

# CATALYST V8e

LASER MARKING SYSTEM



**Laser Diodes**  
8 diodes



**Print Width**  
13 – 104 mm (0.5" – 4.1")



**Cutter**  
Digital contour cutter  
& pizza-wheel cutter



**Software**  
BarTender UltraLite  
(Windows) included



**Print Speed**  
Up to 25.4 mm (1") in 12s



**Compatible with**  
Windows

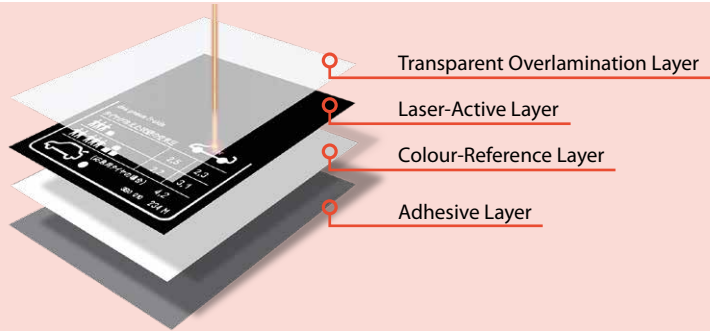


# Facts about the Catalyst V8e



The Catalyst V8e combines printing onto highly-durable, pre-laminated label substrates with a built-in digital die-cutting system for producing labels of any shape or size. Produce labels for tough service applications such as UDI labels for medical devices, aerospace and solar panel labels, serial tags for outdoor power equipment, vehicle and marine spare parts, asset tags, barcode/QR code labels, warning labels, instruction panels, and other industrial labels that must withstand rough environmental conditions for many years.

When you buy a Catalyst V8e from DTM Print or an authorised partner, you're not just buying the product, you're buying first-class service. Our expert support is always on hand to ensure smooth and efficient performance. In addition, DTM Print offers a free 3-year warranty after product registration, giving you extra security and protection for your investment.



## Unique Materials and Imaging Technology

The Catalyst V8e utilises innovative fibre-coupled laser diodes to image onto durable Schreiner® Color Laser Film (CLF), featuring pre-lamination for maximum label resilience against environmental factors. Lamination helps prevent the labels' degradation from environmental damage and chemical influences. Unlike traditional laser label systems, the Catalyst V8e employs phase-change technology, eliminating smoke and fumes during imaging. This makes it ideal for indoor desktop use without the need for costly extraction systems and trained operating personnel.



## Dual, built-in contour cutter

The Catalyst V8e has an integrated contour cutter to produce labels in any size or shape. You only ever need one continuous roll and can produce any label in your desired shape, which saves a lot of storage space and helps you to remain flexible. Conventional laser systems use a laser beam to cut the label, which produces extremely harmful fumes and therefore requires a costly filtering system. Catalyst V8e uses a drag knife cutting plotter and can be used in any environment. By eliminating the need for a filter system, it is easy to transport and, with a 12-volt or mains power supply, is extremely easy to use in any work set-up.



## A more sustainable solution than thermal transfer

The other way to produce on-demand, durable labels is the lamination of a resin thermal transfer print on a polyester label. However, this method is more complicated, labour-intensive and not environmentally preferable. First, ribbons must be purchased and kept in inventory. Then, an operator loads the ribbons into a printer and prints labels. Afterwards the laminate must be hand-applied with accuracy. While printing, the printer winds up the waste ribbon and the ribbon must be disposed of properly. There can also be a security risk because the waste ribbon contains the negative image of the print. Thermal transfer ribbons are difficult to recycle and often end up in landfills. Therefore, Catalyst's no-ribbon technology is a far more sustainable solution for the planet.

## User friendly & low maintenance

The Catalyst V8e is simple to deploy, operate and maintain. Upgrade versions of BarTender UltraLite are available for obtaining additional features and connectivity, including database interfaces, SAP, Oracle, and other ERP integrations. Data interfaces include USB 2.0 and wired Ethernet.

Maintenance is minimal, limited mostly to keeping the machine's interior clear of dust generated during the digital die-cutting process. Laser diodes and fibre-optic couplers have a long life cycle and are replaceable if ever needed.



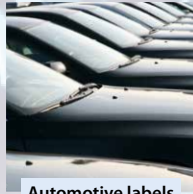
# Customised Laser Marking ... right on your workbench



IUID Labels



Asset tags and labels



Automotive labels



Medical laboratory labels



Solar panel labels



Security labels



Harsh environment labels

- **IUID Labels**  
For U.S. Department of Defense's MIL-STD-130N labelling requirements
- **UDI ("Unique Device Identification") Labels**  
for asset tracking for medical devices according to FDA specifications
- **Asset tags and labels**  
To protect and identify valuable equipment and devices
- **Automobile labels**  
For VIN and rating plates and under-hood use
- **Medical laboratory labels**  
With both low- and high-temperature and chemical resistance, labels can be used virtually anywhere from the freezer to the autoclave
- **Solar panel labels**  
Able to withstand outdoor stresses from wind, rain and UV light
- **Security labels**  
Prevents the label from being removed and if attempted shows tamper-evidence
- **Harsh environment labels**  
Any other labels such as safety warning labels that are used in rough outdoor weather conditions

Labels produced with the Catalyst V8e Laser Marking System withstand harsh outdoor weather conditions for many years: extreme sunlight/UV exposure, extreme temperatures from cryogenic cold to glowing heat, high abrasion including blowing sand and dirt, tampering due to available tamper-evident features and chemicals (such as grease, oils, gasoline and many other chemicals).



