

Case History No. 12 – Tri-Clamp Mesh Vent Filter for Pharma Sector

Date : August 2006
Fluid : air venting from tanks

Requirements:-

The client wanted a permanent stainless steel vent filter for some of their process/water tanks. In the past they had been using encapsulated filters which were proving costly and were over specified for the level of protection required.

Problems to be overcome

It was necessary to provide them with something that was compact and can be cleaned or discarded as required. It was also necessary to ensure that they should be able to mate with a 1 – 1 ½” tri-clamp ferrule on the tanks.

Solution:-

Hall Pyke manufactured a small cylindrical housing with a 1 ½” tri-clamp connection; the ID of the assembly was machined to provide a recess upon which to locate the connection and stainless steel mesh disc. A solid stainless steel cylinder than mates with this recess and compresses the mesh upon closing the tri-clover type clamp.



**Disassembled
Tri-Clamp Unit**



Assembled Tri-Clamp Unit

The mesh used is from G. Bopp & Co. of Zurich and is a Betamesh 15. This is a high flow Hollander mesh which is absolute rated. It has excellent backflush characteristics - the best of all meshes.

These devices can be made in any size up to 3” tri-clamp and any grade of mesh could be used in them.

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