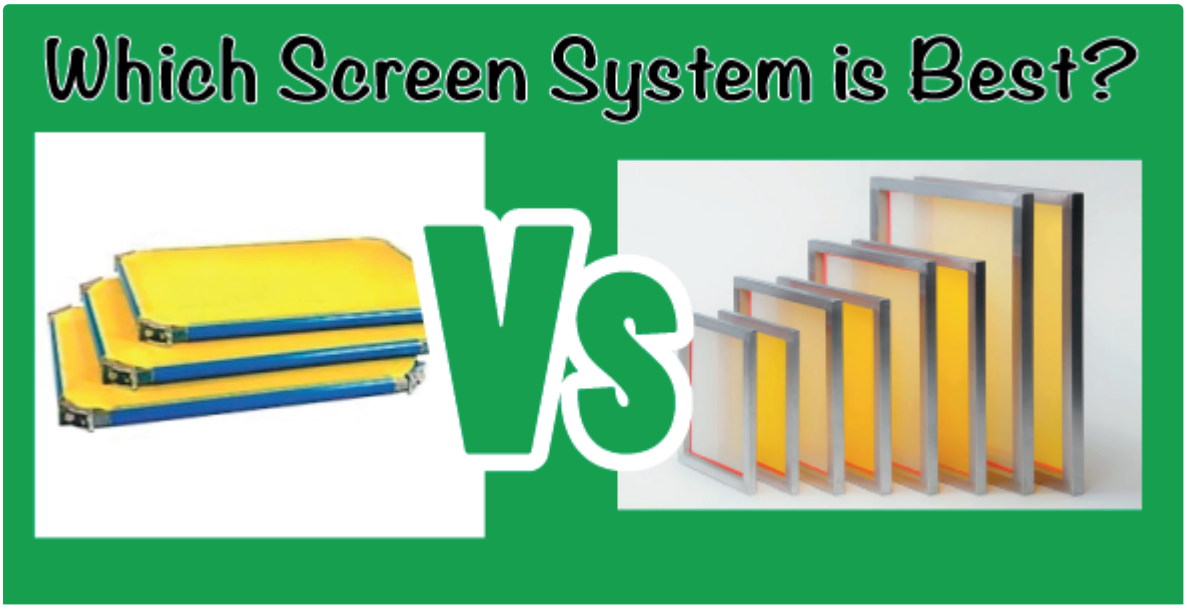


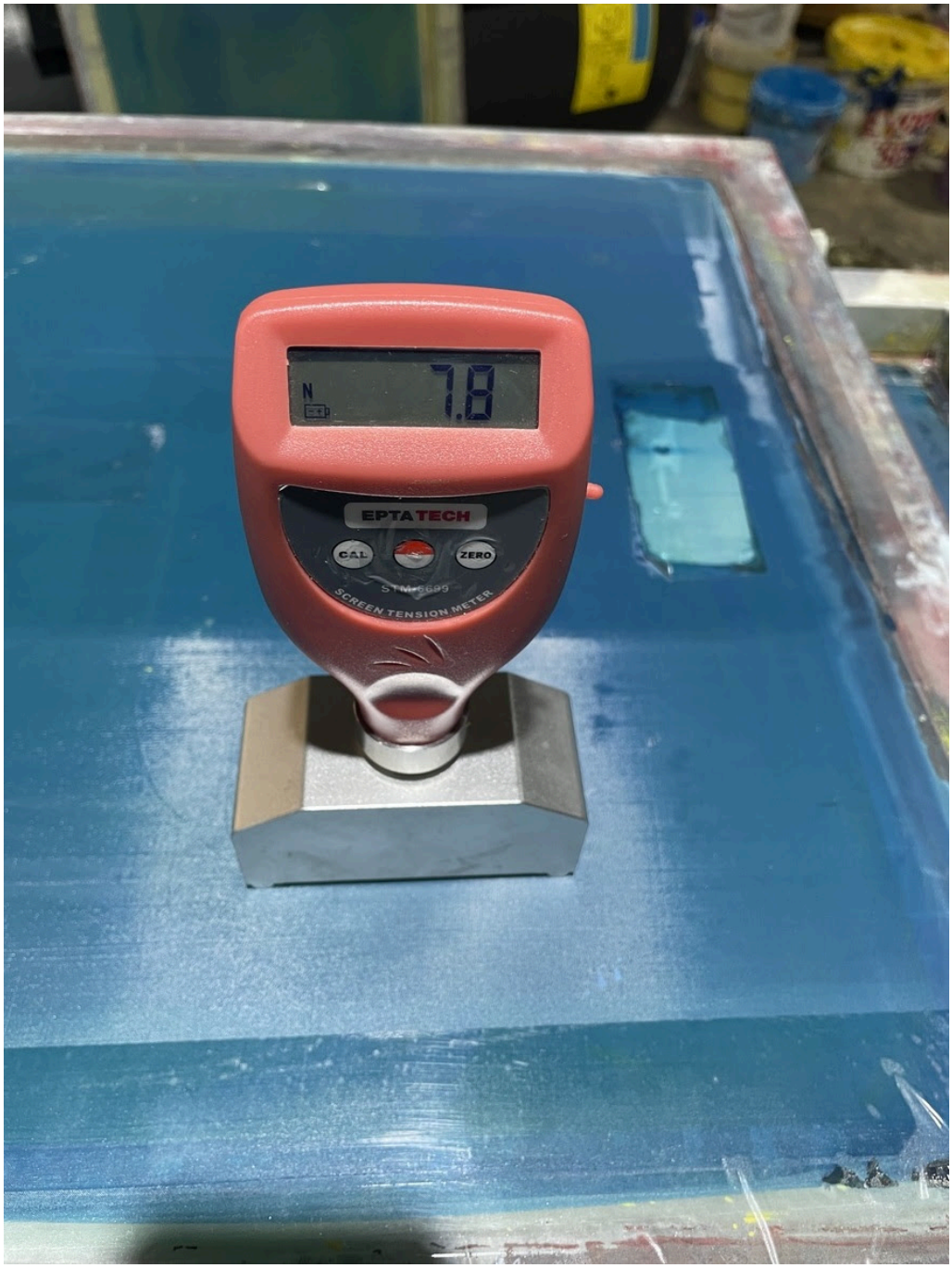
What's the best tension?

Newman roller Frames are adjustable

Feeling the Tension.

The best mesh tension for garment printing depends on various factors such as the type of ink, substrate, and the design being printed. However, in general, mesh tensions ranging from 20 to 25 Newtons per centimeter (N/cm) are considered suitable for garment printing using static frames. Adjustable frames operate in a much higher window. Roller frames can stretch the correct mesh up to 40 N/cm.

