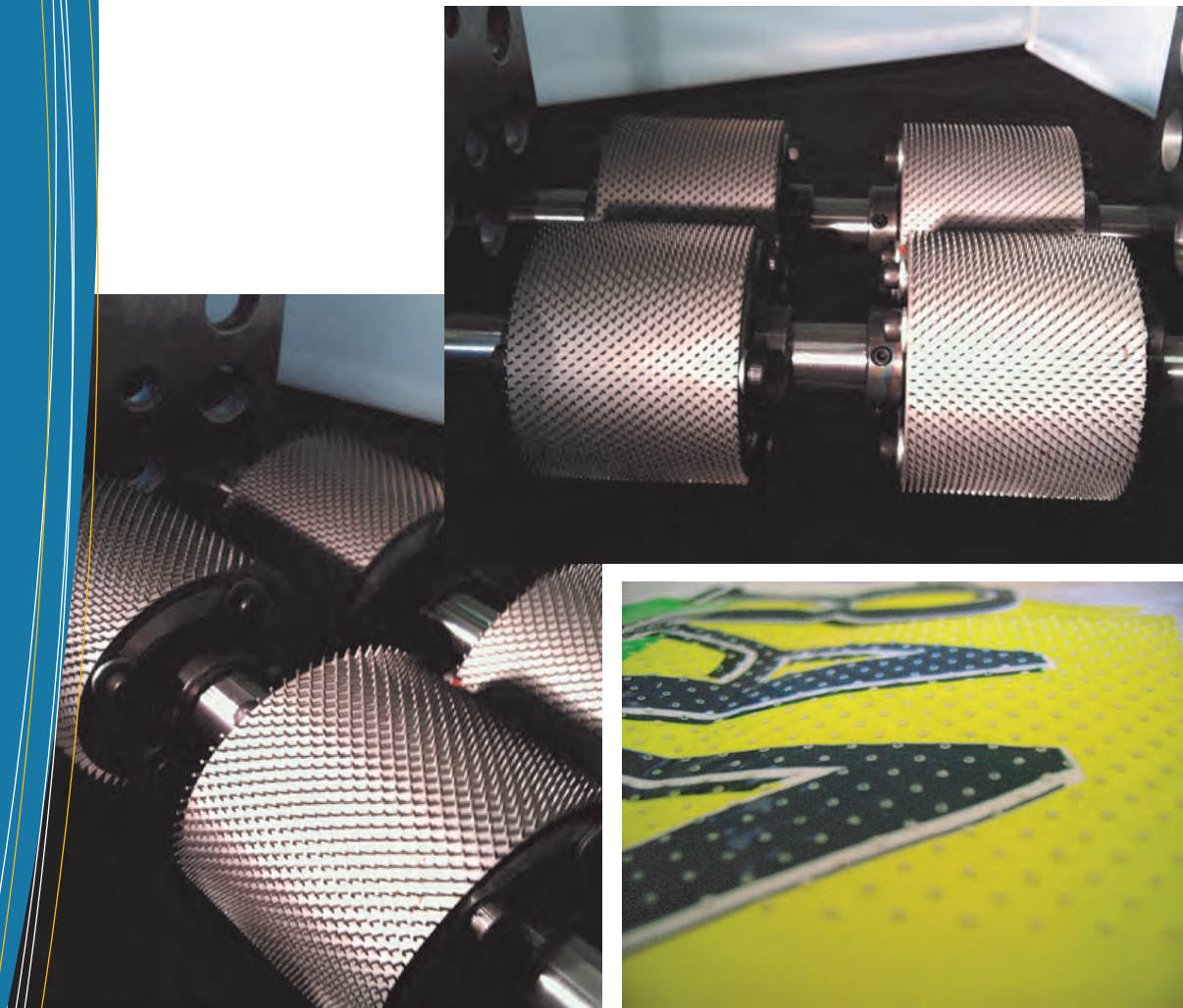


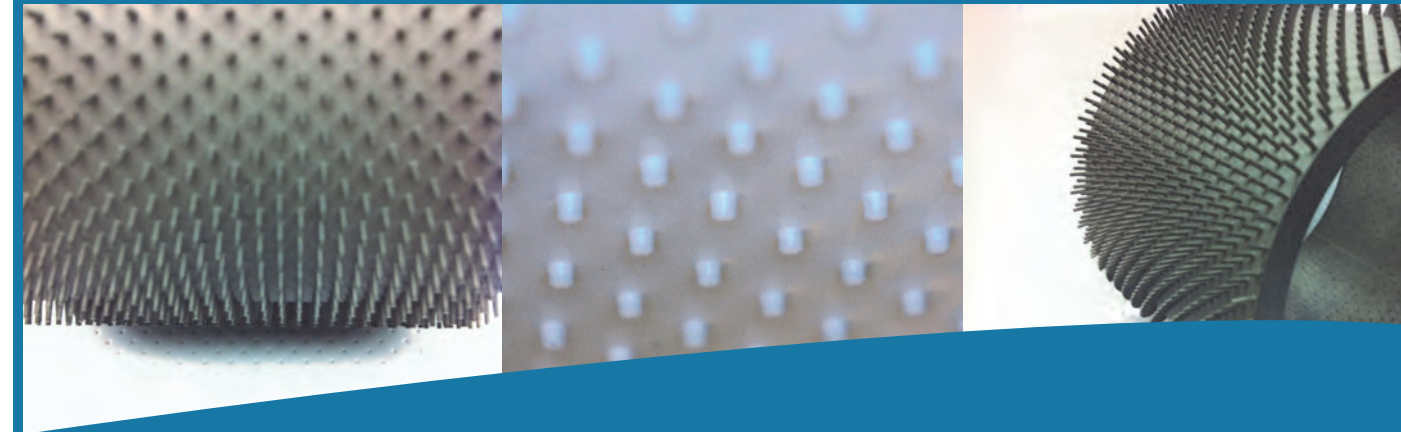
