

Report of Installation on Compressor at Knitting Factory in Manila. January 2005

Savings of > 15% Payback < 1.5 Years

This installation was undertaken on a small 37kW free standing air compressor within a knitting factory in the industrial centre of Manila.

The unit was fitted initially with default settings however the soft start was an important factor in the choice to use EnviroStart because of the load changing and frequent starting of this item. Start control was required to both reduce the stress on the belts and also to limit the peak current excursions.



The Compressor Showing the Belt Drive and Reservoir



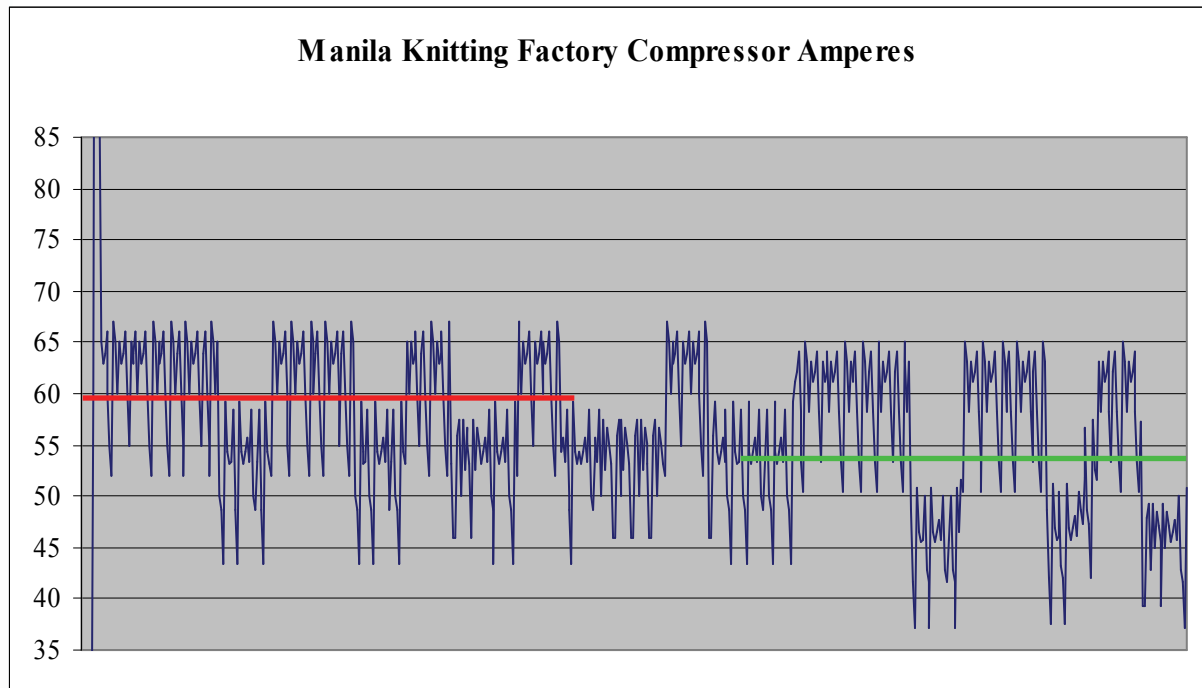
One of the Knitting Machines Being Fed by the Compressor



The original control gear was a simple Star Delta three contactor system. This not only had a problem in providing controlled starting but was also, (thanks to the high airborne dust contamination), was susceptible to breakdown of contacts. The maintenance element of managing this system was therefore quite a high cost to the factory.

Report of Installation on Compressor at Knitting Factory in Manila. January 2005

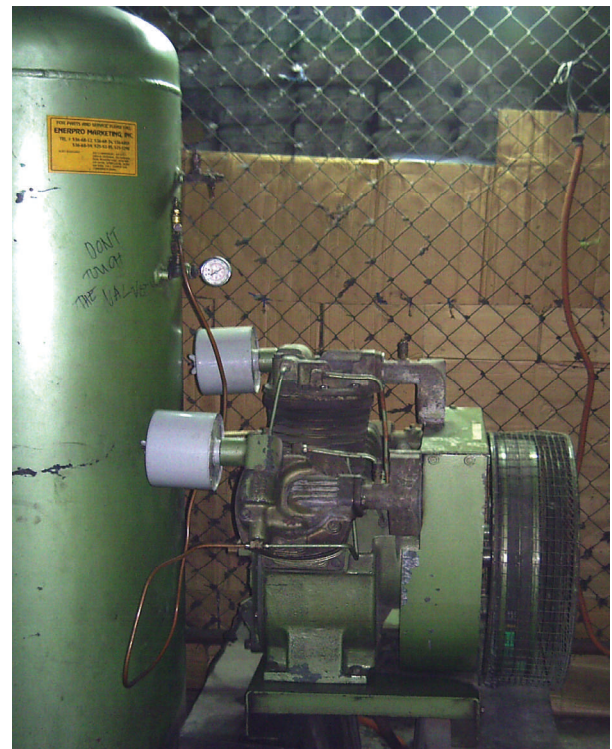
Savings of > 15% Payback < 1.5 Years



The graph to the left shows the operational Amps of the compressor from start up. The red line indicates the mean consumption without EnviroStart being in Energy Saving Mode, the green line indicates the consumption with EnviroStart enabled. Though it is not clear with the data shown the unit benefited from the soft start function of the Envirostart which reduced the current excursions from around 250A peak without the EnviroStart in circuit to around 170A peak with EnviroStart in circuit.

This is a belt drive system and as such the soft start will significantly increase the life of the fitted belts

Thanks to the relatively small size of the reservoir compared to the consumption of air on site the system was moving on and off load quite quickly.



The motor, according to plated details was running at close to full power when “on load” however it is apparent from the data collected that EnviroStart was causing a small saving even in this demand level, (around 1 - 2%). In the off-load condition EnviroStart was able to effect savings of around 15% which yielded an overall saving for this system of 15.6%.

**Report compiled by
Dr. Jonathan Hughes and Martin Hollis of
EMS (European) Ltd 17th June 2005**