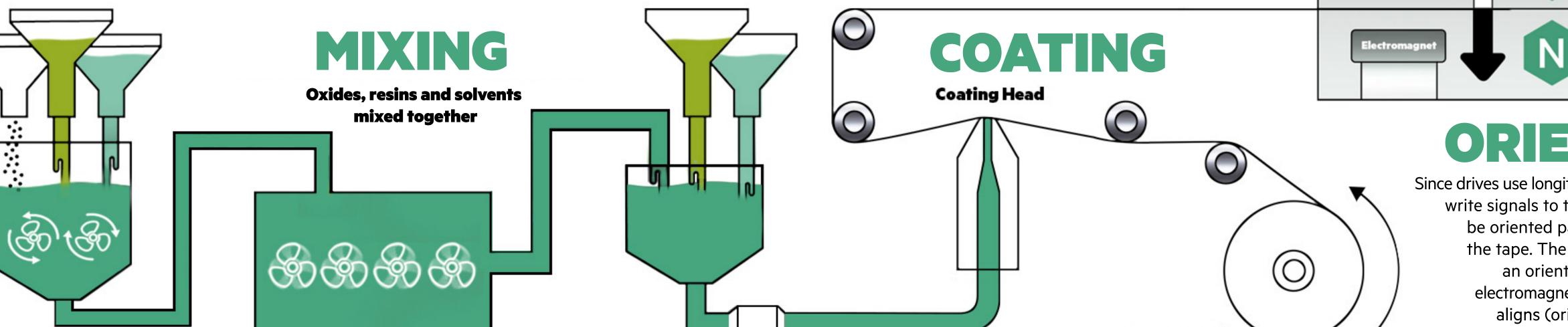


## THE NINE STAGES OF HPE MEDIA MANUFACTURING



Engineers mix up a finely balanced solution of coating ingredients, including oxide, resins, additives and solvents. Physics and chemistry get to work to separate the particles and suspend them in a liquid paint used to coat the tape's surface.



applied in two layers throughout a web of base film at a

ough orientation field

relatively high speed. Magnetic particles go on top and a lubricant reservoir underneath to ensure magnetic efficiency. A separate coating of carbon black goes on the back to improve handling and motion control in the drive.

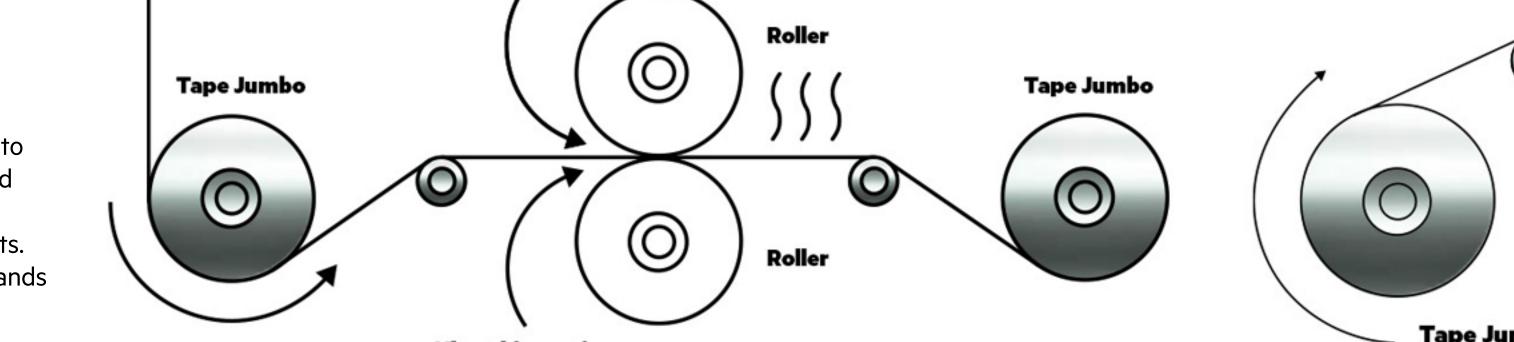
RIENTING

After orienting, we now need to write signals to tape, the particles must be oriented parallel to the surface of the tape. The web is guided through an orientation field, whereby an electromagnet or permanent magnet aligns (orientates) the individual nagnetic particles in the intended direction.

After orienting, we now need to heat up and air-dry the coated base film to evaporate and remove any remaining solvents. Curing makes sure nothing stand in the way of the mechanical properties guaranteed for the life of the tape.

