

# TrafficJet™ Print System

## Description:

The TrafficJet 1638 Print System is based on Mutoh's reliable ValueJet platform and uses specially formulated TrafficJet eco solvent spot color inks distinctly manufactured and supplied to meet standard traffic colors. With the combination of these printers and spot color inks it is possible to digitally print Avery Dennison retroreflective and graphic sheetings.

TrafficJet printers are available in the following configuration:

- CMSpot6™ – Ability to print process colors in addition to 6 TrafficJet spot colors

Major advantages of this system include:

- Low startup and production costs compared to other digital printing systems
- An automated system that adds capabilities and capacity
- Eliminate transfer films and reduce labor to cut, weed, and apply graphics
- Fast turn-around time from sign design to production
- Print short runs with little to no set-up and clean-up
- Print fine detail and easily include sign dating or other security features
- Print multi-colored signs in one pass
- Typical print speeds for traffic signs up to 88 sqft/hr
- Simultaneous printing of process and durable traffic colors

## TrafficJet Spot Color Inks:

Color	Product Name	Available in
Yellow	TJ01 TrafficJet Yellow	440 mL and 950 mL
Black	TJ03 TrafficJet Black	440 mL and 950 mL
Blue	TJ05 TrafficJet Blue	440 mL and 950 mL
Green	TJ07 TrafficJet Green	440 mL and 950 mL
Red	TJ08 TrafficJet Red	440 mL and 950 mL
Brown	TJ09 TrafficJet Brown	440 mL and 950 mL
Worboys Green	TJ27 TrafficJet WB Green	440 mL and 950 mL

## Mutoh Eco Ultra Process Color Ink:

Color	Product Name	Available in
Cyan	Eco Ultra Ink	440 mL and 950 mL
Magenta	Eco Ultra Ink	440 mL and 950 mL

## CMSpot6 Printer Configuration:

The CMSpot6 printer configuration allows simultaneous printing of process colors and up to 6 spot colors. Process colors are printed using Mutoh Eco Ultra Cyan and Magenta along with TrafficJet Spot Yellow and Black. This allows the 8 color TrafficJet printer to be able to print all available durable traffic colors - Black, Red, Blue, Green, Yellow, and Brown - while still being able to print graphical images using process colors.

## Product Data Bulletin TrafficJet Print System

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The unique availability of inks with the CMSpot6 configuration results in larger process color gamut than with CMYK alone, and is more durable.

**Sheeting, Ink, and Overlay Compatibility and Warranty:**

Traffic Sheeting with TrafficJet Spot Color Inks

<b>TrafficJet Spot Inks:</b>	Avery Dennison TrafficJet Eco Solvent Spot Color Inks Black, Red, Blue, Green, Yellow, Brown, and Worboy Green		
<b>Overlay Film:</b>	OL-1000 Anti-Graffiti & UV Film OL-2000 UV Film		
<b>Retroreflective Films:</b> Approved for TrafficJet digital printing and corresponding warranty period	<u>Sheeting Type</u>	<u>Sheeting Color</u>	<u>Warranty (Years)</u>
	T-11000 OmniCube	White, Yellow, FY, FYG	12
	T-9000 OmniView	White, Yellow, FY, FYG	12
	T-7000 MVP	White, Yellow, FY, FYG	10
	T-6000 HIP	White, Yellow	10
	T-2000 PEG	White, Yellow	7
	T-1500D EG	White, Yellow	7

Work Zone Sheeting with TrafficJet Spot Color Inks (Black Ink Only)

<b>TrafficJet Spot Inks:</b>	Avery Dennison TrafficJet Eco Solvent Spot Color Inks Black TJ03 Only		
<b>Overlay Film:</b>	Not required for temporary work zone signs using TJ03 TrafficJet Black ink only		
<b>Retroreflective Films:</b> Approved for TrafficJet digital printing and corresponding warranty period	<u>Sheeting Type</u>	<u>Sheeting Color</u>	<u>Warranty (Years)</u>
	W-11000 OmniCube	FO	3
	W-9000 OmniView	FO	3
	W-7000 MVP	FO	3
	W-6000 HIP	Orange	3
	W-2000 PEG	Orange	3

Traffic Sheeting with Process Color Inks

<b>TrafficJet Spot Inks:</b>	Mutoh Eco Ultra Cyan and Magenta with TrafficJet Spot Yellow and Black when printed via CMSpot6 configuration		
<b>Overlay Film:</b>	OL-1000 Anti-Graffiti & UV Film OL-2000 UV Film		
<b>Retroreflective Films:</b> Approved for TrafficJet digital printing and corresponding warranty period	<u>Sheeting Type</u>	<u>Sheeting Color</u>	<u>Warranty (Years)</u>
	T-11000 OmniCube	White	10
	T-9000 OmniView	White	10
	T-7000 MVP	White	10
	T-6000 HIP	White	10
	T-2000 PEG	White	7
	T-1500D EG	White	7

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### TrafficJet and Process Color Ink Warranty:

Avery Dennison TrafficJet inks are the only inks guaranteed to meet the reflectivity, color, and durability requirements for permanent traffic applications and temporary work zone control devices when applied to Avery Dennison retroreflective sheeting and carry the warranty period listed in the tables above when used with the appropriate overlay. Mutoh Eco Ultra ink also carry the warranty period list above when used with the appropriate overlay and are intended for graphical applications, thus no claims are provided regarding compliance to regulated reflectivity and color requirements. The TrafficJet and Mutoh inks referenced in this document are the only inks covered by the warranty. Users may find satisfactory results with other inks and inkjet systems, but warranty coverage is not provided by Avery Dennison and use of other inks and inkjet system may void any existing equipment warranty. Reference [Warranty for Printing with AVERY DENNISON® TrafficJet™ in CMSpot6™ Configuration](#) for additional details.

### TrafficJet Ink Performance:

Signs produced with compatible sheeting, ink, and overlay will meet the following requirements, as applicable to each color and sheeting type:

- Daytime luminance factor (Y%) shall meet Table 2 of ASTM D4956
- Daytime color must meet the specification color limits of Table 11 of ASTM D4956
- Nighttime color must meet the specification color limits of Table 13 of ASTM D4956
- Coefficient of retro-reflection shall meet 70% of the values of ASTM D4956 for the respective sheeting types

### TrafficJet Ink Physical Properties:

<b>Printing Temperature Range</b>	68°F (20°C) to 89°F (32°C) - Required 72°F (22°C) to 86°F (30°C) – Ideal for warranted applications
<b>Printing Humidity Range</b>	40% to 60% R.H.
<b>Storage Conditions</b>	65° - 75°F (18° - 24°C) and 50% ± 5% R.H.
<b>Sheeting and Overlay Shelf Life</b>	Sheeting and overlay films have a one year shelf life, from the date of delivery, when stored at the above conditions.
<b>Ink Shelf Life</b>	<u>TrafficJet Spot Ink</u> One year shelf life from the date of manufacturing* when stored at the above conditions, except Worboy Green and Blue, which carry a 6 month shelf life.  <u>Mutoh Eco Ultra Ink</u> Two year shelf life from the date of manufacturing* when stored at the above conditions.  *Expiration dates are printed on the ink cartridge.
<b>Other Tests:</b>	Meets all other requirements set forth in ASTM D 4956 and EN12899 including shrinkage, flexibility, liner removal, adhesion, impact resistance, specular gloss and outdoor weathering.

### Application Guidelines:

The recommended procedure to apply and convert the sign is as follows:

1. Print the sign on the Avery Dennison sheeting using the recommended software and printer

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settings.

2. If the signs have been printed continuously in a roll form, it is recommended to relieve the tension in the rolls and store vertically for at least 2 hours for reflective and 24 hours for graphics media at room temperature 68 to 89°F (20 - 32°C). This is to ensure that all the potential solvent left in the printed roll is completely removed before the OL-2000 or OL-1000 is applied. Failure to do so may cause the solvent to attack the overlay film resulting in poor retroreflective performance.
3. If the sign is a Construction Work Zone sign with a 3 year warranty, no OL-2000 or OL-1000 application is required when printed with TrafficJet Black TJ03.
4. If this is a permanent sign requiring a 7, 10, or 12 year warranty, an OL-2000 or OL-1000 overlamination is required to ensure color durability and reflectivity. Overlay lamination must be performed on a laminator.

### **Required Dwell Time Between Printing and Overlay Application**

For **reflective** media, the overlay can be applied **2 hours** after printing.

For **graphics** media, the overlay can be applied **24 hours** after printing.

### **Application & Conversion Information:**

The TrafficJet Print System must be operated in a clean, enclosed, well ventilated room away from high traffic. This will help prevent dust and debris from damaging the print heads, and keep contaminants off of the sheeting surface before printing.

Onsite installation of the TrafficJet Print System will be done by an Avery Dennison service technician upon arrival of printer shipment. Please contact your Avery Dennison Sales and/or Technical representative for additional assistance with system settings, and be sure to follow the manufacturer's recommendations for machine operation. Any deviation from the manufacturer's recommendations may void Mutoh and Avery Dennison ICS warranty.

Find the latest information on the Avery Dennison website, [www.reflectives.averydennison.com](http://www.reflectives.averydennison.com).

### **Maintenance**

Please refer to IB #1.11 TrafficJet Printer Maintenance for details.

### **Finished Sign Mounting & Orientation:**

As with all Avery Dennison retroreflective sheetings, uniquely designed omnidirectional prisms eliminate the need for datum marks to reference when cutting sign legend or orienting sheeting on the substrate. Users will experience uniform retroreflective appearance regardless of orientation on the substrate.

The above Avery Dennison literature provides information to the user for proper application, storage, and other requirements. Please refer to Product Data Bulletins or your local Avery Dennison Representative for warranty information. Find the latest information on the Avery Dennison website, [www.reflectives.averydennison.com](http://www.reflectives.averydennison.com). We encourage you to check our website periodically for updates.

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

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