Superchill & Sulzer* Cooling Towers

- Best Quality
- Guaranteed Performance
- Fibreglass Construction
- Corrosion Proof
- Compliance with AS3666
- All Applications
- Made in Australia
- Superchill is 100% Australian Owned

MODUPOL

SC Model

Heavy Duty Mobile Unit

Standard

Low Noise

Super Low Noise

The right solution for any application

* Former Sulzer-Escher Wyss GmbH is now AXIMA Refrigeration GmbH
Axima Cooling towers – manufactured and used world-wide

The World’s leading Cooling Tower centre in Germany
Axima, former Sulzer-Escher Wyss GmbH has been developing and manufacturing cooling towers since 1957. The reason for its success is that individually engineered solutions are offered for all the customer’s requirements.

Axima’s research and development division also ensures the transformation of technical and scientific knowledge into customer friendly products and services.

Please find more information about the products and the Axima technology group on the back page.

Superchill Australia Pty Ltd
100% Australian owned
was formed in 1997 on the basis of the former SULZER Australia Cooling Tower Division. As a dedicated Cooling Tower company, Superchill manufactures Axima (Sulzer) cooling towers in Australia for the local market as well as its own SC Cooling Tower range.

All cooling towers are completely manufactured in-house in our Dandenong (Vic) factory, to the highest quality standards.

Long service life with corrosion-proof high quality cooling towers
The corrosion-free plastic construction guarantees high quality and a long lifespan. Thanks to the wide range of models and capacities available, there is a type that is suitable for every requirement.

Wide-ranging know-how, various accessories and possibilities to extend
During design and tower selection Superchill’s specialists also take into consideration further details such as noise levels and water treatment.

We specialise in turnkey compact units which can be integrated in transportable standard containers. These are in demand at mine sites and for emergency situations when existing cooling systems break down.

The wet bulb temperature determines the achievable cold water temperature
The decisive factor for the cooling tower capacity is the wet bulb temperature – the relationship between ambient air temperature and relative air humidity. Wet type cooling towers can reach a temperature of approx. 2 to 3 °C above this value.

In Australia, the following wet bulb temperatures are usually used for design conditions: Sydney 24 °C, Melbourne 21.5 °C, Adelaide 23 °C, Perth 23 °C, Brisbane 26 °C, Hobart 19.5 °C, Townsville 27.5 °C.

(Source: Airah Handbook, for critical processes, Summer, 0800-1800)

On the above world map the wet bulb temperatures are indicated in 5 °C steps.

Licences:
You will find the addresses on www.axima.eu/refde (www.sulzerfrio.com)

Made-to-measure by SUPERCHILL Australia, designed by the Axima Technology Corporation
Just like air, water is one of our most vital and precious resources. The economical use of this natural resource is therefore of major importance. Cooling towers are an economical and ecological way of re-cooling: up to 97% of water can be saved compared to continuous-flow cooling.

**Water cooling systems**

Depending on the required cooling water temperature we compare various systems. At cooling water temperatures (in Australia) below approximately +25 °C generally refrigerating machines (chillers) are used and above this temperature cooling towers.

**Types of cooling towers**

Cooling towers are distinguished according to various criteria:

1. The force of the airstream:
   - Naturally ventilated cooling towers (natural draught cooling towers)
   - Artificially ventilated cooling towers (mechanical draught cooling tower). Fans may be of the induced or forced draught type design.

2. The relationship of the airstream to the water flow:
   - Counter-flow cooling towers
   - Cross-flow cooling towers
   - Combinations of these two designs

3. Types of fill material:
   - Open circuit cooling towers in which the water is cooled by direct contact with the surrounding air (wet-type cooling towers)
   - Closed circuit cooling towers the medium to be cooled has no direct contact with cooling water
   - Hybrid cooling towers a combination of open and closed systems

**Operating principle of cooling towers**

Wet type cooling towers reach temperatures below the ambient temperature. Significant for this is the wet bulb temperature - see page 2 for more details.

**Wet-type cooling towers**

The water to be cooled is sprayed and trickled over fill material by a water distribution system which, owing to its shape and position, guarantees high water and air contact times. At the same time, the surrounding air is drawn through the tower in counter-flow, thereby evaporating a small part of the circulating water. The heat required for this evaporation process is drawn off by the cooling water and provides the majority of the cooling capacity. The remainder of the cooling capacity is created by the convection of the warm water to the colder air.

The re-cooled water collects in the basin from where it is fed back to the cooling points. The saving in terms of cooling water in comparison with continuous flow cooling can be up to 97% of the circulation water, the remainder being required to compensate for the water loss due to evaporation and bleed-off.

**Closed circuit cooling towers**

The medium to be cooled flows through a closed heat exchanger and does not come into direct contact with the surrounding air. Water is trickled over the heat exchanger by a water distribution system (secondary circuit).

**Dry-type coolers**

The medium to be cooled flows through a heat exchanger just as for closed cooling towers. Heat is removed by means of convection to the surrounding air thus allowing the system to attain cooling water temperatures in excess of the ambient temperature.
Cooling towers with long service life

In-house production to a high level of quality

Spray coating of large-surface cooling tower parts made of FRP material

The components are made ready for assembly

Factory assembly of cooling towers in our works saves time at the place of erection

Years of experience in cooling tower construction
In 1957 Sulzer (now AXIMA) built the first cooling tower prototype. Since then our design and manufacturing philosophy has not changed. All our cooling tower components are developed, tested and manufactured in-house. This is the only way we can guarantee our customers a high quality, state-of-the-art product.

Development and testing
New product lines and one-off projects alike are developed in our design office. Existing lines are constantly revised and upgraded to optimise performance, energy consumption and operating noise levels. New research is incorporated into the cooling tower design programs and the results are subject to stringent testing on our own test stands.

Reliable specifications are an essential prerequisite for the efficient planning and economical operation of cooling towers.

Materials and manufacture
Fibreglass reinforced polyester has proved an excellent construction material over decades of use in the manufacture of cooling towers. The material is heat resistant and practically indestructible – some of our cooling towers have been in operation for over 30 years.

However, the processing of large plastic components requires a good deal of specialist knowledge. In order to ensure that nothing is left to chance we have developed our own assembly line which produces finished cooling tower casings.

In the assembly section the cooling towers are pre-assembled into transportable units.

A cooling tower for every application
Choosing the "right" cooling tower is vital and should be based on computer analysis of the necessary criteria: cooling capacity, energy consumption and noise level. Our standard range of cooling towers covers almost all possible applications.

Special models meet very particular demands for the cooling plant. Both experience and in-house fabrication are considerable advantages enabling Superchill to meet client’s specific needs.

Global planning
On request, our project engineers will analyse the requirements, plan the details and supervise the installation, commissioning and operation.

Fast installation
Well and efficient planned preparatory work reduces installation time on site to a strict minimum. A vital advantage if your production plant has to be shut down during the installation phase.

Prompt service
Our comprehensive after sales network provides a quick and efficient maintenance and spares service. We also offer a maintenance contract which ensures the regular servicing of your cooling system.

