



Unilever

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1st June 2001

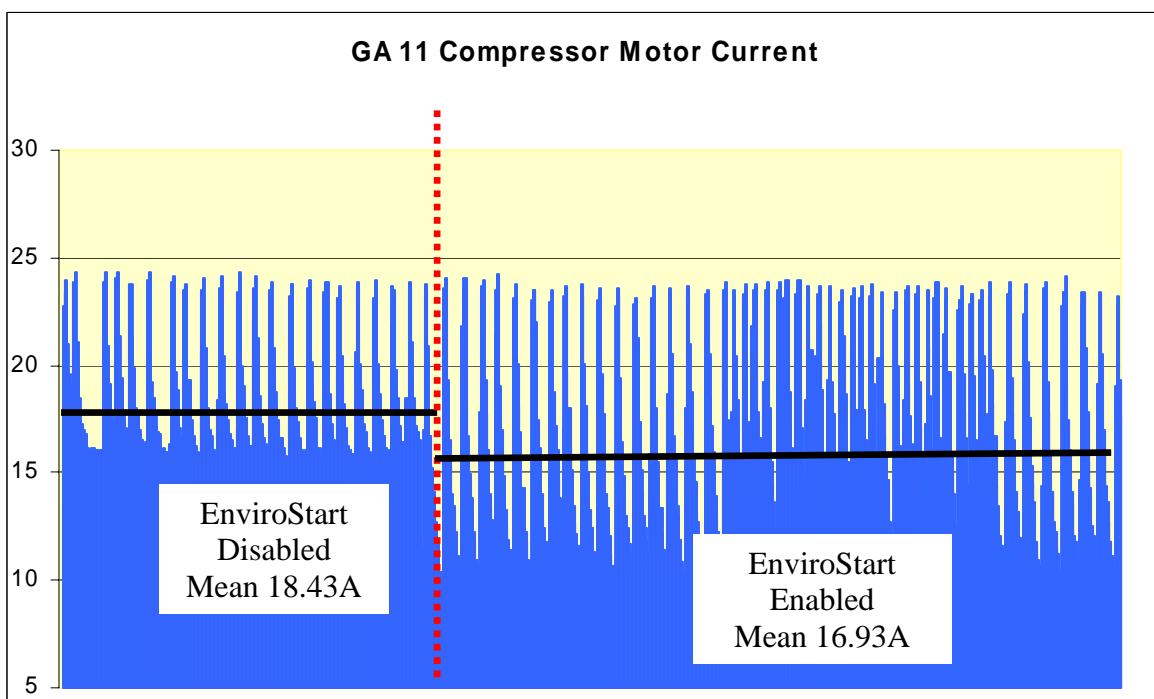
EMS (European) were instructed to carry out tests on one of our duty/standby Atlas Copco GA11 7.5 bar Air Compressors to establish the viability of the EnviroStart motor energy control system.

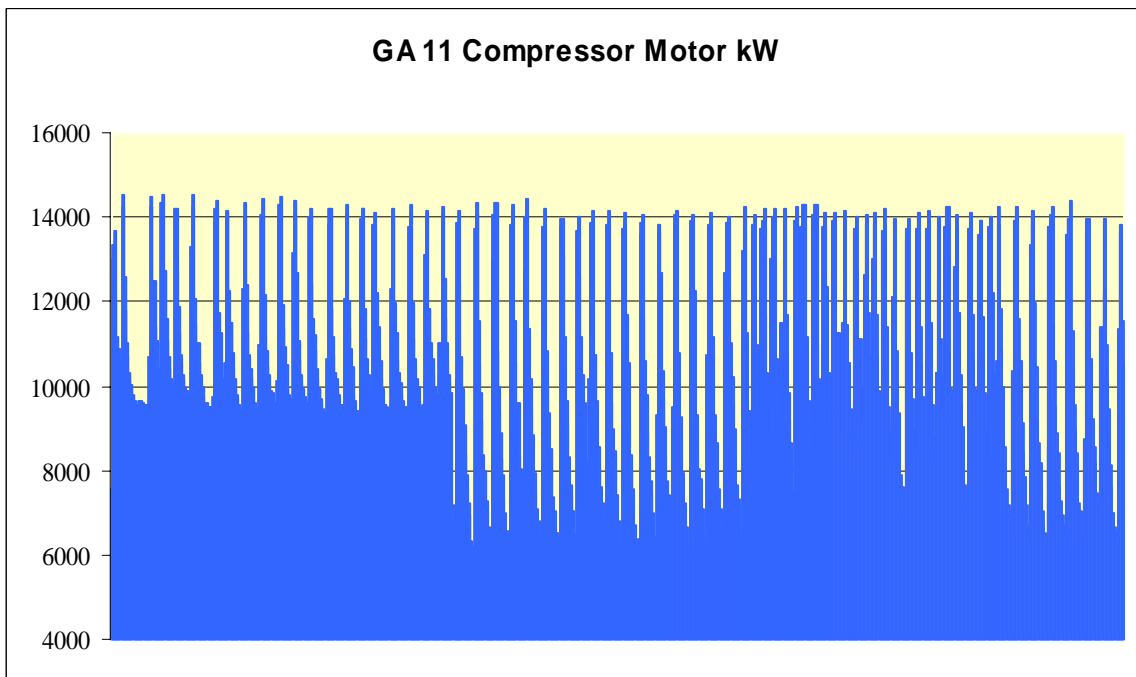
The system was chosen for the test as it is currently supporting non critical applications and is also susceptible to rapid changes of load over short time periods thereby loading the EnviroStart beyond normal expected operating conditions for a main site compressor system.

The unit was installed in accordance with the directions of EMS (European) and integrated into the retained star delta start circuit of the secondary GA11 compressor. Martin Hollis of EMS (European) attended on Thursday 31st May to assist in commissioning the unit.

With reference to the Installation and Wiring Handbook supplied by Atlas Copco we removed the existing supply cables to connector block 1X2 and diverted to the EnviroStart supply terminals. The control circuit was also removed from terminals L1 and L3 on connector block 1X2 and were connected to the EnviroStart supply terminals. The line/delta cables were then connected to the EnviroStart load terminals. The EnviroStart unit was adequately earthed and the Star-Delta times was set to minimum.

The testing was conducted by EMS (European) and the results taken as follows. All details were verified at the time they were logged.





Overall savings shown during the test period was 9%

The savings shown however reflect an atypical load/offload characteristic which according to the hours runs meters on the two GA11 compressors is 25% on load, 75% off load and not the 50:50 shown above.

If the normal loading percentage figures are applied to the details above then the savings are closer to 22% which should be reflected in any medium to long term testing.

The tests took place between 10:45 and 11:15 on 31st May 2001. The test system used was a Three Phase Circuit Analyser, supplied by Circuitor. Though calibration certificates were not available at the time of the test the unit carried a calibration label which was within one year of prior date.

**Martin Crimes
Area Electrical Instrument Supervisor**