

DisplayMaker®

Mach 12

Wide-Format Inkjet Printer

- Speed
- Quality
- Automation
- Productivity



ColorSpan®
by MacDermid

DisplayMaker[®] *Mach 12*

MacDermid ColorSpan once again has set a new industry standard for quality, speed and performance with the introduction of the DisplayMaker[®] Mach 12. Now, for the first time, a new printer that outperforms your expectations for speed without sacrificing your demand for quality. Designed around twelve (12) state-of-the-art, nearly one-inch wide, high frequency printheads, the Mach 12 can be configured with the broadest combination of multi-density and gamut-extending inks to achieve fastest print speeds, wider color gamut and better apparent resolution. The Mach 12 gives you unprecedented flexibility in meeting the output requirements of your customers.



12 Printheads

Twelve printheads give you more...more speed, more color, more flexibility. Choose between printing with 4, 6, 8 or even 12 colors. Use two sets of six colors for 1200-dpi HiRes printing at incredible speeds. Or, one set of eight, or twelve unique colors for stunning 1800-dpi Film Quality output at better than competitor's fastest "production" print speeds.





Fast Print Speeds Without Sacrificing Quality

User selectable print modes automatically regulate the number of print passes, two up to twelve, to give you the widest possible choice of quality at optimum productivity. From 4 color "economy" mode, 600 dpi output in excess of 400 square feet per hour, to "film quality", apparent 1800 dpi in excess of 200 square feet per hour, the Mach 12 does it all. Imagine the unrivaled performance of a 24" x 36" photo-quality poster printed in under one minute, a 30" x 40" backlit in two and one-half minutes, or an 18" x 24" fine art reproduction on canvas in under 3 minutes.

<i>Print Mode</i>	<i>Ink Configuration</i>	<i>Max. Print Speed</i>	<i>Resolution/Application</i>
Economy	2 sets of CMYK pigment or dye	>400 ft. ² /hr. (37 m. ² /hr)	Reduced ink usage at 600 dpi
HiRes	2 sets of C ₂ M ₂ YK pigment or dye	>400 ft. ² /hr. (37 m. ² /hr)	1200 dpi apparent image resolution
AutoInk - Economy	2 sets of CMYK pigment 1 set of CMYK dye	>400 ft. ² /hr. (37 m. ² /hr) >200 ft. ² /hr. (19 m. ² /hr)	Reduced ink usage for indoor and outdoor use
AutoInk - HiRes	1 set of C ₂ M ₂ YK pigment 1 set of C ₂ M ₂ YK dye	>200 ft. ² /hr. (19 m. ² /hr) >200 ft. ² /hr. (19 m. ² /hr)	Apparent 1200 dpi indoor and outdoor use
Film Quality	1 set of C ₃ M ₃ YK dye	>200 ft. ² /hr. (19 m. ² /hr)	1800 dpi apparent image resolution

Modular Ink Delivery System

Designed for higher productivity and low cost of operation, the Modular Ink Delivery System includes high-capacity ink reservoirs, semi-permanent ink supply lines and state-of-the-art thermal inkjet printheads. Sets of high capacity, 960ml ink reservoirs provide thousands of square feet of printing between ink changes and are built to be 'hot-swapped' while printing to prevent job interruption. The semi-permanent ink supply lines, while

normally are not exchanged, are user replaceable to allow the printer to be set up with an endless variety of ink configurations. At the heart of the ink system are twelve high-density printheads, designed to jet multiple 960 ml reservoirs, and replaced only as you determine is necessary based on your performance requirements, not ours. Higher throughput per printhead yields lower cost per print.



Performance *Beyond Imagination*

Unattended Printing Features

The DisplayMaker Mach 12 comes fully equipped to support unattended lengthy print runs. Whatever your applications or environmental conditions, eliminate damaged prints and wasted time from your work flow with these features:

- **AutoTune Scheduler** – Schedules AutoSet and AutoJet calibration functions to ensure consistency while printing unattended.
- **Modular Ink Delivery System** – Large-capacity 'hot-swappable' ink reservoirs and extended print head life.
- **Forced-Air Dryers** – Ensures proper drying even at higher speeds.
- **Humidity Sensor** – Automatically paces dry-time in higher humidity conditions.
- **Motorized Take-Up Spool** – Rolls prints image-side in or out onto 2" or 3" cores for convenient handling and finishing.

Tilt-Up Carriage

For easy access, the carriage assembly can be tilted up to expose the bottom sides of the printheads and Automation Eye image sensors for periodic cleaning without affecting printhead alignment and calibration.

12-Printhead Design

Twelve printheads, each nearly one-inch-wide, provide more coverage for faster print speeds without sacrificing print quality.

Heated Forced-Air Dryers

Dries printed output before handling or roll-up. Heater ensures proper drying even at high-speeds.

