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Pilot Lines

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Borealis Pilot Line

Additive manufacturing means a production technique which, using different technologies, allows to obtain products and manufactured articles from the generation and subsequent addition of successive layers of material. In particular, Iris uses Directed Energy Deposition (DED) technology.

Directed Energy Deposition processes enable the creation of parts by melting and deposition of material from powder feedstock, using some form of energy focused into a narrow region (a laser beam), which is used to heat a material that is being deposited. DED technology is used to melt materials as they are being deposited.

The Borealis pilot line at Iris consists of three cells: Small1 with a robotic arm and 1x0,5m working area, Ecoweld with a robotic arm and 3x2m working area, Borealis with a three axis machine a rototilting table and 4x1,5m working area.

The main task of this pilot line is the parts production made by metal powders such as Titanium alloys, Steel alloys, Alluminium alloys or multimaterial powders like Ti6Al4V + TiC%. Moreover, it is able to perform welding, coating and repairing processes.

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