# Improving Efficiency

## In CNC Machines


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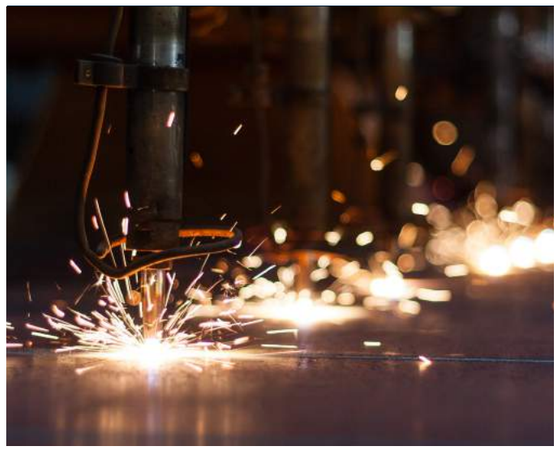
## How Inefficiency Impacts Business

Even the smallest area of inefficiency can have a flow on effect throughout your business and negatively impact your bottom line.
Machine backlash is an issue that CNC businesses need to manage with precision for not only surface finishes and dimensional accuracy but also to help reduce the amount of scrap produced. Scrap is costly to your business financially as replacement of materials utilises time and money that could be spent better elsewhere within your business.
Machine speed is another area that can have a direct impact on your business. If outdated machinery is slowing down the speed of production then it is effectively costing you money whilst also reducing your global output. Investing in new and more efficient machinery may require a financial outlay initially, but will reward you in the long run by reducing production costs and increasing your productivity, in turn, making your business more money and seeing a quicker return on your investment.

*"Our future market leaders will have efficiency at the core of their business."*



## Machines & Energy Efficiency

Energy efficiency is the practice of reducing your company's energy usage whilst still being able to produce the same quantity and quality of product.
When it comes to machine efficiency, areas of concern for a CNC business are the length of time a machine is considered non-productive and a machines down time. Not only do both concerns cost your business money but the flow on effect to staff attitudes and lowering of morale and productivity as a result of reoccurring machine issues create an unsupported working environment.

Electricity and gas prices for the manufacturing industry have risen by 60% (for electricity) and 29% (for gas) in the past ten years[1] and this trend is set to continue.
Energy efficiency schemes accounted for 53% of the reduction in energy demand since 2008[2]. Adopting an energy efficient strategy can help reduce your business's overall running costs allowing those funds to be invested in other areas to promote growth and innovation.

[1]Energy Prices, the Story Behind the Rising Cost (Commonwealth of Australia)
[2]State of the Energy Market 2012(Australian Energy Regulator)

## The LinX Solution

The new state of the art LinX Linear Motor, designed by the engineers at ANCA Motion, is able to effectively assist businesses in increasing their efficiency. The cylindrical linear motor design provides improved performance at a lower cost when compared to conventional flat linear and rotary motors.

Its patent pending thermal barrier is designed to separate and remove heat from the motor, eradicating thermal growth for the machine. The LinX design allows the motor to connect to the existing machines cooling system, requiring no additional cooling system. This not only increases factory floor space but reduces systems costs and energy output. In addition, the LinX motor offers improved cycle times through higher acceleration and rapid traverse rates. The combination of improved cost performance and reduced cycle times boasts smoother axis motion (reduced friction), improving the overall efficiency of businesses using CNC's.

Another advantage of the LinX Motor is its ability to lower a machines down time as it produces no backlash and boasts minute reversal errors that are generally associated with rotary ball screw motors. The cost of scrap metal is also lower by these improved features as reversal errors & backlash can be costly to businesses.

Designed to improve efficiency, the LinX motor's zero net attractive forces produce no down force, helping to extend a machines life and provide a greater return on investment.

The LinX Motor requires reduced servicing and maintenance as the motors do not wear due to no contacting parts. Another advantage of this is that no lubrication is required and machines will not have loss of preload or rigidity, therefore less consumables need to be purchased and contamination of the coolant oil is eliminated.

All of these improvements reduces business energy output, running costs and fiscal implications whilst increasing production and productivity to your bottom line. For more information on the LinX motor, visit ancamotion.com.