

VT0/1

Open cooling towers



Key benefits

- Reliable
- Quiet
- Compact



VT0/1 characteristics

Counter flow, centrifugal fan, forced draft

Capacity range

7 to 455 l/s

Water distribution

Pressurised

Maximum entering water temperature

55°C standard fill
65°C with alternative fill

Typical applications

- Small to medium HVAC and industrial applications
- Tight enclosures and installations requiring a single air inlet
- Indoor installations
- Sound critical installations
- High temperature industrial applications



Reliable operation guaranteed

- Since 1978, thousands globally installed, proving the VT0/1-previously called VXT- cooling tower **reliability**.
- Fans, motor and drive system (V-belt) are located in the **dry air**, preventing moisture and condensation. No external moving parts, helping it withstand the toughest weather.
- The thermal performance of VT0/1 cooling towers is tested and [certified by Eurovent](#).
- Various corrosion-resistant materials, including the unique [Baltibond hybrid coating](#) for guaranteed long service life.

Ideal for a quiet operation

- VT0/1 units include **quiet internal centrifugal fans** for minimal surrounding noise.
- Single-side air inlet, and a **quieter tower rear** for more noise-sensitive areas.
- Cut operation noise still further with factory-designed and tested [sound attenuators](#) or silencers.

More compact

- Compact design for **confined spaces**.
- Single-side air inlet lets you install **next to solid walls**.
- Units housable **indoors** thanks to centrifugal fans allowing intake or discharge ductwork.

Reduced shipping, rigging and installation costs

- VT0/1 towers are factory-assembled. We ship larger models in 2 sections to reduce the size and weight of the heaviest section for **easy on-site assembly** with smaller cranes.
- VT0/1 offers high capacity and minimal operating weight. **Save on steel supports**, both underneath the equipment and in the building itself for rooftop installations.
- VT0/1 towers can be **container-shipped** (in 12' containers). Fan enclosures shippable loose in the tower bottom section for easy on-site assembly.

Easy to maintain

- **Easy access** to all the mechanicals, including fan shaft bearings.
- [BACount](#) individual bundled fill **sheets** for easy and complete inspection or cleaning preventing full replacement of fill bundles.

Interested in the VT0/1 cooling tower for cooling your process water? Contact your local [BAC representative](#) for more information.



Downloads

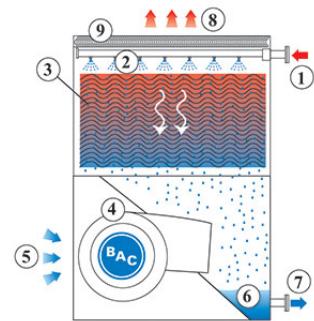
- [VT0-1 open cooling tower](#)
- [Operating and Maintenance VT0-1](#)
- [Rigging and Installation VT0-1](#)
- [Spare Parts for VT0-1](#)
- [Retrofit Opportunities for VT0-1](#)

Principle of operation

Open cooling towers

Principle of operation

Warm process **water** (1) from the heat source enters the **spray system** (2) at the top of the cooling tower where it is distributed over the **fill** or heat transfer media (3). At the same time, the **centrifugal fan** (4) of the air movement system, located at the bottom of the cooling tower, blows ambient **air** (5) upwards through the tower. While the warm process water contacts the cold air the latter heats up and part of the process water is evaporated resulting in an optimal heat transfer. The tower **sump** (6) or basin collects the **cooled water** (7) after which it returns to the heat source of the process. The warm saturated **air** (8) leaves the tower through the **drift eliminators** (9), which remove water droplets from the air.



Want to use the VT0/1 cooling tower to cool your process water?

Contact your local [BAC representative](#) for more information.

Construction details

Open cooling towers

Construction details

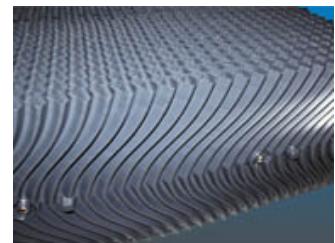
1. Material options

- Heavy-gauge hot-dip galvanized steel is used for external unit steel panels and structural elements featuring [Baltiplus Corrosion Protection](#).
- The unique [Baltibond hybrid coating](#) is an optional extra. A hybrid polymer coating for longer service life, applied pre-assembly to all hot-dip galvanized steel components of the unit.
- Optional [stainless steel](#) panels and structural elements of type 304L or 316L for extreme applications.
- Or the economical alternative: a **water-contact stainless steel cold water basin**. Its key components and the basin itself are stainless steel. The rest is protected with the Baltibond hybrid coating.



2. Heat transfer media

- Our heat transfer media is patented [BACount fill](#). Its thermal performance is proven during comprehensive [lab thermal performance tests](#) and it offers you unrivalled system efficiency.
- We divide the fill pack into **compact fill bundles** easier to remove and replace. Each includes individual fill sheets which are easy to dismantle for **thorough inspection and cleaning**, hence eliminating the need for frequent fill replacement.
- In self-extinguishing plastic, which will not rot, decay or decompose.
- For operation above 55°C, try our **optional high temperature fill**, usable with intake water up to 65°C.



3. Air movement system

- With motor-driven centrifugal fan and a **V-belt drive**. You can easily move the entire motor base for proper belt tensioning to ensure constantly correct belt alignment. Together with the **heavy duty fan shaft bearings** this guarantees optimal operational efficiency. Single- and multi-speed **motors** available.
- Centrifugal fan(s)** are forward-curved and nearly noiseless. Overcome external static pressure! Use sound attenuators and duct work etc. for air intake/discharge with no loss of thermal performance!
- Our drift eliminators** come in UV-resistant plastic, which will not rot, decay or decompose and their performance is tested and **certified by Eurovent**. They are assembled in **easily handled and removable sections**, for optimal internal access.
- Steel eliminators, protected with the unique Baltibond hybrid coating, for optimal corrosion protection, are also available for specific applications.



4. Water distribution system

These consist of:

- A **header** and **spray branches** with wide non-clog plastic **nozzles**, secured by rubber **grommets**. You can easily remove, clean and flush both nozzles and spray branches.
- A cold water basin with:
 - **strainers** which are easy to lift out and the anti-vortexing device also helps stop trapped air
 - mechanical **make up**
 - circular **access door**



Like to know more about the VT0/1 construction details? Contact your local BAC representative.

Options and accessories

Open cooling towers

Options and accessories

Below is a listing of the main vt0/1 options and accessories. If your required option or accessory is not listed, look no further than your [local BAC representative](#).



Plume abatement coil

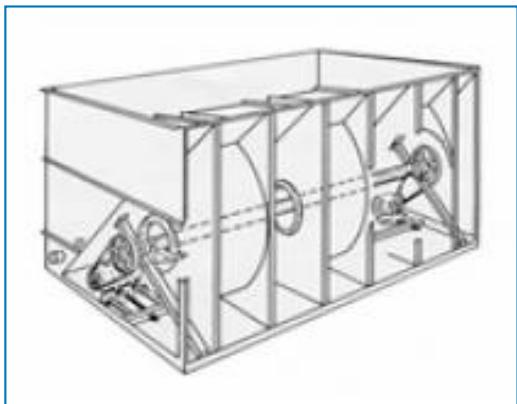
A finned discharge coil is installed in your cooling tower discharge and piped in series with the wet coil. This **reduces or eliminates plumes**.



Sound attenuation

Reducing noise at air intake and discharge points brings us closer to silent cooling equipment.

- For **light** sound reduction, ideal for **suburban** requirements, try the XA sound attenuation.
- The **medium** sound reductions attained through XB sound attenuation are perfect for **residential** sound requirements
- For **heavy** sound reductions, XC sound attenuation is the best option, ideal for **rural** sound requirements.



Baltiguard drive system

With this, operate your system like a dual-speed motor, but with standby reserve capacity **to cope with any failure.**



Remote sump connection

The best way to **prevent a sump freezing** is to use the auxiliary remote variety within a heated area. Shutting off the circulating pump allows all the water in the water distribution, as well as that in suspension and the sump to drain freely to the auxiliary sump.



Basin heater package

Thanks to our factory-installed heaters, the water stays at 4°C and **never freezes**, even during equipments downtime and however cold it gets outside.



Electric water level control package

For perfectly precise water level control, replace the standard mechanical valve with our electrical water level controller.



Platforms

To inspect and maintain from the top of the unit more **easily** and **safely**, platforms can be installed.



Extended lubrication lines

Extended lubrication lines with easily accessible grease fittings can be used to **lubricate** fan shaft bearings.



Discharge hood

Discharge hoods **reduce the risk of re-circulation** in tight enclosures by increasing discharge air velocity, and can be used to elevate the unit discharge above adjacent walls to comply with layout guidelines.



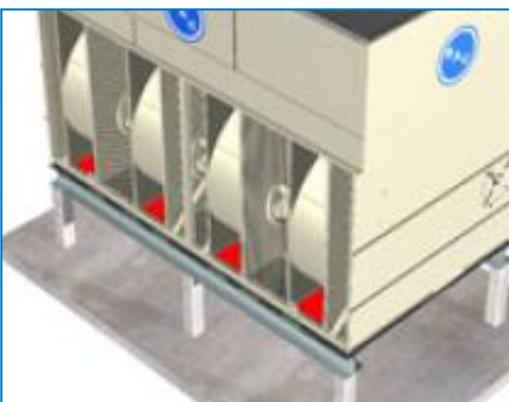
Positive closure dampers

Use positive closure dampers (PCD) to **minimize the heatloss due to convection** by preventing air flow through equipment that is shut down.



