

# Advanced Technology Plug Fan COOLING TOWERS

## ATP

*Innovative, Evaporative, Plug Fan Technology*



Patent pending

# Advanced Technology Plug Fan COOLING TOWERS

## Plug Fan Technology

The new ATP cooling tower, thanks to the high-efficiency, backward-curved radial fan technology, reduces energy consumption, has low sound emissions and is suitable for a variety of layouts.

## High Energy Efficiency

Up to 15% higher capacity than the comparable forced draft centrifugal fan cooling towers.

Higher thermal efficiency (kWth / kWel) than comparable centrifugal fan cooling towers – comparable with axial fan open cooling towers.

	Centrifugal (18.5 kW)	ATP (19.0 kW)
Nominal Thermal Capacity	768-920 kW	850-1350 kW

## Sound: ATP vs AT vs LSTE

	ATP	Axial AT	Centrifugal LSTE
Installed power	19 kW	18.5 kW	37 kW
dB(A) 1.5 m (side)	79 dB(A)	81 dB(A)	80 dB(A)

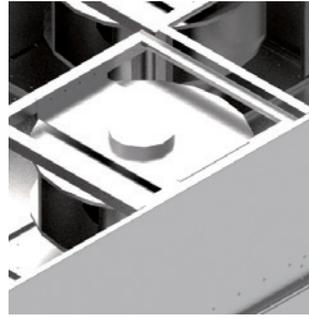
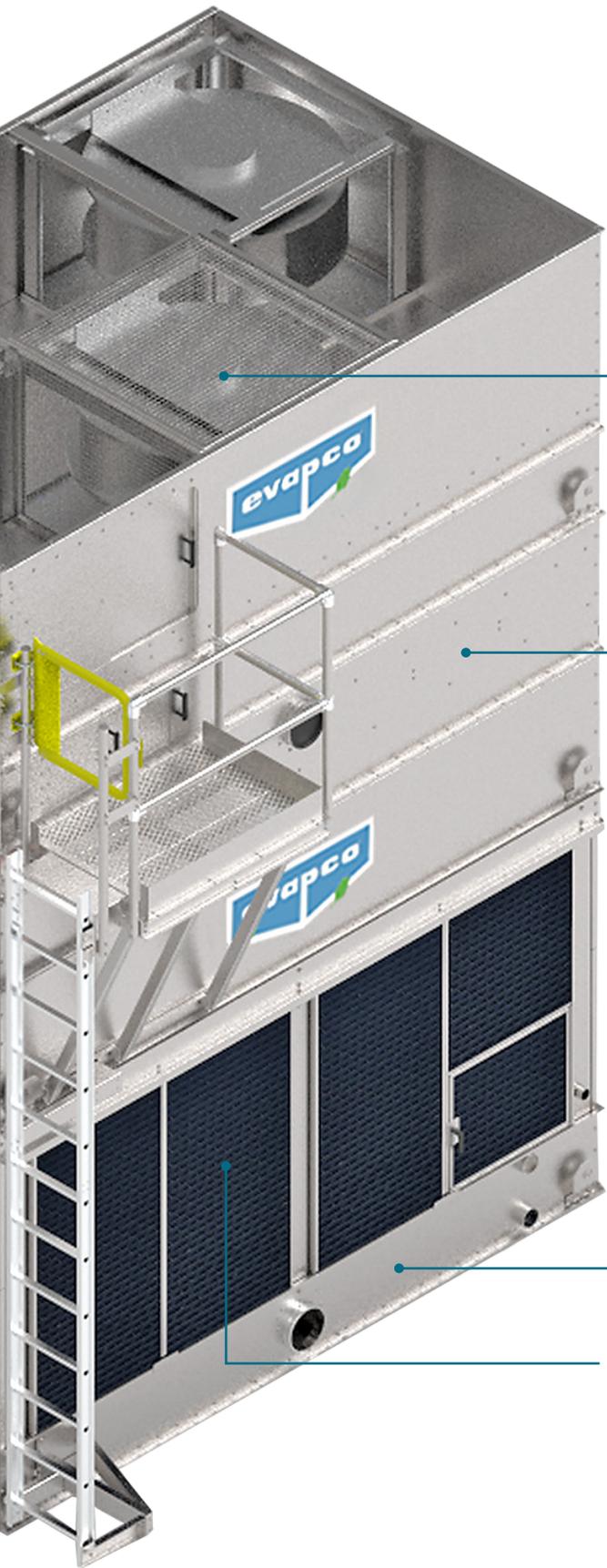
## The EVAPCO Performance Guarantee

