

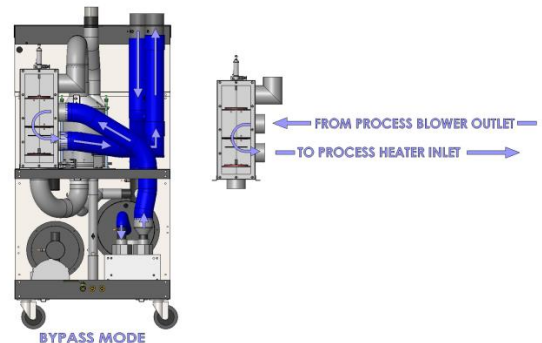
Use Thermal+ To Properly Dry Finicky Resins Press-Side

In recent years, processors have been inundated with versions of resins with which they have no previous experience. If they are not dried to the required specifications the molded products produced are subject to rejection due to stringent quality control requirements or they fail prematurely in the field. Either way, the processor loses valuable production time, expected profits and/or gets a black eye for not producing quality product.

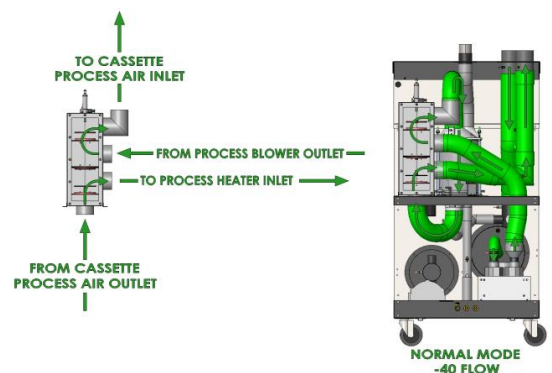
The new requirements that are facing processors has driven Novatec to introduce Thermal+ for press-side dryers which enables molders to participate in projects that require these specialized materials. Having the confidence that these technologies, from Novatec, will ensure success with these new materials should encourage more processors to take on new business. Novatec Inc., Baltimore (novatec.com), will debut these technologies May 7-11 in Orlando, Fla. at NPE 2018.

Thermal+ and OverDry Protection have been adapted to the Novatec line of NovaWheel Dry/Convey press-side dryers. These technologies are much more effective and advanced in comparison to features like dew point control and temperature setback, available from others. Thermal+ and OverDry Protection are both designed to ensure that the dryer automatically responds to changes in resin moisture and ambient conditions that can lead to improperly dried resins. They have features that eliminate the possibility of over-drying nylons and other sensitive engineered resins. Plus, the technology controls the drying temperature of drying resin to limit or eliminate the possibility of discoloration or polymer breakdown in thermally or visually sensitive resins like PC, PET, ABS and other translucent and colored resins.

Novatec's Thermal + uses valves in the dryer and a dew point measurement out of the drying hopper to determine if moisture is being pulled from the resin, or if the resin is already dried to the appropriate moisture level. If the resin is already dry, the blower loop will exclude the desiccant wheel and recirculate and heat without using -40° F/C air.



If, however, the moisture monitor in the hopper outlet senses that the resin requires additional drying at any point, dry air is introduced into the loop automatically, and then the desiccant wheel is again bypassed automatically when the desired dryness is achieved. Each resin can have a recipe that ensures proper resin moisture always.



This is significantly different from running the dryer at a fixed dew point other than -40° F/C, where operators must first determine that they need to start the dew point change and then figure out—mostly through trial and error—what change is required. By doing this procedure manually, operators will wind up making many bad parts first and then experiment on what they need to do to correct the issue. Moisture Manager makes the adjustments automatically.

When the OverDry feature is activated, the dryer will automatically adjust the drying set point parameters to manage the drying temperature correctly based on an algorithm in the control program. Once the operator inputs the desired drying temperature, the dryer control takes it from there, determining the appropriate hopper exit temperature at which the drying temperature should be reduced, and find, automatically, the temperature that gives the proper temperature profile in the hopper. No further intervention is necessary, and the dryer will automatically adjust and maintain the temperatures to have a consistent drying temperature profile.

In cases where operators change a gylord or resin source—and the resin temperature or moisture is different from the previous—the dryer control automatically adjusts to maintain the temperature profile.

Other dryer manufactures offer a “temperature-setback” feature that requires operators to determine how much the drying temperature should be reduced – and for how long... a hit and miss proposition. OverDry Protection is a completely automated control process that takes the guess-work and human intervention (human error) out of the process. OverDry Protection is already a standard feature on Novatec’s NovaWheel portable dryers. Thermal+ will be available as an option starting in May of 2018.

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