

EXPERTIP

Category	FORMING
Keywords	Forming fabric, forming fabric installation, forming fabric start-up, installation safety

Tips for Installing and Starting Up your Forming Fabrics

The first step in getting maximum performance from your forming fabrics is to make sure you handle and install them correctly. Having an action plan and executing it properly not only minimizes machine downtime, but also ensures that the fabrics will run trouble-free on your machine.

As part of your action plan, consider the following questions:

1. **Do we need to do any maintenance or repair work to the forming section to correct for misalignment?** (If the fabric you are currently running is hard to guide or showing signs of misalignment, you should diagnose the cause(s) of the problem and correct before the new fabric is put on.)
2. **How should we prepare the new fabric and position it for installation?** (Care should be taken in transporting the fabric from storage to the machine floor. Clean the area before placing the new fabric on it. The end labels on the packaging show the direction the fabric is rolled up, so you can position the roll correctly before opening the tube.)

Safety First!

First priority, of course, is SAFETY. The following precautions should be taken when installing a new fabric:

1. Assign a LO-TO-TO = Lock-Out, Tag-Out, Try-Out safety coordinator.
2. Wear appropriate personal safety equipment, including gloves.
3. Use the right equipment and tools (e.g. use a bandcutter instead of screwdriver or pliers).
4. Be vigilant about moving machinery, pinch points, etc.
5. Communicate, coordinate, and observe.
6. Never place body parts under/between cantilevered equipment.
7. Report anything UNSAFE.
8. Use extreme caution when cutting plastic bands off the fabric tube. Stand to the side of the band when you cut it.

Forming Fabric Installation

Each machine is different and may have different Standard Operating Procedures (SOP) for fabric installation. But, there are some points that should always be considered when installing a forming fabric:

1. Make sure all crew members understand the installation procedure and position team members appropriately before starting.
2. Wash down the floor and allow the floor and machine to dry as much as possible. A wet fabric is usually harder to pull on.
3. Avoid walking on the fabric while it is on the floor. The sheet side is most vulnerable to damage – which can show up as a defect in the paper sheet.
4. Avoid cigarette use around fabrics. Extreme care should be taken when welding as hot sparks don't mix well with the materials used to construct forming fabrics. Sparks can either burn holes in the fabric or leave embedded particles in the fabric, which will cause holes in the paper.
5. Be sure to cover all sharp protruding edges on the machine to prevent damage to the fabric during installation.
6. If the fabric is to be socked on, it is recommended that an old fabric be used to cover the floor and to cover as much of the front edges of the machine as possible.
7. Fabric edges should not be ridged or wrinkled during pull on. If it happens, minor wrinkling can be removed by gently folding a wrinkle back in the opposite direction. CD wrinkles will generally disappear when tension is applied.
8. Have all team members pulling equal amounts at the same time.
9. If using a clamp to pull the fabric on, make sure it doesn't damage the edge of the fabric. Clamp inside the treated edge (Figure 1).
10. Make sure fabric is perfectly flat throughout the run.
11. Ensure the fabric is centered on rolls or square on the machine before tension is applied.

"Best Practice"
Recommended Clamp Position
(Clamp inside of Edge Seal)



Improper Clamp Position
(Do not clamp on Edge)

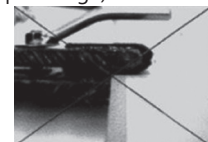


FIGURE 1. Clamping procedure.

Forming Fabric Start-up

Here are some points that should be considered when starting up a forming fabric:

1. Do a final check to ensure that the guide roll is functioning properly.
2. Ensure the area around breast roll and headbox apron is clean. Debris falling between the breast roll and fabric can damage the fabric.
3. If using deckle boards, verify the clearances and set-up.
4. Make sure that all team members are clear of the machine before jogging the fabric.
5. Ensure that all debris is washed off or removed before tensioning fabric.
6. Set fabric tension at a minimum value, but enough to drive it without slippage: 11-17 pli (2-3 kN/m).
7. Position someone at each ingoing roll to wash the nips as the fabric is slowly jogged forward and then stopped.
8. Increase tension slowly with the fabric on crawl or slow speed.
9. Start-up all former showers – Ensure all oscillators are functioning normally.
10. Keep a sharp eye on guiding and tension. Adjust as necessary.
11. Check the fabric alignment. Adjust as necessary.
12. Bring the fabric tension up to operating value as the machine is speed up from crawl to desired speed.
13. Make a note of guide and stretch roll positions for future reference.
14. Check the fabric for ridges or edge curl.
15. Stock On!
16. Check fabric tension frequently for the first 24-48 hours and adjust the stretch as necessary

Additional Information

Section 2.4.1 of the second edition of AstenJohnson's Paper Machine Clothing book has more detail on maintenance that should be completed during a fabric change.

Questions?

We are here to help. We distribute **ExpertTips** to help you improve the performance of your paper machine. Not just fabric performance, but the overall efficiency, reliability, and productivity of your mill.

If you have questions about anything you see here, please contact us by emailing expertip@astenjohnson.com or visiting our website www.astenjohnson.com/training/expertips.

And, if you have suggestions about other topics you would like to receive an ExpertTip on, we would love to hear from you!