Extreme temperatures  
from cryogenic cold  
to glowing heat



Extreme sunlight/  
UV exposure



Harsh outdoor weather  
conditions



Despite its many advantages, laser marking of durable label film has always been a complicated and expensive process. It required highly-trained operators, a large capital equipment investment, lots of maintenance and a secured work area for safe operation. The Catalyst V8e Laser Marking System changes all of that. It is built to be used right on your desktop or workbench, making the laser marking process easy and convenient. It is used just like any other Windows-based printer.

The Catalyst V8e contains a high-powered, solid-state laser. Delivering all the advantages of highly durable laser label marking but at a much lower cost and with far greater simplicity than ever before. Labels produced on the Catalyst V8e are designed to be replacements for etched metal plates as well as thermal transfer laminated polyester barcode labels.

# Color Laser Film CLF from **schreiner** ProTech

## Technical Specifications



Schreiner Color Laser Film (CLF) label stock is the perfect solution for challenging industrial applications. This premium polyester composite is designed for parts marking and identification at the highest level, ensuring outstanding adhesion properties and excellent performance in even the roughest conditions.



### How does it work?

The Catalyst V8e permeates the transparent laminate layer of each CLF label without damaging or contacting it. The reference layer (white) shows up. This conversion does not release any particles or gas, which reduces cleaning and maintenance of the laser equipment, making it a smokeless and emission-free inscription.

### Available sizes?

For the greatest flexibility DTM Print offers continuous material for contour cutting as well as pre die-cut film labels in various sizes to meet your requirements. Pre die-cut labels from DTM Print are entirely emission-free and perfect for cleanroom and controlled zone applications. With contour cutting of continuous material, only minor emissions are produced. Another advantage is that storage costs are reduced as you don't need to keep label rolls in different sizes in stock.

### Paint Mask Label

For precise painting processes, DTM Print offers the Schreiner CLF with paint mask. The labels are intended to be used with the Catalyst V8e to ensure that information is readable both before and after the painting or coating process. The paint mask label has multiple layers, which enable clean and precise paint edges, preventing overspray or paint bleed. This solution enhances the quality of the finished product and improves efficiency in complex production processes by reducing the need for manual touch-ups.



The Catalyst V8e automatically recognises the CLF label material roll for an easy workflow. This is because each roll comes with a memory chip, guaranteeing real-time monitoring of the remaining material. Additionally, DTM Print thoroughly quality checks each label roll.



Print Method	Fibre-optic coupled laser diodes
Print Resolution	300 x 300 dpi / 600 dpi interpolated
Print Speeds	Approx. 12 sec/label (25.4 x 101.6 mm (1" x 4"))
Laser Specifications	Wavelength: 980 nm; Beam Divergence: 11.3°; Pulse Duration: 20µSec typical; Maximum Power: 10 Optical Watts/laser; Class 1 Laser
Print Width	Pre die-cut: 13 mm - 127 mm (0.5" - 5") Digital die-cut: 13 mm - 104 mm (0.5" - 4.1")
Media Width	Pre die-cut: 54 mm - 130.17 mm (2.125" - 5.125") Digital die-cut: 120 mm (4.72")
Print Length	13 mm - 305 mm (0.5" - 12")
Media Types	Schreiner Color Laser Film (CLF), black with white print, Schreiner CLF with extra Paint Protection Layer
Media Sensing	Moveable see-through sensor for die-cut labels; reflective sensor for labels and tags with black stripe; can use continuous material for contour cut
Media Feed	External
Supply Roll	152 mm (6") maximum diameter on 76 mm (3") core
Cutter	Built-in die-cutting knife blade; built-in „pizza-wheel“ style label cutter
Indicator Lights	Calculates actual number of prints remaining based upon ink usage of graphics being printed.
Controls	Pause, Feed, Unload
Operating Systems	Power
Data Interface/Connections	USB 2.0, Ethernet 10/100/1000
Label Design Software	BarTender Ultralite (Windows); other versions available for more features and integrations
Power Requirements	External Power Supply 100-240 V AC, 50/60 Hz; Output 12 V DC, 5.0 A
Certifications	Agency Approvals: UL, UL-C, CE, FCC Class A; Laser Safety: CDRH and IEC 60825-1 UL: Class 1 Laser Product
Weight	5.7 kg
Dimensions (WxHxD)	345 mm x 242 mm x 432 mm
Operating Temperature	10 °C to 35 °C
Operating Humidity	10 % to 60 % RH (non-condensing)
What's in the Box	Catalyst Laser Marking System, BarTender UltraLite, USB 2.0 cable, EU power cord and instructions BarTender UltraLite and printer driver can be downloaded from the DTM Print website
Recommended Accessories	DTM Print Label Re-/Unwinders
Warranty	36 months (after product registration, for devices purchased in EU/EFTA countries and UK)
Manufacturer	Primer Technology, Inc.