Safety switch

Cuts power to motors **with safety in mind** during inspection or maintenance.



Solid bottom panels

Solid bottom panels are required when the unit is installed elevated by 30 cm or more and when intake air is ducted to the unit.



Water treatment equipment

Devices to control water treatment are needed to ensure proper **cooling tower water care**. Not only does this help protect the components and fill pack, controlling corrosion, scaling and fouling, it also avoids the proliferation of harmful bacteria, including **legionella**, in the recirculating water.



Filter

Separators and media filters efficiently **remove suspended solids** in the recirculating water, reducing system cleaning costs and optimizing water treatment results. Filtration helps you keep the recirculating water clean.



Sump sweeper piping

Sump sweeper piping **prevents sediment collecting in the cold water basin** of the unit. A complete piping system, including nozzles, is installed in the basin of the tower **for connection to side stream filtration** equipment.



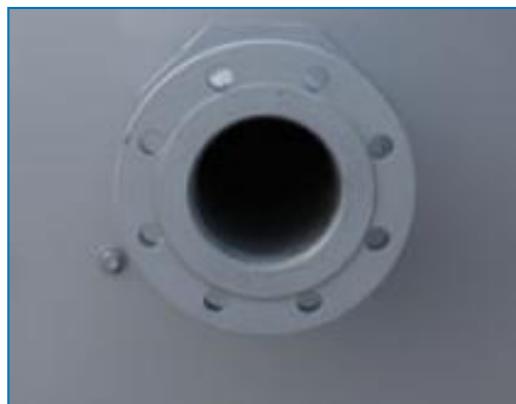
Clean out port

Clean out port **makes it easy to eliminate silt and sludge** from the cooling tower basin when cleaning and flushing the sump.



Steel drift eliminators

Steel drift eliminators are more **robust** than plastic alternatives.



Flanges

Flanges facilitate **piping connections** on-site.



Knock down delivery

Knock down delivery is a special BAC service to tackle rigging and/or **installation restrictions** on-site.

VT0 0312

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Engineering data

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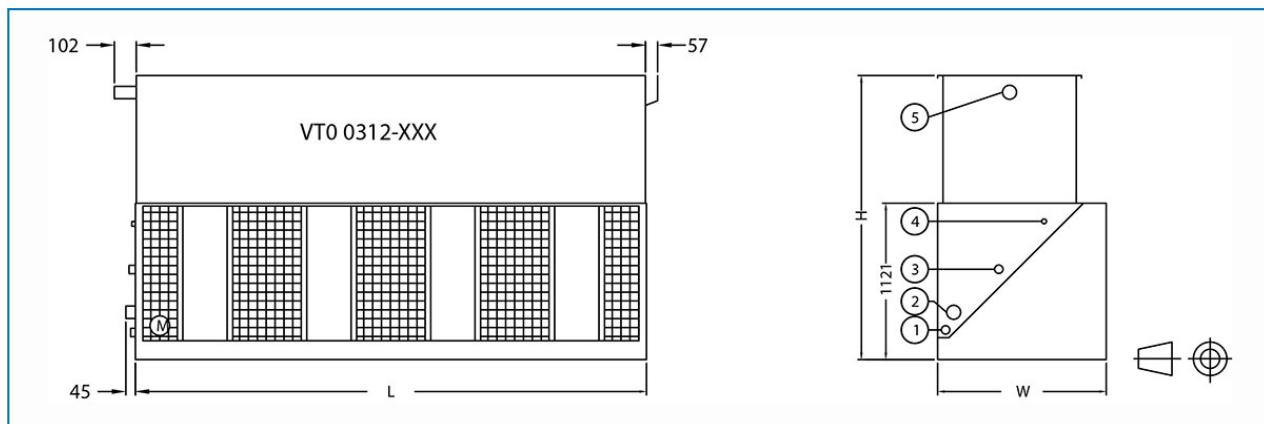
General notes

1. All connections 100 mm and smaller are MPT. Connections 150 mm and larger are bevelled-for-welding.
2. Fan kW is at 0 Pa ESP. kW's at other ESP's are available upon request. As a rule of thumb, one size larger motor can overcome ESP's up to 125 Pa.
3. The drawings show the standard "right hand" arrangement, which has the air inlet side on the right when facing the connection end. "Left hand" arrangement can be furnished by special order.
4. Water outlet, overflow and make-up are always located on the same end of the unit. For units with two water outlet connections an additional overflow connection will be installed on the other end of the unit.

VT0-1 cooling tower performance at standard conditions

Last update: 01/06/2023

VT0 0312



1. Drain ND 50; 2. Water Outlet; 3. Overflow ND50; 4. Make Up ND25; 5. Water Inlet; 6. Access Door.
Sufficient space must be provided on the back of the unit for entry to access doors located on side opposite air entry side.

| Model | Weights (kg) | | | Dimensions (mm) | | | Air Flow (m³/s) | Fan Motor (kW) | Fluid Inlet ND (mm) | Fluid Outlet ND (mm) | Make Up ND (mm) |
|------------------|-------------------------|----------------------|-----------------------------|-----------------|------|------|--------------------|-------------------|------------------------|-------------------------|-----------------|
| | Oper. Weight (kg) | Ship. Weight(kg) | Heaviest Section (kg) | L | W | H | | | | | |
| VT0 03 12-01H | 1225 | 860 | 860 | 3658 | 1207 | 2036 | 8.95 | (1x) 4.0 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-01J | 1246 | 860 | 881 | 3658 | 1207 | 2036 | 9.96 | (1x) 5.5 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-01K | 1255 | 890 | 890 | 3658 | 1207 | 2036 | 11.04 | (1x) 7.5 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-02H | 1415 | 1050 | 545 | 3658 | 1207 | 2675 | 8.84 | (1x) 4.0 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-02J | 1436 | 1071 | 566 | 3658 | 1207 | 2675 | 9.83 | (1x) 5.5 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-02K | 1445 | 1080 | 575 | 3658 | 1207 | 2675 | 10.9 | (1x) 7.5 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-02L | 1478 | 1113 | 608 | 3658 | 1207 | 2675 | 12.58 | (1x) 11.0 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-02M | 1498 | 1133 | 628 | 3658 | 1207 | 2675 | 13.95 | (1x) 15.0 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-03H | 1602 | 1237 | 637 | 3658 | 1207 | 3350 | 8.44 | (1x) 4.0 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-03K | 1632 | 1267 | 667 | 3658 | 1207 | 3350 | 10.4 | (1x) 7.5 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-03L | 1665 | 1300 | 700 | 3658 | 1207 | 3350 | 12.46 | (1x) 11.0 | (1x) 100 | (1x) 100 | (1x) 25 |
| VT0 03 12-03M | 1685 | 1320 | 720 | 3658 | 1207 | 3350 | 13.82 | (1x) 15.0 | (1x) 100 | (1x) 100 | (1x) 25 |

VT0 0412

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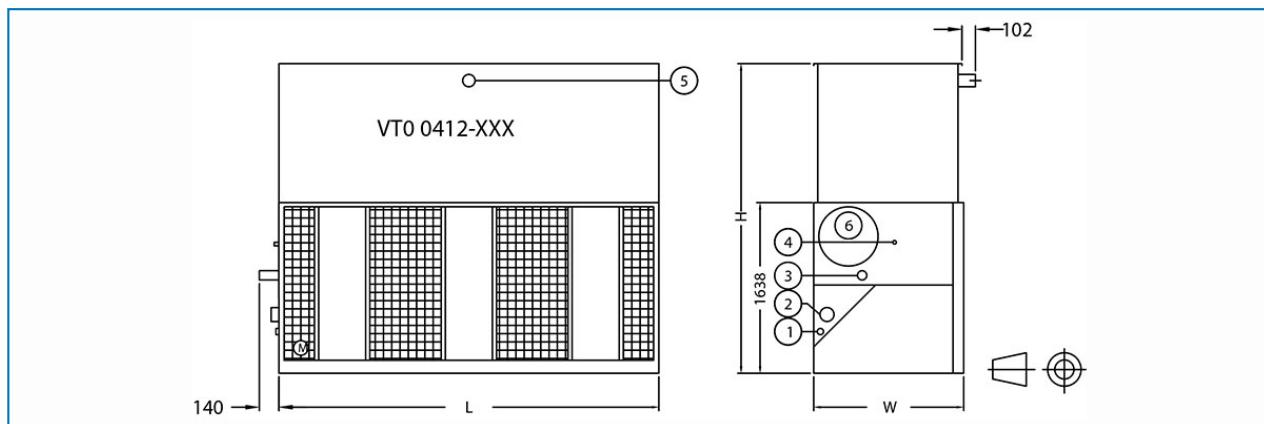
General notes

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VT0-1 cooling tower performance at standard conditions