AXIMA certifications
Proven quality for technology and environment

DIN/ISO 9001
Quality Assurance Certification

CEE-Eco-Audit
Environmental Management System approved according to CEE Regulations

Water Protection Act
A specialised company within the meaning of the Water Resources Policy Act

SUPERCHILL certification
ISO 9001 OEC11383
Quality Assurance Certification
Superchill Manufacturing range view

**EWK range**
Induced draught counter flow open circuit wet-type cooling towers with axial fan in compact corrosion-proof fibreglass design.
Water flowrates from 2 to 550 m$^3$/h  Page 6 / 7

**MODUPOL® range**
Continuation of the EWK range with very high specific cooling capacities due to modular construction.
Water flowrates from 100 to 3600 m$^3$/h  Page 10 / 11

**EWB range**
Open wet-type cooling tower with induced draught axial fan in corrosion-protected fibreglass design. Extendable construction can easily be upgraded.
Water flowrates per unit from 65 to 2200 m$^3$/h  Page 12 / 13

**EWK-D range**
Open wet-type cooling tower with forced draught centrifugal fans, low profile and low noise level.
Water flow rate from 7 to 270 m$^3$/h  Page 14 / 15

**SC Range cooling towers**
Induced draught counter flow open circuit wet-type cooling towers with axial fan in compact corrosion-proof fibreglass design.
Water flowrates from 2 to 95 m$^3$/h  Page 8 / 9

**Waste water cooling towers:** Wet type cooling towers without fill material for cooling waste waters containing solids.  Page 16

**Crossflow cooling towers:** Page 16

**Cell cooling towers:** High efficiency concrete cooling towers particularly for energy management.
Information upon request.

**Compact and container units**
Compact units – ready for connection – on base frame or in container. The units are transportable and ready for use, immediately after pipework is connected at site.  Page 15

**Heavy duty (mobile) Cooling Towers and Bulk Air Coolers**
Specially suited for surface and underground mine applications and other heavy duty environments.
Cooling tower components:

Casing
The casing which can be supplied with or without a water collecting basin is made of fibreglass reinforced polyester with stainless steel screw fittings. The standard colour is sky blue. Other colours are also available.

Axial fan
The fibreglass reinforced plastic or aluminium blades can be adjusted while the fan is at standstill. In models up to and including the EWK 900 the axial fan and the electric motor are directly connected. In models from the EWK 1260 upwards the fan is driven by geared motors. A protective grid is fitted above the fan.

Drift eliminator
High performance, tested and approved drift eliminators prevent water droplets being carried over by the air stream and minimize drift losses as required by AS 3666.

Water distribution system
The water distribution pipes are fitted with self-cleaning, none-clogging cone spray nozzles, made in ABS material.

Fill material
The fill material is made of corrosion-proof, heat resistant polypropylene. Various grades or other materials are available to suit your application.

Louvres
The plastic air inlet louvres prevent water splashing. They are easy to remove for inspection and cleaning.

Strainer basket
The strainer basket is mounted in the basin upstream of the outlet and prevents foreign materials from entering the water circuit.

Float valve
The float valve controls the supply of make-up water.

Quick fill, overflow, drain
Fittings are included as standard.

Optional Accessories
- Exhaust silencer
- Sound-absorbing matting to reduce water impact noise level in basin
- Aluminium ladder with protective cage and platform with railing
- External water distribution pipe
- Thermostat to regulate fan speed by monitoring of the cold water temperature
- Heating system to keep water outlet zone free of ice in winter
- Thermostat to regulate heating by monitoring of the cold water temperature
- Water treatment control unit
- Variable speed control for fan motor or two-speed fan motors for energy saving and noise reduction

Special advantages of the EWK range

- Exact capacity selection thanks to the wide range of models available. The perfect cooling tower can be chosen to meet your specific requirements
- Corrosion-proof, durable, lightweight construction thanks to the all-plastic fibreglass reinforced polyester design
- Low energy consumption and low maintenance through the use of induced draught fans
- Extended maintenance intervals
- Simple and inexpensive installation thanks to our factory-assembled, transportable modules
- Attractive design in a choice of RAL colours allows your cooling tower to blend in with existing buildings

Five induced draught cooling towers type EWK 450 for cooling injection moulding machines

EWK
Compact all-composite, corrosion-proof, wet-type cooling towers
Technical data for the EWK cooling tower range

Cross-Sectional view of an EWK tower

<table>
<thead>
<tr>
<th>EWK</th>
<th>Water flowrate in m³/h min</th>
<th>Water flowrate in m³/h max</th>
<th>Rated cooling capacity in kW at t = 20 °C 32/26 °C</th>
<th>Motor-rating kW</th>
<th>Dimensions Length mm Width mm Height mm</th>
<th>Weight Empty kg</th>
<th>Weight In service kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>036/03</td>
<td>2</td>
<td>11</td>
<td>35</td>
<td>0.33/0.1</td>
<td>615</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>036/06</td>
<td>2</td>
<td>11</td>
<td>45</td>
<td>0.33/0.1</td>
<td>615</td>
<td>50</td>
<td>120</td>
</tr>
<tr>
<td>064/03</td>
<td>3</td>
<td>20</td>
<td>65</td>
<td>0.55/0.1</td>
<td>817</td>
<td>100</td>
<td>220</td>
</tr>
<tr>
<td>064/06</td>
<td>3</td>
<td>20</td>
<td>80</td>
<td>0.55/0.1</td>
<td>817</td>
<td>110</td>
<td>230</td>
</tr>
<tr>
<td>064/09</td>
<td>3</td>
<td>20</td>
<td>90</td>
<td>0.55/0.1</td>
<td>817</td>
<td>115</td>
<td>250</td>
</tr>
<tr>
<td>144/03</td>
<td>7</td>
<td>45</td>
<td>140</td>
<td>1.5/0.35</td>
<td>1226</td>
<td>260</td>
<td>570</td>
</tr>
<tr>
<td>144/06</td>
<td>7</td>
<td>45</td>
<td>175</td>
<td>1.5/0.35</td>
<td>1226</td>
<td>275</td>
<td>610</td>
</tr>
<tr>
<td>144/09</td>
<td>7</td>
<td>45</td>
<td>200</td>
<td>2.2/0.55</td>
<td>1226</td>
<td>290</td>
<td>660</td>
</tr>
<tr>
<td>230/06</td>
<td>11</td>
<td>70</td>
<td>275</td>
<td>2.2/0.55</td>
<td>1620</td>
<td>380</td>
<td>1200</td>
</tr>
<tr>
<td>230/09</td>
<td>11</td>
<td>70</td>
<td>320</td>
<td>2.2/0.55</td>
<td>1620</td>
<td>400</td>
<td>1300</td>
</tr>
<tr>
<td>324/03</td>
<td>16</td>
<td>100</td>
<td>320</td>
<td>3.0/0.50</td>
<td>1825</td>
<td>575</td>
<td>1330</td>
</tr>
<tr>
<td>324/06</td>
<td>16</td>
<td>100</td>
<td>400</td>
<td>3.0/0.50</td>
<td>1825</td>
<td>610</td>
<td>1420</td>
</tr>
<tr>
<td>324/09</td>
<td>16</td>
<td>100</td>
<td>440</td>
<td>3.0/0.50</td>
<td>1825</td>
<td>645</td>
<td>1520</td>
</tr>
<tr>
<td>450/06</td>
<td>20</td>
<td>135</td>
<td>555</td>
<td>4.0/0.80</td>
<td>2220</td>
<td>850</td>
<td>2800</td>
</tr>
<tr>
<td>450/09</td>
<td>20</td>
<td>135</td>
<td>630</td>
<td>5.5/1.20</td>
<td>2220</td>
<td>900</td>
<td>3000</td>
</tr>
<tr>
<td>680/06</td>
<td>35</td>
<td>200</td>
<td>800</td>
<td>5.5/1.40</td>
<td>3110</td>
<td>1350</td>
<td>4400</td>
</tr>
<tr>
<td>680/09</td>
<td>35</td>
<td>200</td>
<td>920</td>
<td>9.5/2.40</td>
<td>3110</td>
<td>1450</td>
<td>4700</td>
</tr>
<tr>
<td>900/06</td>
<td>45</td>
<td>270</td>
<td>1100</td>
<td>9.5/2.40</td>
<td>4345</td>
<td>1500</td>
<td>5500</td>
</tr>
<tr>
<td>900/09</td>
<td>45</td>
<td>270</td>
<td>1250</td>
<td>11.0/3.0</td>
<td>4345</td>
<td>1600</td>
<td>5800</td>
</tr>
<tr>
<td>1260/06</td>
<td>65</td>
<td>380</td>
<td>1530</td>
<td>11.0/3.0</td>
<td>4288</td>
<td>2325</td>
<td>8000</td>
</tr>
<tr>
<td>1260/09</td>
<td>65</td>
<td>380</td>
<td>1740</td>
<td>14.0/3.5</td>
<td>4288</td>
<td>2450</td>
<td>8400</td>
</tr>
<tr>
<td>1800/06</td>
<td>90</td>
<td>540</td>
<td>2190</td>
<td>18.5/4.5</td>
<td>4288</td>
<td>3225</td>
<td>11200</td>
</tr>
<tr>
<td>1800/09</td>
<td>90</td>
<td>540</td>
<td>2490</td>
<td>22.0/5.5</td>
<td>4288</td>
<td>3400</td>
<td>11800</td>
</tr>
</tbody>
</table>

