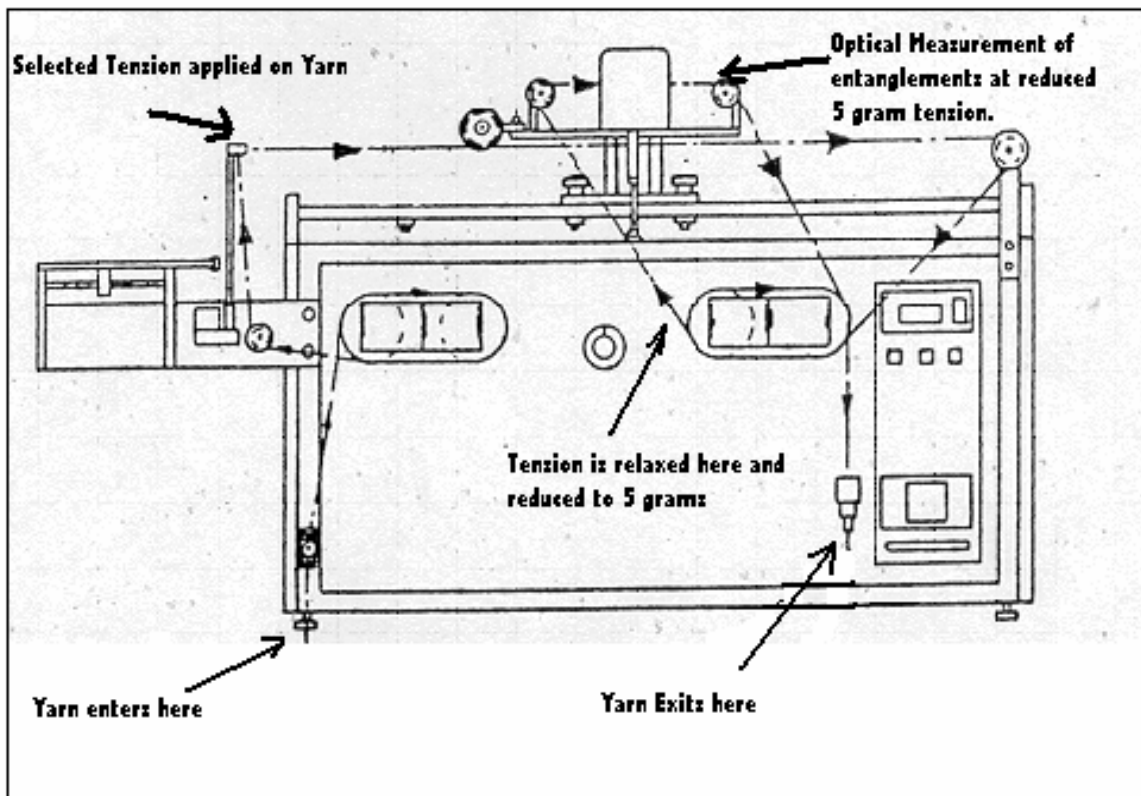


CTT-YPT INTEGRITY TEST DESCRIPTION

The CTT-YPT entanglement tester offers two different integrity test configurations as explained below:



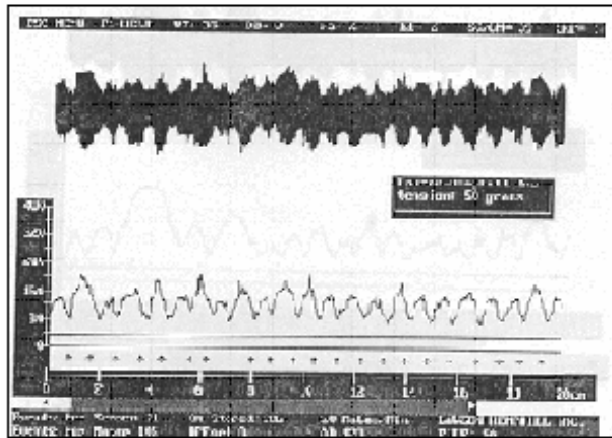
Integrity Test

The above configuration is the standard integrity test of the CTT-YPT. In this setup, the tension is first set by the operator (any tension can be set up to 700 grams). When the yarn runs through the system, the tension is first applied and then relaxed to 5 grams where the optical camera measures the entanglements.

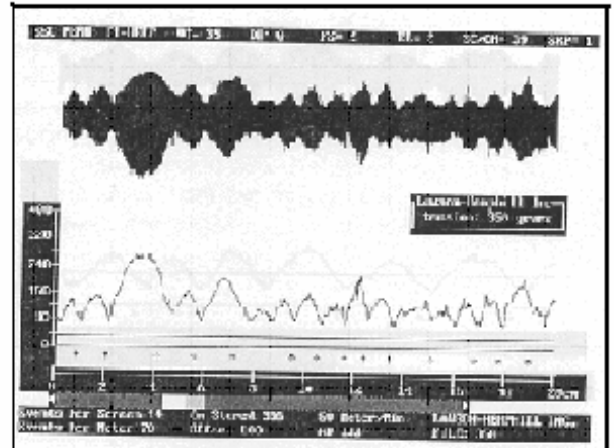
This is a true integrity test because it is a **direct application of the tension on the yarn.**

Below is an example of integrity test printouts.

