

Technical Bulletin



Models US5, US10 & US25

Hot Stamp and Heat Transfer Machines

United Silicone's small-area hot stamp and heat transfer decorating machines provide advanced capabilities for reduced setup time, high reliability, efficiency, smooth and quiet operation, and simplified troubleshooting. All machines feature stable, consistent head travel and smooth foil advance for optimum stamping quality from job to job.

Advanced Control System

- Job storage capabilities
- Advanced diagnostic capabilities
- Digital control of temperature and time parameters
- Graphics screen on operator control interface

Stable Head Control

- Improved head guide system for accurate positioning throughout the head stroke
- Safe, quiet, smooth cycling
- Convenient, accurate stroke length adjustment for rapid setup
- Front panel speed controls to set ideal head travel speeds, stamping pressure, and foil stripping condition

Precision Foil Advance

- Constant torque for smooth advance
- Optional, adjustable head-up delay regulates cooling time for optimum foil release
- Accurate, repeatable cycling for minimal foil waste

Precision Heat Transfer Web Advance

- Stepper Motor with constant torque
- Electronic web offset adjustment
- Accurate, repeatable cycling for minimal transfer waste

As your one source for decorating equipment, tooling and accessories, United Silicone can deliver turnkey hot stamp and heat transfer systems that are designed for your specifications. We also offer the industry's most complete line of tooling and supplies, designed to optimize the performance of your decorating equipment.



Model US 10

Hot Stamping Machine

(Shown with optional X-Y table)

- 1-ton maximum stamping force
- Standard head sizes: 6" x 6"
6" x 8"



Model US 25

Hot Stamping Machine

(Shown with optional slide table)

- 2 1/2-ton maximum stamping force
- Standard head sizes: 8" x 8"
8" x 16"

Model US 5 (Not Shown)
Hot Stamping Machine

- 1/2-ton maximum stamping force
- Standard head size: 4" x 6"

*Machines shown with optional opti-touch palm buttons.

ITW United Silicone

DESIGNERS AND MANUFACTURERS OF HOT STAMP AND HEAT TRANSFER DECORATING SYSTEMS AND SUPPLIES

Vertical, Roll-on and Peripheral Machines

Automated Systems • Close Tolerance Machines • In-Mold Feed Systems
Metal Dies • Custom Tooling • Silicone Rubber Sheets, Dies and Rollers
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OPERATING FEATURES

An advanced control system is specifically designed and optimized for hot stamp and heat transfer applications. The control unit provides reliability over all functions and it has machine setting memory for all temperatures and time parameters. It also has the flexibility for expansion and customization. Side-mounted operator controls with membrane switch panel and graphics screen display offers operator convenience by displaying machine settings, machine status and diagnostic messages. Featured is digital control of stamping temperature with overheat set-point protection, dwell time, foil pull time and resistance to electro-magnetic interference. Also provided is a before/after foil pull selector, digital parts counter with reset, a set-up selector and optional head-up delay selector.

Fast, accurate head height coarse adjustment.

Vernier fine adjustment and positive stop on double-acting pneumatic cylinder allows precise control of stroke length and accurate stamping force. The US5 and US10 head guide system consisting of large diameter cylinder rods and guide shafts ensures stability throughout head travel. The US25 utilizes four guide shafts operating in linear bushings for accurate control of the machine's stamp head.

Front panel head speed flow controls permit convenient adjustment of up and down head travel speeds, cycle time, stamping and foil stripping conditions.

Pre-drilled and tapped steel work table provides a stable setup platform and convenient fixture mounting.

Quick-change die holder with adjustable stops ensures positive, repeatable die positioning.

Precision foil and web advance system, driven by a stepper motor, produces constant torque for smooth advance, reliable control, efficient foil utilization, and minimal waste. The system features:

- **Foil tensioning arm** helps prevent wrinkling of foil.
- **Adjustable foil guides and guide rings** maintain accurate foil positioning in relation to decorating surface.
- **Quick-release foil takeup shaft** facilitates rapid roll changeover.

CONSTRUCTION

Rugged steel frame provides high stamping repeatability, while modular design permits easy adaptation to oversize parts. All machined components are coated for long-term protection. Coatings include paint, nickel plating, and anodizing. Optional rugged steel machine stand with solid top and leveling feet offers a sturdy mounting platform.

SPECIFICATIONS

	US 5	US 10	US 25
Maximum Stamping Force (Tons):	1/2	1	2-1/2
A- Head Stroke (Inches):	0-2	0-3	0-3
B- Head Size (Inches):	4x6	6x6	8x8
		6x8	8x16
C- Working Height (Inches):	0-8	2-11.5	3-16
D- Throat Depth (Inches):	5	6.75	8
E- Approximate Dimensions (Inches):	32 High	40 High	49 High
F- Width(Inches):	24 Wide	28 Wide	34 Wide
G- Depth (Inches):	19 Deep	23 Deep	28 Deep
Electrical Requirement (Volts):	110	110/ 220	110/ 220
Air Requirement (CFM):	2	3	5
Air Requirement (PSI):	50-100	50-100	50-100
Working Pressure (PSI):	5-100	10-100	20-100
Net Weight (Pounds):	175	350	600

