



Hungerford & Terry

**Degasifier
Systems
for Water
Treatment**



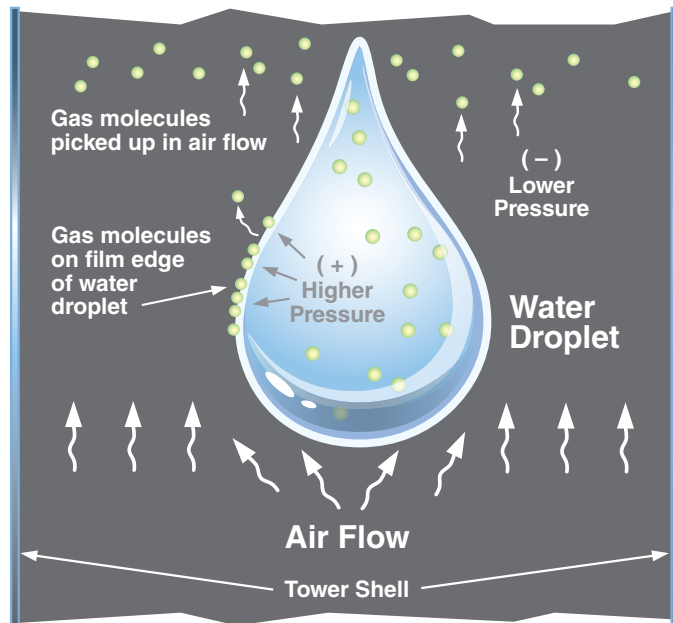
**Recognized Internationally,
Engineered to Last a Lifetime**

Forced Draft or Vacuum Degasifier Systems to Remove Sparingly Soluble Gases

Vacuum or Draft Degasifiers...H&T has you covered.

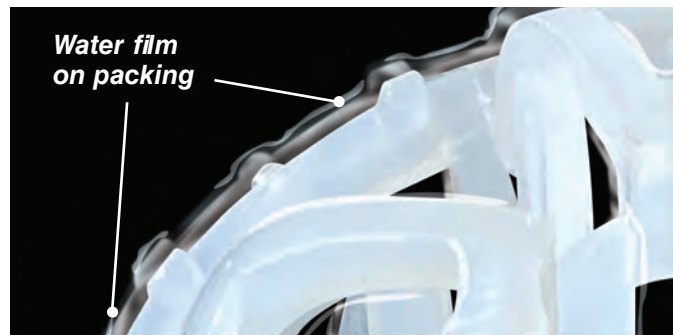
All draft & vacuum degasifier systems adhere to "Henry's law", that states "the amount of dissolved gas in a liquid is proportional to its partial pressure". The proportionality factor is called the Henry's Law Constant. Placing a solution under reduced pressure, or vacuum, makes the dissolved gas less soluble.

Engineers at H&T evaluate the influent water quality data and effluent goals to determine the "Htu" (height of transfer unit), and "Ntu" (number of transfer units) required for each application.



Air flow strips gas molecules from liquid film edge for removal

Engineered into every H&T degasifier system is uniform packing placement and optimized distribution piping. This ensures maximum surface area contact which allows gas molecules to reach the liquid film edge for removal. To minimize the potential for channeling, water flow turndown ratio should be kept to a minimum.



Loose fill packing with high surface area and low obstruction to flow allows highly efficient "Controlled Film" contact area on packing surfaces

Forced Draft Degasifiers

Forced draft degasifiers use a blower connected via duct work at the bottom of the tower which forces the air up through the packing and exits at the top vent. Their material of construction is typically FRP. For applications where residual buildup is a concern on the packing balls, an optional integral spray cleaning assembly can be provided.



