

PODCAST EPISODE TRANSCRIPTION

Episode Summary:

In this episode Tom Bailey and Jim Jacoby (VP of Technology at Tri-Sen) discuss the usefulness of an automated anti-surge valve partial stroke test as part of a compressor controls solution.

Tom: Hi, and welcome to the Turbomachinery Controls Podcast where we'll be informally discussing turbomachinery controls and turbine safety-related questions and topics. Opinions expressed here are our own and not necessarily those of Tri-Sen. I'm Tom and I'm with Jim Jacoby, Vice President of Technology here at Tri-Sen.

Jim: Hey, Tom.

Tom: Hey, Jim.

In this episode of the podcast, we're going to be tackling a question asked by our Asia Pacific Sales team. What they asked was "how about anti-surge valve partial stroke testing," and they said that "another solutions provider has it, why don't we?"

As Vice President of Technology, Jim, why don't we have anti-surge valve partial stroke testing?

Jim: Well, it is not like we don't have it. We can provide it, and have on other [types of] projects. In the safety world that's something that you see a lot of and customers will take care of it using their smart valve positioners. That feature is built in to the positioner. They can program how far it opens, when to activate it, things like that. It doesn't really impact the control system that much.

Now, on an anti-surge valve though, opening up the recycle valve periodically is not without consequences. In general, surge valves are considerably larger than you need for just the normal operation to keep the machine from surging. They are sized to prevent surge during the shut-down. Which is the toughest part of the service for that valve and it tends to make the valve one and a half or two times bigger than it normally would be. Opening the valve, say 5%, is going to have some impact on the operation of the process. If that [application] is a refrigeration compressor for instance, it is going to warm up the inlet. If you're going to stroke it, it would need to be pretty quick and it is probably not something that customers want to do a lot.

In general, to partial stroke test an anti-surge valve, the operators would just do it using the normal mechanisms that they would use to open the valve when they are normally operating. Almost any anti-surge control system provider has a high select of some type that allows the operator to open the valve more than the anti-surge controller is asking for. It is that simple, they use that function all the time in managing their system. To open the valve 5% and then close it and monitor what happened is not hard for them to do. Automating it is, in general, something that most of our customers don't really care about, it has no value.

Tom: Yes, right. I guess maybe it is just this side of solutionism? You've got a way to do it and so you put it in a brochure... and actually people just typically don't use it... is that your experience? If they just want to move the valve, they move the valve.

Jim: That's right. Adding something in - that you actually called a partial stroke test - it's a pretty trivial thing to add to the logic in our controllers. So, you maybe have a discrete input, it [the controller] would have a predetermined amount [to open the valve] the valve opens and then closes it. In general, if you don't have some type of a valve position feedback, like from a smart positioner, it is going to be hard to automate anyway. You would need to have an operator out in the field watching--

Tom: Yeah, how far did it go [monitor opening]...

Jim: That's why, in general, if somebody wants to have partial stroke testing on an anti-surge valve, they will just use the traditional type of partial stroke testing. They just use their asset management software to do that.

Tom: And I guess the idea behind doing a partial stroke test is that your valve has been closed for a long, long time and you are just making sure that if you had to open it, it could open.

Jim: Right. In general, I say in general a lot, it is not a high value solution in this application.



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Tom: Okay, so our friends in Asia-Pacific, Tri-Sen friends at Asia-Pacific. There is your answer.

That's it for this episode.

Drop us an email at turbomachinerycontrols@tri-sen.com, and let us know what you got on your mind.

Thanks for listening. We'll see you next time.

[END]