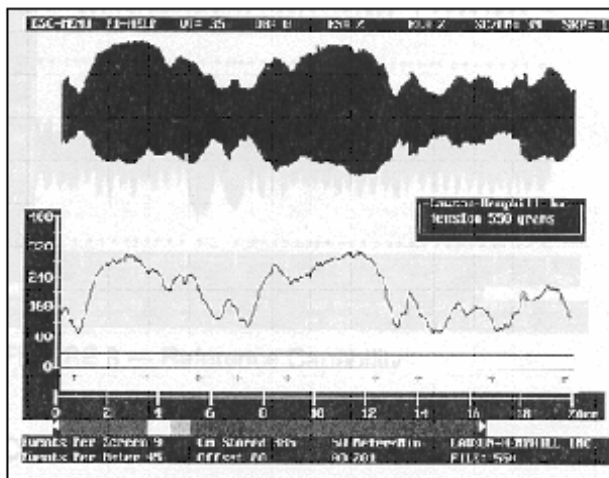
Test 1 is a test performed at 50 grams. Test 2 is a test performed at 350 grams.



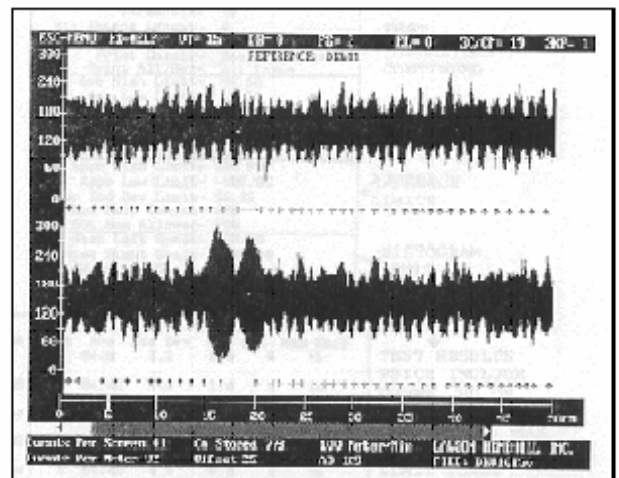
Test 1 - 50 gram tension applied



Test 2 - 350 gram tension applied



Test 3 - 550 Gram Tension Applied



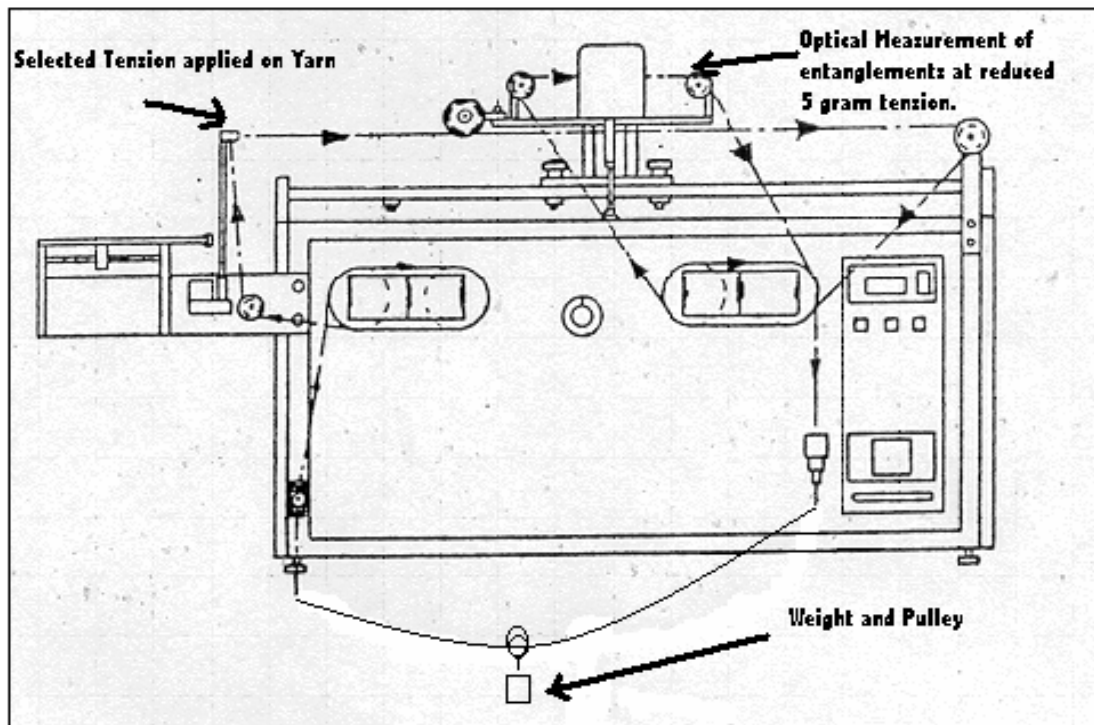
Test 4 - Reference Comparison 2 tests

Test 3 is a test where 550 grams of tension was applied. The 3 tests were all performed on the same yarn. Test 4 represents the reference mode where any two tests can be made on the same printout. The production test mode can be

used to generate statistical test printouts. The EIB test mode can also be run in this test configuration.

Finally, another configuration may be used for two purposes.

Weaving Simulation Testing allows the yarn to repeatedly exposed to the same stress and then relaxed. This is performed in the setup shown below:



Weaving Simulation

In this setup the yarn is repeatedly cycled through the tensioning zone and then relaxed. Tests can be made continuously with the profiler.

Also, in this setup, samples can be pulled directly from a fabric and tied together with the loop yarn and then tested. This allows for any yarn from a fabric to be tested on the CTT for entanglement investigation. This is an excellent tool to investigate any problems occurring with the entangled yarn in the fabric.

In summary, the CTT-YPT provides the most complete integrity tester by providing a direct method of simulating tension forces on a yarn.