Dixie Cup gets Production Boost from MeeFog™ System

**THE BENEFITS OF MEEFOG™ TECHNOLOGY**

- Precisely controls humidity for distortion-free molding of Dixie Cups
- Low system maintenance and energy costs
- Independent operation of system in four separate zones

**CHALLENGE**

Dixie Consumer Products opened a new facility for manufacturing of paper cups. The new factory called for precise control of relative humidity to achieve production targets. If humidity is too low the paper cups distort during the forming process. Drew Lee, Engineer for Dixie Cup, explained the secondary process that heats the poly material on the cups and forms an insulated “foam” texture. If the cup is too dry, it won’t form properly.

**SOLUTION**

To control the problem of distortion, the relative humidity (RH) must be maintained at 45%. Dixie Cup installed a MeeFog humidification system for precise humidity control. The ceiling mounted fog nozzle lines are strategically distributed for best coverage.

**THE INSTALLATION**

Dixie Consumer Products LLC, a subsidiary of Georgia Pacific manufactures paper goods such as paper plates, cups, napkins and other kitchen and bathroom products. Over the past decade, Georgia Pacific has successfully used MeeFog humidification systems in a number of their manufacturing facilities.

In 2016 Dixie Consumer Products opened a new 6,300 square foot manufacturing facility in Lexington, Kentucky, which was set up for high volume production of its popular Dixie Cups. Tight humidity control was required to maintain board moisture and avoid distortion, which was a big challenge especially during the colder and drier months.

Mee Industries was contacted once again to supply a fog humidification system to meet the necessary humidity requirements to help maintain high volume production. Dixie has defined four areas of the plant for distinct operations, and each area was brought online separately. Using the MeeFog model 2500 MFP rack outputs up to 5 GPM flow to four high pressure solenoids, and the onboard VFD uses only the power that’s needed for active zones.
COST/BENEFIT ANALYSIS
MeeFog systems have far lower energy costs than other types of humidification systems. A MeeFog system designed for 1,000 lbs. of output per hour and 3,500 hours of operation per year will cost approximately $700 per year to operate, compared with $14,350 for compressed air atomizers and $128,800 for electric steam humidifiers. In addition, the MeeFog system cools the air as it humidifies, giving an added benefit of lower cooling costs.

ABOUT MEE INDUSTRIES
For over 40 years Mee Industries has led the world with innovative water fog technology. MeeFog™ systems are used to humidify and cool many industrial, commercial and agricultural processes and to create interesting and dynamic special effects. Today there are over ten thousand MeeFog™ systems in use around the world. The MeeFog team looks forward to helping you with your fogging project. Mee Industries is an ISO 9001 certified corporation and manufactures components to meet UL or CE requirements.

Mee Industries is a privately held company with corporate headquarters in Irwindale, California.

“Mee Industries is a reputable vendor that has been used at numerous other facilities throughout our company.”
- Drew Lee, engineer, Dixie Cup