The rated cooling capacities given in the table apply to water cooled from 32 °C to 26 °C and resp. 40 °C to 25 °C at a wet-bulb temperature of 20 °C.
The minimum and maximum water flows do not refer to the rated cooling capacities.
For other design requirements please see the Quick Selection Chart on page 18 or contact us. Technical modifications reserved.
Compact all-composite, corrosion-proof, wet-type cooling towers designed in Australia

Cooling tower components:

Casing
The casing which can be supplied with or without a water collecting basin is made of fibreglass reinforced polyester with stainless steel screw fittings. The standard colour is grey. Other colours are also available.

Axial fan
The fibreglass reinforced plastic blades can be adjusted while the fan is at standstill. The axial fan and the electric motor are directly connected. A protective grid is fitted above the fan.

Drift eliminator
High performance, tested and approved drift eliminators prevent water droplets being carried over by the air stream and minimize drift losses as required by AS 3666.

Water distribution system
The water distribution pipes are fitted with self-cleaning, non-clogging plastic spray nozzles.

Fill material
The fill material is made of corrosion-proof, heat resistant polypropylene. Various grades or other materials are available to suit your application.

Louvres
The plastic air inlet louvres prevent water splashing. One side wall, including louvre, is completely removable for easy inspection and cleaning.

Strainer basket
The stainless steel strainer basket is mounted in the basin upstream of the outlet and prevents foreign material from entering the water circuit.

Float valve
The float valve controls the supply of make-up water.

Quick fill, overflow, drain
Fittings are included as standard.

Optional Accessories
- Exhaust silencer
- Aluminium ladder
- Thermostat to regulate fan speed by monitoring of the cold water temperature
- Heating system to keep water outlet zone free of ice in winter
- Thermostat to regulate heating by monitoring of the cold water temperature
- Water treatment control unit
- Variable speed control for fan motor or two-speed fan motors for energy saving and noise reduction
- Water circulation pump

Special advantages of the SC range
- Exact capacity selection thanks to the wide range of models available. The perfect cooling tower can be chosen to meet your specific requirements.
- Corrosion-proof, durable, lightweight construction thanks to the all-plastic fibreglass reinforced polyester design.
- Low energy consumption and low maintenance through the use of induced draught fans.
- Extended maintenance intervals.
- Simple and inexpensive installation thanks to our factory-assembled, transportable modules.
- Attractive design in a choice of colours allows your cooling tower to blend in with existing buildings.

Induced draught cooling towers type SC 35 and SC 45. Front panel removed for inspection.
### Technical Data of the EWK range

<table>
<thead>
<tr>
<th>SC Tower</th>
<th>Water flowrate in m³/h</th>
<th>Rated cooling capacity in kW at t&lt;sub&gt;0&lt;/sub&gt; = 20 °C</th>
<th>Motor-rating kW</th>
<th>Dimensions</th>
<th>Weight Empty</th>
<th>In service kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 10</td>
<td>2 - 11</td>
<td>35 - 48</td>
<td>0.16</td>
<td>720 - 740</td>
<td>50 - 105</td>
<td></td>
</tr>
<tr>
<td>SC 15</td>
<td>2 - 11</td>
<td>45 - 65</td>
<td>0.67 - 0.7</td>
<td>720 - 740</td>
<td>50 - 105</td>
<td></td>
</tr>
<tr>
<td>SC 20</td>
<td>6 - 25</td>
<td>80 - 105</td>
<td>0.55 - 0.65</td>
<td>1060 - 1060</td>
<td>150 - 300</td>
<td></td>
</tr>
<tr>
<td>SC 35</td>
<td>6 - 25</td>
<td>101 - 145</td>
<td>0.75 - 0.8</td>
<td>1060 - 1060</td>
<td>150 - 300</td>
<td></td>
</tr>
<tr>
<td>SC 45</td>
<td>8 - 32</td>
<td>135 - 195</td>
<td>1.1 - 1.2</td>
<td>1075 - 1360</td>
<td>200 - 480</td>
<td></td>
</tr>
<tr>
<td>SC 60</td>
<td>11 - 43</td>
<td>180 - 260</td>
<td>1.10 - 1.25</td>
<td>1410 - 1410</td>
<td>225 - 520</td>
<td></td>
</tr>
<tr>
<td>SC 75</td>
<td>13 - 54</td>
<td>225 - 325</td>
<td>2.2 - 2.5</td>
<td>1620 - 1320</td>
<td>325 - 660</td>
<td></td>
</tr>
<tr>
<td>SC 95</td>
<td>16 - 68</td>
<td>285 - 405</td>
<td>3.0 - 3.5</td>
<td>1680 - 1620</td>
<td>400 - 770</td>
<td></td>
</tr>
<tr>
<td>SC 110</td>
<td>16 - 68</td>
<td>325 - 475</td>
<td>3.0 - 3.5</td>
<td>1680 - 1620</td>
<td>450 - 850</td>
<td></td>
</tr>
<tr>
<td>SC 115 L</td>
<td>20 - 81</td>
<td>335 - 485</td>
<td>3.0 - 3.5</td>
<td>1930 - 1690</td>
<td>480 - 1045</td>
<td></td>
</tr>
<tr>
<td>SC 135 L</td>
<td>25 - 95</td>
<td>400 - 580</td>
<td>4.0 - 4.0</td>
<td>1930 - 1940</td>
<td>620 - 1455</td>
<td></td>
</tr>
<tr>
<td>SC 135</td>
<td>25 - 100</td>
<td>410 - 590</td>
<td>4.0 - 4.0</td>
<td>1930 - 1940</td>
<td>620 - 1455</td>
<td></td>
</tr>
<tr>
<td>SC 150</td>
<td>25 - 100</td>
<td>475 - 695</td>
<td>5.5 - 6.5</td>
<td>1930 - 1940</td>
<td>720 - 1555</td>
<td></td>
</tr>
<tr>
<td>SC 180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC 220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Water Distribution:** Consists of PVC header pipe & clog resistant spray nozzles
- **Fan Cylinder:** Designed to provide optimum airflow and reduced air turbulence whilst providing even airflow through PVC fill
- **PP Cooling tower heat transfer media:** The Wet Deck consists of high efficiency Polypropylene fill-pack, configured to provide maximum air to water contact and low air pressure drop, to ensure efficient heat transfer and minimise power requirements
- **Internal Surfaces:** Smooth gel coat finish in basin to allow for easy cleaning
- **Fittings:** include drain, inlet outlet, make-up, overflow and quick fill as standard
- **Cold Water Basin:** Single piece mould design so all surfaces slope to drain to comply with AS 3666
- **Strainer:** prevents foreign materials from entering system, manufactured in stainless steel
- **Easy Access:** to comply with AS 3666 the Superchill SC range is designed for fast and simple dismantling of interior components
- **PVC Louvres:** Designed for fast & simple removal. To comply with AS 3666, louvres configuration prevents splash out and minimises entry of light into the cold water basin
- **PVC Drift Eliminators:** Designed to alter direction of airflow to provide maximum drift loss protection as required by AS 3666
- **Protective Fan Grid, Mechanical Support & Hardware:** Manufactured from stainless steel to conform to Superchill high design standards
- **Fan Motor:** IP56 protection. 6 pole for low noise.  
- **Fan:** High efficiency glass reinforced polypropylene fan with Adjustable pitch

