

If Fused Insert Autosampler Vials Break During Injection - Tips and Suggestions

Date: 18-SEPTEMBER-2014 Last Update: 9-NOVEMBER-2025

When injecting samples using Fused Insert glass vials, the needle could hit the insert wall, causing the insert to break. This could be due to Inserts not being properly aligned, vertically.

However, this problem is more likely due to the *needle* not being properly aligned vertically; this can occur for a number of reasons, which may include:

- Too large of a needle gauge being used. If the gauge is too high, the needle may be too thin and more easily deflected and bent
- Tip style is incorrect for the septa (i.e. beveled vs. flat tip).
- Septa hardness and / or inconsistency bends or deflects the needle. Use partial slit or [Soft-Guard Brand Septa](#) in this case.
- Use wide opening vials with a Fused Insert. Here the needle is less likely to hit the side because there is more room.



Examples of Wide Mouth Fused Insert Vials

Other possible causes:

- Reset the datum indexer on the autosampler. This is the “zero home” or similar function in the autosampler software.
- The needle may be over driven into the bottom of the insert, causing it to break. Reset the travel depth of the needle.

[Inserts Product Page](#)

Printed from the Chrom Resource Center

Copyright 2025, All Rights Apply

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

Tel: (732) 380-8900

Fax: (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com