Every Advanced Technology product is rigorously tested for thermal performance by EVAPCO.

Prior to launch of the full product line, independent third party testing will guarantee the performance to get the job done.



Patent pending

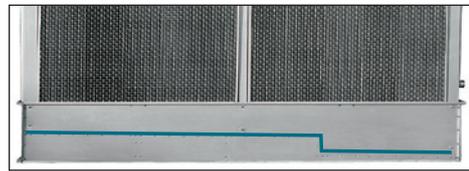


**High-efficiency, backward-curved radial fan technology compliant with the ErP Ecodesign Fan Directive EU 327/2011**

- Full redundancy with multiple fans per cell

**Pressurized Water Distribution System**

- Non-corrosive PVC construction



**Clean Sloped Basin Design**

- Designed to completely drain the cold water basin
- Helps prevent buildup of sediment and biological film
- Eliminates standing water after drain down

**WST Air Inlet Louvers**  
*(Water and Sight Tight)*

- Easily removable for access
- Framed in same material as tower basin
- Improved design to keep sunlight out and preventing biological growth
- Keeps water in while keeping dirt and debris out

US Patent No. 7,927,196



Patent pending

# Layouts & Installations

## ATP is ideal for countless layouts

- Single or double air inlet configuration options
- The modular design, allows for installation in various configurations



## And in addition ...

- ATP units are suitable for installation with external static pressure
- Sound abatement packages are available to further reduce sound emissions including:
  - Discharge Sound Attenuator
  - Water Silencers
- Premium material (AISI 304 / AISI 316) is available as an option



Patent pending

# Equipment Layout Guidelines

## Double Air Inlet Models

### Unit Layout

Since evaporative cooling equipment requires large quantities of air, adequate spacing around the unit must be provided for it to perform properly. An equally important consideration when laying out the equipment is to locate the unit so that recirculation is minimized. The top of the cooling tower must be equal to or higher than any adjacent walls, buildings or other structures. When the top of the unit is lower than the surrounding structures recirculation can be a major problem.