The rated cooling capacities given in the table apply to water cooled from 32 °C to 26 °C and resp. 40 °C to 25 °C at a wet-bulb temperature of 20 °C. The minimum and maximum water flowrates do not refer to the rated cooling capacities. For other design requirements please see the Quick Selection Chart on page 18 or contact us. Technical modifications reserved.
Cooling tower components:

Casing
The modular casing which is made of fibreglass reinforced polyester, comes in three models with stainless steel screw fittings. The standard colour is sky blue. Other colours are also available.

Axial fan
The fibreglass reinforced plastic or aluminium blades can be adjusted while the fan is at standstill. The fan is driven by a one- (or two)-speed geared motor, and preferably controlled with a variable speed drive. A protective grid is fitted above the fan.

Drift eliminator
High performance, tested and approved drift eliminators prevent water droplets being carried over by the air stream and minimize drift losses as required by AS 3666.

Water distribution system
The water distribution pipes are fitted with self-cleaning, non-clogging cone spray nozzles made in ABS material.

Fill material
The fill material is made of corrosion-proof, heat resistant polypropylene. Various grades or other materials are available to suit your application.

Louvres
The plastic air inlet louvres prevent water splashing. They are easy to remove for inspection and cleaning.

Optional Accessories
- Exhaust silencer
- Intake silencer
- Sound-proof matting to reduce water impact noise level in basin
- Aluminium ladder with protective cage, platform with railings and direct access to geared motor
- External water distribution pipe
- Thermostat and variable speed drive control unit to regulate fan speed by monitoring of the cold water temperature
- Heating system to keep water outlet zone free of ice in winter
- Thermostat to regulate heating by monitoring of the cold water temperature
- Float valve to control supply of make-up water
- Strainer for water outlet

Special advantages of the MODUPOL® range
- Corrosion-proof, durable, light-weight construction thanks to the self-supporting all-plastic fibreglass reinforced polyester design
- Very high cooling capacity for cooling up to 3600 m³/h of water
- Individual "kit" solutions thanks to the range of models and modular design. Optional water collecting basin
- Low energy consumption and low maintenance through the use of induced draught fans
- Extended maintenance intervals
- Simple and inexpensive installation thanks to the individual, factory-assembled modules
- Attractive design in a choice of RAL colours allows your cooling tower to blend in with existing buildings
Technical data for the MODUPOL® cooling tower range

<table>
<thead>
<tr>
<th>MODUPOL® Type</th>
<th>Water flowrate in m³/h</th>
<th>Rated cooling capacity in kW at tᵢ = 20 °C</th>
<th>Motor-rating kW</th>
<th>Dimensions* Length mm</th>
<th>Dimensions* Width mm</th>
<th>Dimensions* Height mm</th>
<th>Weight Empty kg</th>
<th>Weight In service kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>2100/06</td>
<td>105 min, 630 max</td>
<td>2700 32/26 ºC 3860 40/25 ºC</td>
<td>14/3.5</td>
<td>4622 min</td>
<td>4740 max</td>
<td>5550</td>
<td>3700 min</td>
<td>5700 max</td>
</tr>
<tr>
<td>2100/06</td>
<td>105 min, 630 max</td>
<td>3090 32/26 ºC 4560 40/25 ºC</td>
<td>18/4.5</td>
<td>4622 min</td>
<td>4740 max</td>
<td>5550</td>
<td>3700 min</td>
<td>5700 max</td>
</tr>
<tr>
<td>3100/06</td>
<td>155 min, 930 max</td>
<td>3980 32/26 ºC 5700 40/25 ºC</td>
<td>22/5.5</td>
<td>4622 min</td>
<td>7040 max</td>
<td>5895</td>
<td>4900 min</td>
<td>7400 max</td>
</tr>
<tr>
<td>3100/09</td>
<td>155 min, 930 max</td>
<td>4560 32/26 ºC 6740 40/25 ºC</td>
<td>30/7.5</td>
<td>4622 min</td>
<td>7040 max</td>
<td>5895</td>
<td>4900 min</td>
<td>7400 max</td>
</tr>
<tr>
<td>4500/06</td>
<td>225 min, 1350 max</td>
<td>5780 32/26 ºC 8280 40/25 ºC</td>
<td>36/9.0</td>
<td>6950 min</td>
<td>7040 max</td>
<td>6355</td>
<td>7200 min</td>
<td>10900 max</td>
</tr>
<tr>
<td>4500/09</td>
<td>225 min, 1350 max</td>
<td>6620 32/26 ºC 9780 40/25 ºC</td>
<td>36/9.0</td>
<td>6950 min</td>
<td>7040 max</td>
<td>6355</td>
<td>7200 min</td>
<td>10900 max</td>
</tr>
<tr>
<td>6100/06</td>
<td>310 min, 1860 max</td>
<td>7840 32/26 ºC 11250 40/25 ºC</td>
<td>50/10.0</td>
<td>9226 min</td>
<td>7040 max</td>
<td>7550</td>
<td>10500 min</td>
<td>15700 max</td>
</tr>
<tr>
<td>6100/09</td>
<td>310 min, 1860 max</td>
<td>9020 32/26 ºC 13160 40/25 ºC</td>
<td>58/12.6</td>
<td>9226 min</td>
<td>7040 max</td>
<td>7550</td>
<td>10500 min</td>
<td>15700 max</td>
</tr>
<tr>
<td>4200/06</td>
<td>210 min, 1260 max</td>
<td>5400 32/26 ºC 7720 40/25 ºC</td>
<td>2x14/3.5</td>
<td>9280 min</td>
<td>4740 max</td>
<td>5500</td>
<td>7300 min</td>
<td>10700 max</td>
</tr>
<tr>
<td>4200/09</td>
<td>210 min, 1260 max</td>
<td>6180 32/26 ºC 9120 40/25 ºC</td>
<td>2x18/4.5</td>
<td>9280 min</td>
<td>4740 max</td>
<td>5500</td>
<td>7300 min</td>
<td>10700 max</td>
</tr>
<tr>
<td>6200/06</td>
<td>310 min, 1860 max</td>
<td>7960 32/26 ºC 11400 40/25 ºC</td>
<td>2x22/5.5</td>
<td>9280 min</td>
<td>7040 max</td>
<td>6195</td>
<td>9800 min</td>
<td>14800 max</td>
</tr>
<tr>
<td>6200/09</td>
<td>310 min, 1860 max</td>
<td>9120 32/26 ºC 13480 40/25 ºC</td>
<td>2x30/7.5</td>
<td>9280 min</td>
<td>7040 max</td>
<td>6195</td>
<td>9800 min</td>
<td>14800 max</td>
</tr>
<tr>
<td>9000/06</td>
<td>450 min, 2700 max</td>
<td>11560 32/26 ºC 16560 40/25 ºC</td>
<td>2x36/9.0</td>
<td>13900 min</td>
<td>7040 max</td>
<td>6655</td>
<td>14300 min</td>
<td>21900 max</td>
</tr>
<tr>
<td>9000/09</td>
<td>450 min, 2700 max</td>
<td>13240 32/26 ºC 19560 40/25 ºC</td>
<td>2x36/9.0</td>
<td>13900 min</td>
<td>7040 max</td>
<td>6655</td>
<td>14300 min</td>
<td>21900 max</td>
</tr>
<tr>
<td>12200/06</td>
<td>610 min, 3660 max</td>
<td>15610 32/26 ºC 22340 40/25 ºC</td>
<td>2x50/10.0</td>
<td>18500 min</td>
<td>7040 max</td>
<td>7850</td>
<td>21200 min</td>
<td>31600 max</td>
</tr>
<tr>
<td>12200/09</td>
<td>610 min, 3660 max</td>
<td>18030 32/26 ºC 25810 40/25 ºC</td>
<td>2x58/12.6</td>
<td>18500 min</td>
<td>7040 max</td>
<td>7850</td>
<td>21200 min</td>
<td>31600 max</td>
</tr>
</tbody>
</table>