Last update: 01/06/2023

VT0 0412



1. Drain ND 50; 2. Water Outlet; 3. Overflow ND50; 4. Make Up ND25; 5. Water Inlet; 6. Access Door.



| Model | Weights (kg) | | | Dimensions (mm) | | | Air Flow (m³/s) | Fan Motor (kW) | Fluid Inlet ND (mm) | Fluid Outlet ND (mm) | Make Up ND (mm) |
|---------------|-------------------|-------------------|-----------------------|-----------------|------|------|--------------------|-------------------|---------------------|----------------------|-----------------|
| | Oper. Weight (kg) | Ship. Weight(kg) | Heaviest Section (kg) | L | W | H | | | | | |
| VT0 04 12-01K | 2162 | 1537 | 862 | 3645 | 1438 | 3128 | 12.53 | (1x) 7.5 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-01L | 2195 | 1570 | 895 | 3645 | 1438 | 3128 | 14.24 | (1x) 11.0 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-01M | 2215 | 1590 | 915 | 3645 | 1438 | 3128 | 15.79 | (1x) 15.0 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-02K | 2307 | 1687 | 862 | 3645 | 1438 | 3585 | 12.33 | (1x) 7.5 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-02L | 2340 | 1720 | 895 | 3645 | 1438 | 3585 | 14.0 | (1x) 11.0 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-02M | 2360 | 1740 | 915 | 3645 | 1438 | 3585 | 15.53 | (1x) 15.0 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-02N | 2399 | 1779 | 954 | 3645 | 1438 | 3585 | 17.1 | (1x) 18.5 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-02O | 2421 | 1801 | 976 | 3645 | 1438 | 3585 | 17.64 | (1x) 22.0 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-03K | 2473 | 1848 | 888 | 3645 | 1438 | 4042 | 12.0 | (1x) 7.5 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-03L | 2506 | 1881 | 921 | 3645 | 1438 | 4042 | 13.8 | (1x) 11.0 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-03M | 2526 | 1901 | 941 | 3645 | 1438 | 4042 | 15.2 | (1x) 15.0 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-03N | 2565 | 1940 | 980 | 3645 | 1438 | 4042 | 16.94 | (1x) 18.5 | (1x) 150 | (1x) 150 | (1x) 25 |
| VT0 04 12-03O | 2587 | 1962 | 1002 | 3645 | 1438 | 4042 | 17.2 | (1x) 22.0 | (1x) 150 | (1x) 150 | (1x) 25 |



VT1 0812-0818

Open cooling towers

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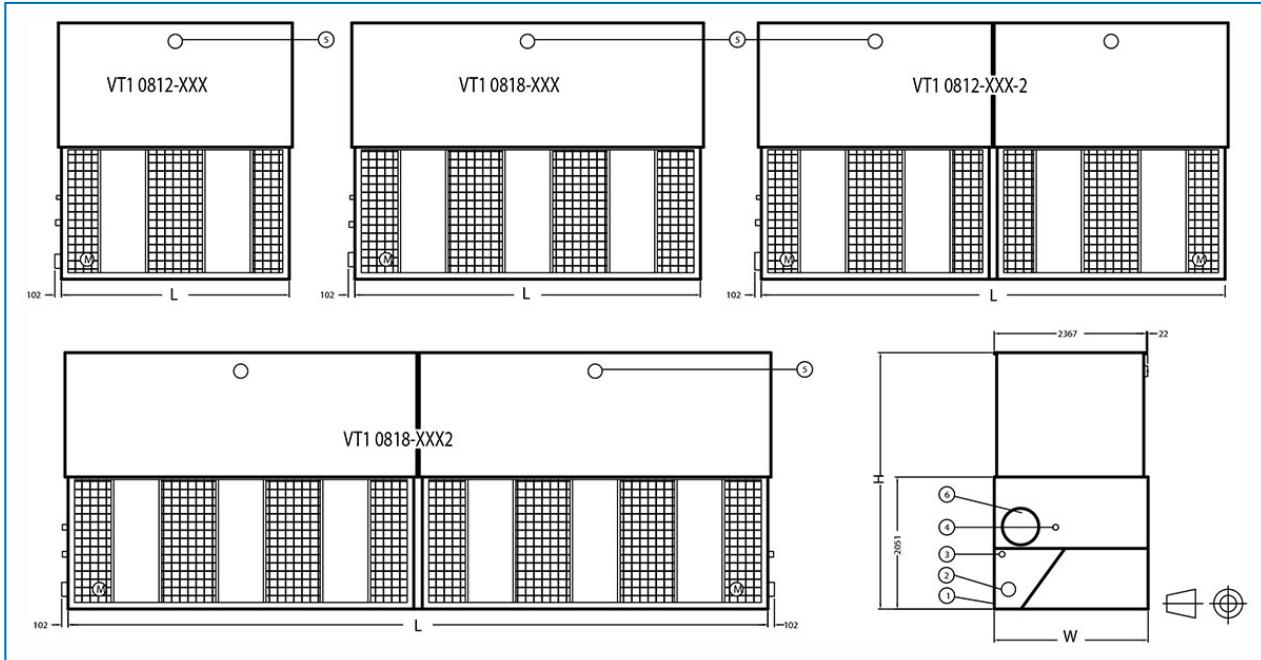
General notes

1. All connections 100 mm and smaller are MPT. Connections 150 mm and larger are bevelled-for-welding.
2. Fan kW is at 0 Pa ESP. kW's at other ESP's are available upon request. As a rule of thumb, one size larger motor can overcome ESP's up to 125 Pa.
3. The drawings show the standard "right hand" arrangement, which has the air inlet side on the right when facing the connection end. "Left hand" arrangement can be furnished by special order.
4. Water outlet, overflow and make-up are always located on the same end of the unit. For units with two water outlet connections an additional overflow connection will be installed on the other end of the unit.

[VT0-1 cooling tower performance at standard conditions](#)

Last update: 01/06/2023

VT1 0812-0818



1. Drain ND 50; 2. Water Outlet; 3. Overflow ND50; 4. Make Up ND25; 5.Water Inlet; 6.Access Door.

| Model | Weights (kg) | | | Dimensions (mm) | | | Air Flow (m³/s) | Fan Motor (kW) | Fluid Inlet ND (mm) | Fluid Outlet ND (mm) | Make Up ND (mm) |
|---------------|-------------------------|----------------------|-----------------------------|-----------------|------|------|--------------------|-------------------|------------------------|-------------------------|-----------------|
| | Oper. Weight (kg) | Ship. Weight(kg) | Heaviest Section (kg) | L | W | H | | | | | |
| VT1 08 12-01K | 4028 | 2288 | 1358 | 3550 | 2397 | 3479 | 18.35 | (1x) 7.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-01L | 4061 | 2321 | 1391 | 3550 | 2397 | 3479 | 20.85 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-01M | 4081 | 2341 | 1411 | 3550 | 2397 | 3479 | 23.13 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-01N | 4120 | 2380 | 1450 | 3550 | 2397 | 3479 | 24.8 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-01O | 4140 | 2400 | 1470 | 3550 | 2397 | 3479 | 26.3 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-01P | 4170 | 2430 | 1500 | 3550 | 2397 | 3479 | 29.2 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-02K | 4250 | 2510 | 1350 | 3550 | 2397 | 4012 | 18.27 | (1x) 7.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-02L | 4283 | 2543 | 1383 | 3550 | 2397 | 4012 | 20.76 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-02M | 4303 | 2563 | 1403 | 3550 | 2397 | 4012 | 23.02 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-02N | 4342 | 2602 | 1442 | 3550 | 2397 | 4012 | 24.68 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-02O | 4364 | 2624 | 1464 | 3550 | 2397 | 4012 | 26.15 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-02P | 4400 | 2660 | 1500 | 3550 | 2397 | 4012 | 29.0 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-03K | 4490 | 2750 | 1270 | 3550 | 2397 | 4437 | 17.09 | (1x) 7.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-03L | 4523 | 2783 | 1303 | 3550 | 2397 | 4437 | 19.42 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-03M | 4543 | 2803 | 1323 | 3550 | 2397 | 4437 | 21.54 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-03N | 4582 | 2842 | 1362 | 3550 | 2397 | 4437 | 23.1 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-03O | 4604 | 2864 | 1384 | 3550 | 2397 | 4437 | 24.47 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-03P | 4640 | 2900 | 1420 | 3550 | 2397 | 4437 | 27.14 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 12-03Q | 4760 | 3020 | 1540 | 3550 | 2397 | 4437 | 29.1 | (1x) 37.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-01L | 5913 | 3263 | 2343 | 5385 | 2397 | 3479 | 27.34 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-01M | 5933 | 3283 | 2363 | 5385 | 2397 | 3479 | 30.32 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-01N | 5972 | 3322 | 2402 | 5385 | 2397 | 3479 | 32.51 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-01O | 5994 | 3344 | 2424 | 5385 | 2397 | 3479 | 34.45 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-01P | 6030 | 3380 | 2460 | 5385 | 2397 | 3479 | 38.2 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-01Q | 6070 | 3420 | 2520 | 5385 | 2397 | 3479 | 41.0 | (1x) 37.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-01R | 6091 | 3441 | 2541 | 5385 | 2397 | 3479 | 43.76 | (1x) 45.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 18-02L | 6193 | 3533 | 2208 | 5385 | 2397 | 4012 | 27.1 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 08 | 6213 | 3553 | 2208 | 5385 | 2397 | 4012 | 30.05 | (1x) | (1x) | (1x) | (1x) 50 |

