

CAD
CLEAN & ASEPTIC DESIGN



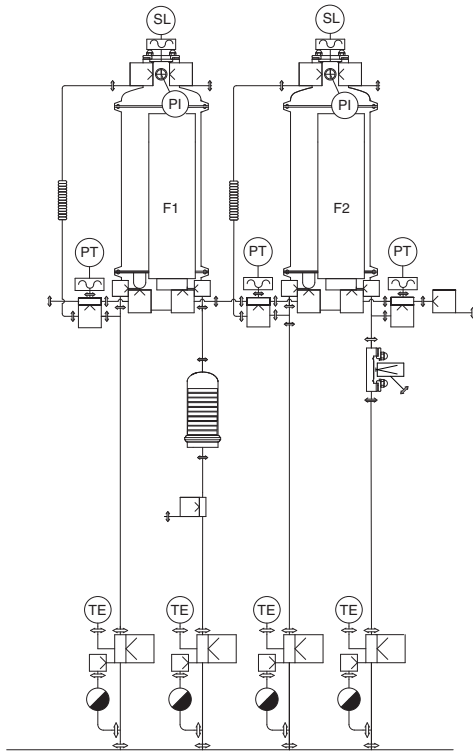
CAD PUPSIT FILTER UNIT

**The Aseptic Revolution
Stop Assembling - Start Integrating**

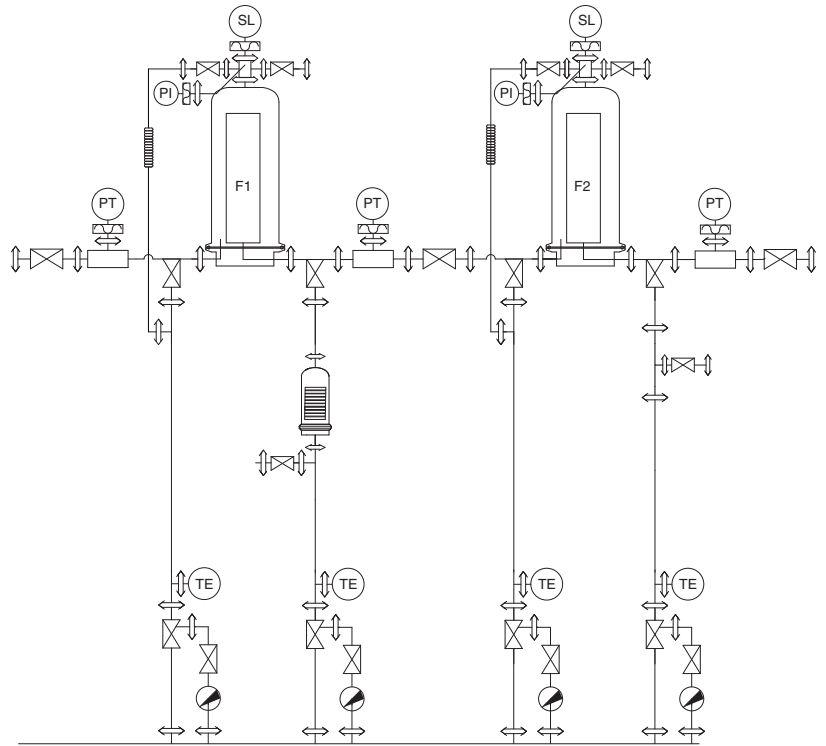
Introducing the CAD PUPSIT Filter Unit
Patented modular filtration system
with fully integrated valve technology

 **RATTINOX**
ASEPTIC EQUIPMENT - DESIGN & SUPPLIER





CAD Filter Unit



Filter Unit

Traditional Filtration Setup: Conventional systems built with external valves and long piping runs occupy a footprint that is no longer acceptable in high-efficiency plants. Every clamp and seal represents a potential failure point, increasing the risk of leakage and creating extensive “dead legs”.

