

Ceramic Anilox Roll Hand Proofing System

Praxair Surface Technologies has developed a ceramic anilox roll handproofing system to allow printers and converters to achieve more accurate and precise color matching without having to rely on guesswork or time-consuming ceramic anilox roll changes.

Praxair's hand proofing system is essentially a miniature, hand-held press that provides more exact color matching for laser engraved ceramic anilox roll printing applications.

Previously, the majority of color proofers relied on mechanically engraved chrome anilox rolls for ink transfer. The problem with these proofers was that they could not consistently predict color using mechanically engraved anilox rolls while the press used laser engraved ceramic anilox rolls.

Praxair's solution was to develop a hand-proofing color match system that uses a miniature version of its standard laser engraved ceramic anilox roll to provide more accurate color matching results in every application.

How does the hand proofing system work?

Our hand proofing system consists of an integrated handle and assembly mechanism, two rubber ink transfer rolls and four Praxair laser engraved ceramic anilox rolls with application-specific engraving bands. In addition, each kit contains a doctor blade assembly and an ink transfer plate.

To make our system ready to use, one of the rubber ink transfer rolls (which simulates the plate cylinder in the press) is installed into the proofer



mechanism. The engraved anilox roll is next inserted in this mechanism, along with the doctor blade. The doctor blade pressure can be regulated by the screw in the handle of the device. Finally, the ink transfer plate is opened and placed on a flat level surface with the guide rails facing up.

For color matching or proofing trials, a small amount of ink is applied between the surface of the two small rollers. To properly ink the mechanism, the hand proofer is positioned between the guide rails of the transfer plate at a 45-degree angle to the plate. The hand proofer is then pulled through the guide rails several times to uniformly distribute the ink film over all the rollers.

If your doctoring system uses a reverse angle blade, or a doctor blade chamber, the elimination of engraving at the edges for 1/8" or more may also prevent chipping and/or edge damage. This

non-engraved area on each end of the anilox roll is commonly referred to as localization.

Finally, an additional option would be to manufacture the anilox base with steel (or stainless steel) shoulders that will absorb mechanical impact and prevent the hard, brittle ceramic from chipping. There are drawbacks to using this alternative, however, including the fact that doctor blades wear steel more quickly than ceramic, resulting in the need to re-weld the steel edges to re-install the shoulders. Also, if the doctor blades do wear the steel shoulder, there may be increased ink slinging by the end seals.

Finally, the sample substrate is placed on the transfer plate, and the hand proofer is pulled through the guide rails and once over the substrate to produce a test sample. By varying the anilox rollers in the assembly and then

repeating this procedure, different ink densities for various printing applications can be replicated.

Cleaning and Maintaining the Hand Proofer

It is important to remember that the rolls and blade assembly must be cleaned after each use. However, the unique design of the assembly makes removing and cleaning the rolls both simple and fast. When cleaning the hand proofer, cleaning solutions recommended by the ink manufacturer or Praxair's ceramic anilox roll cleaner should be used in order to achieve the best results. Just as with Praxair's full-sized laser engraved ceramic anilox rolls, the ink should never be allowed to dry on the rollers, or the color matching test results will be less accurate. Always allow the entire hand proofer mechanism to thoroughly dry between color matching trials.

How to Get Started. Contact Us Today.

Ask a Praxair printing specialist to recommend the best engraving for your application.

Call the nearest location or send us an e-mail at printing_sales@praxair.com.

www.praxair.com/printing

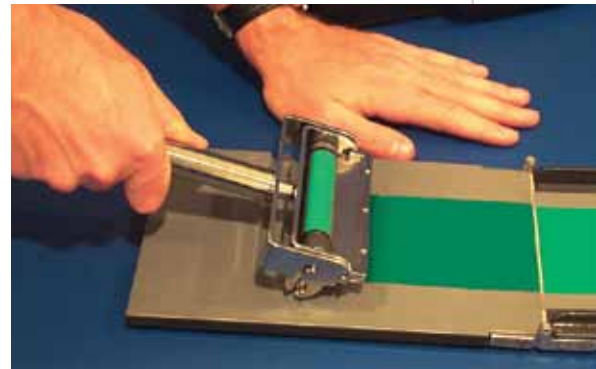
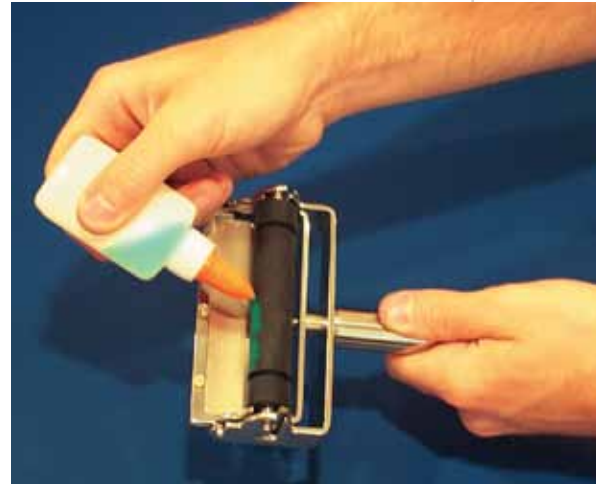
The Benefits of Using Praxair's HandProofer

For quick, easy and accurate color matching, Praxair's hand proofing system is a practical way to match colors off-press. The system offers the advantage of using the same high quality laser engraved ceramic coated anilox rolls that are already installed on the printing press, resulting in the most accurate and precise color matching test samples available.

And, having the correct color match data means the operator can save time in selecting the correct laser engraved ceramic anilox roller for the job, without having to rely on guesswork. Using our hand proofer can save money as well, as fewer anilox roll changes in the press are necessary if the exact color match data is known beforehand, and knowing the precise engraving selection needed for the application will eliminate

downtime from installing test rolls in the press.

For further information on how Praxair's hand proofing system can help you achieve more accurate and precise color matching for your process printing applications, as well as saving you time and money with roll selection, contact your Praxair Surface Technologies' Sales or Customer Service Representative.



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