72", 60", 42" Widths
183cm, 152cm, 107cm

Offers a size to meet your specific needs. Industry-leading 72" width permits double-up production of E-sized (34" x 44") or AO-sized (841mm x 1189mm) prints or wall-size murals with minimal tiling.

DisplayMaker
Mach 12

Media Support

Choose from a wide selection of media, including photo papers, films, fabrics and vinyl in widths from 24" (61cm) to 72" (183cm).

See it to believe it. Own it to profit.

Advanced Automation Eye

Two image sensors and sophisticated software are used to automate many of the calibration tasks required to maintain good print quality and accurate color reproduction.

AutoSet™ Calibration

Analyzes dot placement and automatically aligns all twelve printheads with digital accuracy.

AutoJet™ Calibration

Maps out jets that are not up to performance standards to eliminate banding in prints and greatly prolong printhead life, which translates into lower cost of operation.

Linearization

Measures the density of color swatches and sends to the external RIP and color management software to linearize the color curves, eliminating need for an external calibrator device.

Color Profiling

High-quality photo diode image sensor when used with an external RIP and color management software, automatically reads hundreds of printed swatches to create ICC color profiles for custom ink and media combinations.

Modular Ink Delivery System

A three piece ink system consisting of a 960ml ink reservoir, semi-permanent supply lines and state-of-the-art thermal inkjet printhead. Ink reservoirs can be 'hot swapped' while printing for maximum productivity. Printheads are replaced independently of ink reservoirs and typically last through multiple 960 ml ink reservoirs, thereby reducing operating costs.

AutoInk™ Swapping

DisplayMaker's twelve-printhead design allows you to have both dye-based inks and pigmented inks loaded simultaneously and to have the advantage of printing using either without changing ink.

Quick-Screen Touch Pad

A simple user interface via the LCD touch-screen presents all frequently-used functions on a single screen. Detailed menus below allow for full control of all features.

Adjustable Printhead Height

Accommodates a wide range of media thickness, up to 1/8" (3.175mm). Select standard heights, or create custom heights to best work with your media. Change between printhead heights with a touch of a button from the LCD touchscreen.

Multiple RIP Options

Choose from the new turn-key ColorMark® Pro Print Server from ColorSpan or 3rd-Party software RIP solutions based on your unique needs.

Motorized Take-Up Spool

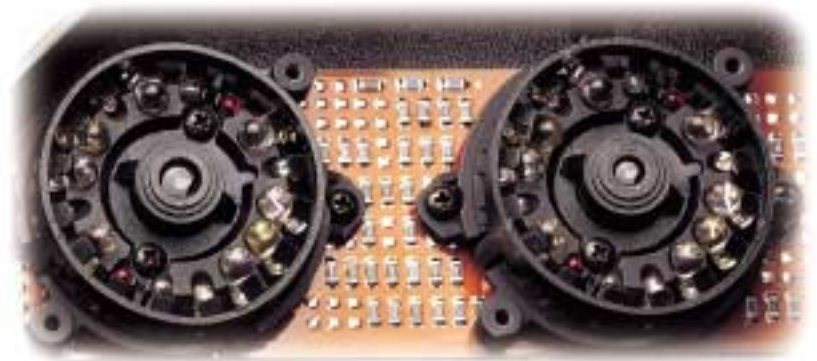
Rolls print image-side in or out onto 2" or 3" cores for convenient handling and finishing. Closed loop drive system provides accurate advancement and media movement fault detection.



DisplayMaker[®] *Mach 12*

Advanced Automation Eye

This technology, pioneered by ColorSpan, is taken to a new height to make the DisplayMaker Mach 12 the most advanced, yet easy-to use printer available at any price. The Automation Eye consists of two high resolution image sensors and highly proprietary software to enable on-line and automatic measurements and adjustments to maintain accurate printing and predictable color.



• *AutoSet Calibration*

Using the on-board image sensor, the Mach 12 analyzes dot placement of printed patterns and automatically aligns all twelve printheads with digital accuracy.

• *AutoJet Calibration*

The Mach 12 uses data from the image sensor to map out jets that are not up to performance requirements. This not only eliminates banding in prints, but greatly prolongs printhead life, which translates into lower cost of operation.

• *Linearization*

The image sensor is also used to measure the density of color swatches. The result is available to the external RIP and color management software to linearize the color curves and compensate for printhead wear.

• *Color Profiling*

New with the Mach 12 is the colorimetric photo diode image sensor. Used with the external RIP and color management software, the Mach 12 can print and automatically read hundreds of color swatches to create ICC and other color profiles for custom ink and media combinations.





ColorMark® Inks and Media

A variety of applications can be handled by the DisplayMaker Mach 12: indoor photographic prints and backlit displays, durable outdoor vinyl signs and banners, archival fine art prints on canvas or watercolor paper, even elegant soft fabric banners.