* Dimensions and weights shown are for Version 1. Specifications for Versions 2 and 3 are available upon request.

The rated cooling capacities specified in the table apply to water cooled from 32 °C to 26 °C resp. from 40 °C to 25 °C at a wet-bulb temperature of 20 °C. The minimum and maximum water flowrates do not refer to the rated cooling capacities.

For other design requirements please see the Quick Selection Chart on page 18 or contact us.

Technical modifications reserved.
Cooling tower components:

**Casing**
The casing, which can be supplied with or without a water collecting basin, consists of a galvanised profiled steel frame, panels and supports for the fill material. The panels are made of profiled fibreglass reinforced polyester. The standard colour is sky blue. Other colours are also available.

**Cooling tower deck**
The walk-on cooling tower deck comes in two versions: non-slip fibreglass or aluminium plates.

**Axial fan**
The hydrodynamic fibreglass reinforced plastic or aluminium blades can be adjusted while the fan is at a standstill. A protective grid is fitted above the geared motor-driven fan.

**Drift eliminator**
High performance, tested and approved drift eliminators prevent water droplets being carried over by the air stream and minimize drift losses as required by AS 3666.

**Water distribution system**
The water distribution pipes are fitted with self-cleaning, non-clogging cone spray nozzles, made in ABS material.

**Fill material**
The fill material is made of corrosion-proof, heat resistant polypropylene. Various grades or other materials are available to suit your application.

**Louvres**
The plastic air inlet louvres prevent water splashing. They are easy to remove for inspection and cleaning.

**Water collecting basin**
The water collecting basin is usually a site-built concrete basin. It is possible to offer a fibreglass reinforced polyester basin.

**Optional Accessories**
- Outlet strainer basket
- Intake silencer
- Sound-proof matting to reduce water impact noise level from basin
- Exhaust silencer
- Aluminium ladder with protective cage
- Handrails at top of tower
- Thermostat to regulate fan speed by monitoring of the cold water temperature
- Heating system to keep water outlet zone free of ice in winter
- Thermostat to regulate heating in function of the cold water temperature
- Walk-on protective grid for maintenance

**Special advantages of the EWB range**

- Flexible extension for future expansion needs and exact sizing of the cooling units thanks to the modular design and wide range of models
- Corrosion-protected, durable, light-weight construction thanks to hard-wearing corrosion-resistant plastic/steel industrial design
- Low energy consumption and low maintenance through the use of induced draught fans and low-speed geared motors
- Easy access for maintenance and inspection work thanks to the removable side panels and walk-on cooling tower deck
- Extended maintenance intervals
- A range of RAL colours is available to allow your cooling tower to blend in with existing buildings
Technical data for the EWB cooling tower range

