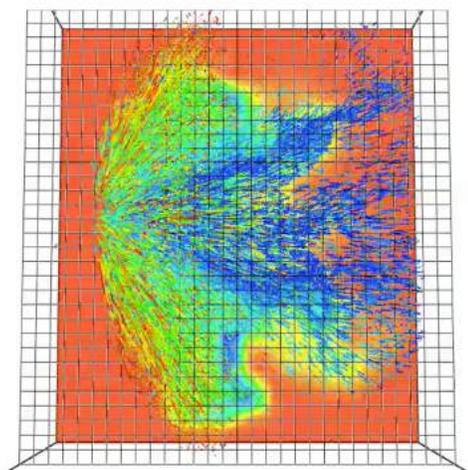
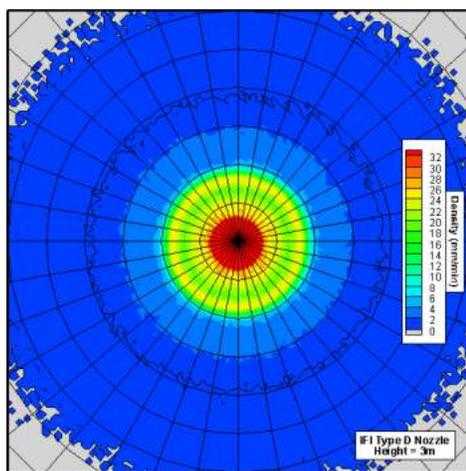




IFI Case Study - Transformer Fire Protection



Typically transformers have been protected using a “bird cage” design (Fig 1) using small k-factor deluge nozzles that have limited water spray throw. This limited spray coverage results in the need for piping and nozzle heads to be in close proximity to the transformer as well as requiring an excessive amount of nozzles to protect the transformer (30-40). When a fire occurs in a transformer a tremendous amount of energy is released that can be quite violent and catastrophic to the environment and equipment surrounding the transformer (Fig 2). The piping of the birdcage can be damaged in the initial stages of the event resulting in severed water lines and an ineffective suppression system.

International Fog Inc., in collaboration with Custom Spray Solutions has developed a more efficient fire suppression nozzle. The Deluge-Tech™ nozzle uses patented IFI fog and rotor technology. The deluge head was designed to optimize spray pattern and droplet size for a more effective and efficient suppression nozzle. This allows for a more effective distribution of water. The nozzle design results in an even distribution (Fig 3) of the desired water droplet size and design density (fig 4) for the given application. The efficient use of water results in wider coverage areas and more flexible designs, saving money on both installation and maintenance while maintaining system capabilities. Using the new deluge heads engineers were able to design an NFPA compliant deluge suppression system that reduced the number of heads, while also moving them away from the transformer.





MODEL DESIGNATION	RC150A
Nominal K-Factor	10.2
Strainer	Included in assembly
Installation Positions	Horizontal or Vertical (0 to 180 degrees)
Min and Max Working Pressures	50 to 175 PSI
Nominal Spray Angle	170 Degrees
Spray Coverage	The RC150A provides a wide angle spray reaching 28 ft wide and out to 8 ft at its maximum pressure



MODEL DESIGNATION	RC150D
Nominal K-Factor	9.0
Strainer	Included in assembly
Installation Positions	Horizontal or Vertical (0 to 180 degrees)
Min and Max Working Pressures	50 to 175 PSI
Nominal Spray Angle	170 Degrees
Spray Coverage	The RC150D provides a wide angle spray reaching 28 ft wide and out to 27 ft at its maximum pressure

International Fog Inc.
 Office
 1-888-524-4434
 Cell
 1-503-701-3839
 email:
info@Internationalfog.com

www.internationalfog.com

East Coast Office
 6 Ferndale Road
 Seven Valleys, PA 17360

West Coast Office
 921 SW Washington Street
 Suite 777
 Portland, OR 97205

- **1.5” Deluge Nozzle**
- **Made of Stainless Steel and Kevlar Composite**
- **Flows Water or Foam-Water Solution**
- **Mount Vertically or Horizontally**
- **FM Approved**
- **Weight: 2 lbs 4 oz**
- **Length: 5-1/2 inches**
- **NPT Threading**