| | | | | | | | | | | |
|------------------------|------|------|------|------|------|------|-------------|--------------|-------------|-------------|
| 18-02M | | | | | | | 15.0 | 200 | 200 | |
| VT1 08 18-02N | 6252 | 3592 | 2247 | 5385 | 2397 | 4012 | 32.22 | (1x) 18.5 | (1x) 200 | (1x) 200 |
| VT1 08 18-02O | 6274 | 3614 | 2269 | 5385 | 2397 | 4012 | 34.14 | (1x) 22.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-03O | 6274 | 4064 | 2319 | 5385 | 2397 | 4437 | 33.97 | (1x) 22.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-02P | 6310 | 3650 | 2305 | 5385 | 2397 | 4012 | 37.86 | (1x) 30.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-02Q | 6430 | 3770 | 2425 | 5385 | 2397 | 4012 | 40.6 | (1x) 37.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-02R | 6451 | 3791 | 2446 | 5385 | 2397 | 4012 | 43.34 | (1x) 45.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-03L | 6643 | 3983 | 2238 | 5385 | 2397 | 4437 | 26.96 | (1x) 11.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-03M | 6663 | 4003 | 2258 | 5385 | 2397 | 4437 | 29.9 | (1x) 15.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-03N | 6702 | 4042 | 2297 | 5385 | 2397 | 4437 | 32.07 | (1x) 18.5 | (1x) 200 | (1x) 200 |
| VT1 08 18-03P | 6760 | 4100 | 2355 | 5385 | 2397 | 4437 | 37.67 | (1x) 30.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-03Q | 6880 | 4220 | 2475 | 5385 | 2397 | 4437 | 40.4 | (1x) 37.0 | (1x) 200 | (1x) 200 |
| VT1 08 18-03R | 6930 | 4270 | 2570 | 5385 | 2397 | 4437 | 43.2 | (1x) 45.0 | (1x) 200 | (1x) 200 |
| VT1 08 12-01K -2 | 8090 | 4550 | 2690 | 7226 | 2397 | 3479 | 36.71 | (2x) 7.5 | (2x) 200 | (1x) 250 |
| VT1 08 12-01L- 2 | 8156 | 4616 | 2756 | 7226 | 2397 | 3479 | 41.71 | (2x) 11.0 | (2x) 200 | (1x) 250 |
| VT1 08 12-01M -2 | 8196 | 4656 | 2796 | 7226 | 2397 | 3479 | 46.25 | (2x) 15.0 | (2x) 200 | (1x) 250 |
| VT1 08 12-01N -2 | 8274 | 4734 | 2874 | 7226 | 2397 | 3479 | 49.6 | (2x) 18.5 | (2x) 200 | (1x) 250 |
| VT1 08 12-01O -2 | 8318 | 4778 | 2918 | 7226 | 2397 | 3479 | 52.6 | (2x) 22.0 | (2x) 200 | (1x) 250 |
| VT1 08 12-01P -2 | 8390 | 4850 | 2990 | 7226 | 2397 | 3479 | 58.4 | (2x) 30.0 | (2x) 200 | (1x) 250 |
| VT1 08 12-02K -2 | 8560 | 5010 | 1990 | 7226 | 2397 | 4012 | 36.54 | (2x) 7.5 | (2x) 200 | (1x) 250 |
| VT1 08 12-02L- 2 | 8626 | 5076 | 2056 | 7226 | 2397 | 4012 | 41.51 | (2x) 11.0 | (2x) 200 | (1x) 250 |
| VT1 08 12-02M -2 | 8666 | 5116 | 2096 | 7226 | 2397 | 4012 | 46.03 | (2x) 15.0 | (2x) 200 | (1x) 250 |
| VT1 08 12-02N -2 | 8744 | 5194 | 2174 | 7226 | 2397 | 4012 | 49.37 | (2x) 18.5 | (2x) 200 | (1x) 250 |
| VT1 08 12-02O -2 | 8788 | 5238 | 2218 | 7226 | 2397 | 4012 | 52.3 | (2x) 22.0 | (2x) 200 | (1x) 250 |
| VT1 08 12-02P -2 | 8860 | 5310 | 2290 | 7226 | 2397 | 4012 | 58.0 | (2x) 30.0 | (2x) 200 | (1x) 250 |



| | | | | | | | | | | | |
|------------------------|-------|------|------|-------|------|------|-------|--------------|-------------|-------------|---------|
| VT1 08 12-03K -2 | 9030 | 5490 | 2530 | 7226 | 2397 | 4437 | 34.19 | (2x) 7.5 | (2x) 200 | (1x) 250 | (1x) 50 |
| VT1 08 12-03L- 2 | 9096 | 5556 | 2596 | 7226 | 2397 | 4437 | 38.84 | (2x) 11.0 | (2x) 200 | (1x) 250 | (1x) 50 |
| VT1 08 12-03M -2 | 9136 | 5596 | 2636 | 7226 | 2397 | 4437 | 43.07 | (2x) 15.0 | (2x) 200 | (1x) 250 | (1x) 50 |
| VT1 08 12-03N -2 | 9214 | 5674 | 2714 | 7226 | 2397 | 4437 | 46.19 | (2x) 18.5 | (2x) 200 | (1x) 250 | (1x) 50 |
| VT1 08 12-03O -2 | 9258 | 5718 | 2758 | 7226 | 2397 | 4437 | 48.94 | (2x) 22.0 | (2x) 200 | (1x) 250 | (1x) 50 |
| VT1 08 12-03P -2 | 9330 | 5790 | 2830 | 7226 | 2397 | 4437 | 54.27 | (2x) 30.0 | (2x) 200 | (1x) 250 | (1x) 50 |
| VT1 08 12-03Q -2 | 9570 | 6030 | 3070 | 7226 | 2397 | 4437 | 58.2 | (2x) 37.0 | (2x) 200 | (1x) 250 | (1x) 50 |
| VT1 08 18-01L- 2 | 11876 | 6516 | 4686 | 10903 | 2397 | 3479 | 54.68 | (2x) 11.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-01M -2 | 11916 | 6556 | 4726 | 10903 | 2397 | 3479 | 60.64 | (2x) 15.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-01N -2 | 11994 | 6634 | 4804 | 10903 | 2397 | 3479 | 65.03 | (2x) 18.5 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-01O -2 | 12038 | 6678 | 4848 | 10903 | 2397 | 3479 | 68.9 | (2x) 22.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-01P -2 | 12110 | 6750 | 4920 | 10903 | 2397 | 3479 | 76.4 | (2x) 30.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-01Q -2 | 12190 | 6830 | 5040 | 10903 | 2397 | 3479 | 82.0 | (2x) 37.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-01R -2 | 12232 | 6872 | 5082 | 10903 | 2397 | 3479 | 87.53 | (2x) 45.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-02L- 2 | 12436 | 7056 | 4376 | 10903 | 2397 | 4012 | 54.19 | (2x) 11.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-02M -2 | 12476 | 7096 | 4416 | 10903 | 2397 | 4012 | 60.1 | (2x) 15.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-02N -2 | 12554 | 7174 | 4494 | 10903 | 2397 | 4012 | 64.45 | (2x) 18.5 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-02O -2 | 12598 | 7218 | 4538 | 10903 | 2397 | 4012 | 68.28 | (2x) 22.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-02P -2 | 12670 | 7290 | 4610 | 10903 | 2397 | 4012 | 75.72 | (2x) 30.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-02Q -2 | 12910 | 7530 | 4850 | 10903 | 2397 | 4012 | 81.2 | (2x) 37.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 | 12952 | 7572 | 4892 | 10903 | 2397 | 4012 | 86.67 | (2x) | (2x) | (2x) | (1x) 50 |



| 18-02R -2 | | | | | | | | 45.0 | 200 | 200 | |
|------------------------|-------|------|------|-------|------|------|-------|--------------|-------------|-------------|---------|
| VT1 08 18-03L- 2 | 13336 | 7956 | 4476 | 10903 | 2397 | 4437 | 53.93 | (2x) 11.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-03M -2 | 13376 | 7996 | 4516 | 10903 | 2397 | 4437 | 59.8 | (2x) 15.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-03N -2 | 13454 | 8074 | 4594 | 10903 | 2397 | 4437 | 64.13 | (2x) 18.5 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-03O -2 | 13498 | 8118 | 4638 | 10903 | 2397 | 4437 | 67.94 | (2x) 22.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-03P -2 | 13570 | 8190 | 4710 | 10903 | 2397 | 4437 | 75.34 | (2x) 30.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-03Q -2 | 13810 | 8430 | 4950 | 10903 | 2397 | 4437 | 80.8 | (2x) 37.0 | (2x) 200 | (2x) 200 | (1x) 50 |
| VT1 08 18-03R -2 | 13910 | 8530 | 5140 | 10903 | 2397 | 4437 | 86.4 | (2x) 45.0 | (2x) 200 | (2x) 200 | (1x) 50 |



VT1 1012-1018

Open cooling towers

Engineering data

REMARK: Do not use for construction. Refer to factory certified dimensions & weights. This page includes data current at time of publication, which should be reconfirmed at the time of purchase. In the interest of product improvement, specifications, weights and dimensions are subject to change without notice.

