenser Boards:</strong></td>
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<tr>
<td>Fixed position or adjustable position</td>
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<tr>
<td>Ceramic guide eyelets, other eyelet materials to suit process</td>
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<tr>
<td>Eyelet size range 1mm to 25mm common sizes for 3k to 50k tow.</td>
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<tr>
<td>Large eyelet sizes available.</td>
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<tr>
<td>Design of condenser board customized to match creel layout and physical space requirements of facility.</td>
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<tr>
<td>Ideal choice to arranging tow bands from multiple levels.</td>
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| **Comb systems:**                                           |
| Fixed position or adjustable position                      |
| Polished stainless steel or ceramic coated comb pins        |
| Pin size range 3mm to 15mm, customisable to suit application.|
| Adjustable pin pitch and comb position through pin removal or adjustable through actuation of lattice frame mounting.|
| Comb design to match creel layout of downstream processes and physical space requirements of facility.|
| Ideal choice for assembling tow bands into a single level.  |

| **Splicer - Air actuated tool for splicing two or more tow ends (running and reserve positions) to enable continuous feeding of fibre from the creel during a package changeover.** |

The Cygnet Texkimp Splicer, which has been developed for making splices in yarns ranging from low count to very heavy count — typically carbon fibre tows from 3k to 80k (3,000 to 80,000 filaments) and glass fiber rovings of up to 4800 tex. The splicer has been built with an emphasis on durability and reliability, resulting in a simple, small, light and tough piece of equipment, capable of splicing ends & opposed joints in rovings. The splicer is machined from a solid block of alloy, its yarn guide plates are much stronger than required for their function as guides and the thick stainless steel plates give the splicer a strong box-like structure.
### Features:
Simple straight-line string-up. Easy operator use.  
Simple construction leads to simple maintenance.  
Splicer in its basic form can be completely dismantled and reassembled in about ten minutes.  
Sturdy construction resists damage in service.  
Patented splicer technology requires a smaller range of splicing chambers.  
Minimal problems in operation.  
Splices of any length can be made, according to customer needs; very long, low air pressure intermingled splices are frequently of value when joining yarns such as glass and carbon fibers which cannot withstand sharp bending.

### Splice Oven

Splice ovens are used to thermally pre-treat splices prior to downstream processing. Thermal pre-treatment is of particular importance when splicing heavy tow count precursors, such as PAN prior to entering the oxidation oven when producing carbon fibre.  
A splice that has not been thermally pre-treated can be susceptible to ignition when entering the oxidation oven due to the non-uniform mass load in the area of the splice.

The Cygnet Texkimp Splice Oven has the following features:  
Stand-alone unit housed on a static frame.  
Multiple heating zones able to accept a cartridge frame unit that holds the splice(s).  
Cartridge frame unit able to clamp and pre tension tow during pre-treatment.  
Able to accept a variety of tow sizes (large or small).  
Portable

### Splice Tables

Typically supplied as portable tables for use with multiple position creel lines where splicing and/or splice pre-treatment is required for continuous operation.

### End Break Detector – Beam Type

The beam type end break detection system is a completely non-contact system used to detect end breaks across a sheet of running ends. The system can be placed at various points in the process – multiple beams can be inter-connected and placed in close proximity to one another. Beam type end break detectors are commonly used in applications including Beaming, Warping, Warp Knitting, Carpet Tufting.

**Features:**
- Beam Width of Up to 5.5m (215")  
- Minimum beam spacing of 10mm.  
- Latest electronic and infrared beam technology.  
- Specifically designed for textile applications.  
- Completely non contacting.  
- Very sensitive, will detect a human hair.  
- Sensitivity adjustable to prevent false trips.  
- Compact device.  
- Possible to connect multiple banks to one control box.
End Break Detector – Dropper Type

The dropper type end break detection system is an electro-mechanical system used to detect end breaks across a sheet of running ends. The system can be placed at various points in the process and multiple banks can be inter-connected. When an end break occurs the dropper arm falls and interrupts an infra-red beam triggering a signal to either stop the process or indicate to the operator that a break has occurred. This system has been specifically designed to operate in demanding textile and industrial fibre operations such as polytape beaming.

Features:
- Typical spacing between droppers: 10mm, 14mm.
- Potted surface mount PCB and infra-red beam technology
- Bright LED indicators
- Optimum dust protection.
- Low maintenance and easy to clean.
- Carbon fibre reinforced droppers.
- Will work without additional control circuitry.
- Discriminator circuitry to identify which bank triggered the stop (control box required).
- Anti-bounce timer preventing false stops (control box required).
- Closed eyelet or quick thread guides.
- Input and exit guides or bars.
- Supporting framework and interconnecting wiring harness.
- Available with 24v power supply
- Available with volt free contact – for connection into process machinery stop circuitry.

Specification can be varied to suit any requirement