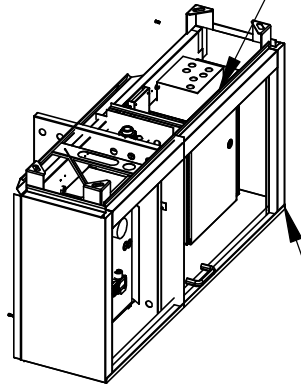


Fire System Tank and Actuator Installation

The Pollution Control Unit, Model PCU Series, is suitable for both indoor and outdoor installations. The PCU Series includes a pre-piped Ansul R-102 Fire System; size of the system and number of flow points vary depending on size selected. Below is general information on installation for the fire system tanks and actuator.



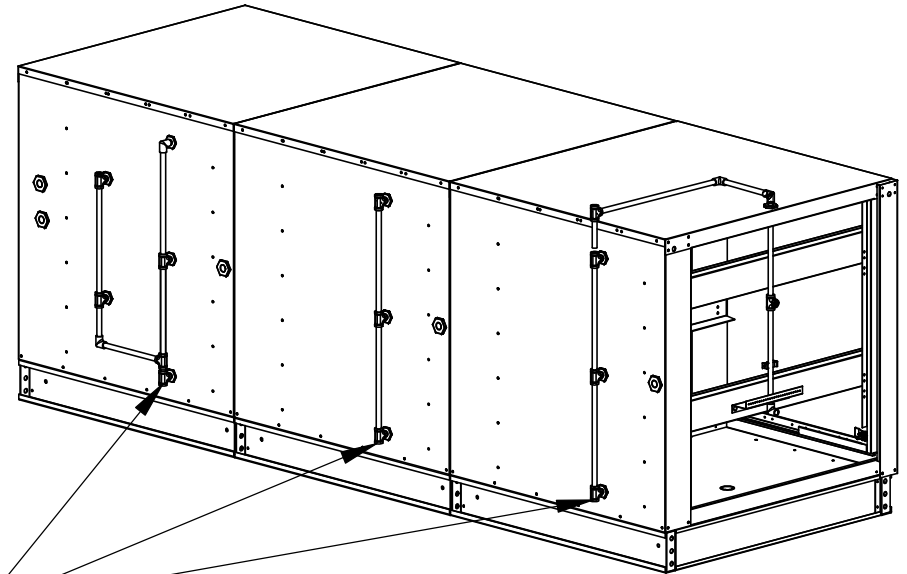
The Ansul regulated release mechanism in the Pollution Control Unit is required to be activated when the hood fire system is activated. This is to prevent the Pollution Control System from being ignited from the heat.

However, if the Pollution Control unit fire system is activated, the hood fire system does not need to activate.

The distance between the Ansul agent tanks and the PCU can only be less than the following conditions.

- 6 feet in a vertical direction.
- 20 feet in any horizontal direction.
- 8 direction changes (elbows) in 3/8" line leading to the PCU

These are the standard limitations for an Ansul fire system sized to support a maximum of 33 flow points.



For PCU installed outdoors, consider the following requirements:

- The agent used in the fire system should be kept from freezing and extremely high temperatures.
- With outdoor installation, the regulated release and agent tanks are to be located inside the space, directly under the PCU.
- Alternatively, a small structure can be constructed to contain all of the fire system equipment if distance is greater than the conditions as stated above. It is recommended to heat this structure if external temperatures drop below 32°F.

Pollution Control Unit Clearances.

- Top, 18" to combustibles.
- Back (opposite side of doors), 18" to combustibles.
- Base, 18" to combustibles.
- Doors, 26" for filter maintenance.

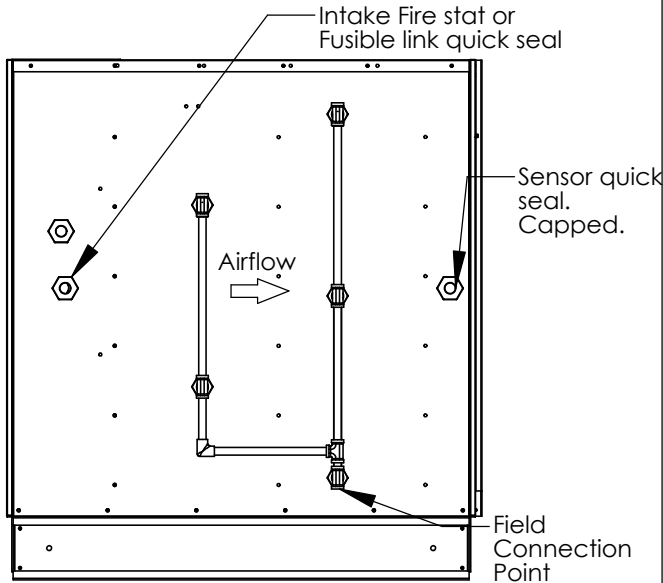
Clearances can be reduced by using an insulation system designed for kitchen effluent ductwork.