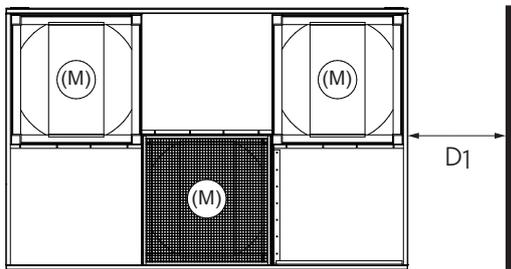


Figure 1

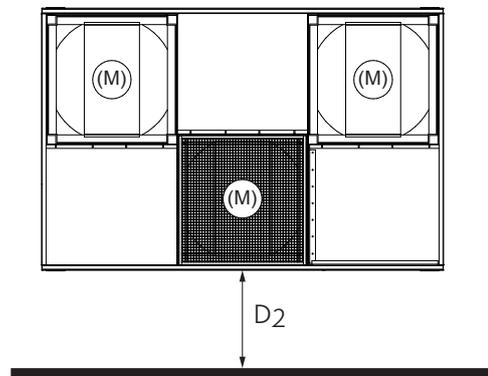


Figure 2

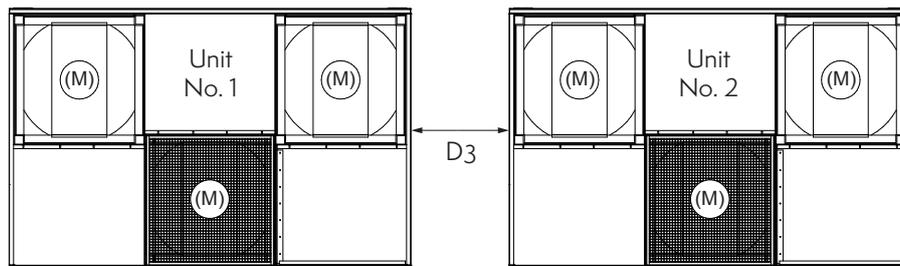


Figure 3

Box Size 8 x 12	Minimum Dimension (mm)*			
	D <sub>1</sub> - (Fig. 1)	D <sub>2</sub> - (Fig. 2)	D <sub>3</sub> - (Fig. 3)	
	All Units	All Units	Towers	Condensers/Coolers
	3' (0.9 m)	3' (0.9 m)	3' (0.9 m)	3' (0.9 m)

\*Minimum dimensions will increase on multi-cell installations.  
CONSULT FACTORY FOR LARGER INSTALLATIONS.

# Equipment Layout Guidelines

## Double Air Inlet Models

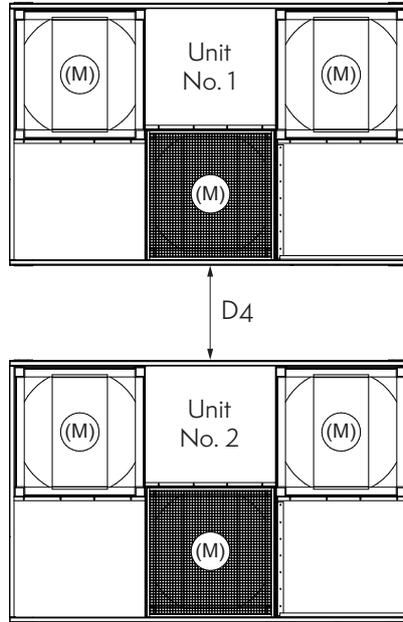


Figure 4

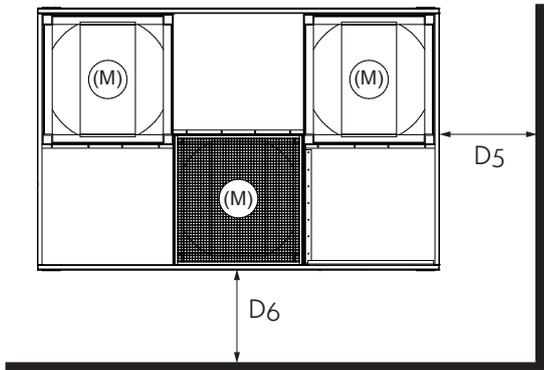


Figure 5

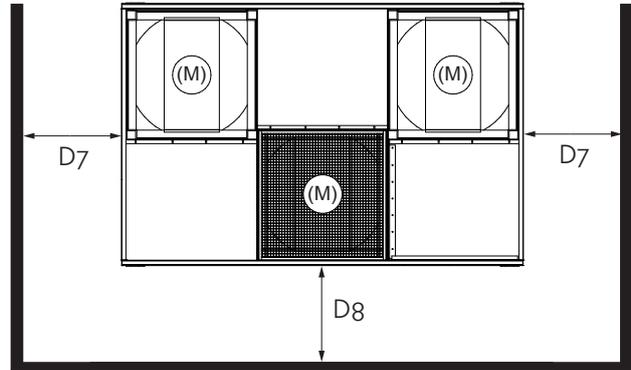


Figure 6

Box Size 8 x 12	Minimum Dimension (mm)*				
	D <sub>4</sub> - (Fig. 4)	D <sub>5</sub> - (Fig. 5)	D <sub>6</sub> - (Fig. 5)	D <sub>7</sub> - (Fig. 6)	D <sub>8</sub> - (Fig. 6)
	All Units				
	6' (1.8 m)	3' (0.9 m)	3' (0.9 m)	3' (0.9 m)	3' (0.9 m)

