



Forms of splice

Using a pneumatic splicer, it is possible to make two distinct forms of joint. Each suits a segment of the textile industry; each requires a different design of splicer.

The photographs show how the two standard forms of splice look. The descriptions of the splices - "ends-opposed" and "ends-together" - are simply convenient terms used by this company and our customers.



Ends opposed



Ends together

Ends-opposed splicing

The ends-opposed is the form of splice first used when splicing was invented. It is neat, often invisible in fabric, but slow to make. It is the choice for continuous filament yarns, where appearance is paramount. Its appearance is less good when staple yarns are spliced; the "tails" at either end get longer and fluffier.

The two yarns to be joined are placed into the splicer from opposite sides, one from the right-hand and one from the left. When the splicer operation is activated, the two yarns are joined together by an air blast, rather analogous to that of linking the fingers of two opposing hands. Once the waste ends have been trimmed off, the resulting splice has a very flat form. The operation takes several seconds to complete, but the results are good.

Ends-together splicing

Ends-together splicing was introduced to make joints in yarns where ends-opposed splices had failed - originally very highly-twisted yarns. It was first used to splice yarns which had proved to be completely resistant to normal ends-opposed splicing. The splice is not attractive, and is often weaker than the ends-opposed form, but some yarns, because of their characteristics, can ONLY be spliced in this way. The splice is very quick to make, so it is the favoured system for non-critical applications such as carpet-tufting.

The two yarns to be joined are placed into the splicer from the same side. When the splicer operation is activated, the two yarns are joined together by an air blast, rather like the fingers when two hands are clapped together, palm to palm.. Once the waste ends have been trimmed off, the resulting splice has a distinct "tail" at about 90 degrees to the thread-line. Although the results are only satisfactory for some non-critical applications, the operation is very quick and simple, and where suited to the application, is much more time-efficient than the ends-opposed form.

Airbond ends-together splicers such as the Model 105 are particularly powerful, because they are largely insensitive to count and twist direction; they will, for instance, splice S-twist and Z-twist together. Ends-together splicers are also effective for densely-structured heat-set yarns, in fibres such as polypropylene.

Airbond makes splicers for both forms of joint, and the user, when making a purchasing decision should first decide on the requirements of his application. Then, attention can be concentrated on only those splicer models which meet the technical criteria.