Cross-sectional view of an EWB tower

<table>
<thead>
<tr>
<th>EWB</th>
<th>Water flowrate in m³/h</th>
<th>Rated cooling capacity in kW at tᵢ = 20 °C 32/26 °C 40/25 °C</th>
<th>Motor-rating kW</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min</td>
<td>max</td>
<td>1700</td>
<td>2400</td>
<td>2250</td>
</tr>
<tr>
<td>1300/06</td>
<td>65</td>
<td>390</td>
<td>1950</td>
<td>2850</td>
<td>3200</td>
</tr>
<tr>
<td>1730/03</td>
<td>85</td>
<td>520</td>
<td>1800</td>
<td>2400</td>
<td>2250</td>
</tr>
<tr>
<td>1730/06</td>
<td>85</td>
<td>520</td>
<td>2250</td>
<td>3200</td>
<td>2550</td>
</tr>
<tr>
<td>2300/03</td>
<td>115</td>
<td>690</td>
<td>2350</td>
<td>3200</td>
<td>2950</td>
</tr>
<tr>
<td>2300/06</td>
<td>115</td>
<td>690</td>
<td>3200</td>
<td>4200</td>
<td>3400</td>
</tr>
<tr>
<td>2300/09</td>
<td>115</td>
<td>690</td>
<td>3460</td>
<td>5000</td>
<td>4900</td>
</tr>
<tr>
<td>2875/03</td>
<td>140</td>
<td>865</td>
<td>2950</td>
<td>3950</td>
<td>3700</td>
</tr>
<tr>
<td>2875/06</td>
<td>140</td>
<td>865</td>
<td>3700</td>
<td>5300</td>
<td>4250</td>
</tr>
<tr>
<td>3600/09</td>
<td>180</td>
<td>1080</td>
<td>4650</td>
<td>6600</td>
<td>5300</td>
</tr>
<tr>
<td>3460/09</td>
<td>180</td>
<td>1080</td>
<td>5300</td>
<td>7900</td>
<td>6150</td>
</tr>
<tr>
<td>3600/09</td>
<td>180</td>
<td>1080</td>
<td>4650</td>
<td>6600</td>
<td>5300</td>
</tr>
<tr>
<td>3460/09</td>
<td>180</td>
<td>1080</td>
<td>5300</td>
<td>7900</td>
<td>6150</td>
</tr>
<tr>
<td>3600/09</td>
<td>180</td>
<td>1080</td>
<td>4650</td>
<td>6600</td>
<td>5300</td>
</tr>
<tr>
<td>3460/09</td>
<td>180</td>
<td>1080</td>
<td>5300</td>
<td>7900</td>
<td>6150</td>
</tr>
<tr>
<td>3600/09</td>
<td>180</td>
<td>1080</td>
<td>4650</td>
<td>6600</td>
<td>5300</td>
</tr>
<tr>
<td>3460/09</td>
<td>180</td>
<td>1080</td>
<td>5300</td>
<td>7900</td>
<td>6150</td>
</tr>
<tr>
<td>3600/09</td>
<td>180</td>
<td>1080</td>
<td>4650</td>
<td>6600</td>
<td>5300</td>
</tr>
<tr>
<td>3460/09</td>
<td>180</td>
<td>1080</td>
<td>5300</td>
<td>7900</td>
<td>6150</td>
</tr>
<tr>
<td>3600/09</td>
<td>180</td>
<td>1080</td>
<td>4650</td>
<td>6600</td>
<td>5300</td>
</tr>
<tr>
<td>3460/09</td>
<td>180</td>
<td>1080</td>
<td>5300</td>
<td>7900</td>
<td>6150</td>
</tr>
<tr>
<td>4600/03</td>
<td>230</td>
<td>1380</td>
<td>4700</td>
<td>6350</td>
<td>5900</td>
</tr>
<tr>
<td>4600/06</td>
<td>230</td>
<td>1380</td>
<td>5900</td>
<td>8450</td>
<td>6750</td>
</tr>
<tr>
<td>4600/09</td>
<td>230</td>
<td>1380</td>
<td>6750</td>
<td>10050</td>
<td>9750</td>
</tr>
<tr>
<td>5750/03</td>
<td>285</td>
<td>1730</td>
<td>5900</td>
<td>7900</td>
<td>7400</td>
</tr>
<tr>
<td>5750/06</td>
<td>285</td>
<td>1730</td>
<td>7400</td>
<td>10550</td>
<td>9750</td>
</tr>
<tr>
<td>5750/09</td>
<td>285</td>
<td>1730</td>
<td>8450</td>
<td>12500</td>
<td>9750</td>
</tr>
<tr>
<td>7200/03</td>
<td>360</td>
<td>2160</td>
<td>9250</td>
<td>13250</td>
<td>12250</td>
</tr>
<tr>
<td>7200/06</td>
<td>360</td>
<td>2160</td>
<td>10600</td>
<td>15650</td>
<td>12250</td>
</tr>
<tr>
<td>7200/09</td>
<td>360</td>
<td>2160</td>
<td>12250</td>
<td>6150</td>
<td>5100</td>
</tr>
</tbody>
</table>

The rated cooling capacities given in the table apply to water cooled from 32 °C to 26 °C and resp. 40 °C to 25 °C at a wet-bulb temperature of 20 °C.
The minimum and maximum water flows do not refer to the rated cooling capacities.
For other design requirements please see the Quick Selection Chart on page 18 or contact us.

13
Cooling tower components:

Casing
The casing and water collecting basin are made of fibreglass reinforced polyester. The standard colour is sky blue. Other colours are also available. A stainless steel filter is fitted upstream of each water outlet. An inspection hatch provides access for float valve adjustment and filter and water collecting basin cleaning.

Centrifugal fan
A high performance, double-action, low-noise centrifugal fan made of galvanised steel plate. The fan is driven by a three-phase motor and V-belts. All moving parts are protected by guards.

Drift eliminator
High performance, tested and approved drift eliminators prevent water droplets being carried over by the air stream and minimize drift losses as required by AS 3666.

Water distribution system
The water distribution pipes are fitted with self-cleaning, non-clogging cone spray nozzles, made in ABS material.

Fill material
The fill material is made of corrosion-proof, heat resistant polypropylene. Various grades or other materials are available to suit your application.

Vibration isolated fan motor unit
The fan motor unit is totally vibration-isolated from the main structure and connected with flexible connections and vibration dampers. This prevents the transmission of structure-borne noise.

Optional Accessories
- Sound attenuation:
  - Fan cladding in the form of an air intake chamber, intake and exhaust silencers with fibreglass reinforced polyester casing
  - Flexible ducting for connecting the air supply and evacuation ducts
  - Louvre flaps at intake and exhaust
  - Thermostat to regulate the fan speed by monitoring the cold water temperature
  - Heating system to keep water outlet zone free of ice in winter
  - Thermostat to regulate the heating by monitoring the cold water temperature
  - External water distribution pipe
  - Water treatment control unit
  - Variable speed control for fan motor or two-speed fan motors for energy saving and additional noise reduction

Special advantages of the EWK-D range
- Low-noise operation aided by the use of centrifugal fans and totally enclosed water casing
- Super Low Noise design by further reduction of noise emission with sound attenuators
- Simple and inexpensive installation thanks to our factory-assembled modules built as fully completed skid-mounted units
- Exact thermal capacity selection thanks to the wide range of models available allowing selection of the perfect cooling tower to meet your specific requirements
- Corrosion-proof, durable, light-weight construction thanks to the all-plastic fibreglass reinforced polyester design
- No water splashing and totally waterproof housing thanks to the enclosed fibreglass reinforced polyester casing (No air intake louvres are necessary)
- Suitable for use in enclosed spaces due to low noise emission levels and low overall heights
- Easy maintenance due to access from ground level and extended maintenance intervals
- A range of colours is available
Technical data for the EWK-D cooling tower range

### Technical data

**EWK-D**

<table>
<thead>
<tr>
<th>Design</th>
<th>Water flowrate</th>
<th>Rated cooling capacity</th>
<th>Motor-rating</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in m³/h</td>
<td>in kW at t_f = 20 °C</td>
<td></td>
<td>Length</td>
<td>Width</td>
</tr>
<tr>
<td>144-06</td>
<td>min 45</td>
<td>175</td>
<td>1.0/3.8</td>
<td>2440</td>
<td>1310</td>
</tr>
<tr>
<td></td>
<td>max 45</td>
<td>200</td>
<td>1.4/5.5</td>
<td>2440</td>
<td>1310</td>
</tr>
<tr>
<td>225-06</td>
<td>min 70</td>
<td>275</td>
<td>1.4/5.5</td>
<td>2900</td>
<td>1620</td>
</tr>
<tr>
<td></td>
<td>max 70</td>
<td>320</td>
<td>1.4/5.5</td>
<td>2900</td>
<td>1620</td>
</tr>
<tr>
<td>324-06</td>
<td>min 100</td>
<td>400</td>
<td>2.2/9</td>
<td>3450</td>
<td>1900</td>
</tr>
<tr>
<td></td>
<td>max 100</td>
<td>440</td>
<td>3.0/11</td>
<td>3450</td>
<td>1900</td>
</tr>
<tr>
<td>450-2</td>
<td>min 135</td>
<td>525</td>
<td>2.2/9</td>
<td>3960</td>
<td>2125</td>
</tr>
<tr>
<td></td>
<td>max 135</td>
<td>575</td>
<td>3.5/14</td>
<td>3960</td>
<td>2125</td>
</tr>
<tr>
<td>680-2</td>
<td>min 200</td>
<td>820</td>
<td>3.0/11</td>
<td>5096</td>
<td>2280</td>
</tr>
<tr>
<td></td>
<td>max 200</td>
<td>950</td>
<td>3.5/14</td>
<td>5096</td>
<td>2280</td>
</tr>
<tr>
<td>930-2</td>
<td>min 280</td>
<td>1130</td>
<td>3.5/14</td>
<td>6330</td>
<td>2280</td>
</tr>
<tr>
<td></td>
<td>max 280</td>
<td>1280</td>
<td>5.5/20</td>
<td>6330</td>
<td>2280</td>
</tr>
</tbody>
</table>