\*Minimum dimensions will increase on multi-cell installations.  
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# Equipment Layout Guidelines

## Single Air Inlet Models

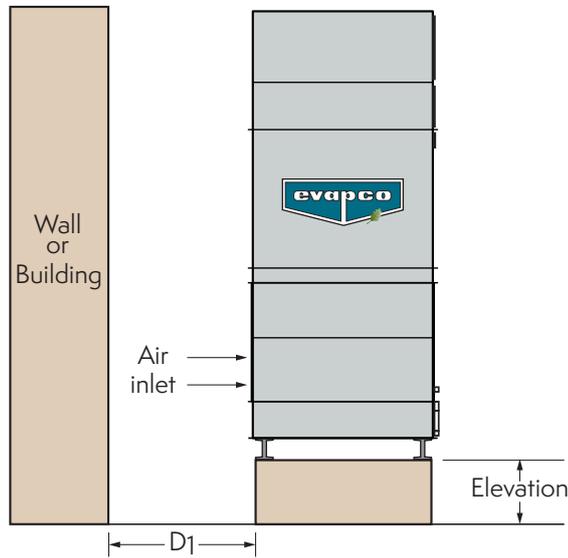


Figure 7

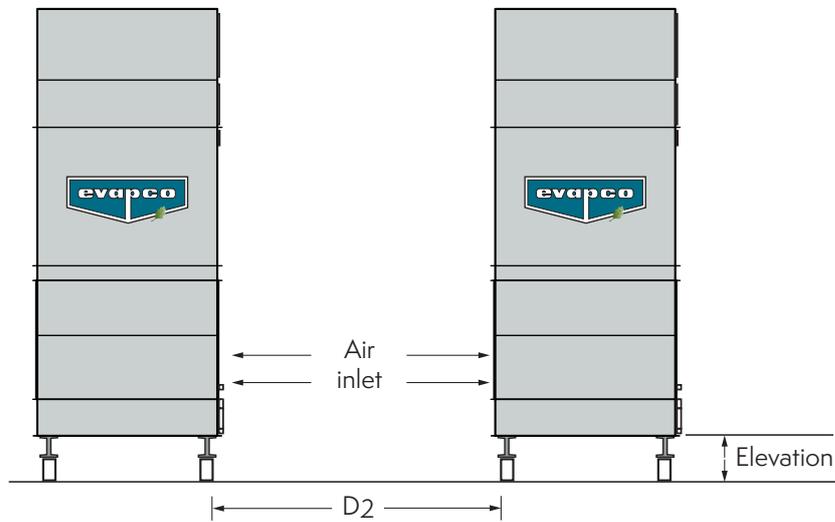


Figure 8

Box Size 8 x 12	Minimum Dimension (mm)*							
	D <sub>1</sub> - Air Inlet to Wall - (Fig. 7)				D <sub>2</sub> - Air Inlet to Air Inlet - (Fig. 8)			
	0' (0 m) Elevation	2' (0.6 m) Elevation	4' (1.2 m) Elevation	> 4' (1.2 m) Elevation	0' (0 m) Elevation	2' (0.6 m) Elevation	4' (1.2 m) Elevation	> 4' (1.2 m) Elevation
	7' (2.1 m)	6.5' (1.9 m)	6' (1.8 m)	6' (1.8 m)	14' (4.2 m)	13' (3.9 m)	12' (3.6 m)	10' (3 m)

\*Minimum dimensions will increase on multi-cell installations.  
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# Equipment Layout Guidelines