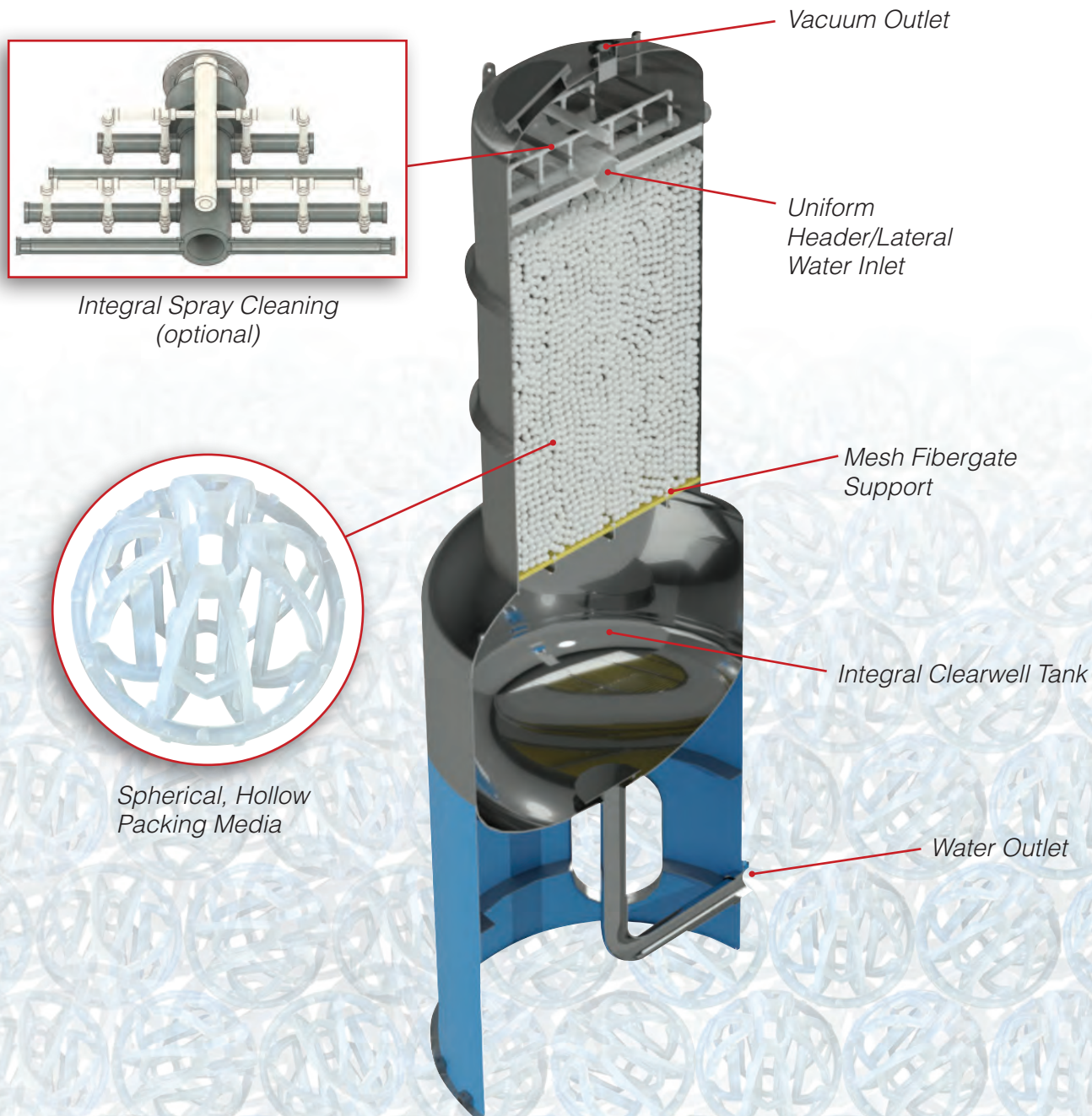
Draft degasifiers can include an integral clearwell typically designed with several minutes of retention time as specified by the end user, or placed over top of a large clearwell

Vacuum Degasifiers

Vacuum degasifier systems are typically used when O_2 reduction is the effluent goal. Unlike draft degasifier systems, the vacuum degasifier creates an extreme negative pressure within the tower to assist in pulling dissolved gas out of the liquid. The internal components of a vacuum degasifier are similar to draft systems, but the shell of the tower is specially designed to withstand the vacuum conditions and constructed from either

lined carbon steel or stainless steel. Depending on the application, a single stage or dual stage vacuum degasifier design may be used.

Material of construction selection will impact initial capital cost and may also affect operational costs and should be considered. Lined carbon steel creates a maintenance challenge whereas stainless steel does not.



Hungerford & Terry, Inc.

A Leader in Providing Application-Specific Water Treatment Solutions

For more than 100 years, H&T has met the challenge of new regulations with a vast array of water treatment solutions.

H&T advanced water treatment solutions include systems that remove iron, manganese, hydrogen sulfide, arsenic, radium, nitrate, sodium, perchlorate, hardness, color, PFAS/PFOS and other contaminants for municipal, industrial, and government facilities worldwide.

Hungerford & Terry, Inc. also designs and manufactures complete demineralizer systems, forced draft and vacuum degasifiers, condensate polishers, and specialized treatment systems.

In the 21st century, H&T continues to improve water treatment solutions through in-house research & development with a focus on economizing operational costs and waste generation. Through advances in science and technology, H&T is focused on one purpose – to produce pure water, our most precious resource.



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