**EWK-DA**

<table>
<thead>
<tr>
<th>Design</th>
<th>Water flowrate</th>
<th>Rated cooling capacity</th>
<th>Motor-rating</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in m³/h</td>
<td>in kW at t_f = 20 °C</td>
<td></td>
<td>Length</td>
<td>Width</td>
</tr>
<tr>
<td>144-06</td>
<td>min 45</td>
<td>175</td>
<td>1.4/5.5</td>
<td>3705</td>
<td>1310</td>
</tr>
<tr>
<td></td>
<td>max 45</td>
<td>200</td>
<td>1.4/5.5</td>
<td>3705</td>
<td>1310</td>
</tr>
<tr>
<td>225-06</td>
<td>min 70</td>
<td>275</td>
<td>1.7/7.0</td>
<td>4110</td>
<td>1620</td>
</tr>
<tr>
<td></td>
<td>max 70</td>
<td>320</td>
<td>1.7/7.0</td>
<td>4110</td>
<td>1620</td>
</tr>
<tr>
<td>324-06</td>
<td>min 100</td>
<td>400</td>
<td>3.0/11</td>
<td>4590</td>
<td>1885</td>
</tr>
<tr>
<td></td>
<td>max 100</td>
<td>440</td>
<td>3.5/14</td>
<td>4590</td>
<td>1885</td>
</tr>
<tr>
<td>450-2</td>
<td>min 135</td>
<td>525</td>
<td>3.5/14</td>
<td>5114</td>
<td>2125</td>
</tr>
<tr>
<td></td>
<td>max 135</td>
<td>575</td>
<td>5.5/20</td>
<td>5114</td>
<td>2125</td>
</tr>
<tr>
<td>680-2</td>
<td>min 200</td>
<td>820</td>
<td>5.5/20</td>
<td>6266</td>
<td>2280</td>
</tr>
<tr>
<td></td>
<td>max 200</td>
<td>950</td>
<td>5.5/20</td>
<td>6266</td>
<td>2280</td>
</tr>
<tr>
<td>930-2</td>
<td>min 280</td>
<td>1130</td>
<td>6.0/24</td>
<td>7540</td>
<td>2280</td>
</tr>
<tr>
<td></td>
<td>max 280</td>
<td>1280</td>
<td>7.0/28</td>
<td>7540</td>
<td>2280</td>
</tr>
</tbody>
</table>

The rated cooling capacities given in the table apply to water cooled from 32 °C to 26 °C and resp. 40 °C to 25 °C at a wet-bulb temperature of 20 °C. The minimum and maximum water flowrates do not refer to the rated cooling capacities. For other design requirements please see the Quick Selection Chart on page 18 or contact us. Technical modifications reserved.
Special cooling towers

**EWK-C**  
Closed circuit cooling tower, induced draught

Induced-draught, wet type cooling tower in corrosion-proof plastic construction with closed primary circuit for re-cooling various liquids. The internal heat exchanger is made of hot dipped galvanised steel tube bundles with smooth wall tubes or finned tubes for low-steam hybrid operation. Copper tube or SS bundles can also be supplied.

**EWK-DC**  
Closed circuit cooling tower, forced draught

Forced-draught wet type cooling tower with identical features to the induced draught model. The low-noise, high performance centrifugal fan is manufactured in galvanised steel and is driven by means of a three-phase motor and V-belts.

**EWA**  
Wet-type cooling tower for waste water

This cooling tower can cope with waste waters with high solid or fat concentration, with acids, lyes or residues from chemical processes. Also sea or brackish water can be cooled. The standard cooling tower is built without fill material. Water is distributed by natural flow through main and secondary channels with plastic splash plates.

**EWX**  
Low-noise cross-flow cooling tower

A low-noise induced draught cooling tower in cross-flow construction with easy access for maintenance work. Air inlet through short side only, so that several cooling towers can be erected in line for increasing the capacity.
Compact and container units

Turnkey compact units, the economical alternative

Compact units are suitable for small- and medium-scale operations. All components are tubed and cabled on a galvanised base frame. Only the connections to the cooling tower and consumer have to be completed.

Another version is compact units integrated in containers. These containers can easily be transported and replace the need for a plant room.

Potential plant diagrams for single and dual circuit systems

1. Cooling tower
2. Pumps
3. Fresh water supply
4. Emergency water supply
5. Level control
6. Partial current filter
7. Differential pressure gauge
8. Rinse water line
9. Controlled volume pump
10. Conductivity meter
11. pH meter
12. Desalting unit
13. Outlet channel
14. Drainage
15. Storage basin
16. Water treatment
17. Cooling points
18. Overflow valve
19. Chemical dosing tank
20. Thermostat
## Quick Selection Chart

### Temperatures in deg C

<table>
<thead>
<tr>
<th>Hot Water</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>35</th>
<th>37</th>
<th>38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Water</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>Wet Bulb</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>25.5</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

