SCALE-OVER descaling and cleaning of cooling towers and closed circuit water cooling systems is most usually accomplished while the water cooled equipment is ONLINE and without the necessity of shut-down. In order to clean and dissolve all water scale, lime, rust, dirt and biofouling from the water side of your equipment, it is very important that these instructions are followed.

Watch® instructions for SCALE-OVER Descaling

1. When Cooling Towers or units to be de-scaled are in operation or merely connected with water flowing to them, shut off make-up water and bleed off to tower and/or sump tank.

2. Please open drain valve in bottom of the sump tank and lower the water level to a point where the pump is still circulating without cavitating. If the pump sucks air add that amount of make-up water to maintain circulation.

3. Please consider to clean the entire system, including cooling-tower, sump tank, pump piping and all associated equipment on tower while system is in operation, you must first determine the complete volume of your cooling tower. Documentation supplied with your tower or nameplate on the tower should indicate the cooling capacity in tongue.

4. Please refer to the sizing chart on the following page to compute the proper amount needed.

5. Slowly add this quantity of Watch® SCALE-OVER to the sump pump over at a two hour period.

6. Circulation time should be at best 4 to hours during which all equipment should be ONLINE. However, any time there after the make up water can be turned on and the bleed off opened and set to remove all of the dissolved solids from the system.

7. In order to purge all insoluble material from closed circuit systems, it is suggested that after circulation, the drain valve should be opened and make-up water added until all water in system is clear. Close drain and establish proper bleed-off and make up.

Important: Scale formation can be greatly reduced by the appropriate use of FILTERSORB® SP3 and I-SOFT® NB/I-SOFT® OB antiscalants and Biocides.

Sooner or later there is nearby everybody will be using these biodegradable products.

www.watchwater.de
Descaling – continues from page 1...

When convenient, it is recommended that the sump tank be drained and flushed and that the strainer screen be removed and inspected for any insoluble material. When cleaning cooling Towers and close circuit coolers, it is some times hard to determine the amount of scale build-up that has been accumulated over a period of time. It might be a case where you have a 500-ton cooling tower and you would need more than the recommended amount which is 250 liters of Watch® SCALE-OVER.

The amount shown on the sizing chart are just for the cooling towers and closed circuit cooling only and not for the entire system (pumps, piping and all the associated equipments that is using cooling tower). For the entire system, take the water volume in cubic meter (m³) and multiply with 0.5, which equals the amount of SCALE-OVER to be used.

### Thanks and good luck!

### Soon you would have brand new equipments.

### Sizing chart

<table>
<thead>
<tr>
<th>Chemical required against water volume</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water volume</strong></td>
<td><strong>Amount of SCALE-OVER</strong></td>
<td></td>
</tr>
<tr>
<td>m³</td>
<td>Liters</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>12.5</td>
<td></td>
</tr>
</tbody>
</table>

**Example:**

For 50 m³ of water the required volume is

\[ 50 \times 0.5 = 25 \text{ liters} \]

Similarly:

For 100 m³:

\[ 100 \times 0.5 \text{ L} = 50 \text{ liters} \]

For 1,000 m³:

\[ 1,000 \times 0.5 \text{ L} = 500 \text{ liters} \]

For 50,000 m³:

\[ 50,000 \times 0.5 \text{ L} = 25,000 \text{ liters} \]

For 100,000 m³:

\[ 100,000 \times 0.5 \text{ L} = 50,000 \text{ liters} \]

**Packaging:**

- 500 ml bottle – 6 in a box
- 3 liters canister – 4 in a box
- 10 liter canister – 20, 40, 60 or 80 on a pallet
- 30 liters canister – 18 on a pallet
- 1000 liters container IBC

**Manufactured by:**

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All details on SCALE-OVER Home Page www.scale-over.com

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