

Case studies

Printing

“The Fog Engineers”
いけうち H.IKEUCHI & CO., LTD.

Process: Gravure printing

Localized humidification around gravure printing machines prevents fire by static electricity

How to avoid fire caused by static electricity spark?

Each winter at a gravure printing plant, static electricity buildup near the ink pans brings about intermittent problems with sparks and small fires. This becomes a threat of a large fire that gives great damages on several presses. The company were pressed to take measures to prevent such a risk from becoming reality.

At a gravure printing plant, humidifying an entire printing space and keeping adequate humidity level across the space is unrealistic because local ventilation systems continuously exhaust a large volume of indoor air. However, "spot humidification", direct spray of non-wetting Dry Fog towards the ink pans IKEUCHI proposed, effectively increased local humidity.

Spot humidification brings immediate effect and ease of mind.

As a result, the relative humidity increased from 35% to 50% and the static electric charge was reduced from 20kV to 4kV, or 1/5 of its previous value. Mitigation of the risk of fire seriously damaging the facility and endangering the workers' safety.

Humidification also achieves quality improvement by suppressing static electricity from building up on the print film that attracts dust particles.



Dry Fog Humidification System AirAKI®

Controlling humidity either in a large space or narrowly defined locations eliminates problems caused by static electricity. For use in gravure printing, localized humidification (spot humidification) is more effective and cost-saving than humidifying an entire space.