CAD Filter Unit Advantage: By integrating all critical control functions-Inlet/Outlet, Drains, Vent, and Integrity Test-directly into the main body components, the CAD Filter Unit typically cuts the required space in half.

- **50% Footprint Reduction:** Optimized for space-constrained cleanrooms.
- **Enhanced Safety:** Fewer mechanical connections drastically reduce potential leak points.
- **Maximized Recovery:** Minimal internal volumes significantly lower product loss.
- **Simplified PUPSIT:** Native integration enables seamless and sterile Integrity Testing

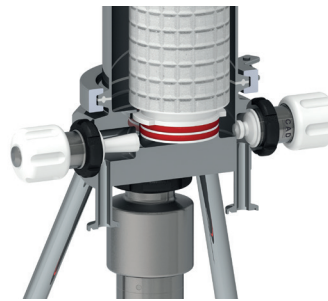
RECLAIMING SPACE AND SAFETY

In modern pharmaceutical facilities, cleanroom production space is “Gold”. Traditional filtration setups—constructed by manually assembling a housing with multiple external valves, gaskets, and long piping runs—occupy a footprint that is no longer acceptable in high-efficiency plants.

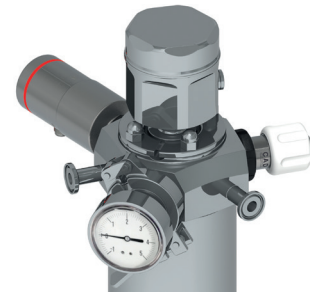
Every single connection, clamp, and seal added to a traditional system represents a potential failure point, increasing the risk of leakage and compromising overall process safety. Moreover, these bulky assemblies create extensive “dead legs” and internal dead volumes that trap expensive product and complicate cleaning.