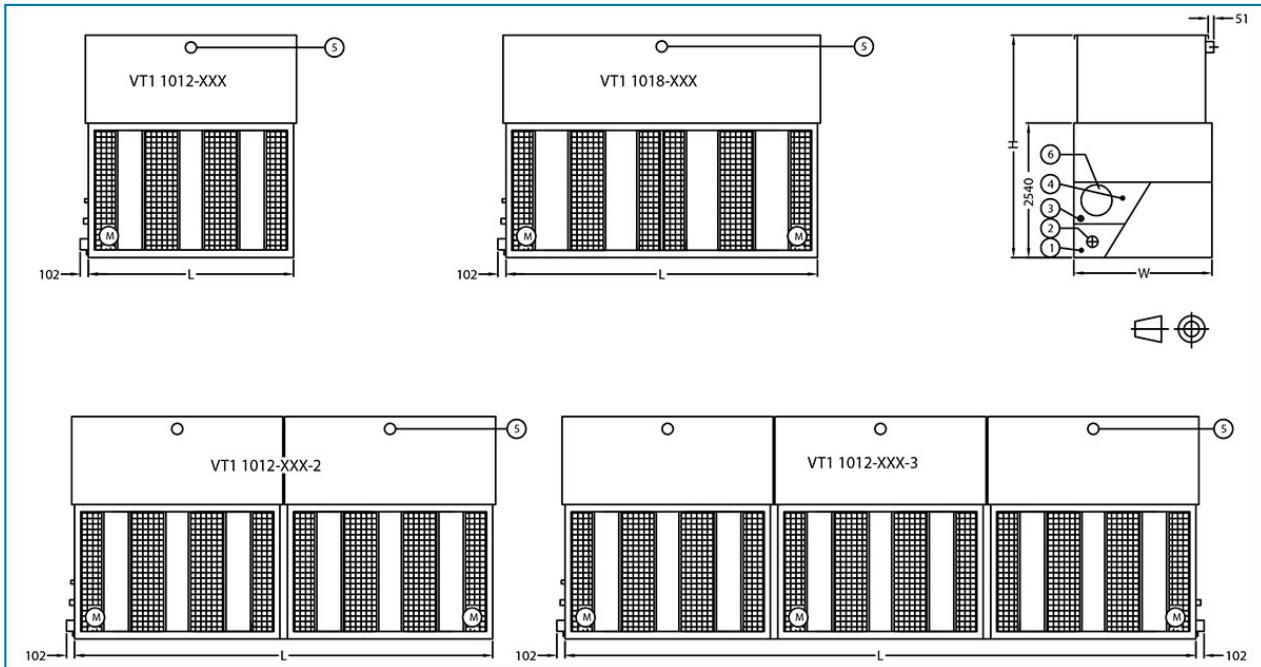
General notes

1. All connections 100 mm and smaller are MPT. Connections 150 mm and larger are bevelled-for-welding.
2. Fan kW is at 0 Pa ESP. kW's at other ESP's are available upon request. As a rule of thumb, one size larger motor can overcome ESP's up to 125 Pa.
3. The drawings show the standard "right hand" arrangement, which has the air inlet side on the right when facing the connection end. "Left hand" arrangement can be furnished by special order.
4. Water outlet, overflow and make-up are always located on the same end of the unit. For units with two water outlet connections an additional overflow connection will be installed on the other end of the unit.

[VT0-1 cooling tower performance at standard conditions](#)

Last update: 01/06/2023

VT1 1012-1018



1. Drain ND 50; 2. Water Outlet; 3. Overflow ND50; 4. Make Up ND25; 5.Water Inlet; 6.Access Door.

| Model | Weights (kg) | | | Dimensions (mm) | | | Air Flow (m³/s) | Fan Motor (kW) | Fluid Inlet ND (mm) | Fluid Outlet ND (mm) | Make Up ND (mm) |
|---------------|-------------------------|----------------------|-----------------------------|-----------------|------|------|--------------------|-------------------|------------------------|-------------------------|-----------------|
| | Oper. Weight (kg) | Ship. Weight(kg) | Heaviest Section (kg) | L | W | H | | | | | |
| VT1 10 12-01L | 4788 | 2843 | 1828 | 3550 | 3000 | 4030 | 24.73 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-01M | 4808 | 2863 | 1848 | 3550 | 3000 | 4030 | 27.42 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-01N | 4847 | 2902 | 1887 | 3550 | 3000 | 4030 | 29.41 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-01O | 4869 | 2924 | 1909 | 3550 | 3000 | 4030 | 31.16 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-01P | 4905 | 2960 | 1945 | 3550 | 3000 | 4030 | 34.55 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-02L | 5078 | 3143 | 1828 | 3550 | 3000 | 4487 | 24.56 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-02M | 5098 | 3163 | 1848 | 3550 | 3000 | 4487 | 27.23 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-02N | 5137 | 3202 | 1887 | 3550 | 3000 | 4487 | 29.2 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-02O | 5159 | 3224 | 1909 | 3550 | 3000 | 4487 | 30.94 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-02P | 5195 | 3260 | 1945 | 3550 | 3000 | 4487 | 34.31 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-03L | 5388 | 3443 | 1828 | 3550 | 3000 | 4944 | 24.41 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-03M | 5408 | 3463 | 1848 | 3550 | 3000 | 4944 | 27.07 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-03N | 5447 | 3502 | 1887 | 3550 | 3000 | 4944 | 29.02 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-03O | 5469 | 3524 | 1909 | 3550 | 3000 | 4944 | 30.75 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-03P | 5505 | 3560 | 1945 | 3550 | 3000 | 4944 | 34.1 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 12-03Q | 5535 | 3590 | 1970 | 3550 | 3000 | 4944 | 36.62 | (1x) 37.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 10 18-01L | 7143 | 4198 | 2608 | 5388 | 3000 | 4030 | 41.13 | (2x) 11.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-01M | 7183 | 4238 | 2648 | 5388 | 3000 | 4030 | 45.61 | (2x) 15.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-01N | 7261 | 4316 | 2726 | 5388 | 3000 | 4030 | 48.91 | (2x) 18.5 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-01O | 7305 | 4360 | 2770 | 5388 | 3000 | 4030 | 51.82 | (2x) 22.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-02L | 7588 | 4648 | 2608 | 5388 | 3000 | 4487 | 40.83 | (2x) 11.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-02M | 7628 | 4688 | 2648 | 5388 | 3000 | 4487 | 45.27 | (2x) 15.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-02N | 7706 | 4766 | 2726 | 5388 | 3000 | 4487 | 48.55 | (2x) 18.5 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-02O | 7750 | 4810 | 2770 | 5388 | 3000 | 4487 | 51.44 | (2x) 22.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-03L | 8083 | 5128 | 2608 | 5388 | 3000 | 4944 | 40.42 | (2x) 11.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-03M | 8123 | 5168 | 2648 | 5388 | 3000 | 4944 | 44.82 | (2x) 15.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 18-03N | 8201 | 5246 | 2726 | 5388 | 3000 | 4944 | 48.06 | (2x) 18.5 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 | 8245 | 5290 | 2770 | 5388 | 3000 | 4944 | 50.92 | (2x) | (1x) | (1x) | (1x) 50 |



| 18-03O | | | | | | | | 22.0 | 250 | 250 | |
|------------------------|-------|------|------|-------|------|------|-------|--------------|-------------|-------------|---------|
| VT1 10 18-03P | 8325 | 5370 | 2845 | 5388 | 3000 | 4944 | 54.93 | (2x) 30.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 10 12-01L- 2 | 9571 | 5666 | 3651 | 7226 | 3000 | 4030 | 49.45 | (2x) 11.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-01M- 2 | 9611 | 5706 | 3691 | 7226 | 3000 | 4030 | 54.84 | (2x) 15.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-01N- 2 | 9689 | 5784 | 3769 | 7226 | 3000 | 4030 | 58.81 | (2x) 18.5 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-01O- 2 | 9733 | 5828 | 3813 | 7226 | 3000 | 4030 | 62.3 | (2x) 22.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-01P- 2 | 9805 | 5900 | 3885 | 7226 | 3000 | 4030 | 69.09 | (2x) 30.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-02L- 2 | 10151 | 6256 | 3651 | 7226 | 3000 | 4487 | 49.11 | (2x) 11.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-02M- 2 | 10191 | 6296 | 3691 | 7226 | 3000 | 4487 | 54.46 | (2x) 15.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-02N- 2 | 10269 | 6374 | 3769 | 7226 | 3000 | 4487 | 58.41 | (2x) 18.5 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-02O- 2 | 10313 | 6418 | 3813 | 7226 | 3000 | 4487 | 61.88 | (2x) 22.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-02P- 2 | 10385 | 6490 | 3885 | 7226 | 3000 | 4487 | 68.62 | (2x) 30.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-03L- 2 | 10771 | 6876 | 3651 | 7226 | 3000 | 4944 | 48.81 | (2x) 11.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-03M- 2 | 10811 | 6916 | 3691 | 7226 | 3000 | 4944 | 54.13 | (2x) 15.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-03N- 2 | 10889 | 6994 | 3769 | 7226 | 3000 | 4944 | 58.05 | (2x) 18.5 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-03O- 2 | 10933 | 7038 | 3813 | 7226 | 3000 | 4944 | 61.5 | (2x) 22.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-03P- 2 | 11005 | 7110 | 3885 | 7226 | 3000 | 4944 | 68.2 | (2x) 30.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-03Q- 2 | 11055 | 7160 | 3925 | 7226 | 3000 | 4944 | 73.25 | (2x) 37.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 10 12-01L- 3 | 14327 | 8477 | 5427 | 10903 | 3000 | 4030 | 74.19 | (3x) 11.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-01M- 3 | 14387 | 8537 | 5487 | 10903 | 3000 | 4030 | 82.27 | (3x) 15.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-01N- 3 | 14504 | 8654 | 5604 | 10903 | 3000 | 4030 | 88.22 | (3x) 18.5 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 | 14570 | 8720 | 5670 | 10903 | 3000 | 4030 | 94.37 | (3x) | (3x) | (2x) | (1x) 80 |



