

PULSATION

VERSAPULSE



Installation & Operation Manual iss1



Overview

The Versapulse pulsation control has four synchronised outputs. Each output is staggered by 25% of the pulsation cycle. This effectively means that a milking parlour can be split into four vacuum circuits to give a much improved vacuum loading.

The Versapulse has digital indication of pulsation rate and ratio. Both of these settings can be changed using the arrow keys on the front of the unit.

PLEASE NOTE: DIGITAL INDICATION IS OF THE ELECTRICAL OUTPUT. VACUUM RATIO WILL VARY DEPENDING ON PULSATORS USED AND SIZE OF VACUUM LINES.

Pulsation "Rate" can be set in the range 40 to 120 pulses per minute.

Pulsation "Ratio" can be set in the range 30:70 to 75:25 in 0.5% steps.

Maximum Power Load

Versapulse 1208	8 Amps @ 12 volts D.C.
Versapulse 2408	8 Amps @ 24 volts D.C.
Versapulse 1220	20 Amps @ 12 volts D.C.
Versapulse 2420	20 Amps @ 124 volts D.C.

Pulsator Outputs

The Versapulse pulsator power outputs are thermally protected and will automatically shut off in the event of a short circuit or over current situation. The pulsator output will automatically switch on when the fault has been removed.

Installation & Calibration

The Versapulse pulsation control is housed in a splash proof enclosure. However, the Versapulse should be fitted to a dry wall, preferably in the pump house or other similar environment. It should never be fitted in the milking parlour itself. Please see the section marked "Safety Critical Data" for further important information.

Another very important factor in the placement of the equipment is the distance from the parlour and the length of cable required to reach the pulsators. The greater the distance, the greater the loss of voltage along the cables.

As a general rule, providing cable runs do not exceed 20 metres, the common connection should be made using 1.5mm square cable or greater, and the individual output connections should be made using cable of 1.0mm square or greater. If the cable run exceeds 20 metres then the size of the conductor should be increased to compensate.

To change the electrical rate and ratio, press and hold down the "left arrow" key and then press the "right arrow" key. If you wish to change pulsation rate, press the "left arrow" key. The rate display will begin to flash. Pressing the "up" and "down" arrow keys will increase and decrease the rate setting respectively. If you wish to change pulsation ratio, press the "right arrow" key. The ratio display will begin to flash. Pressing the "up" and "down" arrow keys will increase and decrease the ratio setting respectively. When both settings are as required, press and hold down the "left arrow" key and then press the "right arrow" key.

A PULSATION RECORDER MUST NOW BE USED TO CHECK THAT THE VACUUM RATIO IS CORRECT. PLEASE NOTE THAT THE VACUUM RATIO MAY VARY FROM THE ELECTRICAL RATIO WHICH IS THE DISPLAY INDICATION.

All outputs may be turned on for line washing purposes as follows. Press and hold down the "up arrow" key and then press the "down arrow" key. Repeating this procedure will return the unit to normal pulsation mode.

Routine Maintenance & Service

The Versapulse pulsation control box requires no routine maintenance.

RF Interference

The switch mode power supply modules used in the Versapulse pulsation control box can produce a small amount of radio frequency interference which may disrupt any RFid cow identification systems being used. To minimise any cross interference locate the Versapulse control box as far away from any RFid antenna as possible, any wiring from the Versapulse also needs to be located as far as possible from any wiring associated with the RFid system including power supply cabling.

SAFETY CRITICAL DATA - Please read carefully.

To prevent fire or an electric shock, please follow the safety procedures below:

Make sure the unit is installed to comply with the instructions given in this manual.

The cover of the unit carries a "danger" warning message instructing the operator to isolate the mains supply before attempting to remove the cover. For your own safety, make sure that the moulded plug is removed from the mains socket before you attempt to remove the lid.

Do not install the unit in hot, humid or excessively dusty places.

Do not install the unit where it will be subject to mechanical vibration.

Install the unit so that there is a minimum of 10 cm. clearance on all sides and the front, between it and any other object.

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience. Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved to BS1362 must be used. To replace the fuse, open the fuse compartment with a blade screwdriver.

In the exceptional circumstance where the plug supplied is not suitable for the socket outlets available, it should be cut off and an appropriate plug fitted in accordance with the following instructions: The wires in this mains lead are coloured in accordance with the following code.

Blue - Neutral Brown - Live Green/Yellow - Earth

Any alternative mains connection must allow the operator to isolate the supply effectively. The plug which has been cut off from the mains lead must not be inserted into a socket outlet.

The unit contains no user serviceable parts.

SPECIFICATION

Product Name	Versapulse					
Product Family	Versapulse					
Enclosure						
IP Rating	66					
Material	ABS					
Dimensions	W	230mm	L	310mm	D	188mm
Electrical						
Supply Voltage	Main Voltage 230v A.C.					
Maximum Peak Voltage	N/A					
Frequency	50Hz					
Maximum Current Load	1208/2408 8 Amps - 1220/2420 20 Amps					
Protection	20 Amp thermal protection per output					
Environmental Conditions						
Temperature	0 to 45°C					
Humidity	5 to 95%					
Location	Indoor use only					
Approvals						
EMC Conformity to: EN 61000-6-1:2007, EN 61000-6-3:2007, EN 55022:2006						