### EWK & SC towers

<table>
<thead>
<tr>
<th>Gradient</th>
<th>Water flow in l/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC10</td>
<td>2.4 2.2 2.0</td>
</tr>
<tr>
<td>SC15</td>
<td>2.6 2.5 2.4</td>
</tr>
<tr>
<td>SC20</td>
<td>5.3 4.9 4.6</td>
</tr>
<tr>
<td>SC35</td>
<td>6.1 6.1 5.6</td>
</tr>
<tr>
<td>SC45</td>
<td>8.1 8.1 7.5</td>
</tr>
<tr>
<td>SC60</td>
<td>10.8 10.8 10.0</td>
</tr>
<tr>
<td>SC75</td>
<td>13.5 13.5 12.6</td>
</tr>
<tr>
<td>SC95</td>
<td>16.9 16.8 15.7</td>
</tr>
<tr>
<td>SC110</td>
<td>16.9 16.9 16.9</td>
</tr>
<tr>
<td>SC115</td>
<td>20.3 20.2 18.8</td>
</tr>
<tr>
<td>SC135</td>
<td>27.0 24.2 22.6</td>
</tr>
<tr>
<td>SC150</td>
<td>27.0 27.0 27.0</td>
</tr>
<tr>
<td>EWK450/06</td>
<td>36.8 36.6 34.2</td>
</tr>
<tr>
<td>EWK450/09</td>
<td>36.8 36.6 36.8</td>
</tr>
<tr>
<td>EWK630/06</td>
<td>52.5 52.4 48.8</td>
</tr>
<tr>
<td>EWK630/09</td>
<td>52.5 52.5 52.5</td>
</tr>
<tr>
<td>EWK680/06</td>
<td>75.0 74.8 69.7</td>
</tr>
<tr>
<td>EWK680/09</td>
<td>75.0 75.0 75.0</td>
</tr>
<tr>
<td>EWK750/06</td>
<td>105.0 104.7 97.6</td>
</tr>
<tr>
<td>EWK750/09</td>
<td>105.0 105.0 105.0</td>
</tr>
<tr>
<td>MODUPOL</td>
<td></td>
</tr>
<tr>
<td>EW2100/06</td>
<td>163.6 155.0 145.6</td>
</tr>
<tr>
<td>EW2100/09</td>
<td>180.0 175.0 165.8</td>
</tr>
<tr>
<td>EW3100/06</td>
<td>233.6 220.8 207.2</td>
</tr>
<tr>
<td>EW3100/09</td>
<td>260.0 258.3 244.4</td>
</tr>
<tr>
<td>EW4500/06</td>
<td>345.8 326.7 306.7</td>
</tr>
<tr>
<td>EW4500/09</td>
<td>380.0 372.5 351.1</td>
</tr>
<tr>
<td>EW5000/06</td>
<td>479.7 453.3 425.8</td>
</tr>
<tr>
<td>EW5000/09</td>
<td>515.0 508.3 479.4</td>
</tr>
<tr>
<td>M0DULP</td>
<td></td>
</tr>
<tr>
<td>EW2100/06</td>
<td></td>
</tr>
<tr>
<td>EW2100/09</td>
<td></td>
</tr>
<tr>
<td>EW3100/06</td>
<td></td>
</tr>
<tr>
<td>EW3100/09</td>
<td></td>
</tr>
<tr>
<td>EW4500/06</td>
<td></td>
</tr>
<tr>
<td>EW4500/09</td>
<td></td>
</tr>
<tr>
<td>EW5000/06</td>
<td></td>
</tr>
<tr>
<td>EW5000/09</td>
<td></td>
</tr>
<tr>
<td>EW6100/06</td>
<td></td>
</tr>
<tr>
<td>EW6100/09</td>
<td></td>
</tr>
<tr>
<td>EW750/06</td>
<td></td>
</tr>
<tr>
<td>EW750/09</td>
<td></td>
</tr>
<tr>
<td>EW900/06</td>
<td></td>
</tr>
<tr>
<td>EW900/09</td>
<td></td>
</tr>
<tr>
<td>EW1260/06</td>
<td></td>
</tr>
<tr>
<td>EW1260/09</td>
<td></td>
</tr>
<tr>
<td>EW2100/06</td>
<td></td>
</tr>
<tr>
<td>EW2100/09</td>
<td></td>
</tr>
<tr>
<td>EW3100/06</td>
<td></td>
</tr>
<tr>
<td>EW3100/09</td>
<td></td>
</tr>
<tr>
<td>EW4500/06</td>
<td></td>
</tr>
<tr>
<td>EW4500/09</td>
<td></td>
</tr>
<tr>
<td>EW6100/06</td>
<td></td>
</tr>
<tr>
<td>EW6100/09</td>
<td></td>
</tr>
<tr>
<td>EW900/06</td>
<td></td>
</tr>
<tr>
<td>EW900/09</td>
<td></td>
</tr>
<tr>
<td>EW1260/06</td>
<td></td>
</tr>
<tr>
<td>EW1260/09</td>
<td></td>
</tr>
</tbody>
</table>

### Technical modifications reserved

Above data, especially on larger towers, do vary according to selected motor power, fan type and air intake height. The information is for preliminary sizing only. For guaranteed performance data contact Superchill.
**Engineering Highlights**

**Polypropylene Fill**
Up to 80°C (or 100°C) resistant material. Tougher material than PVC, less brittle and therefore outlasts PVC. Extruded directly from molten virgin PP (not vacuum formed) into final form ensuring optimised material thickness of foil, see foil profile below.

**Welded Fill Blocks**
The foils are welded together to form a rigid block. Compared to glued blocks, welding is a permanent and much stronger bond. Above picture shows the hitech welding machine.

**Best available drift eliminators**
Our drift eliminators comply with the Australian Standards. The above shown “honeycomb” drift eliminator, with three changes in air direction has a drift loss of less than 0.001%

---

**Low Maintenance**
Our direct-coupled fans to the motor shaft, prevent problems with belt drives in the wet air stream, such as slipping of belts combined with the squeaking noise and wearing out of belts, also improving efficiency.

**High efficiency, low noise fans**
Our high performance, low noise fans are constructed using the same technology as seen in modern aerofoil design. The “wing tip” at the end of the blade reduces turbulence. This increases efficiency and reduces noise. Glass reinforced PP fans are also available.

**Special Units & Bulk Air Coolers**
Superchill is a specialist in designing and manufacturing bulk air coolers. Purpose-built units for any location (even for underground mining) or for total mobility can be designed and built according to the customer’s needs.

**MODUPOL® module**
As the name implies, our MODUPOL® cooling towers are made of factory completed modules. This guarantees high quality assembly and reduces site installation time.

**Installation of a Module**
The photo shows a module being lifted into place. This cooling tower is equipped with a shallow fibreglass basin which is installed over an older existing concrete basin.

**Four EWK6100 MODUPOL® Cooling Towers**
On the CD-ROM you will find a program for the calculation of the Sulzer/AXIMA cooling towers for engineers and architects. Please contact Superchill Australia to order your copy of the CD-ROM.

AXIMA Refrigeration GmbH, the former Sulzer Industrial Refrigeration can offer Customized refrigeration from a single source
As the clear European leader in Industrial Refrigeration, AXIMA’s products are at the leading edge of technology.
Clients are supplied with individual solutions for all applications of industrial refrigeration and cooling. A wide advisory and service network is part of AXIMA’s and Superchill’s extensive range of services and products.

Planning
Overall planning including the supervision of smooth and efficient project management.

Refrigeration plants and cooling units
For processing foodstuffs, process technology, ice-skating rinks, and large-scale heat pumps.

Cooling towers and cooling tower plants
For trade and industry as well as for cooling waste water.

Service
Inspection, maintenance, repair, modernization, modifications. Operation of plants, changing over to environmentally friendly refrigerants.

Call for more detailed information regarding our products and the address of your nearest technical office or check out our internet web side:

www.axima.eu.com
www.superchill.com

SUPERCHILL Australia
Superchill Australia Pty Ltd
ACN 079 755 329 ABN 95 961 691 625

Australia
Superchill Australia Pty Ltd
P.O. Box 2634
256 Princes Highway
Dandenong Vic 3175
Phone + 61(0) 3 9793 6166
Fax + 61(0) 3 9793 6050
www.superchill.com
e-Mail sales@superchill.com

Branch offices in Sydney, Brisbane
Representatives in Perth, Adelaide, Townsville

Worldwide
AXIMA Refrigeration GmbH
Former Sulzer-Escher Wyss GmbH
Kemptener Strasse 11–15
D-88131 Lindau
Phone + 49 (0) 8382 706-1
Fax + 49 (0) 8382 706-410
e-Mail info-refde@axima.eu.com
www.axima.eu.com/refde
www.axima.eu.com

Superchill is a 100% Australian-owned Company and is a member of CTI and AIRAH