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THE DISCONTINUATION OF EPOXY-GLUED BLADE JOINTS

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Epoxy-glued blade joints will be discontinued as a reinforcement feature in 2020 due to its low effectiveness in high-speed applications as well as its extremely high costs. All products currently using epoxy glue will be replaced with reduced-rate products that have equivalent speed ratings. Customers currently using epoxy-glued products are encouraged to use the supplemental products. Customers that want to continue using epoxy products are required to request quotes stating it specifically as a requirement. Increased costs and additional setup fees will apply.

BACKGROUND

Epoxy-glued blade joints were introduced in the early 1980's as a common reinforcement feature at Jan-Air. The feature was usually sold for high-speed or high-vibration applications when the impeller design was already at the limits of its ultimate strength. In nearly all cases, epoxy was added in addition to other more effective design features, and the effectiveness of the epoxy alone was not well documented. For much of the time thereafter, the epoxy glue was thought to be an economical solution for high-speed applications. Today, the epoxy glue has inflated in cost faster than any other resource used by Jan-Air, and it's been shown to have no added benefit for high-speed applications.

NEW FINDINGS USING DESTRUCTIVE TESTING – EPOXY NOT USEFUL FOR HIGH-SPEEDS!

In 2016, Jan-Air invested in several rounds of destructive testing to help in understanding the usefulness of certain design features. One segment of the destructive testing compared non-epoxied joints to epoxied joints on three sets of mild steel impellers of varying sizes from Jan-Air's F-Series. Two of the three epoxied items failed at a slower speed than the items without epoxied joints, and the third comparison showed little to no improvement.

ALTERNATE REINFORCEMENTS FOR FATIGUE RESISTANCE

Jan-Air uses alternate and more reliable methods to avoid vibration fatigue. Options such as peripheral rings, welded blades, or the use of high-strength materials are far more effective in reducing stresses in parts as compared to the addition of epoxied blade joints. Furthermore, finite element analysis is used to ensure parts do not exceed the fatigue design strength of the material being used. Together, new design technologies and alternate reinforcements with proven levels of effectiveness can be used to eliminate the use of epoxied-joints for high-vibration applications.

AVOIDING HAZARDOUS CHEMICALS

Employee and customer health are the upmost importance to Jan-Air. The epoxy glue is hazardous to the touch and very dangerous for eye exposure during application. It also requires curing in an oven and application with a hypodermic needle. Discontinuing this process is an essential step in eliminating hazardous working conditions due to the application of the epoxy glue as well as reducing the environmental threats caused by the production process.

REMAINING COMPETITIVE

Jan-Air strives to offer the most completive pricing for industrial blowers and component parts available. With the discontinuation of this feature, Jan-Air wants to pass the savings on to our customers. Alternative products will be offered at a discount from the original cost, AND they will hold the same speed ratings as well as Jan-Air's standard 1-year warranty. Discounted pricing on updated products will be supplied along with this notification when applicable.