The Hercules™ Multicolor UV Screen Printing System

If you want to **grow your screen printing business** in today's competitive environment, your options are clear: automate production and implement multicolor printing. Now you can reap the benefits of the industry's most innovative and time-tested automated multicolor printing system — at a price you can afford — with the A.W.T./American M&M Hercules™ Multicolor UV Graphics Printing System.

Originally the Hercules was introduced to the industry in 1982, the first multicolor UV printer, under the name Horizon. Currently, the Hercules is **known worldwide** for its extremely efficient design. This system allows you to **print and dry up to NINE colors completely in sequence,** without inter-color substrate handling. UV curing units mounted between each print head provide a quick, cool cure even on the most heat-sensitive substrates. The low-heat curing greatly reduces shrinkage of stock, while vacuum beds virtually eliminate sheet movement. At the end of each cycle, the Hercules produces a premium-quality multicolored piece — fully printed, cured and ready for packaging.

Made in America, the Hercules is the ideal system for multicolor printing on paper, cardboard, glass, plastic, metal or any other graphic surface currently being printed on by standard, single-color flatbeds. And it offers the **largest print area in the industry** (50 x 75" (127 x 190 cm), an option that compares favorably with inline models at one-third the purchase cost!

Proven Technology

When you shop for a major piece of equipment, you naturally look for machines with a proven track record. Developed more than 20 years ago, the Hercules was the first screen printing system to combine sequential multi-color printing with inter-station UV curing.

Today, more than 100 units are in operation worldwide, and their operating history is characterized by exceptional results and long-term reliability. In addition, all Hercules models are backed by A.W.T.'s Remote Diagnostics service, which greatly reduces costs associated with downtime and repairs.

Higher Productivity

With its automated multicolor printing system, the Hercules Multicolor UV Graphics System will increase your productivity without increasing your payroll — the very definition of smart growth in any economic climate!

Consider these other advantages:

- Instant proofing — unlike a single-color printer, the Hercules allows you to proof a multicolor job after just one cycle
- Produce FINISHED products in ONE cycle
- Print over 700* pieces per hour — with fewer operators!

* Depends on a variety of printing conditions

Standard Features

The Hercules is designed to provide smooth operation and excellent printing results with a minimum of maintenance and servicing. Outside-load print heads offer highly accessible micro-registration adjustments, while the air-powered registration fork maintains registration repeatability of +/-.002". Unobstructed screen visibility makes it easy to check or correct screen position during setup and production. The brushless vacuum motor — an industry-first when introduced over 10 years ago — continues to set the standard for quiet, maintenance-free operation. Following are some of the other standard features that make Hercules the ideal choice for high-volume multicolor graphics printing.
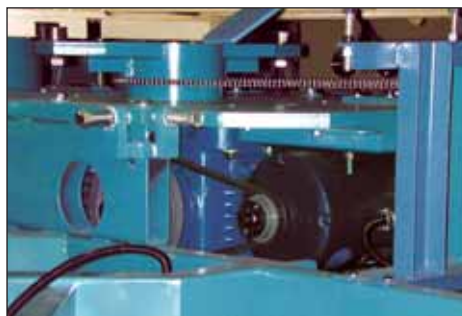

Main Control Panel
The extensive control panel combines interactive screens with user-friendly controls.
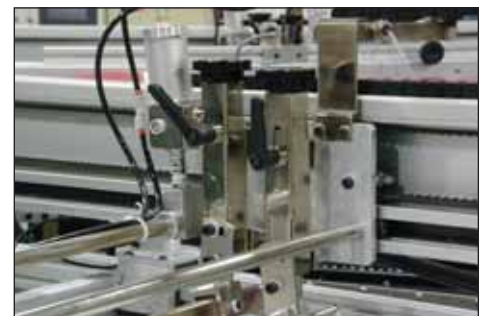

Registration System
Four-point registration allows for either left- or right-hand guiding and facilitates two-sided printing.

Electro-mechanical Indexer Drive
Provides smooth, station-to-station indexing on every cycle. Durable design ensures low maintenance for extended production.

Squeegelizer™
The patented air-controlled squeegee system automatically maintains uniform print pressure across the entire squeegee length and throughout the print stroke.

