

QTEK Stencil Cleaning Rolls

- ◆ Excellent Absorbency ◆ Stronger, Longer and More Absorbent ◆ Low Linting ◆
- ◆ DuPont Sontara Cleanmaster® Material ◆
- ◆ Decreases Number of Cleaning Cycles Required ◆ Increases Throughput ◆

General Information

Sharp screen-printing on printed circuit boards requires clean stencils. QTEK DuPont Sontara Cleanmaster® stencil cleaning fabric sets the standard for under-screen cleaning of stencils, keeping them free from paste and flux between printing and is guaranteed to improve both quality and productivity in PCB printing.

About QTEK DuPont Sontara Cleanmaster® Stencil Cleaning Rolls

QTEK DuPont Sontara Cleanmaster stencil cleaning rolls are made from a non-woven extra-strength material with excellent wetting characteristics, and offer improved cleaning performance for today's sophisticated solder paste printing machines.

QTEK DuPont Sontara Cleanmaster stencil cleaning fabric is specially engineered for under-screen cleaning rolls, combining absorbency, strength and low-linting characteristics, along with better compatibility with vacuum assisted systems. The fabric quickly removes excess paste and adhesive deposits from stencils, which if left untreated could ruin the printed circuit board.

Applications of QTEK Stencil Screen Cleaning Rolls

QTEK Sontara Cleanmaster® stencil cleaning material is ideal for cleaning stencils with fine pitch apertures, and prevents smearing, bridging, solder balls, and other problems commonly associated with the stencil printing of solder paste onto printed circuit boards.

Alternative Stencil Cleaning Fabrics

Less expensive, lower quality stencil cleaning rolls do exist, and are normally made of polyester materials bound together with glue. The individual fibres are often quite weak, and become coated in glue, which clog the pores of

the fibre, and thus decrease the roll's ability to absorb solder paste or other chemicals. Less expensive papers, which are often sourced from the Far East tend to feel hard and crisp and are susceptible to tearing very easily. Inexpensive papers, using polyester materials are known to be particularly high linting and often shed polyester fibres into the solder paste and leave dissolved glue deposits behind on the stencil.



QTEK Stencil Cleaning rolls are all made using DuPont Sontara Cleanmaster® hydro-entangled spunlace fabric comprised of cellulose and polyester. QTEK DuPont Sontara Cleanmaster® material is bonded together without glues or chemical binders, the cellulose absorbs the solder paste while the polyester provides strength. Due to its unique manufacturing process, QTEK DuPont Sontara Cleanmaster® rolls are stronger, more absorbent and more consistent than other inferior screen cleaning rolls, which to the user, means less linting, fewer cleaning cycles and a higher yield.

Advantages of using QTEK Stencil Screen Cleaning Rolls

Using QTEK DuPont Sontara Cleanmaster® rolls rather than a cheaper inferior material, will ensure less time is spent cleaning, and more time is spent printing, which means

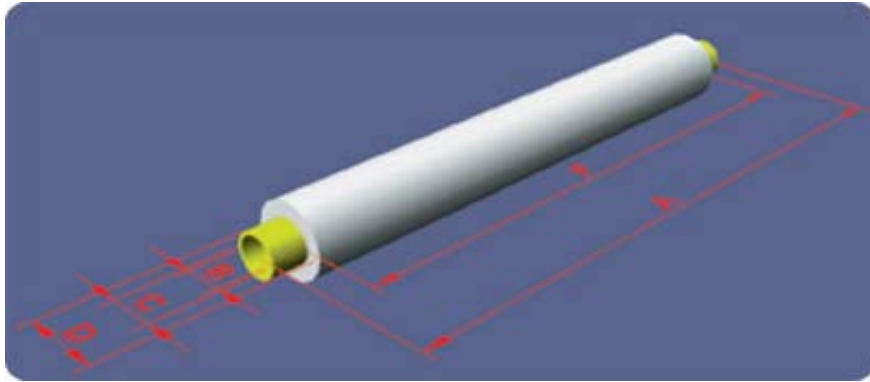
higher productivity. As only clean machines give the sharpest printing, using QTEK DuPont Sontara Cleanmaster® rather than inferior fabrics guarantees fewer misprints, or printing defects. The strength of solder joints is also positively effected by using a quality screen cleaning roll such as QTEK's DuPont Sontara Cleanmaster® roll as the cleaner the stencil, the more solder paste which will flow on to the printed circuit board, resulting in taller solder pads and stronger solder joints.

There are many less expensive, inferior quality alternatives to QTEK DuPont Sontara Cleanmaster® on the market, however QTEK rolls last longer as fewer cleaning cycles are

required, which saves the user money. As using QTEK DuPont Sontara Cleanmaster® rolls virtually eliminate costly misprints, such wasted expenditure is avoided. Cleaning cycles are faster and less frequent when using QTEK DuPont Sontara Cleanmaster® material, thus throughput will also be considerably increased.