Standard code 7 bayonet-style cartridge mounting



Upstream and downstream drain valves



Mounting positions for level sensor and pressure sensor or gauge

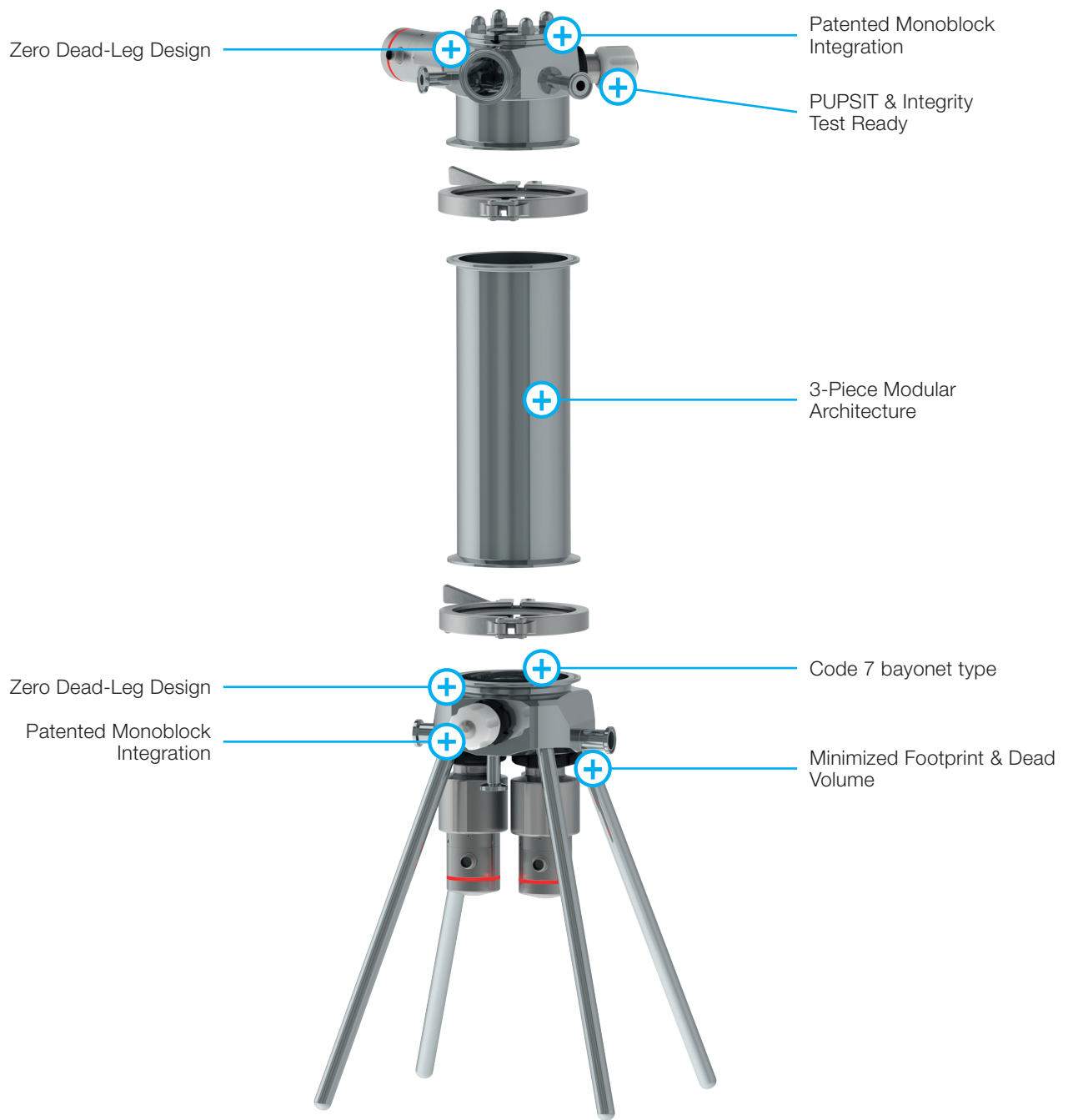
The **CAD Pupsit Filter Unit** solves this by integrating every critical control function directly into the main body components.

By minimizing the footprint and internal volumes, we optimize the entire process:

- **Drastic Footprint Reduction:** Ideal for space-constrained cleanrooms and compact skid designs.
- **Minimal Dead Volume:** Reducing internal volumes significantly lowers product loss, which is vital for high-value biotech fluids.
- **Optimized SIP/CIP:** Smaller internal surfaces and the absence of “unused portions” mean faster sterilization and more efficient cleaning.

Key Advantages:

- **Integrated Control:** Inlet/Outlet, Drains, Vent, and Integrity Test (I.T.) valves are all built into the solid base and top.
- **Zero Dead Legs:** Patented design eliminates asymptotic seals and “unused portions” where contaminants can hide.
- **Patented Design:** Top & Base machined from solid AISI 316L (1.4435 – BN2) stainless steel.



SMART MODULARITY & PUPSIT READY

The 3-Piece Modular Architecture: The CAD Filter Unit features a versatile three-piece architecture (Base, Tube, and Top) that allows you to scale production without replacing the entire unit:

- **Interchangeable Tubes:** Simply swap the intermediate Tube to accommodate different cartridge lengths.
- **Scalability:** Effortlessly adapt for 5", 10", 20" or 30" cartridges.
- **Optimized Inventory:** Manage multiple filtration scales with a single set of Base and Top components.

Ready for PUPSIT (Pre-Use Post-Sterilization Integrity Testing): Compliance with the latest Annex 1 requirements has never been easier. The CAD Filter Unit is designed to facilitate PUPSIT without compromising sterility:

- **In-Situ Testing:** The integrated I.T. and Vent valves allow for integrity testing immediately after SIP, maintaining a fully closed aseptic loop.
- **No Manual Intervention:** Reduce the risk of "false failures" or contamination during the test phase.