## Single Air Inlet Models

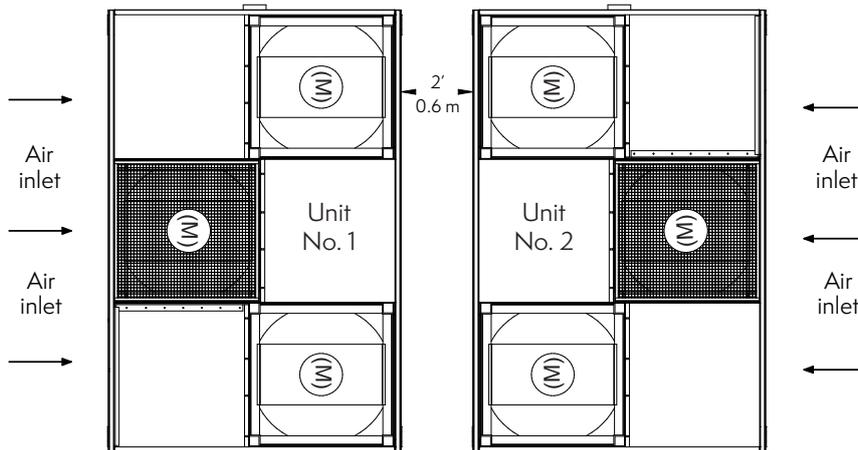


Figure 9

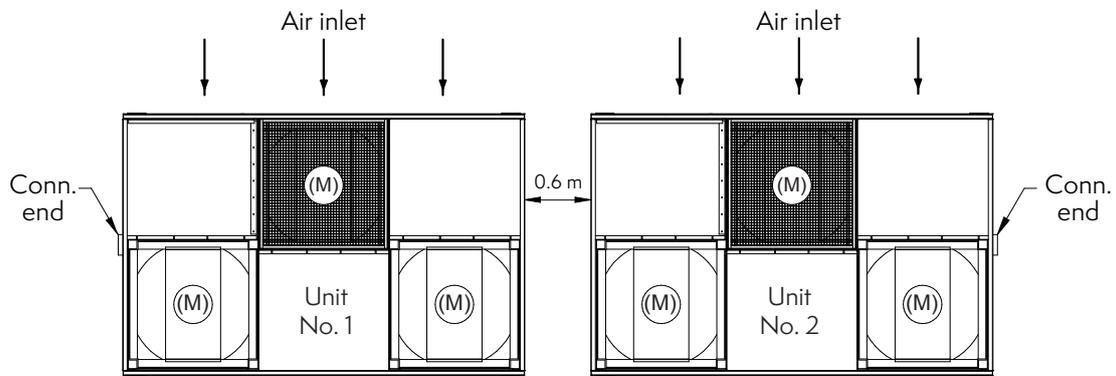


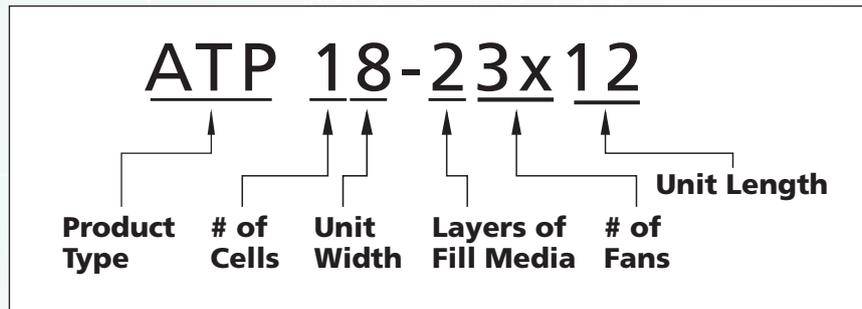
Figure 10

Box Size 8 x 12	Minimum Dimension (mm)*	
	Back-to Back Spacing - (Fig. 9)	End-to- End - (Fig. 10)
	Blocked Side	Non-Connection End
	2' (0.6 m)	2' (0.6 m)

\*Minimum dimensions will increase on multi-cell installations.  
CONSULT FACTORY FOR LARGER INSTALLATIONS.