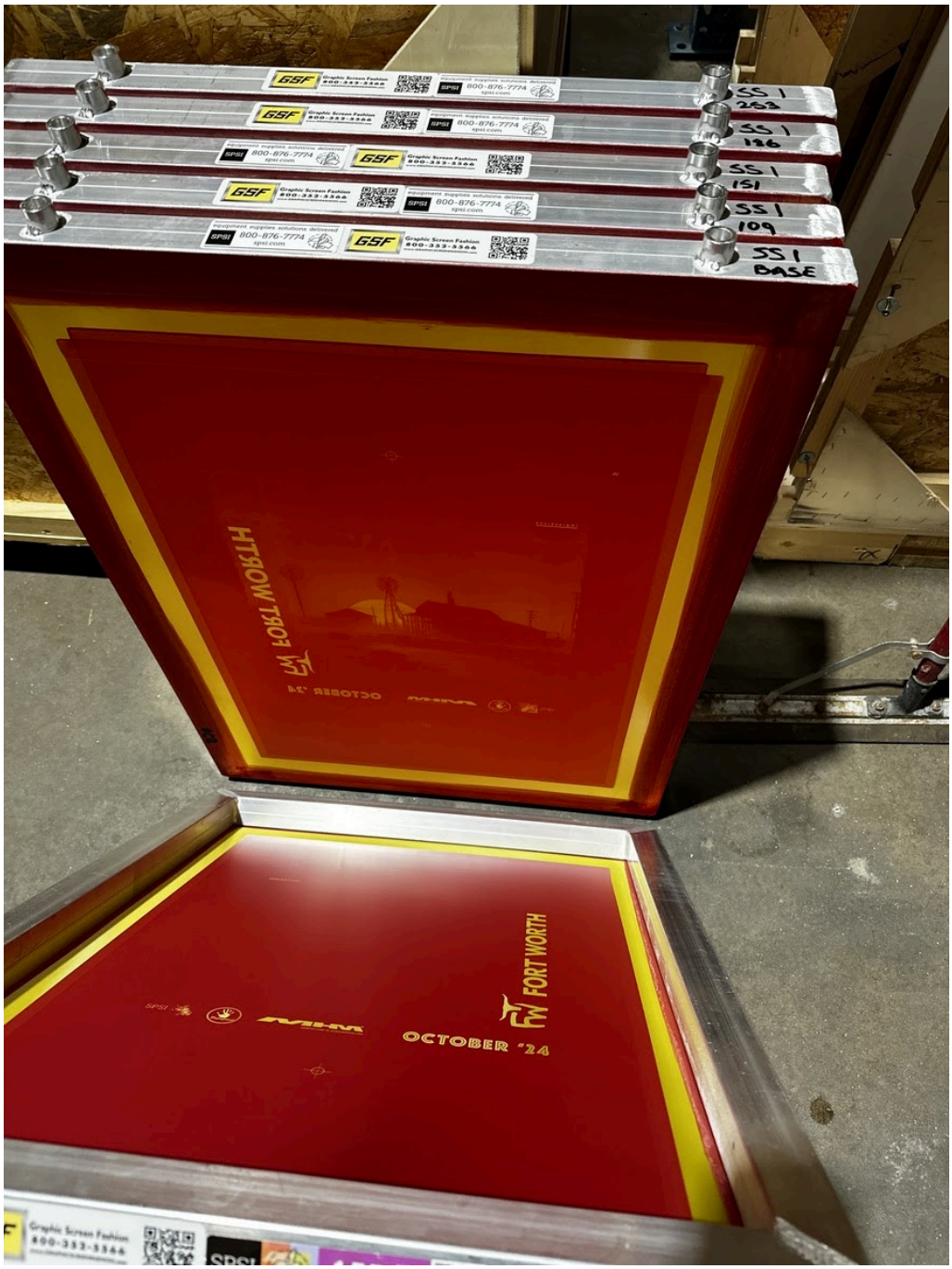
These frames are made from either tubular steel or box section with channels in the side. They use mesh panels which are trapped into the channel on the frame by either plastic inserts or more frequently mesh panels that have a plastic insert sewn into them.



Low Tension equals Low Quality

Stubborn Teenager

It is essential to get the right mesh tension for garment printing because it affects the quality of the print. A mesh with low tension can result in ink bleeding or smudging, and we risk the ink not actually wanting to leave the safe haven of the warm and cuddly ink side, while a mesh with too much tension can cause the ink to be under-deposited as it resists being pulled through the mesh like a stubborn teenager in the morning, resulting in a faded or incomplete print.



Static frames are not adjustable

So which is best? Static or adjustable??