EnduraChrome LightFast dye inks offer vibrant, high-quality images for extended indoor use on a variety of papers, films, fabrics and canvas. When you need outdoor graphics that can withstand the elements, PermaChrome pigmented inks are designed to hold up to the task. The PermaChrome Outdoor Matched System includes a nine month "Print & Hang" water-fast vinyl for short-term needs or an adhesive vinyl and laminate combination that offers a three year display life. Both are backed by the PermaChrome Outdoor Matched System warranty.

RIP Options

Choose a RIP solution for your DisplayMaker Mach 12 from ColorSpan or our 3rd-party RIP partners. ColorSpan's ColorMark Pro Print Server is a complete turnkey system that offers fast, efficient file processing and user-friendly operation. Third-party solutions include or will soon include products from ColorGATE, Image Technologies, HighWater Designs, Onyx Graphics, Vidar Systems and Wasatch Computer Technologies. Talk to a ColorSpan representative for more information on these solutions.



Award-Winning Performance

The DisplayMaker Mach 12 joins the ColorSpan line of industry leading, wide-format printers. Year after year ColorSpan is recognized for high quality, speed, size and productivity. Call a ColorSpan representative today, and find out how we can help you with virtually all your printing needs.



6 CONSECUTIVE YEARS

ColorSpan is proud of its industry recognition as a leader in wide-format quality, speed, size and productivity.

Specifications

PRINT TECHNOLOGY

12-color thermal inkjet

ARCHITECTURE

Open web roll-fed reciprocating head

INK DELIVERY SYSTEM

Modular Ink Delivery System

INK CAPACITY

11.7 liters (Twelve 960ml Ink Modules,
Twelve 14ml printheads)

INK OPTIONS

Endura•Chrome® Dye Ink
Perma•Chrome® Pigmented Ink

PAPER HANDLING

Roll-fed with auto width and auto caliper
detection, motorized head height adjustment,
integrated heated dryer and motorized
take-up spool

MAXIMUM PRINT WIDTH

72" (182.9cm), 71.5" (181.6cm) image area
60" (151.1cm), 59.5" (151.1cm) image area
42" (106.7cm), 41.5" (105.4cm) image area

MAXIMUM PRINT LENGTH

Print length limited by media roll length and/or
software application

COLORMARK MEDIA SUPPORT

A variety of paper, film, vinyl and fabric media
available in 36", 50", 60" and 72" widths

ELECTRICAL REQUIREMENTS

Printer AC Voltage Input:
100/120 or 200/240 VAC, 4.0 or 2.0 amps,
50-60 Hz., auto-switching

Dryer AC Voltage Input:
Two separate 200/240 VAC, 50-60 Hz circuits
required for heated forced-air dryers; one 15 amp,
the other 20 amp

OPERATING CONDITIONS

60° to 90° F (16° to 32° C)
20% to 70% RH, non-condensing
40% to 60% RH, optimum



DisplayMaker
Mach 12

HUMIDITY COMPENSATION

Humidity sensor monitors relative humidity and
adjusts print speed as necessary to ensure adequate
drying as required by the ink and media selected

STORAGE CONDITIONS

0° to 120° F (-17° to 49° C)
10% to 80% RH, non-condensing

AGENCY COMPLIANCE

Safety: UL, c-UL and TUV
Emissions: FCC-A, CE and VCCI-1

WARRANTY

Limited one year on-site in North America

SHIPPING DIMENSIONS

Weight: 575 LBS. (260.8 kg)
560 LBS. (254.0 kg)
545 LBS. (247.2 kg)
Height: 43.5" (110.5 cm)
Depth: 32" (81.3 cm)
Width: 136.5" (346.7 cm)

ASSEMBLED DIMENSIONS

Weight: 335 LBS. (152.3 kg)
310 LBS. (140.9 kg)
280 LBS. (127.3 kg)
Height: 57.3" (145.5 cm)
Depth: 31" (78.7 cm)
Width: 132" (335.3 cm)
120" (304.8 cm)
102" (259.1 cm)

MacDermid
GRAPHICARTS
COLORSPAN

©2001 MacDermid ColorSpan Corporation.
All rights reserved. M12BR4 • 02/02 (WRXL)

www.colors span.com

MacDermid ColorSpan, Inc.
6900 Shady Oak Road
Eden Prairie, MN 55344 USA

North American Sales
Phone: 800-477-7714 • 952-944-9330
Fax: 952-944-0522

Asia/Pacific Sales
Phone: 952-943-3300
Fax: 952-943-3313

Latin American Sales
Phone: 952-943-3600
Fax: 952-942-5855

Europe/Middle East/Africa Sales
Bijlmermeerstraat 32
2131 HC Hoofddorp
The Netherlands
Phone: +31 23.5622000
Fax: +31 23.5631240