Laser-engraved anilox rolls and sleeves

What’s your reputation worth?

Making our planet more productive™
Applications

- Applicators (Coating, Laminating)
- Corrugated (Pre- and Post-Print)
- Envelope
- Flexible Packaging
- Folding Carton
- Liquid Carton/Aseptic Packaging
- Metal Decorating
- Newspaper
- Printed Electronics
- Publications
- Single Use (Tissue, Towel, Cups)
- Tag and Label
- Wallcoverings

In 1979, Praxair Surface Technologies created the anilox roll industry by producing the world’s first laser-engraved ceramic roll. For more than a quarter century, printers and converters around the world have turned to Praxair for anilox rolls and coatings that fit their application and offer longer service life, reduced downtime and greater productivity. See why…

Anilox roll innovation since 1979. Praxair sets the industry standard.
Praxair Surface Technologies’ high standards in manufacturing and engraving anilox rolls and sleeves can help protect your reputation.
And only Praxair performs every step in the production process, including:

- Making our own coating powders and gases
- Developing our own coating technology and equipment
- Engraving and finishing in-house

No other anilox roll supplier has more control for ensuring top quality in every product. Because your reputation is on the line every time you’re on the press.

Support when and where you need it
We’re more than an innovative manufacturer of anilox rolls, sleeves and coatings. Every day, Praxair puts a team of more than 150 people—in addition to a robust agent and distributor network—in seven facilities on four continents to work for you. We provide roll audit and full product technical support, helping you get the best performance, repeatability and quality from your people and equipment. With our worldwide network of Printing Industry Service Centers, we’re always close by. With your reputation on the line, why settle for anything less?
Protecting your reputation step-by-step.

A closer look at our manufacturing process:

Nobody does it like Praxair. We combine our know-how from high-tech industries such as aerospace, oil exploration and energy to provide you with the coating and engraving techniques we have developed over the years. The result is uncompromised high-precision engravings for superior ink release.

1. Inspection/Base Repair

To start, each roll or sleeve is inspected. Praxair service technicians check each anilox roll or sleeve for pattern, screen count, volume, cleanliness, damage and any other relevant conditions. The technicians inspect rolls for cell depth and wear and take digital photographs of each roll’s engraved surface using a high-powered microscope. Damage such as dents is repaired prior to restoring the roll.

2. Grit Blast

Prepared rolls are “grit blasted” to precisely roughen the roll surface with abrasive particles in preparation for coating. Oxides and other solid contaminants can be removed by impinging all or selected areas of the roll with an abrasive material.

3. Coating/Sealing

Utilizing a proprietary thermal spray powder and plasma torch to create a dense, hard, low-porosity chrome-oxide ceramic coating and a proven sealing technology makes our rolls more corrosion resistant than many others. This high-integrity, uniform coating extends the life of rolls and sleeves.
4. Grinding/Lapping
The newly coated surface is ground to precise dimensions, removing all excess materials, and polished to create a smooth surface.

5. Engraving
The laser engraves a microscopic pattern into the roll or sleeve specific to the type of print application. We can engrave from eight lines per inch up to high-resolution patterns of 1300 lines per inch and over a million cells per inch. This proper cell volume and structure allows customers to achieve accurate color reproduction.

6. Superfinishing
This process removes the rough peaks from the cell walls, resulting in a smooth, even surface. Superfinishing reduces blade vibration, premature blade wear and ink pooling, and ensures consistent ink delivery over time.

7. Praxair ensures superior quality worldwide
- **Met Labs.** Only Praxair Surface Technologies places a metallurgical laboratory (Met Lab) at each of our Printing Industry Service Centers. Equipped with testing instrumentation and software, our labs allow our technicians to evaluate and certify every anilox roll or sleeve for coating thickness, hardness, line and screen count, coating adhesion, erosion and volume count—to the same high standard of quality everywhere in the world.

- **Tech support.** Our Design Optimization Unit™ is more than technical support. We work with other suppliers (e.g., ink and plate suppliers) to ensure the entire operation is optimized and problems are resolved quickly.

- **ISO certifications.** We have invested in our manufacturing facilities to ensure the highest levels of quality in a safe environment. Our facilities are ISO 9001:2008 certified.
High-performance solutions for versatile applications.
Novaline® and Proline® Series Laser Engravings

Novaline™ Series
High-quality laser engraving options designed to let rolls run cleaner longer

Nova™ UV Gold
Ideal for UV ink application, including aluminum, film and paper packaging

Nova™ Gold
Developed for high-density flexo printing, particularly high-definition flexible, paper and corrugated packaging

Nova™ Silver
The right choice for solid, process and text high-density printing

Nova™ ART™ Gold
Designed for demanding coating, specialty materials and varnish applications

Proline® Series
Exceptional coverage and coating combined with fast cleanup for better productivity

Proline® 60°
Suppresses moiré effects and delivers easy ink transfer and uniform cell structure—our most popular pattern

Proline® ART™
Anilox Reverse Technology—designed for flexo printing, offset coating, gravure and laminating applications

Proline® HEL*
Open cell structure offers better ink release for gravure and coater applications

Proline® ISF*
Minimizes splash of UV inks

Printed Electronics
Engraving used to create electrical devices on substrates such as flexible displays, smart labels, posters and active clothing

*Not available in the U.S.

Why stop with anilox rolls and sleeves? The same quality and leadership we apply to your rolls can apply to other parts of your operations that can benefit from a highly durable or release coating:

• Agitators
• Chamber pumps
• Corona treater rolls
• Feed screws
• Idler rolls
• Ink pans
• Slitter blades
• Pressroom components

Trusted quality and durability for your critical press components