

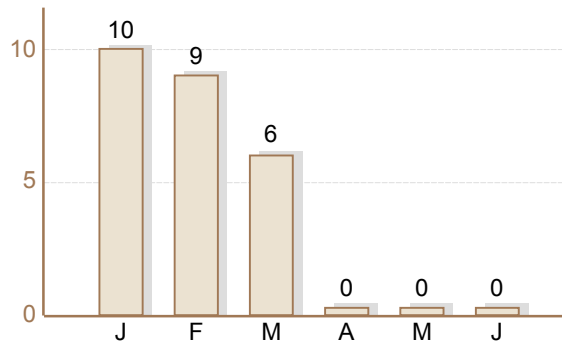
Tool breakage and wear monitoring system – Automotive application

Machining of brake callipers

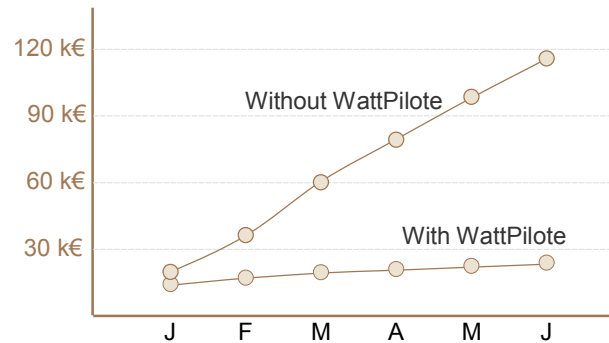
Realisation of brake callipers on a double spindle machining centre VIGEL.

This operating efficiency study has been performed by the user on 4 machining centres over a 6 - month period to determine the profitability of the WattPilote systems.

This study takes into consideration all machinings that are necessary for a complete treatment of brake callipers (milling, boring, tapping and reborings) with monobloc tools and complex tools with inserts on an expensive tool-holder.



Evolution over 6 months, concerning deficient parts in % of production



Comparison over 6 months concerning cumulative tools costs on the 4 machines

From the beginning of commissioning, the WattPilote systems made possible to detect any kind of broken tool. Without important consequence on the tools costs, this first period nevertheless assured the production quality and limited the number of waste.

As soon as this first phase was validated, the manufacturer made use of the tool wear surveillance function. The principle was, not to change the tools at a given service life, but only on demand of the WattPilote. By intervention just before a tool breakage, WattPilote completely deleted waste, averted the destruction of the tool holder and augmented the number of parts realised by each tool.

After a 6 months industrial exploitation, the cumulated economy regarding tools costs on the 4 machines increased up to 90.193€.

WattPilote

