



Menges Proof-Nip Impression Paper

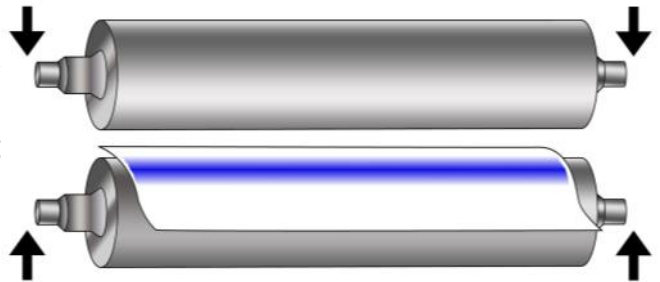
The Only Industrial Roller Source You'll Ever Need

Since 1966, Menges Roller has been dedicated to designing, manufacturing, repairing and recovering all types of industrial rollers. Our customers are primarily in the plastics, paper and steel converting industries, and we provide specialized products and services to each sector.

Our Menges Proof-Nip Impression Paper can be used with any nipping system. This special pressure-sensitive product allows engineers to test the "even-ness" of their nip system. The information gathered from our nip impression paper is then used to recalibrate machines and calculate the proper dimensions for roller crowns.

Roller crowns are critical to most nip systems, as they compensate for the weight and pressure coefficient known as deflection.

Menges Proof-Nip Impression Paper is easy to use and decipher. And of course, the Menges Team is always available to help describe what your impressions represent.



Menges Proof-Nip Impression Paper is easy to use. The nip system is simply opened, the paper slid between the rollers length-wise, and the nip system engaged. When the nip is opened, the paper shows very clear impressions indicating areas of high pressure and low pressure along the nip line.

Proof-Nip Impression Paper from Menges Roller:

- The easiest way to see exactly why your nip system is not providing even results
- Clear & visible markings show areas of high and low nip pressure
- Allows engineers to determine proper crown dimensions and nip pressure settings
- Paper is "ready to use", no need for inks or dyes (an all-in-one laminated, pressure-sensitive product)

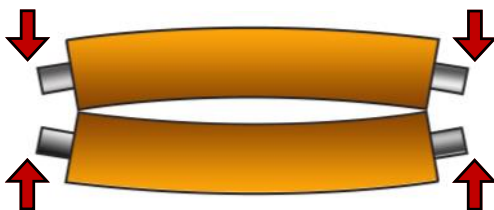
Crowned Rollers for Nip Systems

In nip systems, extreme pressure at the roller ends can create deflection. Deflection is a slight bending or bowing of the roller. This results in uneven contact between the two rolls of your nip system (gapping) and overall poor nipping results.

Adding a slight parabolic crown to one or both nip rolls - to compensate for deflection - restores an even distribution of nipping pressure. Menges regularly forms crowns into rubber-covered rolls, however they can be machined into steel rolls as well.

But the first step in determining what your crown needs are is checking the contact pressure across the nip line. Menges Proof-Nip Impression Paper helps you do this.

Looking at your "impressed" nip impression paper, Menges Engineers use engineering equations to formulate a diameter and angle (the "Cosine Curve") for a crown that will solve your nipping problems. We also consider the rollcover chemistry and durometer, your linespeed, etc. Uneven nip results are common, but you can count on Menges to get you back on track.



Deflection is a slight bending of the roller, the result of pressure at the ends. Crowns, milled into the rollcover, compensate for deflection. Menges Proof-Nip Impression Paper shows our engineers how much crown is required to achieve optimal nipping results in your system.



Every nip system is different, so calculating the optimal Cosine Curve must be done carefully. Crowns can be as small as a few thousandths of an inch. Menges Proof-Nip Impression Paper gives engineers the data needed to formulate the optimal crown for the each particular situation.



Menges' computer-controlled crown forming machines have the ability to create precision crowns as slight as .001 inch.

Menges Proof-Nip Impression Paper - Usage & Results:

Proof-Nip Impression Paper from Menges Roller Company is an easy-to-use product that generates images that engineers use to optimize the performance of rollers used in nipping systems. Here you'll see how to use our Proof-Nip Impression Paper, and some of the most common impression results.

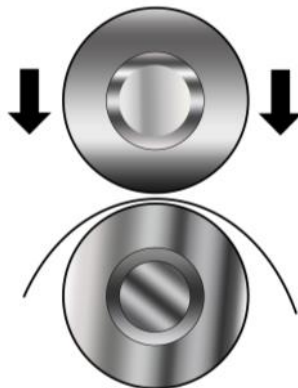
After you've made your impression, a Menges Roller Engineer is your best choice to help decipher the results and determine what plan of action would be most appropriate to solve any issues associated with your nip system.

Making Your Impression

Menges Proof-Nip Impression Paper is inserted directly into the nip system.

Open up your nip and lay the paper down lengthwise on the bottom roller. Make sure to center the paper is in the middle of the nip system.

Then close the nip system to make the impression. Open it up, take the paper out, and analyze the results with your Menges Engineer.



Impressions and What They Mean

Impressions from Proof-Nip Impression Paper are but one factor in analyzing a nip system. Menges Engineers also examine the rollcover compound, its durometer, the nip machine's pressure settings, the linespeed and material being processed. One factor can easily affect the others.

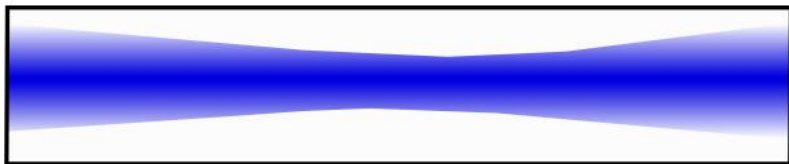
This is why its always best to have a Menges Engineer analyze your impressions. With 40-plus years in rollers, we can troubleshoot the most complex nipping problems.

Below are some of the most common impression images we see, and the most common causes.



Proper Nip Results:

Images like this represent uniform nip pressure and proper crown profiles. This is what you want to see.



Check Load & Roll Diameter:

This impression would indicate the need for a larger crown on at least one of the nip rolls. But this should coincide with checking the nip load and pressure settings.



Roll Crown Too Large:

Crowns are often machined in thousandths of an inch. A small crown can make a big difference. An oversized crown will generate extensive middle pressure, as in this impression.



Unbalanced Load or Misaligned Roll:

Many operators make the mistake of adjusting only one side of the nip system, and this is the result. This can also be cause by the web having higher tension or more weight on one of the sides.



Banding / Roller Wear / Grinding:

This is the tell-tale sign of banding, typically caused by uneven rollcover wear. This can sometimes be easily remedied with a simple web recover. But grinding can also be cause by related web or equipment issues.

Menges Roller - Your Partner in Nip System Optimization

Whether you're in plastic laminating or steel coil processing, your nip system is critical to your operation.

At Menges, we realize the importance of these components, but we also understand their complexities.

Using Menges Nip-Proof Impression Paper is just the first step in solving your nip system issues.

Your Menges Sales Engineer will work with you do propose practical, cost-effective solutions.

We're here to help you run faster, waste less and produce a better product.

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