The world's true measure of color

HunterLab

SpectraTrend® HT
in-process plastic solutions

measure
color
the way your
eye sees it

SpectraTrend HT

A dynamic approach to Color Process Monitoring and Analysis

SpectraTrend® HT takes non-contact Color and Height measurement to their highest levels, combining versatility, simplicity and performance in one easy-to-use compact design. SpectraTrend® HT supports implementation of today's Total Quality Management programs such as LQM, PAT, Six Sigma, DMAIC, and others that share a common goal of producing consistent product quality and reducing waste.

Implementation of color control in plastic extrusion process of product.
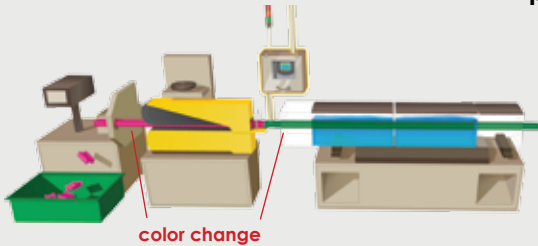
color change

Reduce color changeover time
- Improved efficiencies and reduced scrap

Problem: The typical QC method for identifying when a new color is in specification is for the operator to wait a predetermined amount of time before initiating QC inspections. In most cases, this takes much longer than what is actually required, resulting in excessive and unnecessary scrap and reduced plant efficiency.

Problem Solved: The SpectraTrend HT solves the problem of identifying precisely when the last 'good' piece of old color has run through, and when the first 'good' piece of the new color has come in, shortening color changeover times by 50% or more, and reducing scrap in equal proportion.
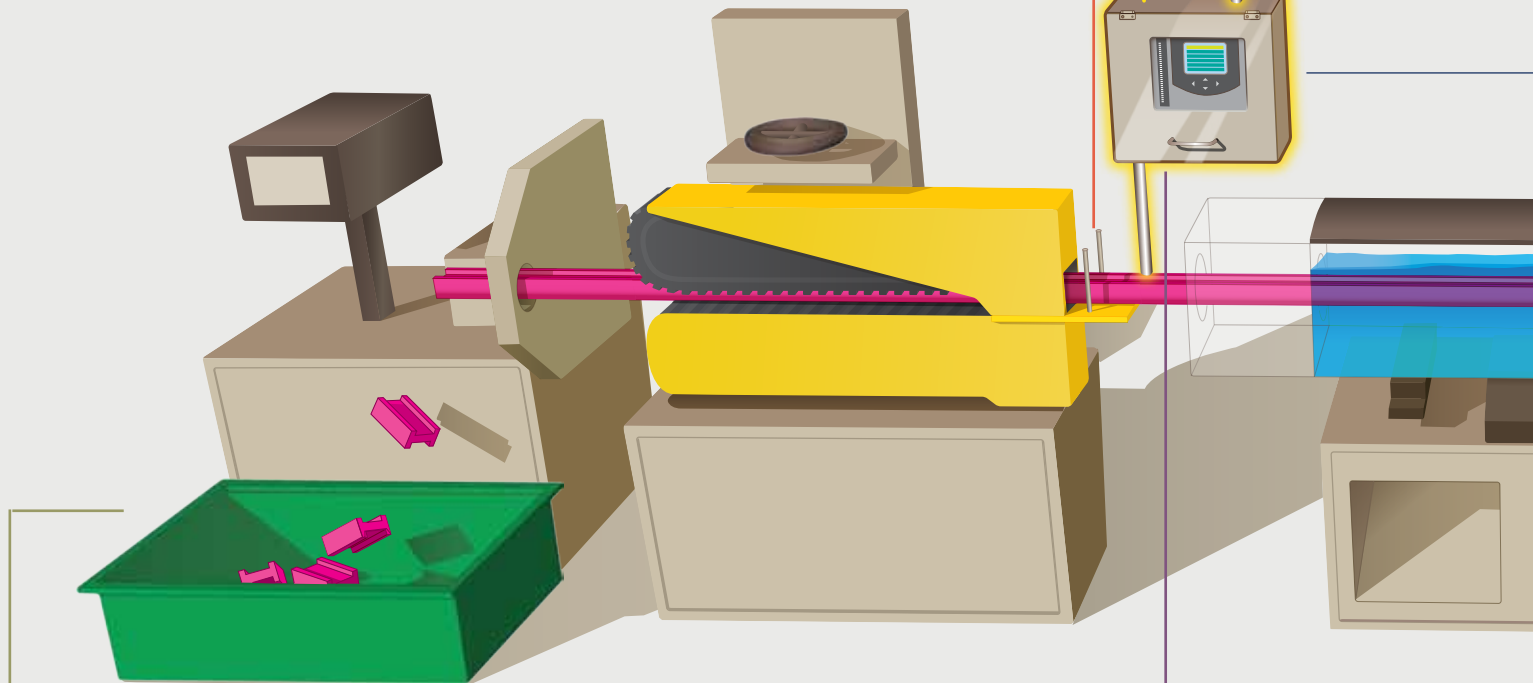
Ensure Product Quality
- Defective product containment = reduced CoQ (Costs of Quality)

Problem: Color drift is a normal part of plastic extrusion, the result of many process variables. When this happens between time-interval based static QC inspections, the resulting defective product goes unnoticed and ends up in a customer's hands.