# Advanced Technology Plug Fan COOLING TOWERS

## Nomenclature



### Product Type

ATP - Indicates an Advanced Technology Plug fan tower.

### # of Cells

Determined by the number of inlet connections.

### Unit Width

The total width of the unit in feet.

### Layers of Fill Media

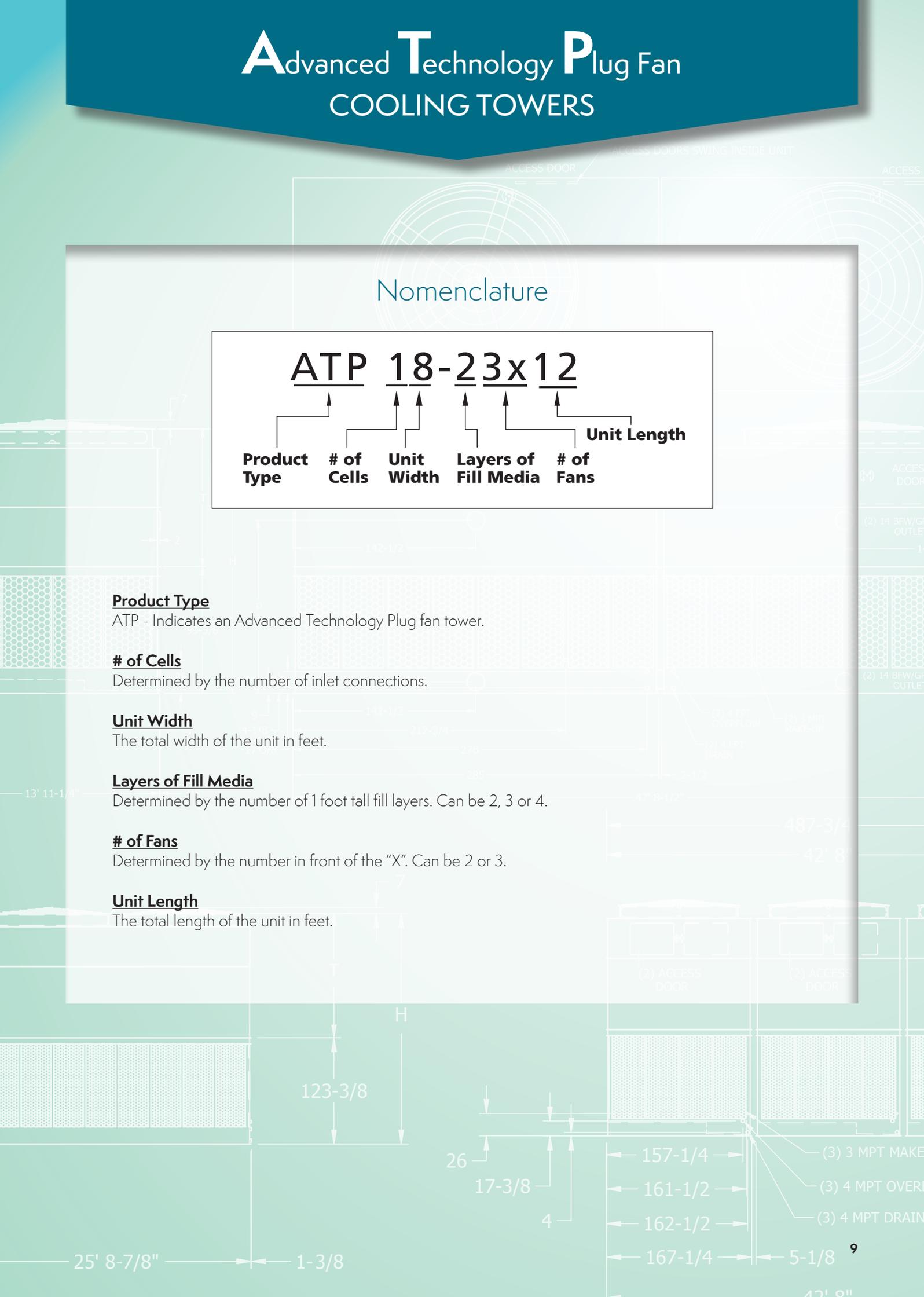
Determined by the number of 1 foot tall fill layers. Can be 2, 3 or 4.

