

# Pioneer Forced Draft Towers

## **Pioneer® Cooling Towers**

Delta's Pioneer® forced draft, counter flow design is available in single module capacities from 10 to 100 cooling tons.

Manufactured since 1971, this unitary seamless engineered plastic design has been manufactured since 1971 and have been very well received in both commercial and industrial applications.

### **Standard Features:**

- Seamless Engineered Plastic (HDPE) Shell
- Corrosion Proof Construction
- Forward Curved Centrifugal Blower with Totally Enclosed Motor.
- Factory Assembled for Simple Installation
- 20 Year Shell Warranty
- PVC Water Distribution System with Non-clog Large Orifice Removable Nozzles
- High Efficiency PVC Fill
- Made in the USA

## **Basic Specs**

Model Number	Approximate Weights		Dimensions Dia. x Ht.	Capacity Tons	Fan Motor HP	Sump Capacity Gallons
	Shipping	Operating				
Δt-10	350	705	38" x 78"	10	1	40
Δt-15	360	725	38" x 78"	15	1.5	40
Δt-20	385	750	38" x 78"	20	2	40
Δt-25	405	765	38" x 78"	25	3	40
Δt-30	710	1500	56" x 76"	30	5	75
Δt-40	730	1525	56" x 76"	40	5	75
Δt-50	910	2610	80" x 80"	50	5	157
Δt-75	970	2675	80" x 80"	75	7.5	157
Δt-100	1030	2730	80" x 80"	100	10	157

## **Detailed Features**



All Delta Cooling Towers are factory assembled to the fullest extent possible for ease of installation and shipment. The following features are standard on our Pioneer® Series Forced Draft Cooling Towers:

### **Shell:**

A seamless engineered polyethylene cylindrical (HDPE) molded shell, with HDPE blower duct plastic welded onto the shell wall. Shell has an inspection port with removable HDPE cover located above the integral cold sump water level for accessibility to automatic make-up valve and adjustable float.

**Sump:**  
Sump is integral with cooling tower shell, creating a one-piece seamless structure.

**Water Distribution System:**  
Totally enclosed, non-corrosive, polyvinyl chloride (PVC) internal riser, spray tree/nozzle distribution system. The PVC threaded nozzles are interchangeable and can be substituted, in most cases, with a larger diameter orifice for increased flow conditions without increasing inlet pressure. All nozzles will accept flow rate increases at higher inlet pressures.

**Wet Decking and Drift Eliminator:**  
Non-corrosive, polyvinyl chloride (PVC) wet decking and drift eliminator, spirally wound and bonded for maximum film cooling efficiency. Non-corrosive, polyvinyl chloride (PVC) hand straps secured to wet decking and drift eliminator sections for easy removal.

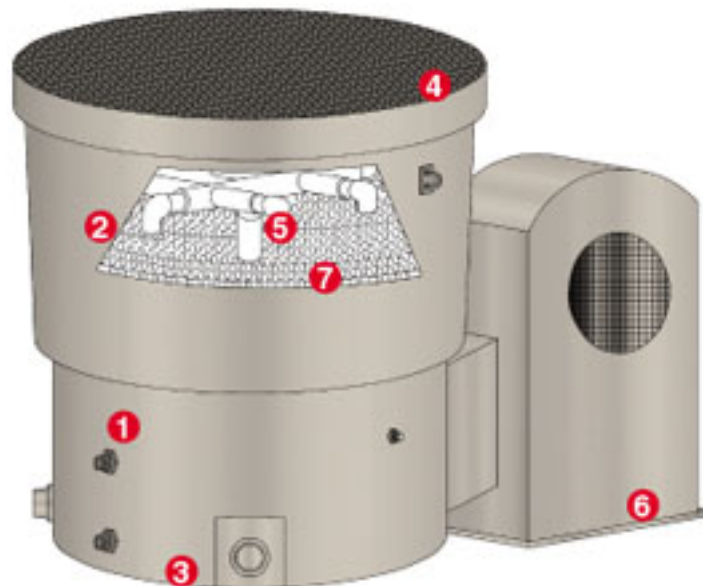
**Blower:**  
Forward curved centrifugal blower, statically and dynamically balanced, constructed of heavy-duty carbon steel. Corrosion protected with a dipped and baked alkyd finish.

**Motor:**  
Totally enclosed fan cooled (TEFC) VFD rated motor with 1.15 service factor, designed for 208 or 230/460V 3 phase 60 cycle operation and suitable for outdoor service. Motor is provided with a 5-year motor manufacturers warranty.

**Fitting Connections:**  
Non-corrosive polyvinyl chloride (PVC) bulkhead fittings with neoprene gaskets for inlet, outlet, overflow, drain and make-up (FRT) connections. All outlet fittings for pump suction applications are provided with a vortex breaker.

**Hardware:**  
All fasteners are 304 stainless steel.

## Cutaway View



1 - Lightweight and Heavy Duty: Plastic is lighter than conventional cooling towers and average wall thickness is 5-10 times sheet metal towers

2 - Corrosion-Proof Shell: HDPE Plastic Construction can not corrode and is backed by 15 year warranty

3 - Leak-Proof Sump: Molded as Unitary (One-Piece) Structure that has no joints to leak or require re-caulking and sealing

4 - Drift Eliminator: PVC drift eliminator prevents water droplets from leaving the tower

5 - Nozzle Water Distribution System: Non-clog large orifice removable nozzles evenly distribut the water

6 - Air Moving System: Totally enclosed coolign tower motor powers centrifugal blower with optional HDPE weather hood

7 - Fill Material: High efficiency spiral wound PVC for maximum cooling

## **Drawing & IOM**

[Pioneer Manual PDF](#)

[Pioneer Specification PDF](#)

[t-10 thru t-25 Assembly PDF](#)

[t-30 thru t-40 Assembly PDF](#)

[t-50 thru t-100 Assembly PDF](#)