KIMRAY INC.®

PRODUCT NOTICE

February 6, 2023

RIGID STAINLESS-STEEL TUBING STRONGLY RECOMMENDED FOR SUPPLY LINES

This product notice is to inform you that we strongly recommend using Rigid Stainless-Steel Tubing for pneumatic instrument supply.

Kimray uses rigid stainless tubing for all end-item assemblies and build-up packages to ensure high quality and durability. This tubing material is also highly compatible with the wide temperatures, pressures, and media our products encounter.

There are many different types of flexible braided hose in the market today. While some of them may be suitable for certain applications, we believe there are significant risks.

Here are 4 key things to consider before using flexible braided hose:

- Any "soft core" (rubber, PTFE, etc.) hose will have some level of permeability when used in gas applications, making it less conducive to emissions reduction initiatives.
- Any "metal core" hose would be the only flexible hose option considered safe to use in gas applications, but they have a greater bend radius requirement (less flexibility), making them harder to use in shorter lengths.
- Braided hoses are considered "consumable" and are far less structurally sound compared to stainless steel tubing.
- Hose end connections are more prone to premature failure than tubing/fitting connections and can pose significant HSE risk if they do fail (the hose can become a "whip" if disconnected while pressure is being applied).

For these reasons, we believe using flexible hoses exposes producers to unnecessary safety, environmental, and quality risks.

Because of this, we strongly discourage the use of flexible hosing and strongly encourage the use of rigid stainless-steel tubing for these applications.

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