### # of Fans

Determined by the number in front of the "X". Can be 2 or 3.

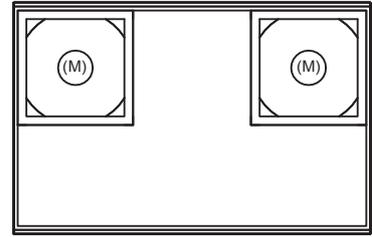
### Unit Length

The total length of the unit in feet.

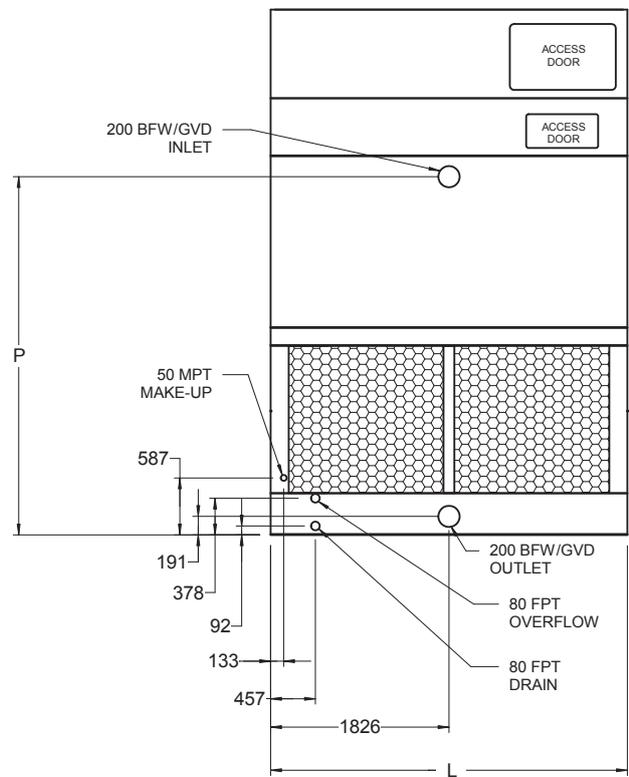
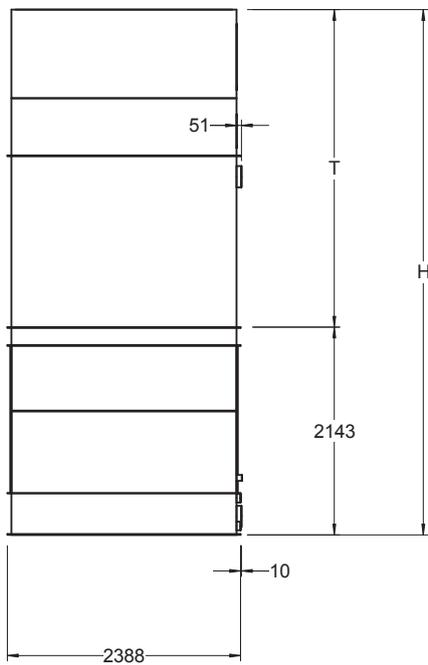


