



## Helping You to Grow

Bridge e-info: Energy Saving Today

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### Bridge V-Drive Systems: or (Variable Speed Drive)

Electrical motors consume about 60% of all electrical energy that is produced today! Almost half of that is used to drive variable-torque loads such as pumps & fans. One problem with these applications is that the motors are not "smart devices" and unless controlled will run at full speed regardless of the demanded load. This is an inefficient use of electricity and will reduce the life expectancy of your motor. By utilizing less energy to drive loads, we are able to maximize our motor efficiency, save energy and reduce cost. Two good examples of this are: Transport or ring main circulation pumps & irrigation system pumps. Both pumps generally tend to be quite large and during the course of a year run for a substantial amount of time.

Lets take the example of running a 7.5kW transport pump at full speed for 335 days a year, 24 hours per day (8040 hours), with an electrical cost of 0.8 pence per kWh. If we take that same pump and vary its speed using a Bridge V-Drive, you will notice a substantial saving.

Example: Cost to run a 7.5kW transport pump at 100% speed:  $(7.5kW \times 8040hrs \times \pounds 0.08/kWh) = \pounds 4,824-00$

Cost to run the transport pump with a Bridge V-Drive based on the following duty cycle:

100% speed for 10% of the time:  $7.5kW \times 100\% \times 804hrs \times \pounds 0.08 = \pounds 482-40$

50% speed for 60% of the time:  $7.5kW \times 50\% \times 4824hrs \times \pounds 0.08 = \pounds 1,447-20$

10% speed for 30% of the time:  $7.5kW \times 10\% \times 2412hrs \times \pounds 0.08 = \pounds 144-72$

100% duty =  $\pounds 4,824-00$  — Variable duty =  $\pounds 2,074-32 = \pounds 2,749-68$  or **57% saving**



### Bridge Screen Systems: (Save energy.....Save money)

The average price of gas per m<sup>3</sup> has increased by almost 40% every year since 2004. A Bridge screen system can help you save energy and money. Installing a new thermal screen system or simply replacing your outdated cloth, can save enough to return your investment in just a few seasons. Research institutions have documented evidence showing energy saving potential of up to 60%, in houses equipped with a modern thermal screen. Financial analyses show that the cost of screen materials and installation labour for a screen system can be recouped in one to three years.

But how will a thermal screen help me? It will provide energy savings in two ways:

- 1). Thermal screens provide an insulation factor, keeping the cold out & the heat in.
- 2). Thermal screens reduce the surface area of the glasshouse that requires heating.

In addition thermal screens improve both day and night environmental conditions, and can be installed in almost any glasshouse as illustrated. To make the correct material selection and achieve your desired results, please contact Bridge for more information and advice.



## THE COMPLETE SERVICE TO THE GROWER

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