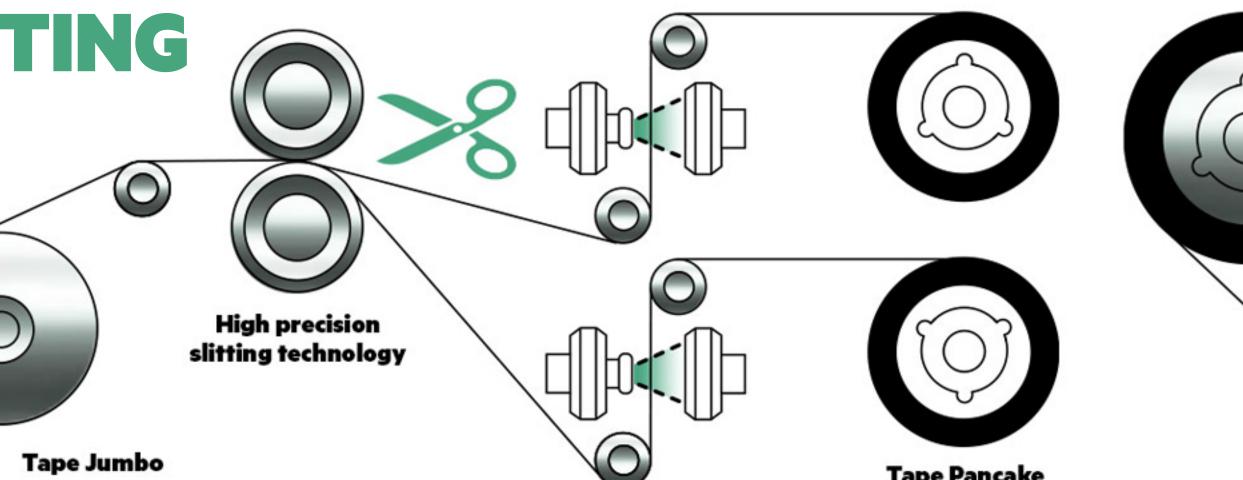
steel rollers. The recording surface will now be completely flat, uniform and ready to deliver lifelong signal strength and read/write performance.





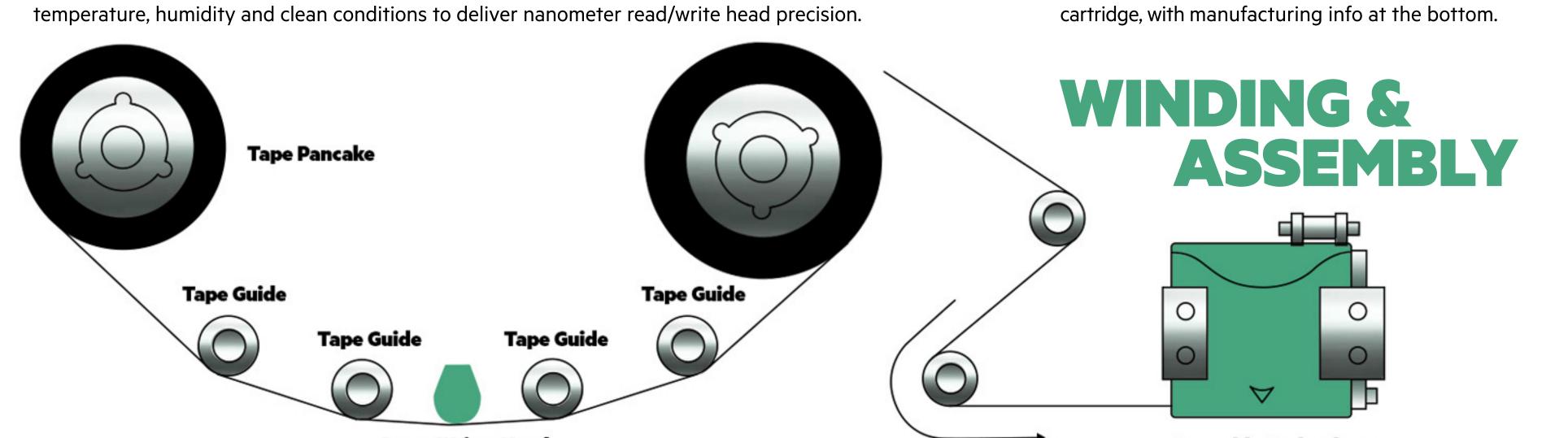
The calendaring process tightly squeezes the Counter-rotating blades slit the film into half-inch wide (12.65mm) lengths.

Absolute precision is critical to ensure the tape performs consistently in the drive. Blades are honed at regular intervals to prevent tape edge damage, debris or any variation in tape width. A final cleaning process removes any signal strength and read/write performance.



## SERVOWRITING

position error signal (PES) to check that its write and read head elements correctly line up relative to the track centre line. Servowriting enables it to do this. Servo patterns are etched into the tape's surface under constant



a pre-assembled cartridge. During this process, the LTO Cartridge

Memory is programmed and the cartridge is given a unique CM

serial number so every cartridge can be traced back to its origin

Next, a pad print of LTO and HPE logos is placed at the top of the

## ACKAGING

The finished cartridge is packed in a poly or library case, packaged up with a batcl of other finished cartridges and shipped to an HPE warehouse centre, ready to fulfil more orders from authorised HPE distribution partners and resellers.