# Models: ATP 18-22x12 to ATP 18-42x12

## Engineering Data and Dimensions



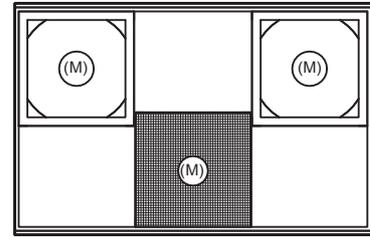
ACCESS DOOR



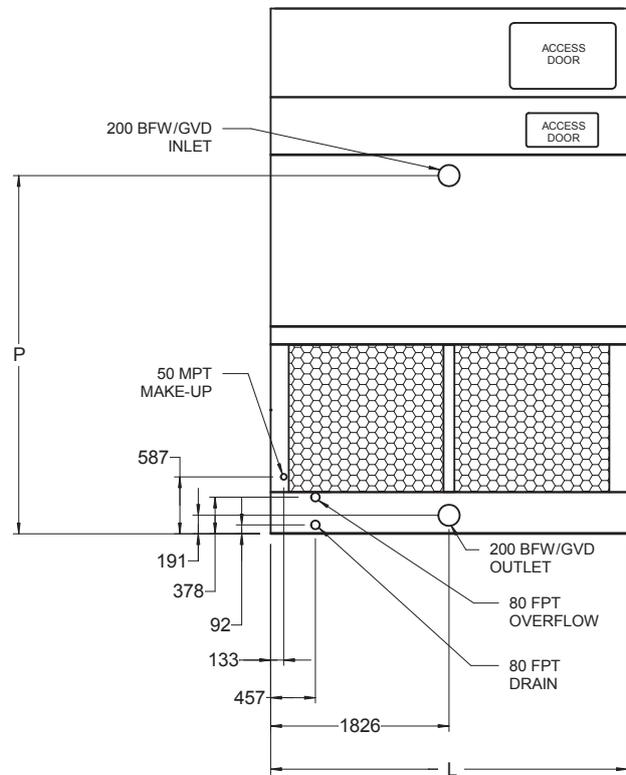
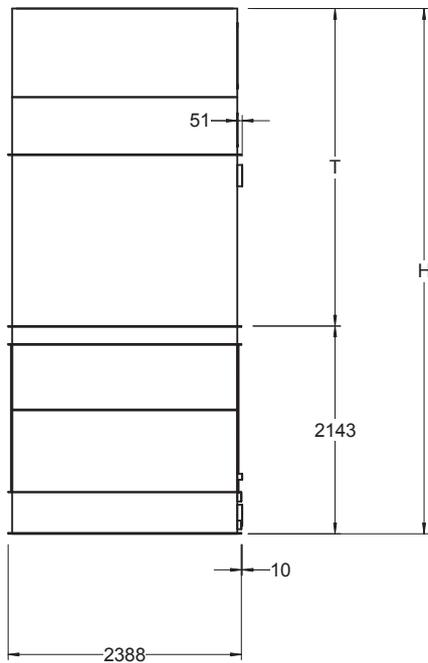
Model No.	Weights (kg)			Fan Motor (kW)	Air Flow (m <sup>3</sup> /s)	Dimensions (mm)			
	Shipping	Operating	Heaviest Section			H	T	P	L
ATP18-22x12	2800	4330	Pan 1015	(2) 6.34	27.4	4810	2667	3086	3651
ATP18-32x12	2960	4495	Pan 1015	(2) 6.34	26.9	5115	2972	3391	3651
ATP18-42x12	3060	4595	Casing 1045	(2) 6.34	26.5	5420	3277	3696	3651

# Models: ATP 18-23x12 to ATP 18-43x12

## Engineering Data and Dimensions



ACCESS DOOR



Model No.	Weights (kg)			Fan Motor (kW)	Air Flow (m <sup>3</sup> /s)	Dimensions (mm)			
	Shipping	Operating	Heaviest Section			H	T	P	L
ATP18-23x12	2965	4500	Fan 1170	(3) 6.34	31	4810	2667	3086	3651
ATP18-33x12	3130	4665	Fan 1170	(3) 6.34	30.3	5115	2972	3391	3651
ATP18-43x12	3230	4765	Fan 1170	(3) 6.34	29.8	5420	3277	3696	3651



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