Problem Solved: Real-time color measurements taken within the process stream can identify defective product, enabling automatic downstream containment and ensuring the defective product does not leave the factory.
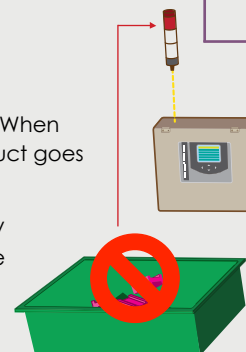
Plastic Extrusion Applications

Vinyl Siding
Cable channels
Window Profile
Custom Profile
Hose/Tube
Pipe

**SHEET PLASTIC**

Sheet
Film (opaque)

PELLETS

Masterbatch
Recycled plastic

Reduce Scrap and Rework

- Identify color change in real-time, take corrective action before a 'fail' condition

Problem: Time-interval based QC methods do not identify color variation that happens between QC inspections. These changes come from bulk-density changes, screw build-up that suddenly releases, screw wear and other normal manufacturing process variables.
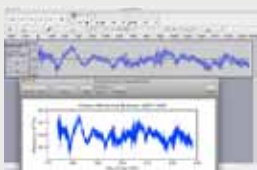
Problem Solved: Color stability and color change-outs can be more tightly monitored and adjusted through the real-time continuous data provided by the SpectraTrend HT.
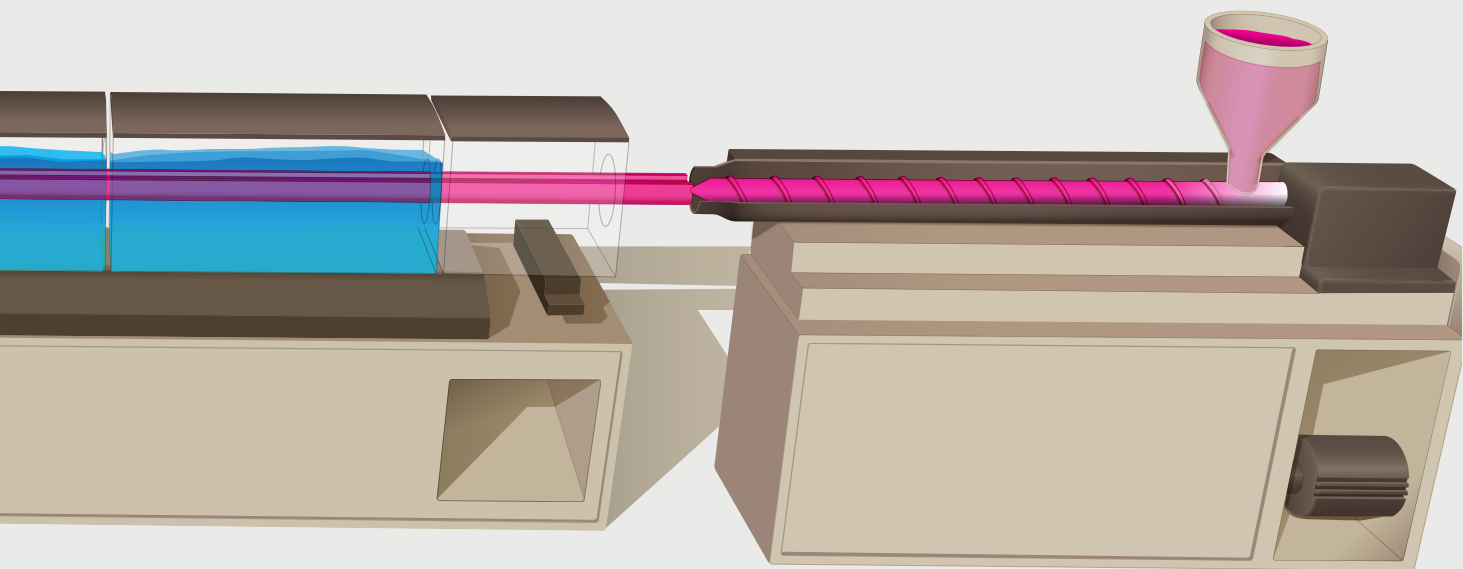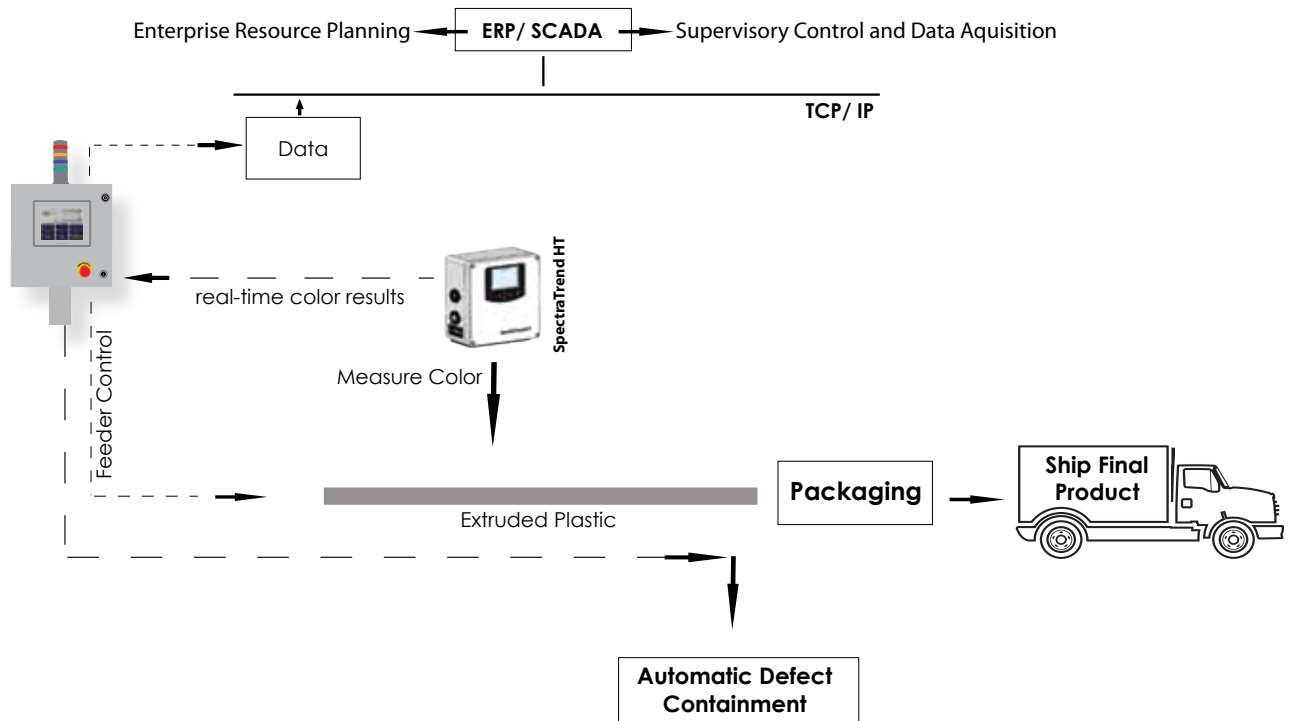
Enhanced GMPs (Good Manufacturing Practices)

Problem: Variations between operators shift to shift combined with inadequate data collection and process information make it challenging to plan events and to manufacture to a plan.

Problem Solved: Continuous Process Improvement is provided through real time data collection, analysis of which allows better understanding of the impact of process variables on color management and control, resulting in improved overall plant efficiencies.

In-process color measurement and analysis

Enterprise Resource Planning → **ERP/ SCADA** → Supervisory Control and Data Aquisition

TCP/ IP

Data

real-time color results

SpectraTrend HT

Measure Color

Feeder Control

Extruded Plastic | **Packaging** → **Ship Final Product**

Automatic Defect Containment

PRODUCT FEATURES

Versatility, Speed, Durability

- The only color spectrophotometer to provide two critical sensors, Color and Height, in one compact and easy-to-use design
- The only color spectrophotometer to combine high speed color measurement with an integrated sample detector for accurate color and height measurements of individual piece-parts
- The only non-contact color spectrophotometer with 'Rapidfire' illumination, measuring as many as five times per second, to provide consistent and accurate color and height measurements in high speed applications and on structured and non-homogeneous samples
- The only color spectrophotometer that uses precise laser measurement and a unique algorithm to compensate for sample height variation and sample texture, improving overall consistency and accuracy of color measurement data
- Large, easy-to-read, easy-to-operate integrated display
- Positive Forced Air Environmental Enclosure available

For more information go to **www.hunterlab.com**
or contact your local HunterLab representative.