

Seaming Method Comparison for Shade Manufacturing

by Glenn Lippman, President, Novaseal Corporation (July 2010)

Often we are asked to compare seaming methods for manufacture of window shades. Although sewing methods were the first methods available for manufacturers of shades, there seems to be very little else that sewing can do when compared to modern methods of heat seaming shades. Originally material selection was limited, however with the advantages and popularity of heat sealing, shade material manufacturers have broadened their heat-sealable lines to include a variety of traditional fabrics to the more advanced “green” materials. And then there is always the availability of heat activated sealing tape for non sealable materials.

An early advantage of sewing was cost. This was especially true when heat sealers were first introduced. However, since the early days when RF was the only choice, there now exists several significantly lower cost heat sealing options. And when Novaseal perfected the Pulse-type sealing method, the quality of heat sealing has far surpassed conventional heat sealing methods such as RF and impulse sealing. Novaseal’s Pulse-type method combines the benefits of RF with the economies of impulse sealing.

In researching data for this report, I haven’t found any time study comparisons, however Shade Professionals were quick to explain the differences, and they all seemed to favor heat sealing over sewing. Here is a summary comparison:

Sewing Method	Sealing Method
<p><u>Maintenance.</u> Requires needles and thread. And thread color can change with each shade color. So lots of thread colors need to be stocked. Threads break, and the time to rethread the bobin can be quite considerable.</p>	<p><u>Maintenance.</u> No needles, no thread. Depending on use, Heating Elements and teflon replacement is minimal. Compared to sewing, sealing requires less overall maintenance and no inventory of thread colors.</p>
<p><u>Training.</u> Sewing method requires significantly more training than heat sealing. Labor costs are significantly higher. Production rates depend on operator training and experience.</p>	<p><u>Training.</u> Once material settings are set, repeatability makes training on use of a heat sealer incredibly simple. A heat sealer operator’s labor rate is significantly less than an operator of a sewing machine. Production rates depend on the machine, not the operator.</p>

<p><u>Production.</u> An operator can only sew one shade at a time, and needs to be dedicated to that process. And sewing requires back stitch to prevent stitch unraveling.</p>	<p><u>Production.</u> Multi-tasking is easier with heat sealing methods. One operator can cut materials at the same time sealing the shade.</p>
<p><u>Production Rates.</u> Shade professionals have advised that sewing rates are slower than heat sealing by a factor of 2X.</p>	<p><u>Production Rates.</u> With Novaseal’s ShadeSealer-168, an operator can easily seal three 48-inch shades at the same time, which means that heat sealing production rates are 6-times faster than sewing rates. Efficiency increases with Novaseal’s larger format sealers, ranging from 168-inch to 294-inch.</p>
<p><u>Aesthetics & Seam Strength.</u> Sewn seams do not look as professional as heat sealed seams. And seam strength is far less strong than heat sealed.</p>	<p><u>Aesthetics & Seam Strength.</u> Heat sealed seams are professional looking and seam strength is often stronger than the original material.</p>
<p><u>Client Base Limitations.</u> Clients who settle for sewn seams are decreasing yearly. As clients have become aware of heat sealed seam, they are demanding that shades are heat sealed. Sewn seams do not last as long as heat sealed seams, and sewn seams require frequent repair.</p>	<p><u>No Client Base Limitations.</u> If anything client base increases based on additional capabilities such as high speed seaming of “green” materials, sealing exterior shade materials, etc. Additionally many commercial contract jobs require heat sealed seams.</p>
<p><u>Hem Bar Ends.</u> Hand sewing to close hem bar pocket can be difficult. Hospitality contracts require closed ends.</p>	<p><u>Hem Bar Ends.</u> Incredibly simple to close hem bar pockets by sealing the ends. No thread matching. Novaseal’s EndSealer produces perfect ¼-inch seal in seconds.</p>

In summary, when you combine features of seam strength, aesthetics, professional look together with 600% increase in production and increased client base, heat sealed seams are significantly better than sewn seams. Return on investment could be as soon as three months! And Total Cost of Ownership is significantly less than sewing especially when you consider labor costs, thread costs and additional inventory.