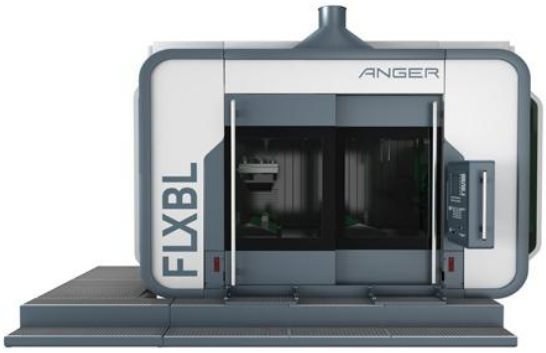
Industrial machines

ANGER HIGH PERFORMANCE MACHINING



ANGER MACHINING GmbH with its headquarters in Traun, Austria, is an international engineering company, which specialises in the development and production of Transfer Centers. These high-speed processing systems are used for the machining of serial components with especially high precision requirements, primarily in the automotive industry. The focus is on applications for engine, gearbox and chassis components made of aluminium or steel. ANGER MACHINING was founded in 1982 and has 180 employees, three subsidiaries in Germany, USA and Japan and is part of the mbi-group Beteiligung GmbH.

In Anger Transfer Centers, Workpieces are moved to the tools controlled by CNC and the processing of the workpiece (milling, drilling, threading, etc.) occurs the opposite way around as in conventional processing centers. A Transfer Center generally replaces several processing centres and thus reduces spatial, energy, service and staffing requirements. The overall costs (TCO) can be considerably reduced with this technology.

To continuously improve the efficiency of the process, ANGER Machining focused on measuring the energy- and pressured air- consumption of its Transfer Centers and finding solutions for decreasing the electrical energy- and air- consumption.

The "LCA to go" software tool was used to assess an ANGER Transfer Center. The product is designed for three-shift working mode and a long life time.

The diagram showing the cumulative energy demand over the product lifetime vindicates the ongoing efforts. The result vindicates the ongoing research and measurement efforts and supports the continued development focus on the energy efficiency.

This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 265096

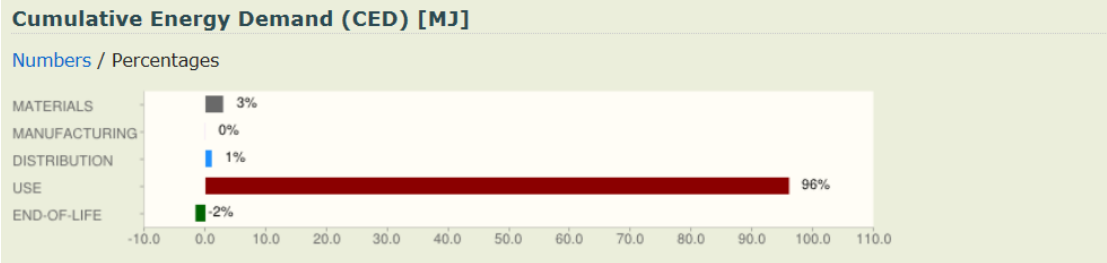


Figure 1 CED of the ANGER Transfer Center over the entire product lifetime as analysed in the LCA to go software tool

"LCA to go was surprisingly easy to use, considering the volume of information it contains. Therefore LCA to go can be used by many employees without the need for long training and an analysis can be done rather quickly." – Eva Rausch, Anger Machining

The results of the LCA to go software tool clearly showed that the greatest improvement potential lies in the reduction of energy and resource consumption in the use phase. This result justifies Anger's development focus and spurs on further research into the consumption of electrical energy and pressurized air. The result is very useful in justifying extensive research into increased efficiency in use.

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