Availability

QTEK DuPont Sontara Cleanmaster® Rolls are available to suit any make or model of screen-printing machine, a list of common screen roll dimensions appears below, however, customised designs can be made on request.



| | | | "A"Core | "B"Core | "C" Core | "D" Roll | "E" Paper | "F"Paper | Core | |
|----------|----------------------------|---------|-------------|---------|----------|----------|------------|------------|-----------|-------|
| Part No. | Printer | Ref. No | Length (mm) | ID (mm) | OD (mm) | OD (mm) | Length (m) | Width (mm) | Material | Notch |
| 2660* | DEK Horizon / Infinity | 115660 | 530 | 19.6 | 22.6 | 58 | 11 | 515 | Perspex | Yes |
| 2662 | DEK Horizon / Infinity | 115662 | 530 | 19.6 | 22.6 | 58 | 11 | 400 | Perspex | Yes |
| 2664 | DEK Horizon / Infinity | 115664 | 530 | 19.6 | 22.6 | 58 | 11 | 300 | Perspex | Yes |
| 2300* | MPM AP27 / UP2000 / UP3000 | P1485 | 456 | 19.4 | 25.4 | 63 | 11 | 444 | Cardboard | No |
| 2314 | MPM AP27 / UP2000 / UP3000 | N/A | 456 | 19.4 | 25.4 | 63 | 14.3 | 444 | Cardboard | No |
| 2200 | MPM AP27 / UP2000 / UP3000 | N/A | 571 | 19.4 | 25.4 | 63 | 11 | 559 | Cardboard | No |
| E 400* | Ekra E-5 | N/A | 400 | 12 | 19 | 47 | 7 | 400 | Cardboard | No |
| P 360 | Panasonic SPPG-1 | N/A | 360 | 38.1 | 41.1 | 76 | 11 | 360 | Cardboard | No |
| F 500 | Fuji GP 541 | N/A | 500 | 25.4 | 28.4 | 60 | 7.8 | 500 | Cardboard | Yes |
| SM 410 | SMTech / Quad D AVX-400 | N/A | 410 | 38.1 | 41.1 | 65 | 7 | 410 | Cardboard | No |
| K 350 | KME | N/A | 350 | 38.1 | 41.1 | 100 | 28 | 350 | Cardboard | No |
| SY 280 | Sanyo | N/A | 280 | 38.1 | 41.1 | 76 | 11 | 280 | Cardboard | No |

Differences Between The Fibres In Alternative Stencil Roll Fabrics Cause Variances In Stencil Printing Productivity

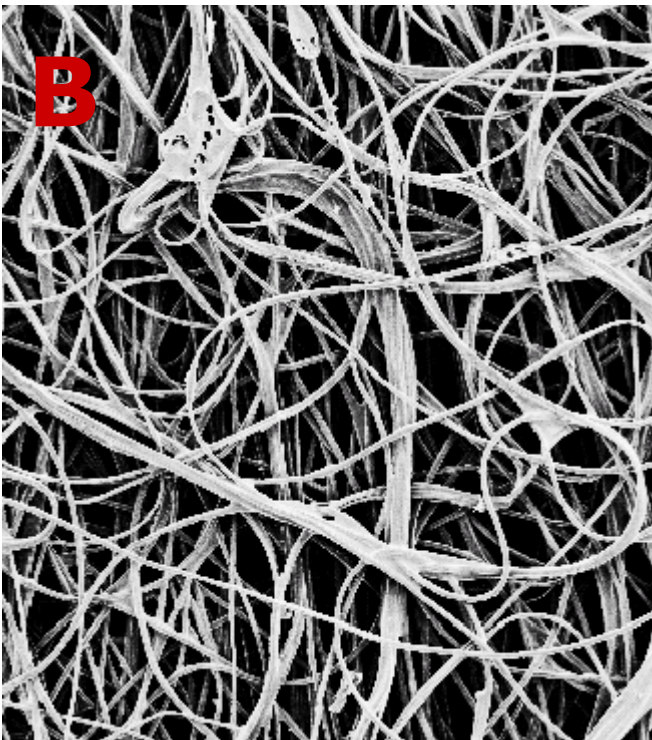
The microphotographs below illustrate the difference between QTEK DuPont Sontara Cleanmaster® and inferior stencil rolls, which use a glued material. The microphotographs are of a cross section of both materials, magnified 200 times.



QTEK DuPont Sontara Cleanmaster®

Photograph A opposite is a cross section of QTEK DuPont Sontara Cleanmaster® material, magnified 200 times.

This material is a hydroentangled mesh of cellulose and polyester fibres. The flat fibres, which can be seen on the surface of the material, are cellulose stands, which serve to absorb solvents and solder paste. The polyester is located beneath the cellulose and provides strength. The structure of this non-woven material is open, porous and free of glues and binders, which make it a strong, durable, absorbent and consistent material suitable for both vacuum and non-vacuum wiping systems.



Photograph B opposite is a cross section of a less expensive screen cleaning roll sourced in the Far East which is resin bonded, which means that a type of glue has been used to bond the fibres together.

Due to the use of glue in the manufacturing of this material, the material is thin, crisp, and tears easily. Using glue to bind the fibres creates a hard coating on the surface of the paper, making it less absorbent than materials, which are not bound by glues. As can be seen from the photograph, most of the pores are clogged with resin, and often this resin can be transferred to the PCB during printing. Less expensive materials such as this one are prone to shredding and linting on the jagged aperture edges.