Quantum UV Curing Modules
A standard 400 W Quantum module is mounted between each print head to eliminate inter-color handling of stock. Each module is equipped with A.W.T.'s exclusive Inteli-Guard™ system, designed to switch to standby mode (150 W) during each print stroke to reduce energy consumption and heat build-up. **To deliver superior curing, all Hercules models offer the option of either iron or Gallium lamps or double 400 W lamps in the final station, as well as an** Electronic "E" Ballast for variable wattage settings.

Exclusive Off-Contact Peel
A.W.T.'s exclusive Off-Contact Peel System, with up-front, easy-to-access controls, provides the proper reverse peel rate when adjusting screen size, making setup quicker.
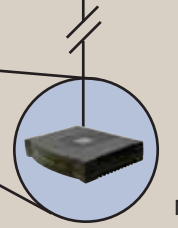
The A.W.T. Advantage: Remote Diagnostics!

Standard with every Hercules press is the Remote Diagnostic System, a unique feature that delivers instant service to any location in the world. Remote Diagnostics employs a simple phone-modem connection to provide a direct link between the Hercules' on-board microprocessor and the central A.W.T. diagnostics computer. The benefits of this technical-support system are numerous:

- Reduces downtime by up to 80%
- Minimizes need for expensive on-site service calls
- Allows for remote downloading of optional software upgrades
- Offers operator-friendly instruction
- Does not require a local PC hookup at customer plant

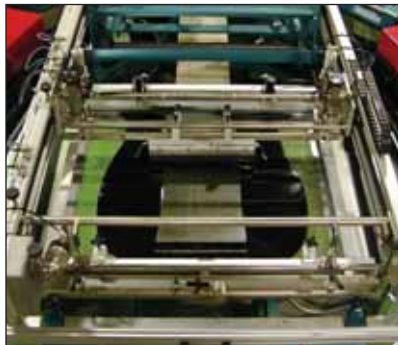**A.W.T. World-wide Diagnostic Service**

Your Hercules

Phone Modem

Mechanical Features
- Up to 10 stations and nine colors
- Lengthwise sheet loading, left to right
- Aircraft-quality aluminum print bed
- Open flip station for two-sided printing
- Unobstructed screen visibility
- Brushless maintenance-free Quiet Vacuum
- Central exhaust system removes emissions and excess heat

Print Head Features
- Patented, up-front, computer-controlled stroke adjustment for quick and precise settings
- Easy-drop masterframe for firm screen support
- Swing-away front screen clamp for easy screen loading
- Micro-registration screen frame clamps
- Up-front off-contact mechanical peel system
- High-lift head for easier screen maintenance and cleaning
- Variable speed control for print and flood stroke
- Advanced ink recovery system
- Positive lock-in print head

Master Control Features
- Microprocessor controls
- Load-in/load-out sequence

- Skip print sequence
- Sample print
- Touchscreen display
- Ascending and descending counters
- Downtime management
- On-screen diagnostics
- Production rate data in pieces/hour
- Time-to-complete-job data

Interactive Downtime Management Screen

UV Curing Unit Features
- Inteli-Guard™ system for reduction in energy consumption and heat build-up
- 400 W UV lamps
- Controlled cooling via variable-speed blower
- Easy lamp maintenance without loss of settings
- Adjustable lamp height

Options
- UV lamp upgrade (double lamps at any station)
- Additional sheet registration system at flip station
- Automatic take-off system
- Iron and Gallium lamps for increased UV output
- Electronic Ballast for variable wattage settings for use with iron and Gallium lamps
- A/C cooling module
- Blowback vacuum system
- Dripless squeegee system
- No flood-ink scoop carriage system
- Heads and UV setup for seventh or ninth positions
- Servo-Drive indexer
- Spare parts package
- Other voltages available

