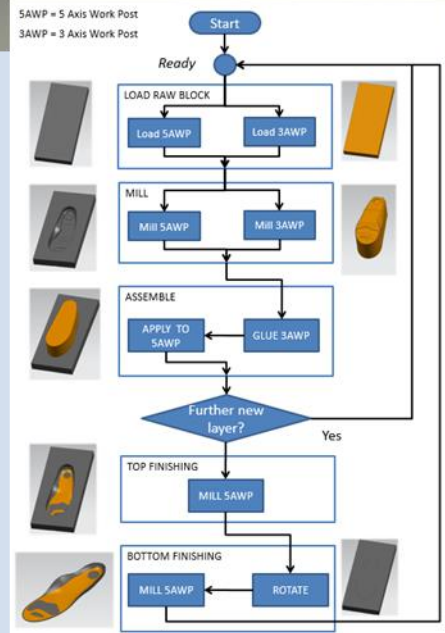
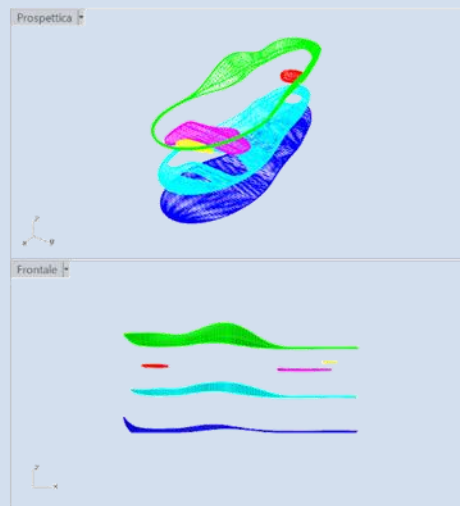


<b>Result name</b>	<b>Multi material footbed flexible milling system</b>
<b>Brief description</b>	<p><b>Main objective</b>  The result addresses the realization of a flexible milling system for the manufacturing of accommodative EVA based footbeds for orthopedic applications, based on the superimposition of multilayer freeform shaped parts, each milled on both sides in different EVA (ethyl vinyl acetate) densities.</p> <p><b>Short Description</b>  A new milling system has been realized for automatic fast production of customized EVA footbeds, exploiting an approach based on two different simultaneously operating workposts:</p> <ul style="list-style-type: none"> <li>• A 5 axis milling workpost for the final milling and contouring of the single layer, as well as for the realization of the final superimposed product</li> <li>• A 3 axis milling workpost for the preparatory milling of the single layer, with appropriate surface roughness for subsequent gluing with other neighboring layers.</li> </ul> <p>Overall features of the system can be classified as follows:</p> <ul style="list-style-type: none"> <li>• Spindle type: electric with speed velocity regulation for milling control</li> <li>• Two spindles for parallel piece processing</li> <li>• From a technical point of view, the machine runs without any cooling or lubrication systems, exploiting open LINUX RTAI control, and processing data from Rhinoceros CAM plugin.</li> </ul> <p><b>Innovation</b>  Capability to fastly produce an EVA footbed based on the contemporary action of a two milling work posts.</p> <p>Unique Selling Point (competitive advantages) are therefore:</p> <ul style="list-style-type: none"> <li>• Possibility to finish the whole product without manual intervention (at present this is not possible on the normal piece realization)</li> <li>• Scalable solution</li> <li>• Self contained machine</li> </ul>

Picture/screenshot



Project data

Such system has been developed within the ADDFactor project.

PROJECT ACRONYM: ADDFactor

PROJECT FULL TITLE: ADvanced Digital technologies and virtual engineering for mini-Factories

	<p>DURATION: 36 months  STARTING DATE: 01 September 2013  PROJECT NUMBER: 609386  STRATEGIC OBJECTIVE: EU 7th Framework Programme – THEME [FoF.NMP.2013-6]  [Mini-factories for customised products using local flexible production] Total  Budget: 8.933.063,80 €  EU Contribution: 5.499.959,00€  WEBSITE: <a href="http://www.addfactor.com/">http://www.addfactor.com/</a></p>
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