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My lesson learned the hard way: Cheap capacitors = “you get what you paid for”

By

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I've learned a hard lesson at the expense of an inexpensive component: the capacitor. My aggravation started four or five years ago. I was getting foreign-made capacitors from my distributor, and they started failing at a high rate, very early. In fact, we were seeing a 35% failure rate before the caps were even 18 months old.

It has become so bad that we now just change out the capacitor whenever we service a compressor or fan motor; we only leave the old one in if it is more than a few years old, because it will probably last longer than a new one.

We have also noticed that some of the capacitors were measuring a different microfarad rating out-of-the-box than what was on the label. That has been a red flag to me as well, and has made me question quality and performance of these capacitors.

Unfortunately for me, a failure within 18 months is on me. Even though it's covered by warranty, these capacitors are so cheap that we just throw them away rather than process a warranty. Once I figure in the labor costs to cover the added service calls, using these cheap capacitors is actually costing me more than if I used more expensive capacitors in the first place.

The largest cost by far has been the loss of customer goodwill from an unreliable repair. The aforementioned product costs notwithstanding, this loss of customer esteem and the potentially damaging effects of the cost of service calls on cheap products prompted my search for a better product. Unfortunately, every vendor I have tried has had the same problems.

This spring, I read an article in an HVAC magazine and requested information from Genteq. AJ Colone, Genteq's capacitors team leader, spent some time explaining the EIA-456 standards that all capacitors have to comply with. He said that some manufacturers cut corners on material quality and manufacturing processes so that, even though capacitors pass the EIA-456 standards out of the box, they don't last. The poor quality of materials in cheap capacitors greatly reduces their life. The key, he said, is to only buy capacitors from respected manufacturers that will work with you and are happy to show you their test data.

I've learned an expensive lesson about cutting corners on inexpensive parts, and am now investing a few more dollars for quality capacitors that will work better in the long run and protect my reputation for doing quality work.

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