

Forced Draft Degasifiers

Capacity: 75 to 1,000 GPM

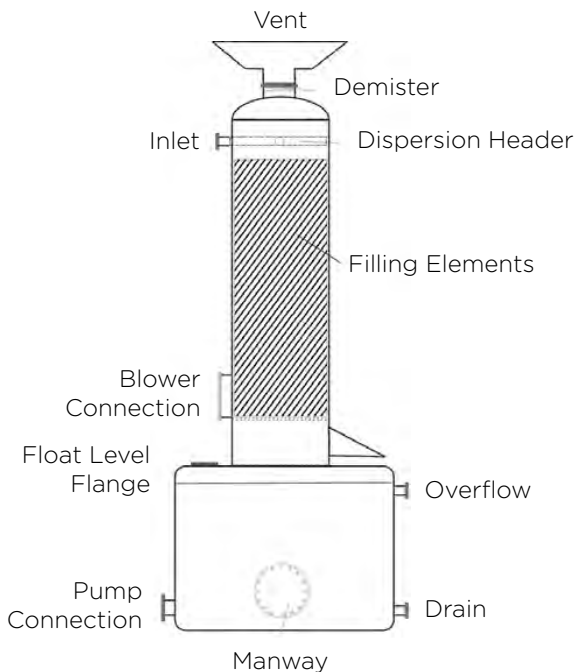
FDD
SERIES

Pure Aqua Forced Draft Degasifiers are used to remove unwanted gases from supply water. Pure Aqua standard FDD range covers flowrates from 75 to 1,000 GPM.

The degasifier removes gases by passing the water over a packing media that allows the water to form a thin film over the entire surface area. The counter current airflow is introduced at the bottom of the tower and travels up the stack through the descending flow of water. The gases are stripped as the air passes over the surface of the water.

Standard Features

- Corrosion resistant, high quality material
- Centrifugal fan
- Clearwell (FDD75-250)
- Overflow connections
- Inlet valve and plumbing to tower
- Tower assembly and internals
- Clearwell access ports
- Clearwell level switch
- Float operated ball valve
- 460V/3PH/60Hz power supply



Available Options

- Standby fan unit
- Fixing lugs
- Insulated/heated clearwell
- Clearwell (FDD390-1000)
- Tropical conditioned motor
- Flame proof motor
- 380V/3PH/50Hz power supply
- Fan intake air filters
- Custom designed units

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Pure Aqua degasifiers are well proven as an efficient, reliable and cost-effective approach to reducing dissolved gasses during the water treatment process. The units are comprised of a packed tower and integral sump with fan. The sump is sized to give approximately 2 minute retention time at maximum flow. Pure Aqua engineers its systems for compact and efficient design tailored to any custom application.

Operation of the System

The forced aeration of water will obtain oxidized matter from the fluid and remove gases such as methane (CH₄), carbon dioxide (CO₂), and hydrogen sulfide (H₂S). The total removal of the gases requires previous acidifying of the fluid and the use of strong oxidizing agents such as chlorine or potassium permanganate.

The raw water falls from the top of the tower onto a layer of filling elements of special shape. This is required in order to maximize the surface area with the forced upward draft. This results in the most thorough oxidation and removal of gases carried up through the tower and collected at the top.

Sizing the System

Degasifiers are used in demineralizer applications to strip CO₂ following a strong acid cation exchanger or softening application. They can also be used as an economical way to remove H₂S or volatile organic compounds (VOC). Degasifiers are sized based on the water service flow rate.

Model #	Tower Diameter	Max Flow (GPM)	Air Flow (CFM)	Blower HP	Inlet/Outlet	Clearwell Size (Gal)	Media (ft ³)	Height (ft)	Shipping Weight (lbs)
FDD-75	24"	75	350	1/4	2" / 4"	300	20	13	600
FDD-140	36"	140	700	1/3	3" / 6"	600	50	13	900
FDD-250	48"	250	1,250	1/2	4" / 8"	1,000	90	21	1,150
FDD-390	60"	390	2,000	3/4	6" / 10"	1,500	140	21	1,400
FDD-550	72"	550	2,800	1	6" / 10"	2,200	200	21	1,700
FDD-1000	96"	1,000	5,000	2	8" / 12"	4,000	270	21	3,900

Pure Aqua also supplies: Custom Engineered Solutions, Multimedia Pretreatment, Activated Carbon Pretreatment, Water Conditioning, Chemical Dosing Systems, Ultraviolet (UV) Sterilizers and Ozonation Systems.

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