| 12-01O -3 | | | | | | | | 22.0 | 200 | 250 | |
|------------------------|-------|-------|------|-------|------|------|--------|--------------|-------------|-------------|---------|
| VT1 10 12-01P -3 | 14860 | 8830 | 5785 | 10903 | 3000 | 4030 | 103.64 | (3x) 30.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-02L- 3 | 15209 | 9359 | 5434 | 10903 | 3000 | 4487 | 73.67 | (3x) 11.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-02M -3 | 15269 | 9419 | 5494 | 10903 | 3000 | 4487 | 81.7 | (3x) 15.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-02N -3 | 15386 | 9536 | 5611 | 10903 | 3000 | 4487 | 87.61 | (3x) 18.5 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-02O -3 | 15452 | 9602 | 5677 | 10903 | 3000 | 4487 | 92.82 | (3x) 22.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-02P -3 | 15560 | 9710 | 5785 | 10903 | 3000 | 4487 | 102.93 | (3x) 30.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-03L- 3 | 16139 | 10289 | 5434 | 10903 | 3000 | 4944 | 73.22 | (3x) 11.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-03M -3 | 16199 | 10349 | 5494 | 10903 | 3000 | 4944 | 81.2 | (3x) 15.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-03N -3 | 16316 | 10466 | 5611 | 10903 | 3000 | 4944 | 87.07 | (3x) 18.5 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-03O -3 | 16382 | 10532 | 5677 | 10903 | 3000 | 4944 | 92.25 | (3x) 22.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-03P -3 | 16490 | 10640 | 5785 | 10903 | 3000 | 4944 | 102.3 | (3x) 30.0 | (3x) 200 | (2x) 250 | (1x) 80 |
| VT1 10 12-03Q -3 | 16570 | 10720 | 5855 | 10903 | 3000 | 4944 | 109.87 | (3x) 37.0 | (3x) 200 | (2x) 250 | (1x) 80 |



VT1 1212-1218

Open cooling towers

Engineering data

REMARK: Do not use for construction. Refer to factory certified dimensions & weights. This page includes data current at time of publication, which should be reconfirmed at the time of purchase. In the interest of product improvement, specifications, weights and dimensions are subject to change without notice.

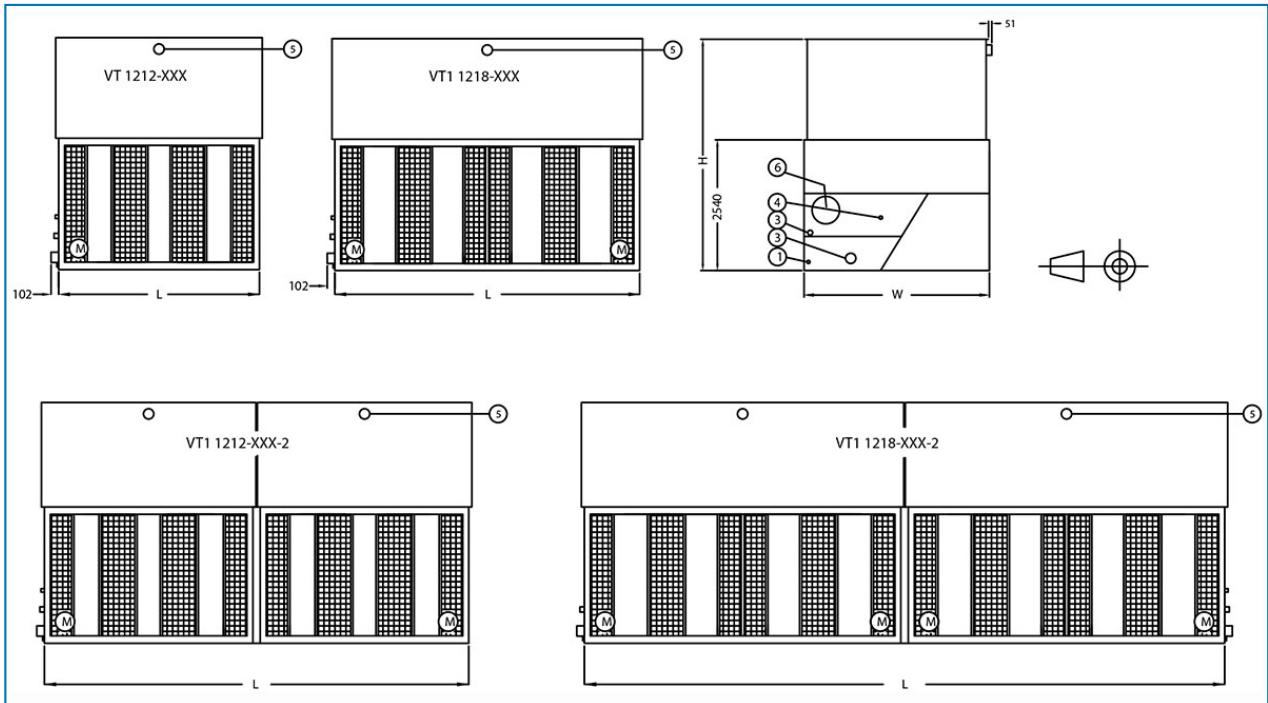
General notes

1. All connections 100 mm and smaller are MPT. Connections 150 mm and larger are bevelled-for-welding.
2. Fan kW is at 0 Pa ESP. kW's at other ESP's are available upon request. As a rule of thumb, one size larger motor can overcome ESP's up to 125 Pa.
3. The drawings show the standard "right hand" arrangement, which has the air inlet side on the right when facing the connection end. "Left hand" arrangement can be furnished by special order.
4. Water outlet, overflow and make-up are always located on the same end of the unit. For units with two water outlet connections an additional overflow connection will be installed on the other end of the unit.

[VT0-1 cooling tower performance at standard conditions](#)

