



TELEDYNE INSTRUMENTS

Advanced Pollution Instrumentation

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Service Note

95-040 Rev C
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TO ALL MINI-HICON CUSTOMERS/USERS PART # 1185XX

The API Internal Mini-Hicon is a stainless steel thermal oxidizer that typically runs at 650°C and converts NO₂ to NO. The mini-hicon is used typically in CEM systems where there is less than 100 ppm of NO₂ and converter efficiencies of 85% are acceptable.

We have been getting Mini-Hicons back from the field that are plugged (no flow through them). After analysis of the failure modes, we have determined that “plugging” of the mini-hicon is typically related to the process being sampled. The failure mode, in some cases, has been a plug of “green” stuff, very acidic, and approximately 1 1/2” from the inlet end of the 1/8” tubing just where the gas begins heating. The green stuff appears to be due to water carryover from the sample conditioner.

If your mini-hicon does plug up, there is a problem with your sample conditioner/system. You should improve the sample preparation regarding water and particulate removal. As always, we are prepared to assist you in determining the cause but we cannot cover this failure under warranty.

WE CANNOT WARRANTY MINI-HICONS THAT FAIL DUE TO PLUGGING.

But in the event of a failure or repeated failures, you can:

1. Purchase a new mini-Hicon.
2. Send the old one in for unplugging and cleaning (this takes approximately two weeks) and will be done for a nominal fee.
3. If your application warrants, a 501 converter may be the better replacement converter to use. The 501 is a superior thermal oxidizer that has a large 3/8” stainless steel tube, which can be changed quickly and economically in the field. The 501 converts up to 250 ppm of NO₂ at > 98% efficiency.

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