

Control Wall Thickness and Material Usage in Real-Time

UltraGauge solutions provide real-time measurement of wall thickness and concentricity during production, enabling immediate process control and material optimization.

Where UltraGauge Is Used

- Medical tubing wall thickness control
- Wire and cable insulation measurement
- Multi-layer extrusion monitoring
- Concentricity control in critical applications

Why Conventional Approaches Fall Short

- Destructive testing: slow, wasteful, not continuous
- Sample-based inspection: misses variation during production
- External measurement: does not reveal internal structure
- Manual checks: inconsistent and delayed

Real-Time Control on the Extrusion Line

- Monitor wall thickness, OD, and concentricity during production
- Use SPC to track variation and detect drift immediately
- Enable closed-loop feedback to adjust line speed and process conditions
- Reduce startup time and stabilize production faster

Internal variation cannot be seen with external measurement.

- Without real-time feedback, extrusion relies on manual adjustment and delayed inspection, leading to scrap, instability, and long startups

Wall thickness and concentricity variation result in:

- Material overuse
- Product failures
- Inconsistent quality

Why UltraGauge Solutions

- Real-time measurement of wall thickness, OD, and concentricity
- Non-destructive, in-process inspection
- Continuous monitoring across production
- Immediate feedback for process adjustment



AutoPilot



UltraGauge

UltraGauge ultrasonics enable real-time control of internal dimensions, **reducing material waste, improving quality, and stabilizing production.**

See What External Measurement Cannot

With UltraGauge Ultrasonics

Medical Tubing

- Maintain precise wall thickness
- Ensure product safety and compliance
- Reduce rejects and rework

Wire & Cable

- Control insulation thickness
- Reduce excess material usage
- Maintain consistent performance

Multi-Layer

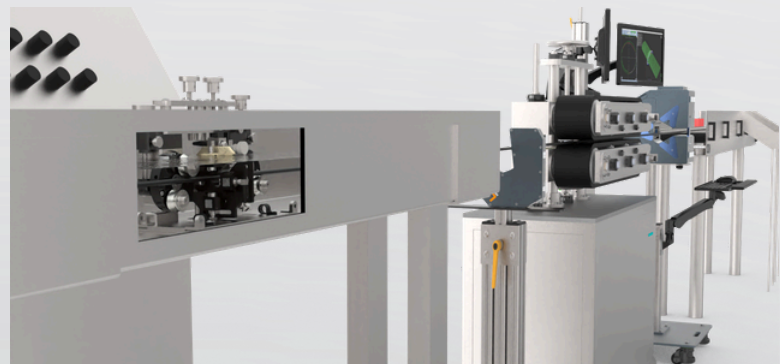
- Monitor internal layer consistency
- Detect variation between layers
- Maintain product integrity

Extrusion Process Control

- Detect process drift in real time
- Reduce startup time and scrap
- Improve overall production yield

Why UltraGauge vs Conventional Methods

- Real-time measurement vs destructive testing
- Continuous monitoring vs sample-based inspection
- Internal measurement vs external-only tools
- Immediate process adjustment vs delayed correction



Results

- Improves dimensional control
- Reduces scrap from out-of-spec product
- Stabilizes production processes
- Enables immediate corrective action
- Reduces startup time and improves yield



Powered by Total Vu HMI

Real-time visualization, SPC monitoring, and process control in one system. Identify variation instantly, track trends, and make immediate process adjustments.