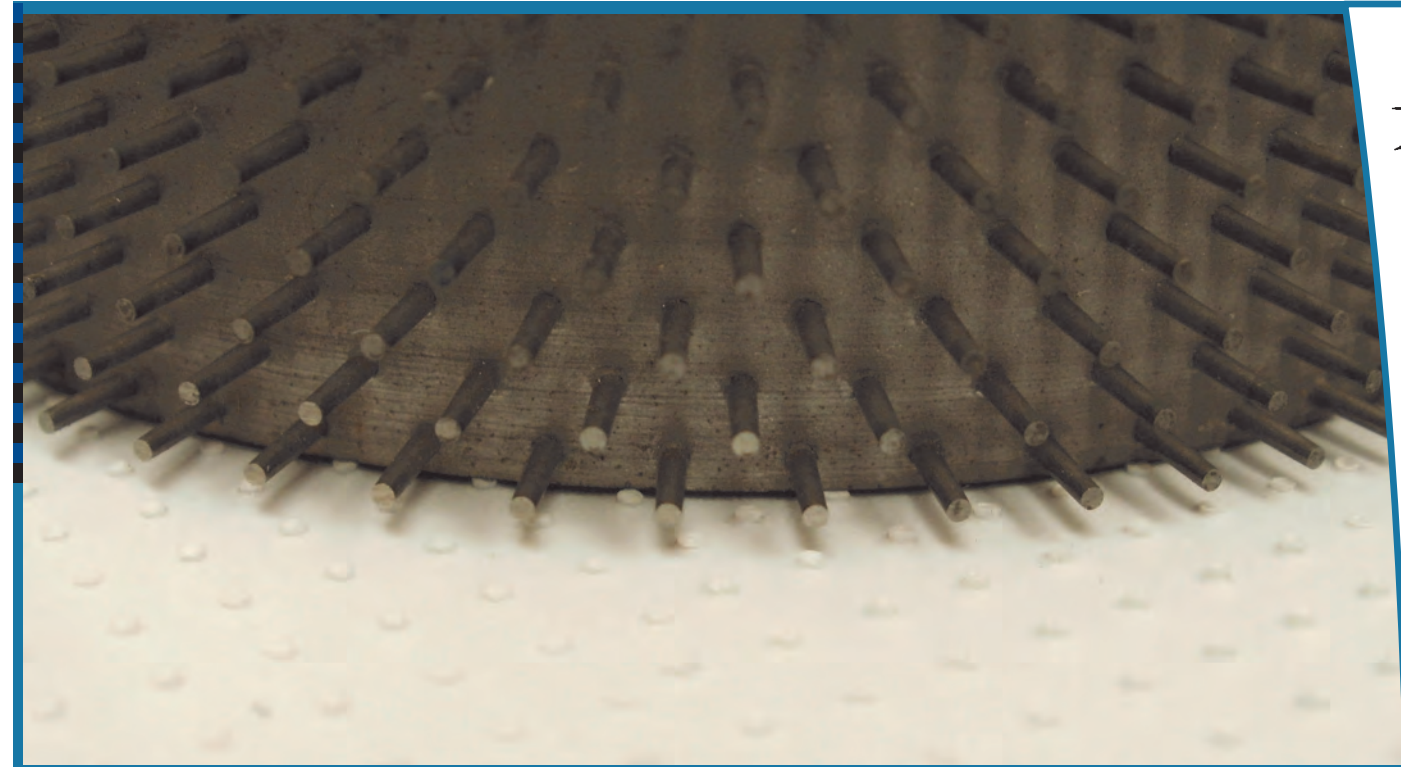
ROTARY TOOLING & MACHINERY

