

**COMMERCIAL DISHWASHING PRODUCT GUIDE**

Equipe Solutions offer a comprehensive and reliable solution for chemical dosing in commercial warewashing applications. In this issue of Equipe News we are pleased to provide a closer look at the capabilities of and applications for **Brightwell WD1 and WD2** warewashing dosing pumps. A handy dishwashing trouble shooting guide to assist with training and operational issues can be found on page 3.

For further information or orders please contact us on 1300 788 250.

Inside this issue:

WD1 product Guide	1
WD2 for Tunnel washers	2
Dishwashing Trouble shooting Guide	2

**Brightlogic WD1-two product dosing in single tank and single cycle machines.**



USP	Explanation
<b>BrightChem tube compatibility</b>	Brightchem tubing suitable for most chemicals, strong tube maintains flowrates and has a long life (many have lasted over 12 months in the field with dishwash products)
<b>Tube change</b>	If the tube does need changing, it can be changed very quickly, and efficiently, without tools. Also relieves pressure avoiding chemical splashes.
<b>Brushless motors</b>	In-house tests prove that motors can run for over 19,000 hours with no problems.
<b>Flexible programming</b>	Easily change between programming modes. Fast programming with the easy-to-use keypad.
<b>Quality of components</b>	From the glass-filled Polypropylene casing, to the resettable fuse and quality transistors. All components are carefully selected
<b>Unit size</b>	Easily fits into small spaces. Pumpheads, programming and PCB boards are easily accessible. Patented double pumphead configuration



**Hood dishwasher**  
AKA:  
Pass through  
Single tank

Suggest programming in timed/signal, or conductivity with probe



**Conveyor dishwasher**  
AKA:  
Tunnel dishwasher  
Multi-tank machine  
Rack machine  
Flight machines

Suggest programming in Cyclic (**we recommend WD2 for Conveyor units**)

**Set-up explained**

Feature	Explanation	Why?
Timed/signaled	A signal is received by the dishwasher and the pump runs for a set amount of time to get a precise amount of chemical into the machine.	Simple to install and programme
Cyclic	The rinse pulses on and off and detergent will run in the rinse off period when called. If detergent is called during the rinse on period the detergent will be queued to run at the next rinse off period.	Normally used on a conveyor type machine
Conductivity with probe	The rinse runs for a set time when a signal is received from the wash contactor. Detergent is triggered by a probe which measures the level of detergent in the tank and keeps it a set level.	Used on conveyor machines for a more consistent wash

**Order and enquiries:**  
**P: 1300 788 250 Intl: +61 8 343 1585**  
www.equipesolutions.net.au

## Brightlogic WD2 for Tunnel, conveyor and Flight Machines



USP	Explanation
<b>BrightChem tube compatibility</b>	Suitable for a wide range of chemicals, very resistant, strong tube maintains flowrates and has a long life (some have lasted over 12 months in the field with dishwash products)
<b>Tube change</b>	If the tube does need changing, it can be changed very quickly, and efficiently, without tools. Also relieves pressure avoiding chemical splashes.
<b>Brushless motors</b>	In-house tests prove that our motors can run for 19,000 hours.
<b>Flexible programming</b>	Easily change between programming modes. Fast programming with the easy-to-use keypad.
<b>Quality of components</b>	From the glass-filled Polypropylene casing, to the resettable fuse and quality transistors. All components are carefully selected
<b>Tunnel operation</b>	The D2 is a true tunnel machine dosing system, the rinse and detergent have separate motors to allow the rinse to run <b>uninterrupted</b> . A third pump can be added for a sanitiser product



**Conveyor dishwasher**  
 AKA:  
 Tunnel dishwasher  
 Multi-tank machine  
 Rack machine  
 Flight machines

Suggest programming in  
 Cyclic or conductivity

### Set-up explained

Feature	Explanation	Why?
Timed/signaled	A signal is received by the dishwasher and the pump runs for a set amount of time to get a precise amount of chemical into the machine.	Simple to install and programme
Cyclic	The rinse pulses on and off and detergent will run in the rinse off period when called. If detergent is called during the rinse on period the detergent will be queued to run at the next rinse off period.	Normally used on a conveyor type machine
Conductivity with probe	The rinse runs for a set time when a signal is received from the wash contactor. Detergent is triggered by a probe which measures the level of detergent in the tank and keeps it a set level.	Used on conveyor machines for a more consistent wash

