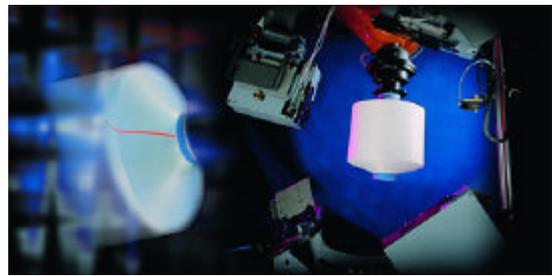**LIS 200**
Laser Inspection System
by Lenzing Instruments

Is there an alternative to random human visual inspection which is cost intensive and strongly influenced by human factors? Yes, there is!

LIS 200 is a fully-automatic online inspection of yarn bobbins of any materials. Aside from testing basic standard features like geometry of a bobbin, **LIS 200** checks overthrown ends (cross stitches), stains, broken filaments, bulges and ridges, waste buch etc. These features make the **LIS 200** most sophisticated and unique in the market.

The advanced laser technology enables to detect even the slightest defects on bobbins, which virtually are invisible to the human eye.
Results are of constant quality and accuracy, even for shiny materials like POY, which usually require to exchange control personnel at least every two hours in order to assure reliable production control.

LIS 200 combines the advantages of enhanced quality assurance and significant labour savings for producers with a commitment to high quality.

The **LIS 200** is designed to be integrated into any type of automatic transport system. The "no-touch" bobbin handling makes sure that the material will not be affected by the test at all. This powerful concept allows to implement 100% production control.

How to design the LIS 200 for your plant ?

- **Which bobbin inspection parameter do you whish to test?**
- **By which transport system the bobbins are transported?**

LIS 200
Laser Inspection System

Bobbin data:

Taper angle:
0° - 45°

Winding diameter:
150 - 250 mm

Maximum paper tube length:
290 mm

Note:
Maximum bobbin geometry deviation of every edge of ±25 mm refering to the absolute zero point = upper edge of paper tube.

Diameter accuracy:
±2 mm

Taper angle accuracy:
±1°

Density:
calculated from weight and volume (weight is made available by customer)

Winding length accuracy:
±2 mm

Winding position accuracy:
±2 mm

Waste Bunch and Transfer Tail:
is tested for existance

Taper imperfections:
Bulges and Ridges with 2 mm and more in size

Broken filaments:
Number of broken filaments, vertically sticking out more than 2 mm.

Overthrown ends (Cross stitches):
Number of overthrown ends with a length longer than 20 mm (shorter on request).

Dirty spots:
Spots with a diameter of 2 mm and more, also grease and oil spots

Paper tube damages:
Checking for clean edges (pass/fail)

Applications:
For any material (PES, PA, PP, AS) and any kind of yarn (POY, DTY, FDY, Elastan, Spunyarn) also shining materials and bulged suitakes

Other specifications possible on request

Measuring Cycle Time:
typically 7 sec. depending on requested resolution of evaluation and the handling concept.
Integration:
Robotic handling and related Robot-specifications will be tailored up to customer's needs and requests.
Interface:
The data concentrator can communicate with the host by means of three different media (10Base2, 10BaseT or Ethernet cable). A TCP/IP protocol is used on which Windows Sockets are put on.

The **LIS 200** is based on technology developed by **barmag®** Germany.