- In the flexible film and foil industry, films can be embossed when laid flat, or with Stewart's of America's **INSIDE-OUT** technology, bags can be embossed and / or perforated from the inside to the outside AFTER the bag is formed into a tube!
- **STEWARTS INSIDE-OUT** technology features a clever floating system that allows the embossing to appear on the outside of the bag. Perfect for anti-slip properties
- **STEWARTS INSIDE-OUT** technology is simple and effective. The embossing depth can be controlled accurately by a hand operated penetration control.



 **Stewart's of America, Inc.**
"On the sharp End of Pinpoint Technology"

2825 Kemet Way
Simpsonville
South Carolina, 29681
USA
Tel: 1-864-967-7085
Fax: 1-864-967-4361
Em: Sales@StewartsofAmerica.com
WB: www.StewartsofAmerica.com



PINNED EMBOSSING
TOOLING AND MACHINERY

 **Stewart's of America, Inc.**
"On the sharp End of Pinpoint Technology"

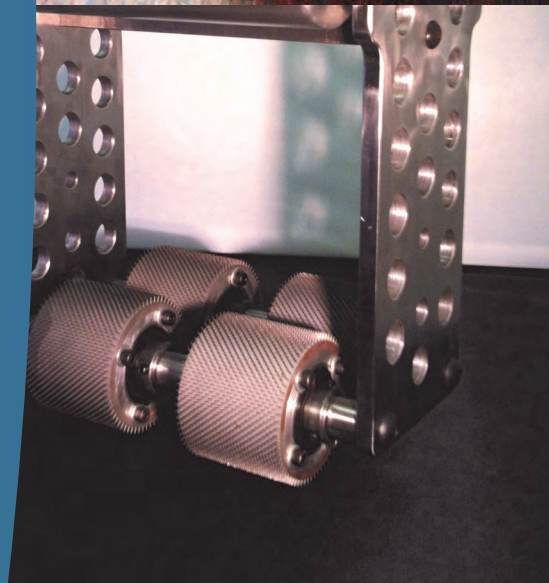


Pinned Embossing Tooling and Machinery



Precision tooling for Precision Embossing

CUSTOM MADE PINNED TOOLING FOR NEW AND EXISTING APPLICATIONS THE HOLE SOLUTION



EMBOSSING TOOLING

A number of different materials can be used as pressure rollers.

- Flat tipped pins to make a wide array of diameters
- Pins can be ground flat or ball nose pins can be used
- Films can be embossed flat or from inside a tube with **STEWARTS INSIDE-OUT technology**.