Fully Configurable Controls: Tailor every integrated valve (Inlet, Outlet, Drains, Vent and Integrity Test) to your automation needs:

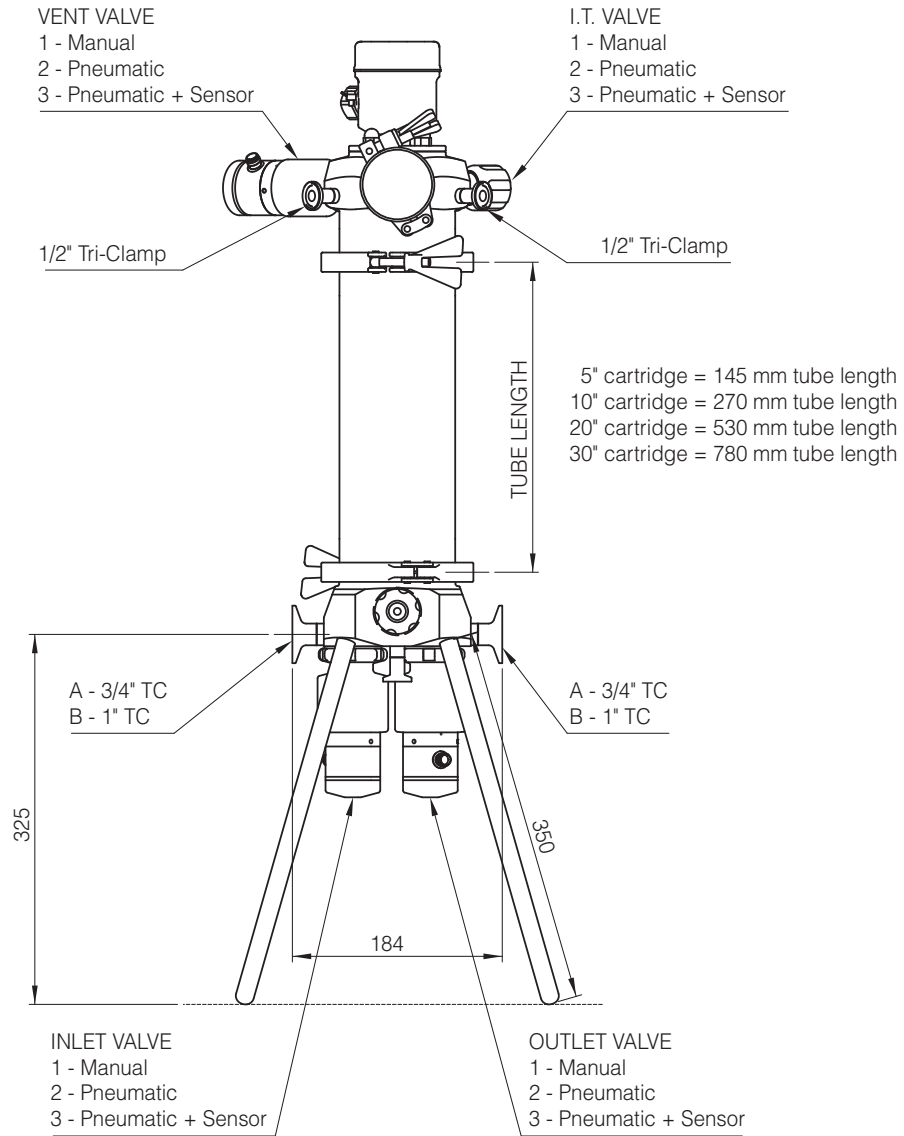
- 1. Manual:** For simple, reliable operation.
- 2. Pneumatic:** For automated system integration.
- 3. Pneumatic + Sensor:** For full process validation and real-time feedback.

