



# Stylish sports shoes: Karl Mayer's RDJ 5/1 is setting new standards in the production of multicoloured spacer textile sports shoes

The RDJ 5/1 was producing a multicoloured sports shoes fabric at the In-house Show at KARL MAYER (China) in Wujin/Changzhou during the ITMA ASIA + CITME 2016

Sports and leisure shoes are the real trendsetters in the shoe sector, and new materials and designs are being developed all the time. The innovation cycles are largely influenced by double-bar raschel technology (DR technology). These warp knitting machines with two needle bars produce spacer textiles that have become firm favourites for manufacturing the footwear worn by sports enthusiasts and fashion-conscious people alike. More and more designs are being produced, thanks to the use of piezo jacquard technology. The most recent creations produced by DR technology are giving new impetus to the trend for multicoloured effects. KARL MAYER is responsible for these developments, which are the result of an in-depth analysis of the requirements of the shoe and sports sectors.

An RDJ 5/1 machine is the basis for this new trend. This machine operates in a gauge of E 24, and a needle gauge of E 22 is also available. It features a specific technical configuration and the distance

between the trick plates is just 2 mm. The distance between the knockover comb bars can generally be set at between 2 mm and 8 mm. The multicoloured threading arrangement is particularly remarkable. The jacquard bar is threaded with black yarn, whilst the ground guide bars process the red yarn for the inside of the fabric and also yellow and blue yarn for the outer side. The beams needed to do this are produced in multiple colours to suit the pattern on the DS OPTO EC with no problems. This flexible warp preparation machine combines direct and sectional warping, and thus enables multicoloured sectional warp beams to be produced efficiently and in a wide range of colours.

To produce an attractive, brightly coloured shoe fabric, the multicoloured sectional warp beams are processed by the ground guide bars on both sides of the fabric to produce a design having a dense construction. The jacquard bar places the black yarn to suit the lapping, and swings backwards and forwards between the

needle bars in order to do this. The pattern is, therefore, based on a specific combination of colours and not, as previously, on the production of holes of varying sizes at different locations. This principle enables the knitted look, which is so popular at the moment, to be produced in bright colours and with precise design features - to create a shoe from a single piece. The contours of the shoe upper, as well as logos and lettering, can also be worked into the textile without any problems.

This flat, hardwearing, double-layered fabric not only has a modern look with a variety of different designs, it can also be produced extremely efficiently. At a speed of roughly 740 courses per minute and a working width of 138", the RDJ 5/1 can produce the fabric for up to 150 pairs of shoes per hour – much more than can be produced by circular weft knitting machines, not to mention flat weft knitting machines. ♦