

46.- Atlantium, hydro-optic UV technology

<b>Title and name of product or technology</b>
Atlantium – Hydro-Optic Disinfection™ technology
<b>Abstract</b>
Atlantium Technologies has re-invented ultraviolet-based water disinfection. By leveraging the mechanics of <i>Total Internal Reflection</i> , Atlantium has created Hydro-Optic Disinfection™, the most efficient UV microbe inactivation technology available anywhere. Atlantium’s environmentally-friendly systems attain unprecedented levels of disinfection, helping industry and drinking water suppliers worldwide to provide healthier, safer products.
<b>Description including main features/advantages</b>
<p><i>Key operating principles lead to high microbial inactivation</i></p> <p>The units adapt the physics principle of Total Internal Reflection and are engineered to achieve uniform dose distribution - design changes that lead to unprecedented performance. These two fundamentals have resulted in demonstrated and validated attainment of high microbial inactivation levels.</p> <p><i>Real-time monitoring and control maintain required disinfection dose</i></p> <p>The Hydro-Optic Disinfection system consistently delivers the required dose. Its Monitoring and Control software provides real-time, continuous reading of the water flow, continuous measurement of UV transmissivity and UV lamp intensity, and adjusts the required disinfection dose as conditions change. This saves energy while still providing the required protection for the microbial challenges.</p>
<b>Innovative aspects</b>
<ul style="list-style-type: none"> <li>• Superior microbial inactivation resulting from uniform dose distribution (UDD)</li> <li>• Environmentally-friendly; no disinfection by-products</li> <li>• Low operating costs</li> <li>• Simple maintenance</li> <li>• Simple integration</li> <li>• System performance validated according to EPA protocols</li> </ul>
<b>Current and potential industrial users/domains of application</b>
Through excellent results combined with ever-growing expertise, Atlantium is building its concentration in a number of market sectors where the need for non-chemical, highly effective disinfection methods is especially important. The company’s systems are currently used by businesses in the aquaculture, aquaculture, food & beverage and dairy industries and by municipalities for a broad range of applications such as flow-through / firewall, non-thermal pasteurization and post-GAC disinfection, drinking water and more. In the near future, Atlantium will be entering additional markets where demand from the field, combined with research results that show the effectiveness of Atlantium’s systems for the required applications, are demonstrated.
<b>Current state of development</b>
The <i>R-series</i> Hydro-Optic Disinfection system was launched in 2005, and in 2008 Atlantium launched its <i>RZ-series</i> .

<b>Contact details</b>	
Organisation	Inrada N.V.
Website	<a href="http://www.inrada.com">www.inrada.com</a>
Contact person	G. de Baene
Address	Turnhoutsebaan 511 2110 Wijnegem Belgium
Phone	tel. +32 (0)3 355 10 20
Fax	fax +32 (0)3 355 10 29
Email	e-mail: <a href="mailto:inrada@inrada.com">inrada@inrada.com</a>