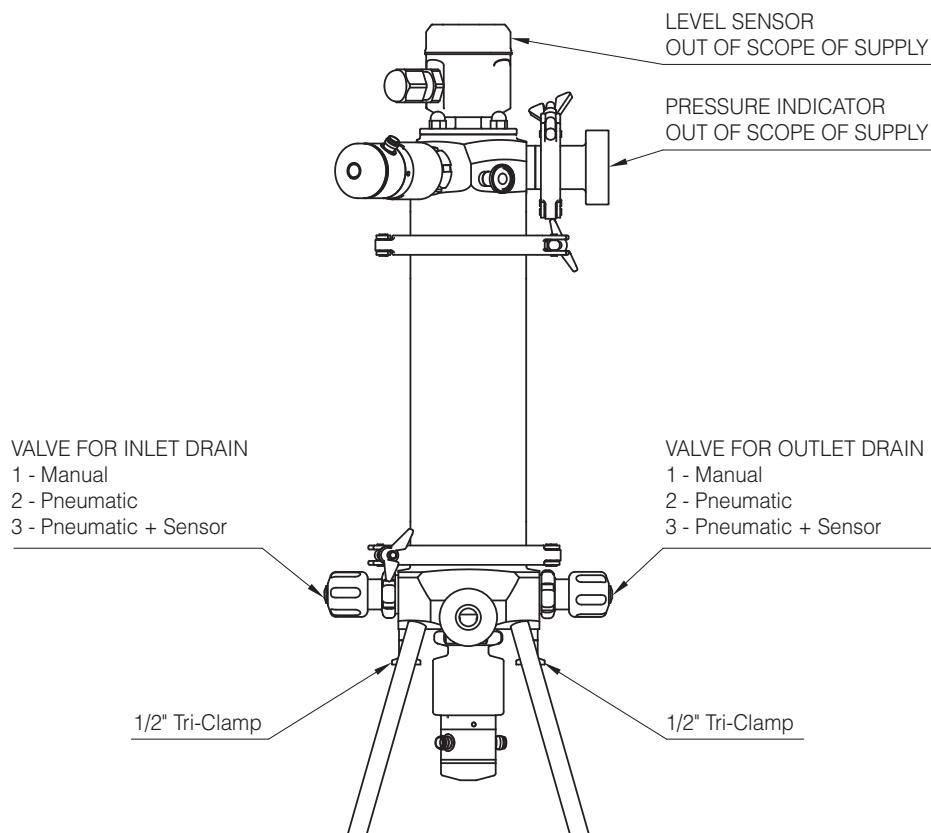
Technical Specifications: Materials: High-grade AISI 316L (1.4435-BN2) and PTFE.

- **Finish:** Electropolished with controlled roughness for pharmaceutical standards.
- **Main Connections:** Tri-Clamp options 3/4" or 1".
- **Service Ports:** Dedicated connections for Integrity Testing (I.T.) and Venting.
- **Compliance:** Fully designed for FDA, USP, ASME BPE and ASTM 55 Clean by Design.

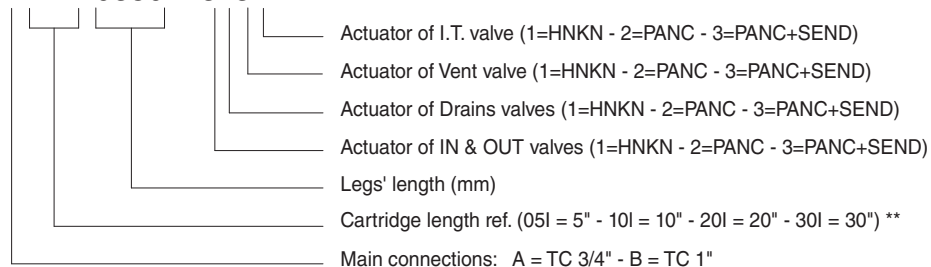


TECHNICAL SPECIFICATIONS





CADFB-###-0350-P3131



** Hash characters in the filter code must be replaced with the required cartridge length reference



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