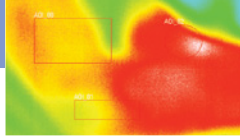
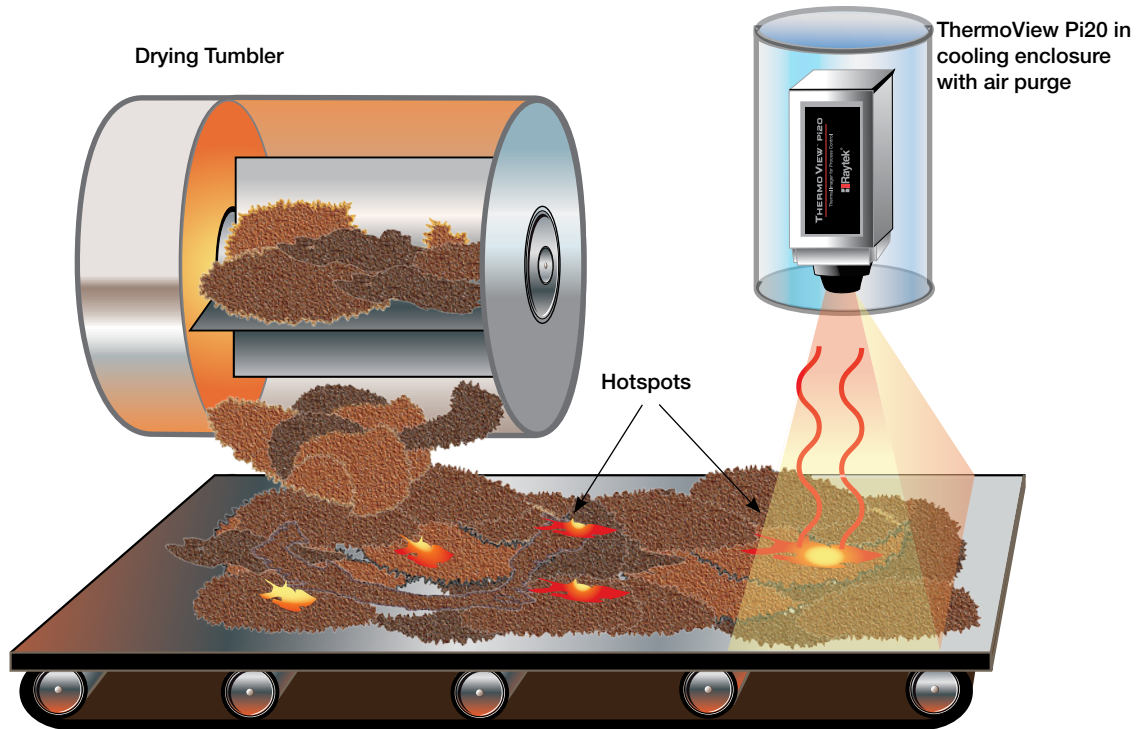


ThermoView™ Pi20

Hotspot Monitoring in Tobacco Drying



Thermal Imaging for Industrial Applications

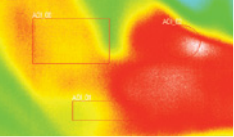


Our Solution

- Raytek® ThermoView™ Pi20 High Performance Thermal Imager with protective enclosure/air purge and DataTemp® DTPi Software

Benefits

- Reduced waste from improperly dried tobacco
- Prevention of fires caused by smoldering tobacco stored in bunkers
- Labor savings with fixed, automated thermal imaging
- Paperless recording and data storage

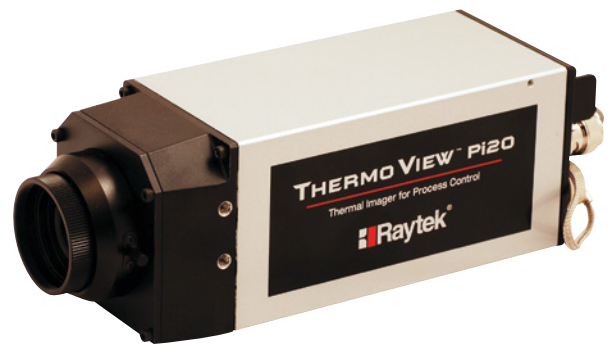


When making cigarettes, the tobacco industry blends several kinds of tobacco and chemicals to create the unique taste and smell that is characteristic of the different cigarette brands. The cut tobacco, known as "RAG", is placed in a large drying tumbler to lower its moisture content. The tobacco is heated to approximately 200°C (392°F). Temperature is critical to the manufacturing process. If the temperature is too low, then the tobacco is too moist and cannot be properly used in the production of the cigarette. Overheating can actually cause the tobacco to begin to burn.

As the tobacco is emptied from the drying tumbler on to a conveyor belt, there are often large clumps of tobacco that can be as hot as 150-200°C (300-400°F). While they are not hot enough for the human eye to see any glowing tobacco, they are actually smoldering or on fire in many cases. These clumps can be as small as 25 to 50 mm (1 to 2 inches) in diameter and can be located anywhere on the conveyor belt, which is up to 900 mm (36 inches) in width. If this burning tobacco is allowed to move through the process in its current state, it will be loaded into storage bunkers and result in fires. The goal is to detect these burning clumps as they travel along the conveyor and remove them from the belt before they can be loaded and stored. If the clumps are not detected at this point, fires are created which requires sprinklers to be activated to extinguish the fire. The water from

the sprinklers destroys the tobacco. The cost of lost production of tobacco can be quite sizable (2.5 Million tons = ~10.000 €). A tobacco plant in the U.S. gets about 60 to 90 alarms a week for hot clumps. It is also important to determine why this problem is occurring, so it can be prevented in future production runs.

The detection of these hot clumps can be effectively achieved using the Raytek® ThermoView™ Pi20 thermal imager. The camera can be set up to view the entire width of the conveyor and easily detect hot clumps as small as 25 mm (1 inch) in diameter and provide an alarm to indicate the presence of this defect. In addition, the thermal imager can also provide a continuous temperature of the entire width of the conveyor for controlling or recording purposes. Thus, the thermal imager can provide two important process monitoring services at the same time.



The Worldwide Leader in Noncontact Temperature Measurement

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