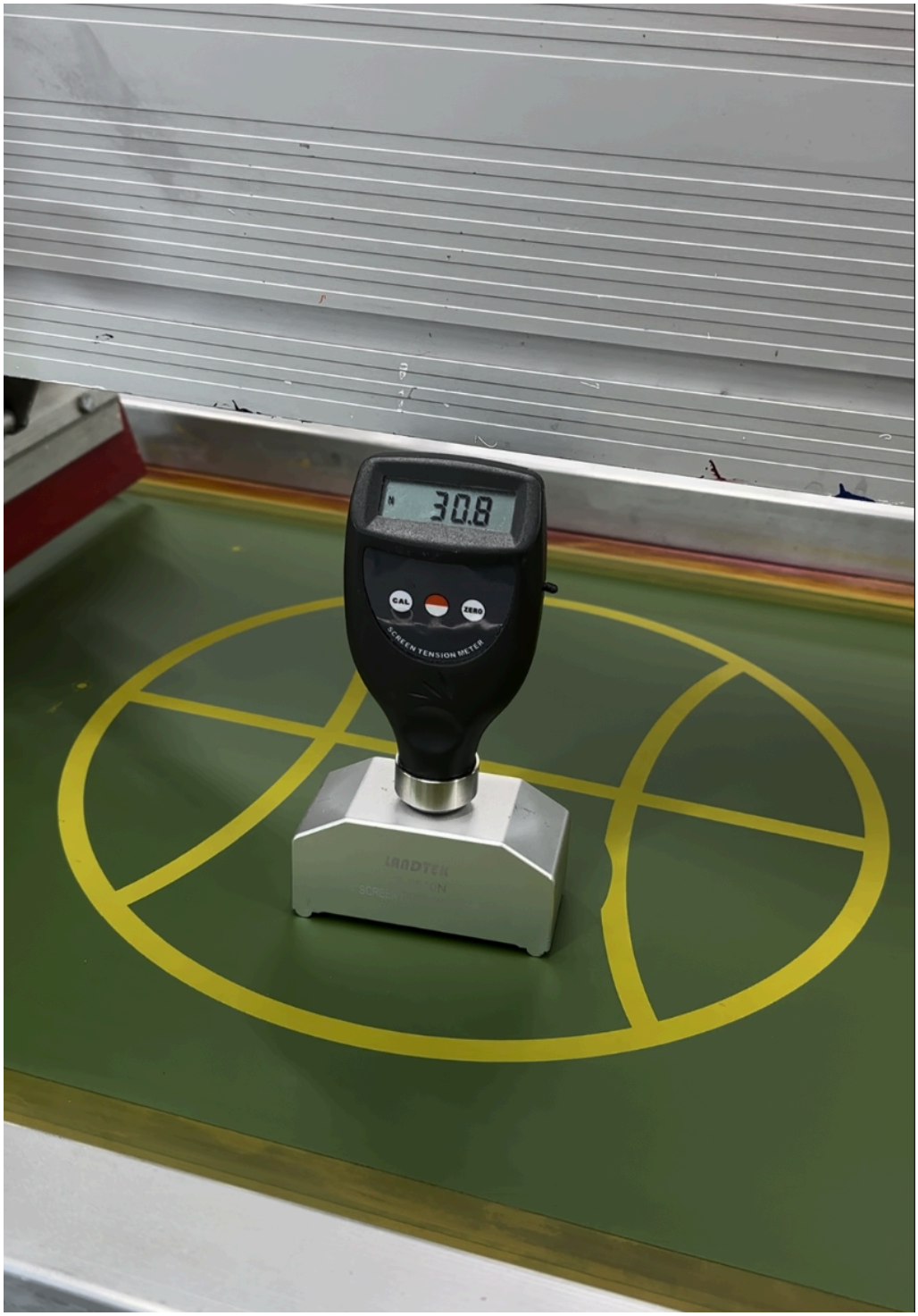
This is a question I get asked quite often and the answer is the same as ‘what’s the best flavour of crisps?”

There is no definitive answer *(Seabrook Beefy).*
Static frames are usually 40mm box frame, made from 1.6mm aluminium box section and welded into approx. 45 degree right angles, this rectangle frame then has a piece of polyester mesh stretched and glued with a permanent 2 pack adhesive. This glue keeps the tension static. The tension relaxes throughout the life of the screen as it pulls a little away from the glue and as the polyester itself relaxes during the relentless heat, water, pressure cycle that we expose (pun) screens to everyday.

Roller frames or adjustable frames, take advantage of this relaxing property that we find in the mesh. After one heat, water and pressure cycle, we can adjust the tubular frame to stretch the mesh that little bit more. This process is high maintenance and the sole reason I personally don't use them. The time cost of maintaining the perfect tension is too high for most shops in UK and Europe.

We are fortunate to be in an area where next day delivery is the norm, when the geographical distances get larger that we start to see that , creating a pallet of old frames and posting them to the re-stretch facility is not an efficient use of either time or money, this is why the use of Roller frames in mainland USA is higher than in the UK.

Higher tension gives better prints!



High Tension equals High Quality

In summary, getting the right mesh tension is crucial for achieving high-quality, detailed, and long-lasting prints. It is essential to ensure that the mesh tension

is calibrated correctly before starting the printing process to ensure that the final product meets the desired quality standards.
A good quality and calibrated tension meter should be found in every print shop. We cannot control that which we do not measure.
Knowing the tension is not enough, we must have a plan that tells us what to do with the frame if it passes or fails the tension test.

I will take a sharp knife to a mesh under 16 N/cm's