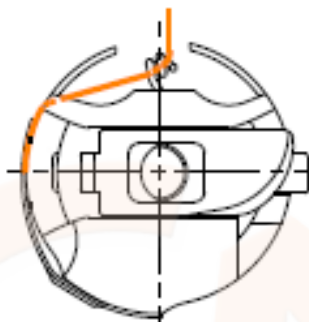


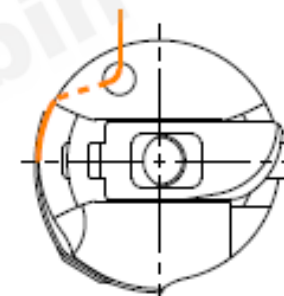
Thread Guides On Rotary Bobbin Cases

Some bobbin cases for horizontal axis rotary hooks are equipped with a system to better guide the thread coming out from the bobbin. Such "threading" systems can be realized in various ways, as shown on the following images, but their function is always the same. The thread guide is particularly useful on embroidery, quilting, zig-zag machines and in practice in all those situations in which the exiting of the bobbin thread does not maintain a constant direction, because the material is moved in many different directions (i.e. in embroidery and quilting machines), or because of the translation of the needle position with respect to the bobbin case (i.e. zig-zag).

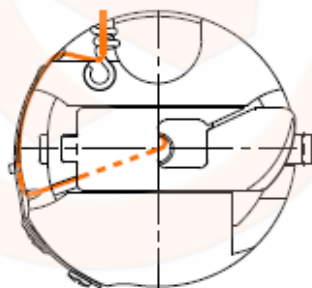
EXECUTION WITH THREAD GUIDE WIRE
(pigtail)



EXECUTION WITH THREADING HOLE



CORELESS EXECUTION WITH THREAD GUIDE WIRE



EXECUTION WITH THREADING HOLE AND SLIT