Last update: 01/06/2023

VT1 1212-1218



1. Drain ND 50; 2. Water Outlet; 3. Overflow ND50; 4. Make Up ND25; 5.Water Inlet; 6.Access Door.

| Model | Weights (kg) | | | Dimensions (mm) | | | Air Flow (m³/s) | Fan Motor (kW) | Fluid Inlet ND (mm) | Fluid Outlet ND (mm) | Make Up ND (mm) |
|---------------|-------------------------|----------------------|-----------------------------|-----------------|------|------|--------------------|-------------------|------------------------|-------------------------|-----------------|
| | Oper. Weight (kg) | Ship. Weight(kg) | Heaviest Section (kg) | L | W | H | | | | | |
| VT1 12 12-01L | 6778 | 3533 | 2218 | 3550 | 3607 | 4030 | 28.45 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-01M | 6798 | 3553 | 2238 | 3550 | 3607 | 4030 | 31.18 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-01N | 6837 | 3592 | 2277 | 3550 | 3607 | 4030 | 33.47 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-01O | 6859 | 3614 | 2299 | 3550 | 3607 | 4030 | 35.47 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-01P | 6895 | 3650 | 2335 | 3550 | 3607 | 4030 | 38.86 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-02L | 7084 | 3839 | 2164 | 3550 | 3607 | 4487 | 28.15 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-02M | 7104 | 3859 | 2184 | 3550 | 3607 | 4487 | 30.84 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-02N | 7143 | 3898 | 2223 | 3550 | 3607 | 4487 | 33.11 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-02O | 7165 | 3920 | 2245 | 3550 | 3607 | 4487 | 35.09 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-02P | 7250 | 4005 | 2335 | 3550 | 3607 | 4487 | 38.49 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-02Q | 7370 | 4125 | 2455 | 3550 | 3607 | 4487 | 41.32 | (1x) 37.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03L | 7473 | 4228 | 2113 | 3550 | 3607 | 4944 | 27.4 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03M | 7493 | 4248 | 2133 | 3550 | 3607 | 4944 | 30.02 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03N | 7532 | 4287 | 2172 | 3550 | 3607 | 4944 | 32.23 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03O | 7554 | 4309 | 2194 | 3550 | 3607 | 4944 | 34.15 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03P | 7590 | 4345 | 2230 | 3550 | 3607 | 4944 | 37.42 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03Q | 7710 | 4465 | 2350 | 3550 | 3607 | 4944 | 40.18 | (1x) 37.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03R | 7765 | 4515 | 2405 | 3550 | 3607 | 4944 | 42.59 | (1x) 45.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 12-03S | 7846 | 4596 | 2486 | 3550 | 3607 | 4944 | 45.72 | (1x) 55.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 12 18-01L | 10094 | 5684 | 3204 | 5388 | 3607 | 4030 | 47.47 | (2x) 11.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-01M | 10114 | 5704 | 3224 | 5388 | 3607 | 4030 | 52.02 | (2x) 15.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-01N | 10153 | 5743 | 3263 | 5388 | 3607 | 4030 | 55.85 | (2x) 18.5 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-01O | 10175 | 5765 | 3285 | 5388 | 3607 | 4030 | 59.01 | (2x) 22.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-02L | 10656 | 5706 | 3226 | 5388 | 3607 | 4487 | 46.43 | (2x) 11.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-02M | 10676 | 5726 | 3246 | 5388 | 3607 | 4487 | 51.06 | (2x) 15.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-02N | 10715 | 5765 | 3285 | 5388 | 3607 | 4487 | 54.81 | (2x) 18.5 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-02O | 10735 | 5785 | 3305 | 5388 | 3607 | 4487 | 58.12 | (2x) 22.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 | 11304 | 6359 | 3224 | 5388 | 3607 | 4944 | 45.33 | (2x) | (1x) | (1x) | (1x) 50 |

| | | | | | | | | 11.0 | 250 | 250 | |
|------------------------|-------|------|------|------|------|------|-------|--------------|-------------|-------------|---------|
| 18-03L | | | | | | | | | | | |
| VT1 12 18-03M | 11324 | 6379 | 3244 | 5388 | 3607 | 4944 | 49.68 | (2x) 15.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-03N | 11363 | 6418 | 3283 | 5388 | 3607 | 4944 | 53.33 | (2x) 18.5 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-03O | 11385 | 6440 | 3305 | 5388 | 3607 | 4944 | 56.51 | (2x) 22.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-03P | 11560 | 6610 | 3480 | 5388 | 3607 | 4944 | 61.94 | (2x) 30.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-03Q | 11680 | 6730 | 3600 | 5388 | 3607 | 4944 | 66.38 | (2x) 37.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 18-03R | 11701 | 6751 | 3621 | 5388 | 3607 | 4944 | 70.85 | (2x) 45.0 | (1x) 250 | (1x) 250 | (1x) 50 |
| VT1 12 12-01L- 2 | 13656 | 7041 | 4406 | 7226 | 3607 | 4030 | 56.9 | (2x) 11.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-01M- 2 | 13696 | 7081 | 4446 | 7226 | 3607 | 4030 | 62.36 | (2x) 15.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-01N- 2 | 13774 | 7159 | 4524 | 7226 | 3607 | 4030 | 66.94 | (2x) 18.5 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-01O- 2 | 13818 | 7203 | 4568 | 7226 | 3607 | 4030 | 70.94 | (2x) 22.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-01P- 2 | 13890 | 7275 | 4640 | 7226 | 3607 | 4030 | 77.72 | (2x) 30.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-02L- 2 | 14361 | 7746 | 4406 | 7226 | 3607 | 4487 | 56.3 | (2x) 11.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-02M- 2 | 14401 | 7786 | 4446 | 7226 | 3607 | 4487 | 61.68 | (2x) 15.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-02N- 2 | 14479 | 7864 | 4524 | 7226 | 3607 | 4487 | 66.22 | (2x) 18.5 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-02O- 2 | 14523 | 7908 | 4568 | 7226 | 3607 | 4487 | 70.18 | (2x) 22.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-02P- 2 | 14595 | 7980 | 4640 | 7226 | 3607 | 4487 | 76.98 | (2x) 30.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-02Q- 2 | 14835 | 8220 | 4880 | 7226 | 3607 | 4487 | 82.64 | (2x) 37.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-03L- 2 | 15241 | 8626 | 4406 | 7226 | 3607 | 4944 | 54.8 | (2x) 11.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-03M- 2 | 15281 | 8666 | 4446 | 7226 | 3607 | 4944 | 60.04 | (2x) 15.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-03N- 2 | 15359 | 8744 | 4524 | 7226 | 3607 | 4944 | 64.46 | (2x) 18.5 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-03O- 2 | 15403 | 8788 | 4568 | 7226 | 3607 | 4944 | 68.3 | (2x) 22.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-03P- 2 | 15475 | 8860 | 4640 | 7226 | 3607 | 4944 | 74.84 | (2x) 30.0 | (2x) 200 | (1x) 300 | (1x) 50 |



| | | | | | | | | | | | |
|------------------------|-------|-------|------|-------|------|------|--------|--------------|-------------|-------------|---------|
| VT1 12 12-03Q -2 | 15515 | 8900 | 4675 | 7226 | 3607 | 4944 | 80.36 | (2x) 37.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-03R -2 | 15620 | 9005 | 4785 | 7226 | 3607 | 4944 | 85.18 | (2x) 45.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 12-03S -2 | 15782 | 9167 | 4947 | 7226 | 3607 | 4944 | 91.44 | (2x) 55.0 | (2x) 200 | (1x) 300 | (1x) 50 |
| VT1 12 18-02L- 2 | 21312 | 11412 | 6452 | 10903 | 3607 | 4487 | 92.86 | (4x) 11.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-02M -2 | 21352 | 11452 | 6492 | 10903 | 3607 | 4487 | 102.12 | (4x) 15.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-02N -2 | 21430 | 11530 | 6570 | 10903 | 3607 | 4487 | 109.62 | (4x) 18.5 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-02O -2 | 21470 | 11570 | 6610 | 10903 | 3607 | 4487 | 116.24 | (4x) 22.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-03L- 2 | 22608 | 12718 | 6448 | 10903 | 3607 | 4944 | 90.66 | (4x) 11.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-03M -2 | 22648 | 12758 | 6488 | 10903 | 3607 | 4944 | 99.36 | (4x) 15.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-03N -2 | 22726 | 12836 | 6566 | 10903 | 3607 | 4944 | 106.66 | (4x) 18.5 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-03O -2 | 22770 | 12880 | 6610 | 10903 | 3607 | 4944 | 113.02 | (4x) 22.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-03P -2 | 23120 | 13220 | 6960 | 10903 | 3607 | 4944 | 123.88 | (4x) 30.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-03Q -2 | 23240 | 13340 | 7080 | 10903 | 3607 | 4944 | 132.76 | (4x) 37.0 | (2x) 250 | (2x) 250 | (1x) 80 |
| VT1 12 18-03R -2 | 23261 | 13361 | 7101 | 10903 | 3607 | 4944 | 141.7 | (4x) 45.0 | (2x) 250 | (2x) 250 | (1x) 80 |



VT1 7412-7418

Open cooling towers

Engineering data

REMARK: Do not use for construction. Refer to factory certified dimensions & weights. This page includes data current at time of publication, which should be reconfirmed at the time of purchase. In the interest of product improvement, specifications, weights and dimensions are subject to change without notice.