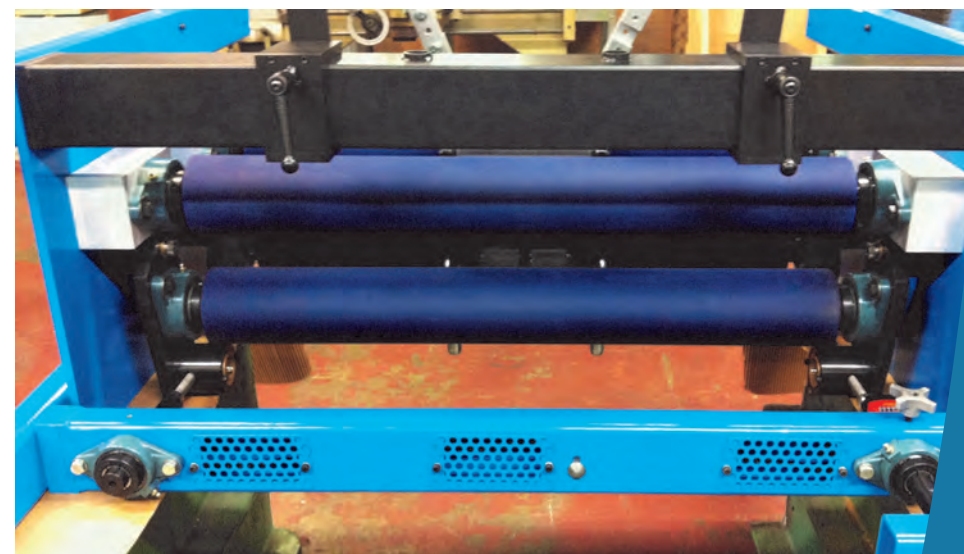


PINNED SLEEVES

- Use the most accurate pins, manufactured to world class precision
- Pins are heat treated and polished for long life.
- Round head or flat point pins can be used
- Pins are typically High Carbon Steel, but Stainless and other metals also optional.
- Wide range of pin diameters and geometries are available
- Custom pin patterns are available
- For warm applications, we Utilize a bi-metallic bronze/steel steel that optimizes thermal transfer between pins.
- Pinned sleeves can be made from Steel, Bronze, Brass, UHMW, Delrin, and a host of other materials.
- Precision fitted to center shaft to optimize thermal transfer
- For warm applications sleeves can be drilled and tapped to hold in place on center shaft
- Sleeves can be drilled with male/female dowel pins to ensure a consistent pin pattern when mounted to the center shaft.
- An internal dower can be machined into the sleeve for orientation.

PINNED PUNCH EMBOSSING

- Punches can be made with or without heating systems
- Multi position punches can be made for quick change stations
- Quick change tooling optional
- Reliable production operation
- Can be automated to be timed with your existing lines



FLEXIBLE INTEGRATION

Stewarts of America pinned tooling for embossing can be a great value add, and is easily integrated into the following standard equipment:

- Extrusion Lines
- Bonding Lines
- Thermoforming Lines
- Slitter / Re-winders
- Simple Unwinds and Rewinds
- Laminators
- Printing Presses
- Bag/Pouch Making Machines
- Post Gusseting Equipment
- and more.....

PINNED EMBOSSING TOOLING:

Max Cylinder Dia: 660mm
Length: 4000mm
Max pin pop: 5000ppin2 / 775ppcm2

A wide range of coatings are available on the various types of pinned tooling. From Teflon based Non-stick coatings, to diamond coatings that extend pin life even further than normal.

COMMON APPLICATIONS:

- **RAISED SURFACES**
- **CHANGES IN TEXTURE**
- **INCREASING SURFACE AREA**
- **INTERFERENCE FITS**
- **GRIPPING SURFACES**



Flexible Embossing Solutions for your converting needs



CUSTOM SOLUTIONS

Stewarts of America have the ability to design and manufacture a custom embossing solution for your specific application. Stewarts of America's engineers are well versed in a wide range of materials and the effects that pinned embossing has on these materials. From Non-wovens to Films and Foils, Stewarts of America are your partners for the *Hole Solution*.



WEB SOLUTIONS

Visit our comprehensive website for a insight of other innovative Pinned Product solutions Stewarts of America offers the Industry. Signup for our e-newsletter, or download informative brochures at www.StewartsofAmerica.com



GLOBAL SOLUTIONS

Stewarts of America has agents and offices worldwide. We ship to over 50 countries . Our equipment is designed with the global market in mind, utilizing electronic components that are available internationally, with the support of our Stewarts of America trained knowledgeable local agents.