### Accessories available

Part number	Explanation	Features
<b>WKITP-CON</b>	Conductive probe kit (includes separate PCB)	Buzzer range upto 8.5mS
<b>WKITP-IND</b>	Inductive probe	Temperature reading, buzzer, higher range reading 200ms

# Troubleshooting Guide - Dishwashing

The following sections will list the most common problems encountered in dishwashing, together with a remedy for them. This is a guide. It is important to realise that unique circumstances, or combinations of problems may arise which may require unique solutions.

## **FLUCTUATING DETERGENT CONSUMPTION**

### **TEMPERATURE:**

HOT water is more conductive than COLD water, The conductivity cell (or probe as it is more commonly known) senses conductivity. Always check the concentrations when the machine is at its normal operating temperature. Higher usages will occur at lower temperature levels.

### **POSITION OF PROBE**

If the probe is set too close to the heating elements localised temperatures may affect it. If the probe is set too high in the tank it may be influenced by water levels. The probe should also be installed away from direct pump intakes, as this will also affect its performance.

### **DIRTY PROBE**

A scaled or dirty probe will not sense conductivity correctly; keep the probe clean and scale free.

### **WATER PRESSURE**

An excessively high water pressure can often result in a higher use of detergent and rinse aid than necessary. The water flow should be reduced to a point where sufficient rinse is provided to ensure good results.

### **WATER HARDNESS**

Changes in water hardness will influence the conductivity of the wash water; large changes will be noticed, especially when a water softener ceases to function. Regular hardness checks are recommended, especially in those sites that have mechanical softening processes. Ensure no brine (salt water) enters the dishwasher.

### **DISPENSING EQUIPMENT**

Ensure that there are no leaks in the delivery tubes, and that the probe wires are connected securely. Also ensure that the probe has been correctly calibrated.

### **CONVEYOR TYPE MACHINES**

With the larger type of machine, especially the push-pull cradle type, look out for trays being left at the point of exit. Often a tray can sit there if none are following, and by doing so, it can keep the rinse arm switch activated, causing the rinse to run continuously and increase chemical consumption.

In the case where a machine has an automatic fill mechanism, ensure that the drains and standpipes do not leak, as the machine will fill with fresh water to maintain the level. The probe will sense this and inject further quantities of detergent to maintain its setting. To reduce the problems of over consumption of detergents consider the WD1 or WD2 timed systems as you, not the probe, have control of the consumption.

## **INCOMPLETE SOIL REMOVAL**

### **DETERGENT**

With heavily soiled dishware, the normal concentration may have to be raised to cope with the prevailing conditions.

### **SCRAPING**

If the dishware is not correctly pre-scraped, a higher concentration of detergent may be necessary to maintain results.

### **WASH CYCLE**

Some single tank machines have the facility of an adjustable wash timer. Ensure that this is being used correctly for the type of soiling present. Operatives tend to use the shortest possible time for speed, but often at the expense of good results.

### **FOAMING**

If foam is a problem, it will reduce the performance of the wash pump. Air within the foam will reduce the efficiency of the water pump.

## **FOAMING IN DISHWASHER**

### **LOW TEMPERATURES**

Low temperatures are the most common cause of foaming. Temperatures lower than 55-60°C will inhibit the product's de-foaming agents. Food soils also become more apt to foam at lower temperatures. This is especially important on dishwashing machines with shallow wash tanks.

### **SCRAPING**

Check that the dishware has been properly scraped, as heavy food soil and greases entering the machine may cause the formation of foam. Ensure that the machine is drained and cleaned at regular intervals.

### **PRE-SOAKING**

Ensure that when pre-soaking, the solution does not enter the machine as the wash pump will cause it to foam.

### **WATER SOFTENER**

Erratic operation of a water softener can cause foaming. If you have set the chemicals to cope with hard water, and then the water becomes soft, there is the danger of foaming.

### **RINSE AID**

Excessive or poor quality rinse aid, especially in very soft water can also contribute to excessive foaming.

**Order and enquiries:**

**P: 1300 788 250 Intl: +61 8 343 1585**