CASE STUDY

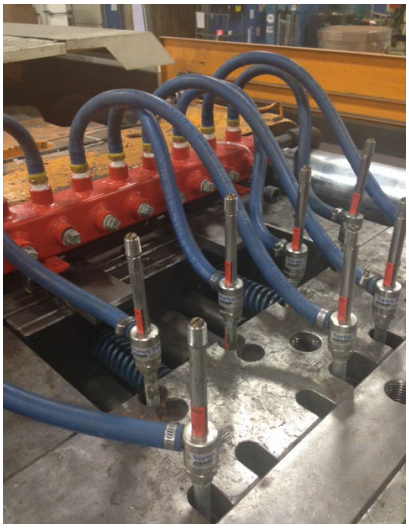
1564

APPLICATION GOAL

This customer operates injection molding machines that have integral cooling passages that use chilled water to cool the freshly molded parts. These systems were always maintenance intensive – fixing leaks, wiping up condensation “sweating” off the piping, etc.

BEFORE EXAIR

As the machines age, small cracks develop in the chill lines, allowing water to leak into the mold cavities. The machinery cannot be operated with any water at all leaking into the mold cavities, as this ruins the product, and there was no permanent repair…the machinery would have to be completely overhauled at a cost of **$20,000.00 per machine**.



AFTER EXAIR

After experimenting with several Vortex Tubes to determine the amount of cold air flow necessary, they found that by installing (8) **Model 3240 Medium Vortex Tubes** (2,800 Btu/hr; Maximum Cooling Power) into the existing chill lines at strategic points as shown above, they could replicate the cooling provided by the chilled water.

SUMMARY:

Since the original outfitting of one injection molding machine in the summer of 2015, the customer has installed another set of (8) **Model 3240 Vortex Tubes** on another machine which had developed leaks in the chilled water system. After accounting for the cost of the compressed air usage, the Vortex Tubes will save them over **$20,000.00** this year, for these two machines, by avoiding the expensive overhaul.

EXAIR LLC • 11510 GOLDCOAST DR • CINCINNATI, OH 45249

(513) 671-3322 • (800) 903-9247 • TECHELP@EXAIR.COM • EXAIR.COM