# WARM WATER & LEGIONELLA



A centralised warm water system is a practical and cost effective means of providing safe bathing temperatures to users and patients.

Rheem has been designing and maintaining centralised warm water systems for over 20 years. This experience places Rheem in a unique position to provide industry best practice maintenance of your Guardian warm water system. We invite you to please take a moment to read the following brief maintenance guide before entering into a maintenance contract for your Guardian warm water system.

When thinking warm water, the system must be considered as a whole, from the hot water plant and cold water supply all the way to the discharge point of every tap connected, not just the Rheem Guardian component.

### Prescriptive maintenance:

Some aspects of maintaining a warm water system are by and large PRESCRIPTIVE. UV lamp replacement and Thermostatic Mixing Valve (TMV) cartridge replacement etc are changed at fixed intervals, of course there are the times where these may need to be replaced earlier due to other reasons such as failures.

#### Performance based maintenance:

Other aspects of maintaining warm water are not absolute, they are based on experience, this is termed PERFORMANCE based maintenance, the most notable here is thimble cleaning, however this also covers things like flushing of unused taps. It is the performance based part where issues often arise.

#### Cleaning:

The periods for thimble cleaning given in the owners guide & installation instructions and the service manual are a suggested starting point, they are not an absolute and they cannot guarantee a fully optimised system, "out of the box". At each cleaning an assessment needs to be made on the condition of the thimble, if it is well and truly coated with foreign material then the suggested service interval is too long and the cleaning frequency will need to be reduced. If this is ignored and a 6 monthly clean is maintained, a detectable legionella count can be expected eventually. The risks to residents and the costs associated with bringing the system back into normal operation far outweigh the cost of more frequent maintenance, should it be required. This information needs to be logged as part of the record keeping process.

#### Maintenance quote:

Based on the above, it must be understood that the thimble cleaning duration is performance based. Depending on the condition of the thimble at the time of each service more frequent cleaning may be required, in some cases less frequent cleaning may be justified. Depending on the situation an extra charge or a reduced charge will apply.

## Flushing unused taps:

Experience has shown that warm water maintenance is a partnership between the service provider and the system operator. A critical, yet poorly practiced activity, is flushing unused taps. Flushing of both warm and cold unused taps MUST be performed every 7 days. If this step is not carried out there is a strong chance that at some point a detectable Legionella count will occur, irrespective of how good the maintenance on the equipment is. This activity must be recorded in a log book to assist with maintenance planning.

## Maintenance agreement:

The service provider and the operator of the system both have a vital part to play in keeping the system clean and operational. We have found that warm water risk management, as defined in Australian Standard AS3666, is not widely understood by those responsible for the safety of those in their care.

We endeavour to make this clear to you UP FRONT so there is no misunderstanding of each others obligations prior to entering into a maintenance agreement.

#### **Heat Sanitisation:**

With the exception of system commissioning and South Australia where periodic heat sanitisation is mandatory, if heat sanitisation is required, this is an immediate indication there is a problem with the system maintenance. It is not safe to assume that by heat sanitising the problem is solved. There is a high probability if that something within the maintenance program is not changed another detectable count will occur. The problem generally presents itself following a review of maintenance records and discussion with the system operator and corrective actions can be implemented to prevent occurrence.

We trust this brief insight has been helpful and Rheem Service looks forward to providing years of trouble free operation of your Guardian warm water system.

For further enquiries regarding Rheem scheduled maintenance or to find out where and how to book a service call, call Rheem NZ Ltd on 0800 657 335.