

A Linde company



Anilox Roll Audits & Technical Services

The mission of the Technical Service Department at Praxair Surface Technologies, Inc. is to provide support services that help customers determine their flexographic printing and ceramic anilox roll needs. One of the most important services PST provides is the anilox roll audit. To perform an audit, Field Service Technicians visit a customer's facility and inspect both the specifications and condition of an anilox roll inventory, and then provide a detailed report on the findings.

What Will a Roll Audit Do For Me?

An audit will help categorize anilox rolls by volume, screen count and pattern, as well as by customer roll number, will give a clear picture of the condition of rolls that have been inspected, the quality of the cell structure, and each roll's ability to deliver the correct print density. The results of the audit can also assist a customer in selecting Anilox Roll Audits & Technical Services which anilox roll to use for a desired job, thereby reducing downtime, product waste and unnecessary roller changes. Additionally, an audit can help predetermine target screen counts and volumes for future roll orders and provide a baseline for subsequent inspections.

The Inspection Process

During a roll audit, PST's service technician will check anilox rolls for pattern, screen count, volume, cleanliness, damage and any other relevant conditions. In addition to determining the current URMI liquid volume, the technician will inspect rolls for cell depth and wear, and take photographs of each roll's engraved surface using a high-powered microscope with a digital camera attachment.



When Do I Get the Results?

After the roll audit is completed, the Field Service Technician will give you a verbal "snapshot" of the findings, including any actions that can be taken immediately to improve roll inventory. Within two weeks of the audit, a complete written report will be submitted, with various spreadsheets, engraving photographs, color graphs, and detailed comments and recommendations.

Audit Preparations

To help the technician perform a quicker and more accurate inspection, PST will request a complete summary of all anilox rolls to be audited, including:

- Roll identification number,
- Screen count,
- The original volume,
- The date each roll was first put into service,
- The roll supplier, and
- Any other significant information that would be of help to the technician.

It is important to point out that rolls can also only be accurately inspected when they are out of the press, in a well-lighted work area with a bench or tabletop, with access to 120-volt electrical service and an extension cord. Water for cleaning the rolls following the volume inspection is also necessary, and it is always helpful if an assistant can be provided during the course of the audit to aid in moving rolls, locating roll numbers, etc.

Technical Services

While at a facility, Praxair's service technician can conduct a number of technical programs that will benefit the customer. For instance, training in the proper use of a gravurescope to measure cell depth and photograph roll engravings will provide a method to periodically examine rolls and monitor the amount of wear, or the roll's cleanliness.

Additional training is also offered in determining roll volume using the URMI liquid volume measurement instrument. With this technique, a known amount of ink is applied to the roll's surface, then spread with a doctor blade unit. An inkblot is produced on the roll surface that is transferred to paper and measured with an electronic, or mechanical, scanning device. If a roll is dirty, the device will show a low URMI volume reading, indicating a possible source of poor print quality.

Another key component of Praxair's technical service program is education on the care, cleaning and maintenance of anilox rolls. The service technician can train pressroom personnel in the proper procedures for cleaning and handling anilox rolls to prevent possible damage, and how to patch rolls that are chipped. This program includes special cleaning procedures for different types of foreign materials that might interfere with print quality. For example, using a brass wire brush to clean a roll, instead of stainless steel, will clog the cells with brass fragments that can only be removed by applying a special acid.

Cleaning and maintenance training would also cover the benefits and problems associated with high pressure, or ultrasonic, cleaning, and information on various types of anilox roll cleaning methods.

This is only a brief overview of the assistance the Technical Service Department can provide Praxair's customers. Please contact your Technical Sales Engineer to determine how PST can assist in improving your printed products.

How to Get Started. Contact Us Today.

Ask a Praxair printing specialist to schedule a complimentary anilox roll audit.

Call the nearest location or email psti-info@praxair.com.

Or visit www.praxair.com/printing to learn more.

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