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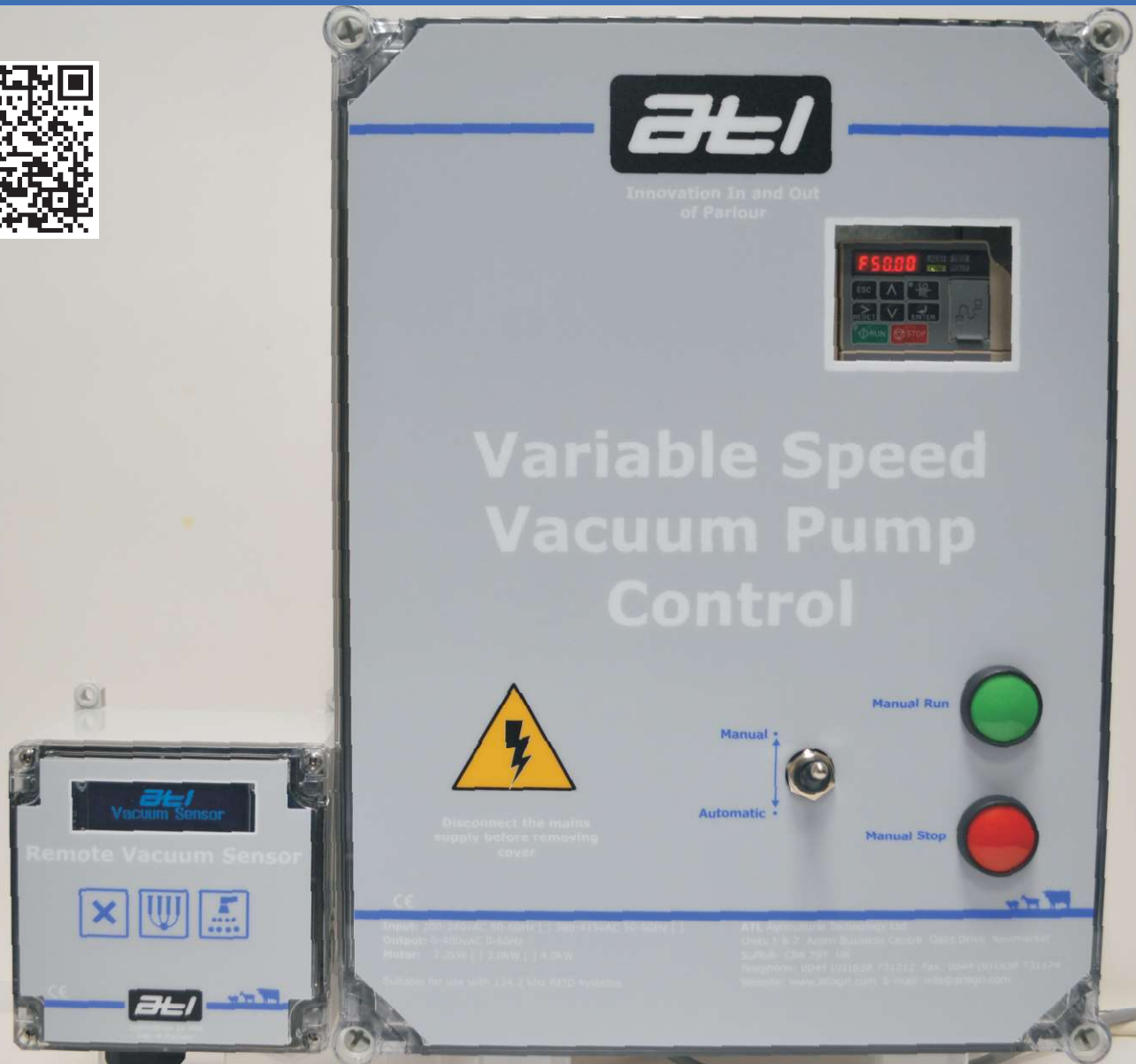
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Innovation in and out of parlour



Variable Speed Vacuum Pump Control System

The ATL Variable Speed Vacuum Pump Control system is designed to make vacuum production more effective and efficient.

The system controls the vacuum pump(s) speed and air flow to ensure that vacuum is produced when required by the milking parlour. Therefore, reducing the energy consumption and electricity costs.



Innovation in and out of parlour



Benefits

- Variable Speed Vacuum Pump Control allows more efficient production of vacuum as it is produced based upon demand;
- Vacuum demand will change throughout milking depending upon whether units are being attached, units being removed etc;
- This reduces energy use and therefore reduces electricity expenditure;
- It can also reduce noise levels and extend the life of the vacuum pump via reduced wear and tear.

How Does it Work?

- System uses digital vacuum sensor to constantly monitor the vacuum level;
- Digital vacuum sensor included in the Remote Vacuum Sensor;
- System will only increase or decrease the speed of the vacuum pumps if the vacuum level changes;
- The vacuum level will change based on the demand for vacuum - putting a cluster on an animal increases demand and removing a cluster from an animal decreases demand;
- Set minimum and maximum vacuum pump speeds to match your vacuum pump specifications;
- Digital vacuum sensor and inverter drive in separate boxes to maximise flexibility during installation.

Inverter Unit

- Available for 1 phase input versions for motor sizes 2.2kW, 3.0kW, and 4.0kW. **IMPORTANT** - Requires 3 phase motor on vacuum pump;
- Available for 3 phase input versions for motor sizes 2.2kW, 3.0kW, 4.0kW, 5.5kW, 7.5kW and 11kW;
- Inverter unit includes filter and choke to prevent electrical interference and is therefore suitable for use with 134.2kHz RFID systems;
- Includes manual run setting on the front of the inverter for emergency control.

ROI

The Return On Investment (ROI) can be calculated:

A. Vacuum Pump Motor (kW) _____

B. No. of Vacuum Pumps _____

C. Operating Hours Night Rate Electric _____

D. Night Rate Electricity (price per kWh) _____

E. Night Rate Electric Cost (A x B) x (C x D) _____

F. Operating Hours on Day Rate Electric _____

G. Day Rate Electricity (price per kWh) _____

H. Day Rate Electric Cost (A x B) x (F x G) _____

I. Total Electric Cost per Day (E + H) _____

J. Electric Savings per Day at 30%* (I x 0.3) _____

K. Electric Savings per Year (J x 365) _____

L. Variable Speed System Investment _____
(including 3 phase motors if converting from 1 phase)

M. Return on Investment* - Years (L ÷ K) _____

***IMPORTANT** - This calculation is a guide only and savings are vacuum pump dependent. Different makes of vacuum pump have different minimum speeds and therefore this needs to be checked and used alongside this calculation to check it's accuracy.