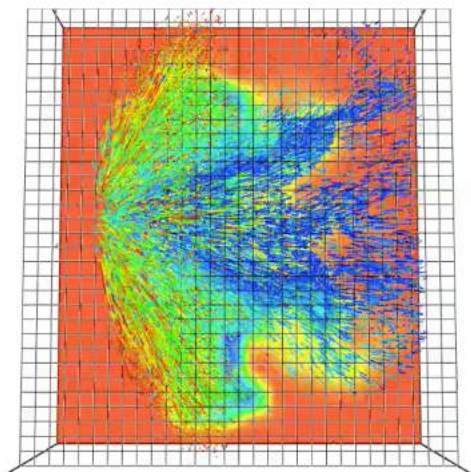
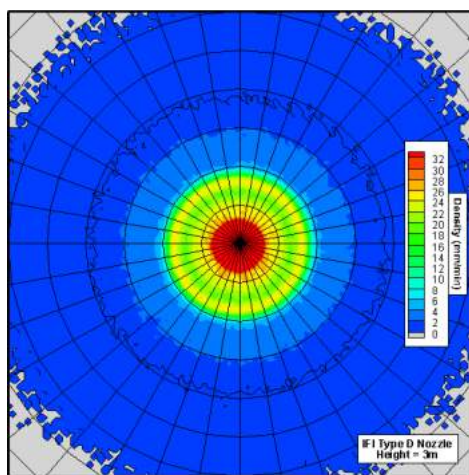




## IFI Case Study - Transformer Fire Protection



Typically transformers have been protected using a “bird cage” design (Fig 1) using Small k-factor deluge nozzles with short throws. This results in piping and nozzle heads in close proximity to the transformer with excessive nozzles to protect the transformer (30-40). When a fire occurs in a transformer the event can be quite violent and catastrophic to the environment and equipment around 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 have developed a more efficient fire suppression nozzle. The Deluge-Tech™ nozzles use the patented IFI fog and rotor technology. The deluge head was designed to optimize the spray pattern and droplet size for a more effective and efficient suppression nozzle, not wasting the water in one area and leaving other areas void 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 a NFPA compliant system that reduced the number of heads and moved 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 |

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- **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**

