

# Lump and Neck-Down Detection

for **Wire, Cable, Pipe and Tube**



## › Images of Lump and Neck-Down Defects

The Lump and Neck-Down Inspector is the only tool that can provide images of your lumps and neck-downs on: cable jacket, pipe or tube. This is critical in assessing whether a measured diameter variation is in fact a defect and whether action must be taken. Your technical staff won't have to rewind miles of product to try to locate a defect. They can use Taymer's image viewing software to analyze and diagnose any detected defects.

## › Accurate, Multi Axis Diameter Measurement

The Lump and Neck-Down Inspector also provides you with very accurate, Multi-Axis diameter measurements. This diameter information can be integrated with other machinery in your line for complete automation of your line processes. The Lump and Neck-Down Inspector's display also makes it easy for engineering and production supervisors to examine the outer surface of your product as it is being extruded.

## › Quality Assurance

The Lump and Neck-Down Inspector will capture images of your cable defects, save them to disk so you can print them out to include in your quality reporting both internally and to your customers. Defect locations are recorded together with the image of the defect allowing your operators to find and eliminate lumps and neck downs before they reach your customers or fail in the field.

With Taymer's Lump and Neck-Down Inspector, you can be sure the product going to your customers meets your high standards.

## FEATURES

- › Detects, bulges, neck-downs, lumps, on cable jacket, metal tube, bare wires, etc.
- › Supports line speeds up to 1 000 meters per minute (3,200 feet/minute)
- › 2, 3 or 4 camera configuration depending on coverage required and minimum defect requirement
- › System analyzes diameter for the full product length
- › Diameter variations of 0.05 mm (0.002") can be detected
- › Saves length information for each defect to allow operators to easily locate the defects after detection
- › Alerts operator and production machinery if any defects are found



## SPECIFICATIONS

### > Maximum Line Speed:

1000 m/min | 3,200 ft/min  
Higher speed may be available depending on application

### > Detectable Diameter Variation (+/-):

0.05 mm; 0.5 mm; 2 mm  
0.002"; 0.020"; 0.079"  
Exact dimension depends on application and camera configuration

### > Defect length along the cable:

Under 1000 meters per minute, minimum defect length that can be detected is 0.1 mm

### > Cable Diameter Range:

0.5 - 5 mm; 5 - 50 mm; 50 mm and up  
0.02 - 0.20"; 0.20 - 2.0"; 2.0" and up

### > Pixels/mm<sup>2</sup>:

~10 for large diameter cable jackets  
~30 for small diameter cable jackets  
~100 for metal pipe, bar and plate

### > Types of Defects Detected:

Neck downs, bulges, holes, lumps

### > Dimensions: Custom stands can be built

Without stand:  
750 mm x 250 mm x 250 mm - L x W x H  
30" x 10" x 10" - L x W x H

### > Location:

Before or after printer and water trough

### > Image Processing:

All images from all cameras are read, enhanced and analyzed, resulting in 100% product coverage along product length at the maximum line speed

### > Weight: 45 kg | 100 lbs.

### > Lighting: LED or Halogen

### > Percent Overlap Between Images:

5% (depends on camera configuration)

### > Power Supply: 110V or 230V, 50/60Hz

### > Camera Configuration:

2, 3, or 4 cameras based on cable OD range

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