Specifications

Hercules Multicolor Press

Print Area - Inches	25 x 38"	30 x 40"	38 x 52"	40 x 55"	50 x 75"
Print Area - Centimeters	63.5 x 96.5 cm	76.2 x 101.6 cm	96.5 x 127 cm	102 x 140 cm	127 x 190.5 cm
No. of Print Heads/Tables	4-6 colors / 8 Stations	4-7 colors / 8 Stations	4-6 colors / 8 Stations	4-6 colors / 8 Stations	4-6 colors / 8 Stations
Maximum Frame Size	43 x 49"	50 x 52"	60 x 67"	62 x 70"	72 x 91"
Print Speed - IPH	600	450	350	350	300
Electrical	240 V, 3 Ph, 60 Hz	480 V, 3 Ph, 60 Hz	480 V, 3 Ph, 60 Hz	480 V, 3 Ph, 60 Hz	480 V, 3 Ph, 60 Hz
Amperage - Indexer	40 A	25 A	25 A	25 A	25 A
Amperage - Each Head	5 A	5 A	5 A	5 A	5 A

Quantum UV Curing Modules

Length of Lamp	32"	36"	44"	46"	60"
Amperage (per unit)	65 A	40 A	50 A	60 A	70 A
Output Level	150 to 400 W	150 to 400 W	150 to 400 W	150 to 400 W	150 to 400 W
Standby Between Cycles (each lamp)	150 W	150 W	150 W	150 W	150 W

Our policy is one of continuous improvement and we, therefore, reserve the right to change specifications without prior notice.

Stay ahead of the competition with trusted, proven technology!

Flexible Operation

The Hercules' flexible design offers you a number of options for maximizing the efficiency and productivity of your print run. Depending on the number of colors involved, the Hercules allows you to:

- Print both sides of a two-sided job simultaneously
- Double up on the same job to shorten turnaround
- Print two or more different jobs at the same time

Increased Profit Margins

A Hercules makes great financial sense. The high efficiency of the Hercules multicolor printing system means you can greatly increase your production without adding staff or increasing overtime. The unit's rugged design — supported by Remote Diagnostics — reduces downtime, further enhancing profitability.

Competitive Advantage

The Hercules gives you a powerful competitive advantage by drastically reducing turnaround time, allowing you to deliver finished products to your customers more quickly. Plus, the Hercules gives you the ability to ship finished pieces on a continuous basis, beginning with the first day of production — a major advantage when bidding on large print jobs. It all adds up to responsive service that wins customers and promotes repeat business.

Minimal Space Requirements

Although the Hercules can greatly expand your printing capabilities, it does not require an expansion of your facilities. Due to its configuration, the Hercules requires minimal floor space. In fact, because the Hercules can take the place of several single-color machines, you can actually free up floor space for other uses.

Contact Us!

More and more customers are demanding the quick turnaround and high-quality finish you can only achieve with automated, multicolor printing systems. Are you equipped to meet these requirements? Many of your competitors are, or soon will be.

Talk to us about how Hercules can give your company the edge it needs to win business and build customer loyalty in today's competitive marketplace. Our sales specialist can recommend a Hercules configuration that best meets your needs. And if you need financing, we can help with that, too. Contact our sales department today to learn how you can compete more effectively with the power of the Hercules.

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Email us at:
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Go to:
www.screenprintmachinery.com

American M&M
SCREEN PRINTING EQUIPMENT

AWT World Trade, Inc.

GRAPHIC PARTS INTERNATIONAL, INC.

The A.W.T. World Trade Group

THE A.W.T. WORLD TRADE GROUP

Your Complete Manufacturing Source for Screen Printing Equipment, Supplies & Parts

The A.W.T. World Trade Group was formed in 2002 when A.W.T. World Trade, Inc. and Graphic Parts International, Inc. purchased American M&M Screen Printing Equipment.

With more than 30 years of experience in both setting up and serving industrial, electronic, graphics and textile shops, The A.W.T. World Trade Group is a screen printer's complete manufacturing source for prepress and printing equipment, supplies, parts and remanufactured products.

Experience has shown that when printers use a single manufacturing source, they reduce compatibility problems between equipment lines and supplies. The A.W.T. World Trade Group designs and develops complete systems to work efficiently and economically together — reducing printing problems, production costs and downtime while improving profitability.

The A.W.T. World Trade Group's technical sales staff will help you choose the right system for your company's needs. Our industry experts in both service and technical support will quickly and confidently help you through the installation and setup process.

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