

# Extrusion Line Laser Solutions

## On-the-Fly Laser Marking Systems for Extrusion

Extrusion is a high-volume manufacturing process, during which raw materials are melted and formed into continuous profiles. It produces items like PVC pipes, heat shrink and other tubing. Many of these products require high-speed, accurate part marking, cutting and drilling—making on-the-fly (OTF) laser technology a perfect fit.

Our extrusion line laser systems account for variations in line speeds, and can incorporate vision systems to validate part placement and process quality. Our closed loop feedback OTF technology ensures accuracy and quality over continuous operation.

Contact us today to learn how CMS Laser can develop a system for your extrusion line production.

### SYSTEM FEATURES

- CDRH Class 1 laser system
- All laser wavelengths available—laser dependent on applications lab testing results
- Configured for on-the-fly processing
- Welded steel frame with painted aluminum paneling
- Optional machine vision system
- CMS Laser software HMI
- Windows® operating system



Overall system size and design depends on desired process and material size

WATCH VIDEO



Note: All applications listed depends on a particular wavelength and optical configuration. Not all applications listed, contact us for more details.

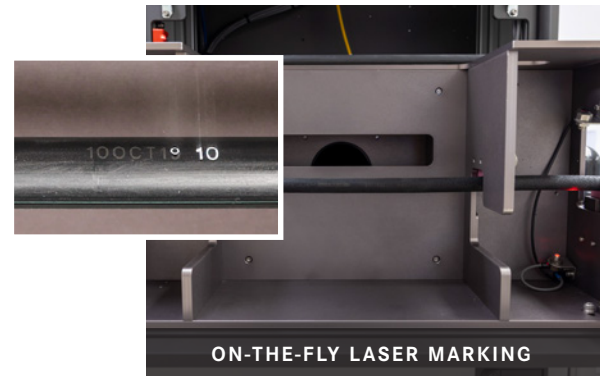
## Laser Processing Advantages

- Non-contact process
- Low maintenance
- No consumables and additives
- Permanent and high-contrast markings on most plastics and metals
- Create slits or drill holes in thin plastic tubing
- High-speed, constant processing
- Reliable design for continuous 24/7 operation
- Computer-controlled process
- System size and design may vary based on materials being processed



## Laser Marking Pipes & Heat Shrink Tubing

On-the-fly marking on pipes made of metal and plastic materials. The laser system can mark user control information, manufacturer identification, safety warnings, quality control, product tracking, serialization and dates—graphics, logos, text, barcodes and data matrices. A vision system can be integrated for verifying a barcode.



ON-THE-FLY LASER MARKING

## Laser Slitting/Cutting Plastic Tubing

Our systems can be configured to create slits or cuts along low-density plastic tubing with specific dimensions and distances. A vision system can be integrated for process alignment monitoring.



ON-THE-FLY SLITTING/CUTTING

## Systems Built for You

Our systems are carefully designed, planned, and executed to meet client requirements. Our laser-focused engineering team starts with one of our standard proven solutions and tailors the system to the client's requirements. Software is designed in-house and custom parts are created in our CNC machine room.



CMS Laser follows a policy of continuous product improvement. Specifications and system design are subject to change without notice.

# Irrigation Industry

## Agricultural Solutions

**Control Micro Systems (CMS) has been servicing the irrigation industry for over 12 years by providing turnkey laser systems and R&D services in our state-of-the-art applications lab.**

### CMS Turnkey Solutions

Control Micro Systems' turnkey solutions are typically installed on extrusion lines and therefore must utilize on-the-fly (OTF) laser techniques. CMS has been a pioneer in the OTF industry for over 23 years. The OTF technology is very useful in the irrigation industry but has also served other industries through the years. Other applications include medical tubing, component marking, wire marking, plastic welding and drilling.

These turnkey systems that are installed on extrusion lines can be either "markers" that apply text or other codes on the product as it is moving by at line speeds, or "slitters" that are providing a "cut" into the irrigation product for water flow.

### Applications Testing & Research Lab

CMS has/is involved in R&D for not only irrigation tubing but also for the emitters attached to the tubing. CMS works with either the parent company or suppliers to determine laser solutions that enhance the products being used. This can include plastic welding, marking, or slitting. This service is typically performed in the CMS Applications Lab which utilizes a wide variety of lasers and beam delivery optics/techniques to best provide a system/process that meets the customer's needs. Although sample testing for feasibility is free of charge, extensive testing is typically paid by the day for use of the lab. CMS encourages engineers and managers to visit during the testing to help expedite the R&D/testing process. Additionally, these R&D projects can be expanded to provide mini systems that can produce multiple parts for evaluation testing.



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The CMS Laser Systems described in this brochure complies with the requirements of 21 CFR 1040.10 and 1040.11, except for deviations pursuant to laser notice No. 50 dated June 24, 2007. These systems are certified by Control Micro Systems as a Class I laser product or Class IV Compliance with 21 CFR and may be verified by contacting the Office of Compliance at the Center of Devices and Radiological Health. Copyright © 2022 Control Micro Systems, Inc.