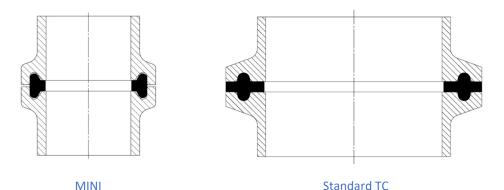


Tabbed (MINI) Orifice Plate PTFE

As a manufacturer of critical components for fluid handling systems we are constantly seeking for innovative solutions to improve existing product lines. This time we are introducing an improvement on our Mini Tabbed Orifice Plates with PTFE seal.

The Problem

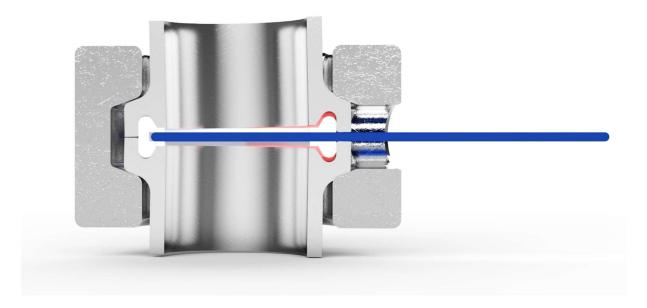
The MINI series of ferrules and gaskets have a different shape than the standard Tri-Clover seals. The MINI ferrule has a shape that partially capsulate the gasket leaving a very small gap between the two ferrules. This gap closes further when the clamp is tightened.



A metal-to-metal contact is almost inevitable. This leaves very little space for a Tabbed Orifice plate.

The metal Tab is typically 1,00 mm thick (*blue line in the illustration below*)

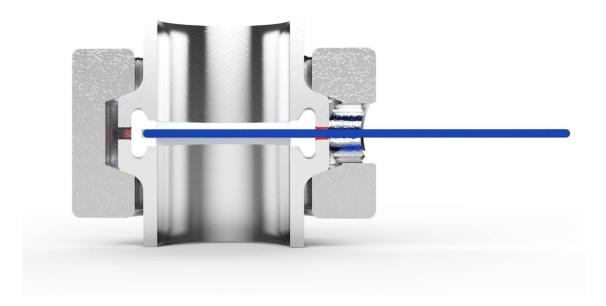
In the illustration we show a standard Tabbed Orifice plate with PTFE gasket and a clear view of the interference of the Tab with the ferrule causing the ferrule to tilt. In this situation the small shift can cause leakage at the point of the tab. The gasket loses its ability to seal as it can no longer be compressed.



The Solution

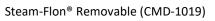
To prevent tab interference with the ferrules we increased the thickness of the PTFE gasket. This will allow more space between the tab and the ferrules and therefore no leaks. The gasket can be compressed even after multiple steam cycles, the PTFE will settle after a while. The red area in the illustration below shows the extra room for the gasket to be compressed.

Because we increased the thickness of the gasket we were also required to modify the V-grove inside the Clamp. We recommend to use High Pressure Clamps (MHP) for PTFE Orifice Plates, tabbed and non-tabbed.



The Product

Typical PN : UPA80MPG-075-TAB Recommended Clamp PN : CL-TAB-ORI-050/075-MHP Plate material : 316L + Heat number laser etched Recommended Torque : 2 Nm Gasket material: PTFE (CMD-1028) PTFE Removable (CMD-1028) Steam-Flon® (CMD-1019)





The MINI Tabbed Orifice Plates can be delivered with pre-drilled holes. They are available with fixed PTFE or Steam-Flon[®] gaskets or in a version with a removable gasket. We recommend to apply 2Nm torque for the bolts. Ultrapharma offers a full range of <u>Torque Knobs</u> and extension tools that are helpful at the installation.



Steam-Flon® is a registered trade name of Ultrapharma BV

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