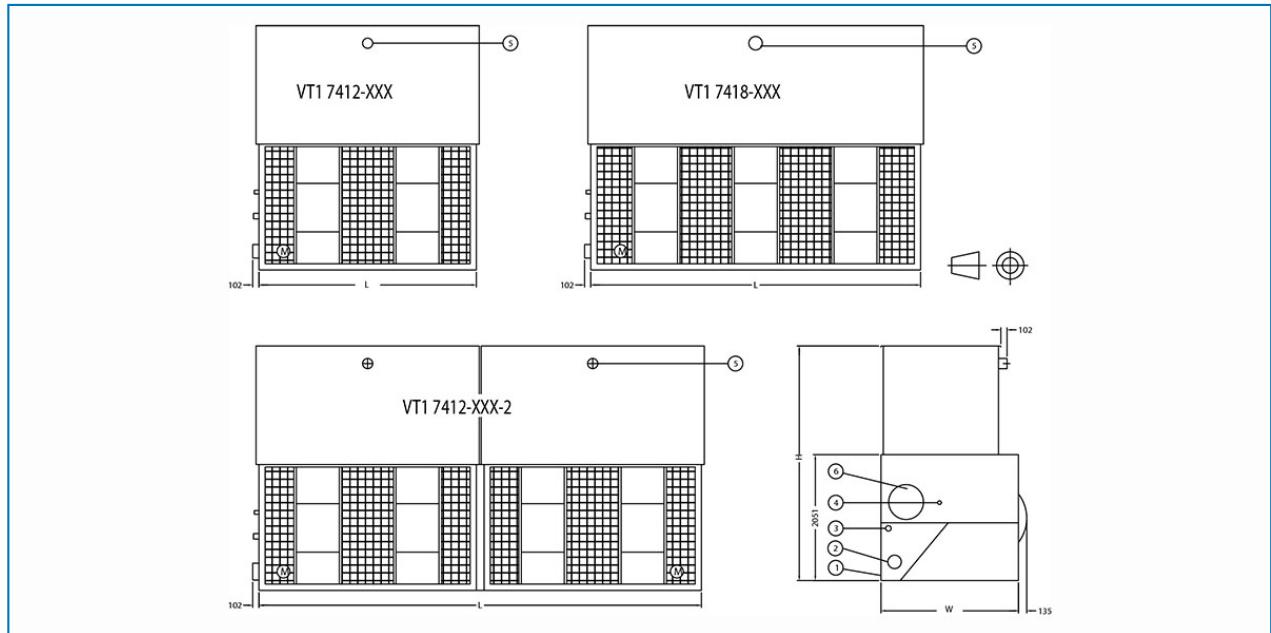
General notes

1. All connections 100 mm and smaller are MPT. Connections 150 mm and larger are bevelled-for-welding.
2. Fan kW is at 0 Pa ESP. kW's at other ESP's are available upon request. As a rule of thumb, one size larger motor can overcome ESP's up to 125 Pa.
3. The drawings show the standard "right hand" arrangement, which has the air inlet side on the right when facing the connection end. "Left hand" arrangement can be furnished by special order.
4. Water outlet, overflow and make-up are always located on the same end of the unit. For units with two water outlet connections an additional overflow connection will be installed on the other end of the unit.

[VT0-1 cooling tower performance at standard conditions](#)

Last update: 01/06/2023

VT1 7412-7418



1. Drain ND 50; 2. Water Outlet; 3. Overflow ND50; 4. Make Up ND25; 5.Water Inlet; 6.Access Door.

| Model | Weights (kg) | | | Dimensions (mm) | | | Air Flow (m³/s) | Fan Motor (kW) | Fluid Inlet ND (mm) | Fluid Outlet ND (mm) | Make Up ND (mm) |
|---------------|-------------------------|----------------------|-----------------------------|-----------------|------|------|--------------------|-------------------|------------------------|-------------------------|-----------------|
| | Oper. Weight (kg) | Ship. Weight(kg) | Heaviest Section (kg) | L | W | H | | | | | |
| VT1 74 12-01K | 3921 | 2218 | 1506 | 3550 | 2245 | 3112 | 16.41 | (1x) 7.5 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-01L | 3954 | 2251 | 1539 | 3550 | 2245 | 3112 | 18.64 | (1x) 11.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-01M | 3974 | 2271 | 1559 | 3550 | 2245 | 3112 | 20.67 | (1x) 15.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-01N | 4013 | 2310 | 1598 | 3550 | 2245 | 3112 | 22.17 | (1x) 18.5 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-01O | 4035 | 2332 | 1620 | 3550 | 2245 | 3112 | 23.49 | (1x) 22.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-02K | 4110 | 2422 | 1506 | 3550 | 2245 | 3569 | 16.3 | (1x) 7.5 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-02L | 4143 | 2455 | 1539 | 3550 | 2245 | 3569 | 18.52 | (1x) 11.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-02M | 4163 | 2475 | 1559 | 3550 | 2245 | 3569 | 20.53 | (1x) 15.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-02N | 4202 | 2514 | 1598 | 3550 | 2245 | 3569 | 22.02 | (1x) 18.5 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-02O | 4224 | 2536 | 1620 | 3550 | 2245 | 3569 | 23.33 | (1x) 22.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-03K | 4268 | 2602 | 1495 | 3550 | 2245 | 4026 | 15.28 | (1x) 7.5 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-03L | 4301 | 2635 | 1528 | 3550 | 2245 | 4026 | 17.36 | (1x) 11.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-03M | 4321 | 2655 | 1548 | 3550 | 2245 | 4026 | 19.26 | (1x) 15.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-03N | 4360 | 2694 | 1587 | 3550 | 2245 | 4026 | 20.65 | (1x) 18.5 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-03O | 4382 | 2716 | 1609 | 3550 | 2245 | 4026 | 23.22 | (1x) 22.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 12-03P | 4418 | 2752 | 1645 | 3550 | 2245 | 4026 | 24.26 | (1x) 30.0 | (1x) 150 | (1x) 200 | (1x) 50 |
| VT1 74 18-01K | 5806 | 3284 | 2100 | 5385 | 2245 | 3112 | 21.49 | (1x) 7.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-01L | 5839 | 3317 | 2133 | 5385 | 2245 | 3112 | 24.42 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-01M | 5859 | 3337 | 2153 | 5385 | 2245 | 3112 | 27.08 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-01N | 5898 | 3376 | 2192 | 5385 | 2245 | 3112 | 34.0 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-01O | 5920 | 3398 | 2214 | 5385 | 2245 | 3112 | 30.77 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-01P | 5956 | 3434 | 2250 | 5385 | 2245 | 3112 | 34.12 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-02K | 6081 | 3575 | 2110 | 5385 | 2245 | 3569 | 21.31 | (1x) 7.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-02L | 6114 | 3608 | 2143 | 5385 | 2245 | 3569 | 24.21 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-02M | 6134 | 3628 | 2163 | 5385 | 2245 | 3569 | 26.84 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-02N | 6173 | 3667 | 2202 | 5385 | 2245 | 3569 | 28.79 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-02O | 6195 | 3689 | 2224 | 5385 | 2245 | 3569 | 30.5 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 | 6231 | 3725 | 2260 | 5385 | 2245 | 3569 | 33.82 | (1x) | (1x) | (1x) | (1x) 50 |



| 18-02P | | | | | | | | 30.0 | 200 | 200 | |
|------------------------|------|------|------|------|------|------|-------|--------------|-------------|-------------|---------|
| VT1 74 18-03K | 6342 | 3857 | 2110 | 5385 | 2245 | 4026 | 21.17 | (1x) 7.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-03L | 6375 | 3890 | 2143 | 5385 | 2245 | 4026 | 24.05 | (1x) 11.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-03M | 6395 | 3910 | 2163 | 5385 | 2245 | 4026 | 26.67 | (1x) 15.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-03N | 6434 | 3949 | 2202 | 5385 | 2245 | 4026 | 28.6 | (1x) 18.5 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-03O | 6456 | 3971 | 2224 | 5385 | 2245 | 4026 | 30.3 | (1x) 22.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-03P | 6492 | 4007 | 2260 | 5385 | 2245 | 4026 | 33.6 | (1x) 30.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 18-03Q | 6614 | 4091 | 2345 | 5385 | 2245 | 4026 | 36.15 | (1x) 37.0 | (1x) 200 | (1x) 200 | (1x) 50 |
| VT1 74 12-01K -2 | 7892 | 4422 | 1392 | 7226 | 2245 | 3112 | 32.82 | (2x) 7.5 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-01L- 2 | 7958 | 4488 | 1458 | 7226 | 2245 | 3112 | 37.29 | (2x) 11.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-01M -2 | 7998 | 4528 | 1498 | 7226 | 2245 | 3112 | 41.35 | (2x) 15.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-01N -2 | 8076 | 4606 | 1576 | 7226 | 2245 | 3112 | 44.34 | (2x) 18.5 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-01O -2 | 8120 | 4650 | 1620 | 7226 | 2245 | 3112 | 46.98 | (2x) 22.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-02K -2 | 8292 | 4822 | 1392 | 7226 | 2245 | 3569 | 32.59 | (2x) 7.5 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-02L- 2 | 8358 | 4888 | 1458 | 7226 | 2245 | 3569 | 37.03 | (2x) 11.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-02M -2 | 8398 | 4928 | 1498 | 7226 | 2245 | 3569 | 41.06 | (2x) 15.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-02N -2 | 8476 | 5006 | 1576 | 7226 | 2245 | 3569 | 44.03 | (2x) 18.5 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-02O -2 | 8520 | 5050 | 1620 | 7226 | 2245 | 3569 | 46.65 | (2x) 22.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-03K -2 | 8672 | 5252 | 1392 | 7226 | 2245 | 4026 | 30.57 | (2x) 7.5 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-03L- 2 | 8738 | 5318 | 1458 | 7226 | 2245 | 4026 | 34.73 | (2x) 11.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-03M -2 | 8778 | 5358 | 1498 | 7226 | 2245 | 4026 | 38.51 | (2x) 15.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-03N -2 | 8856 | 5436 | 1576 | 7226 | 2245 | 4026 | 41.3 | (2x) 18.5 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 12-03O -2 | 8900 | 5480 | 1620 | 7226 | 2245 | 4026 | 46.44 | (2x) 22.0 | (2x) 150 | (1x) 250 | (1x) 50 |
| VT1 74 | 8980 | 5560 | 1645 | 7226 | 2245 | 4026 | 48.94 | (2x) | (2x) | (1x) | (1x) 50 |



| | | | | | | | | | | |
|--------------|--|--|--|--|--|--|------|-----|-----|--|
| 12-03P -2 | | | | | | | 30.0 | 150 | 250 | |
|--------------|--|--|--|--|--|--|------|-----|-----|--|