Fire System Installation

The PCU Series includes a pre-piped Ansul R-102 Fire System; size of the system and number of flow points vary depending on size selected. The pictures below show the plumbing configuration per module; the plumbing will always be located on the opposite side of the access doors. The nozzles offer coverage across each V bank configuration as well as duct and plenum protection. PreFilter or High Efficiency module can be the first module. High Efficiency or HEPA filter module can be the centre filter module. Odor control filter can be treated as the centre or last filter module based on number of PCU modules selected. All plumbing and fittings will be stainless steel. All threads will use Teflon tape for sealing per the Ansul installation documentation.

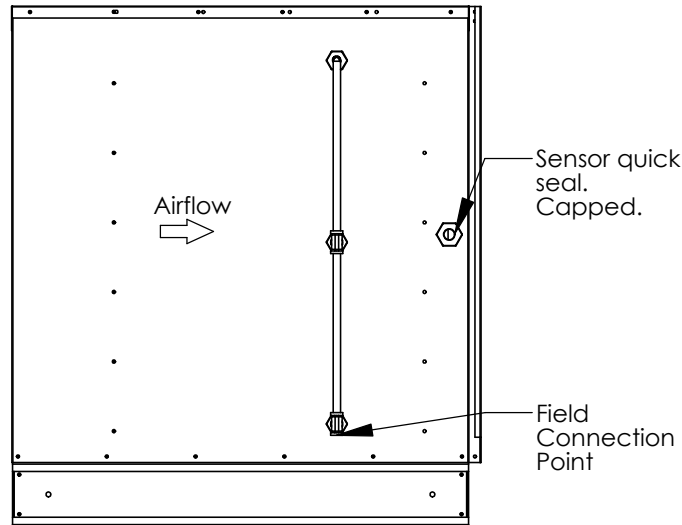
All airflow is from Left to Right.

First filter Section



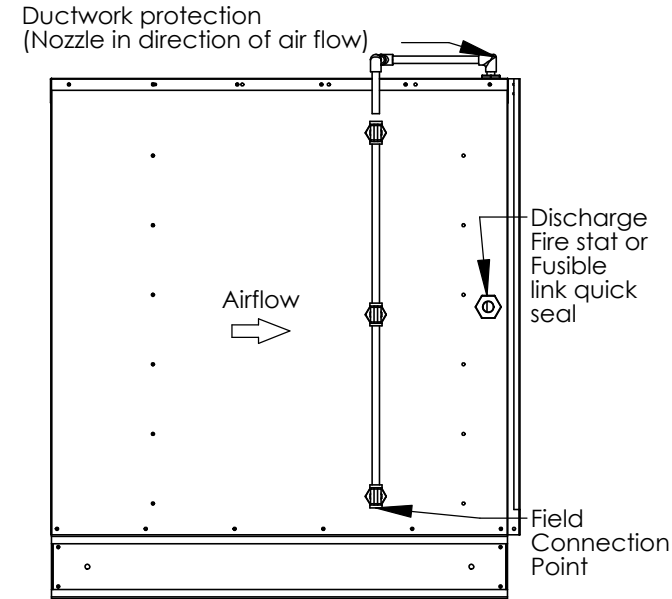
Standard Intake section fire system. Field connection point is capped to prevent debris from entering the system during shipping.

Center Filter Section(s)



View of the standard center section. Field connection point is capped to prevent debris from entering the system during shipping.

Last Filter Section



Last filter section. Ductwork and fan protection penetrates through the top of the unit. See chart below. Field connection point is capped to prevent debris from entering the system during shipping.

All Nozzles inserted into the side are 1W.

All Nozzles inserted from the top are 2W.

All 3/8" quick seals have a 1 3/8"(close) pipe nipple attached to the inside of the unit. The nozzle is threaded onto this pipe nipple.

Fire System per Unit				
Unit Size	First filter Nozzles (1W)	Center Nozzles (1W)	Final Nozzles (1W)	Ductwork Nozzles (2W)
1	4	2	2	1
2	4	2	2	2
3	5	3	3	2
4	6	3	3	4
5	7	4	4	4
6	7	4	4	4

Electric Fire Detection Sensor Installation

The Electric Fire Detection is one of two options for pre-piped fire systems for the PCU. The electric fire detection includes a sensor preset to trigger the fire system if the temperature in the duct reaches or exceeds 360 degrees. If the PCU Series Model ends in REFS, example PCU-PF-HE-OC-REFS, then the electric fire detection is installed on the unit. The sensor used to detect fire is from Fenwal and there should be no thread sealant on the sensor.

Sensor Exploded View

Below is an exploded view of the electric detection installed in a Pollution Control Unit. The parts listed below are provided with the unit with electric detection.

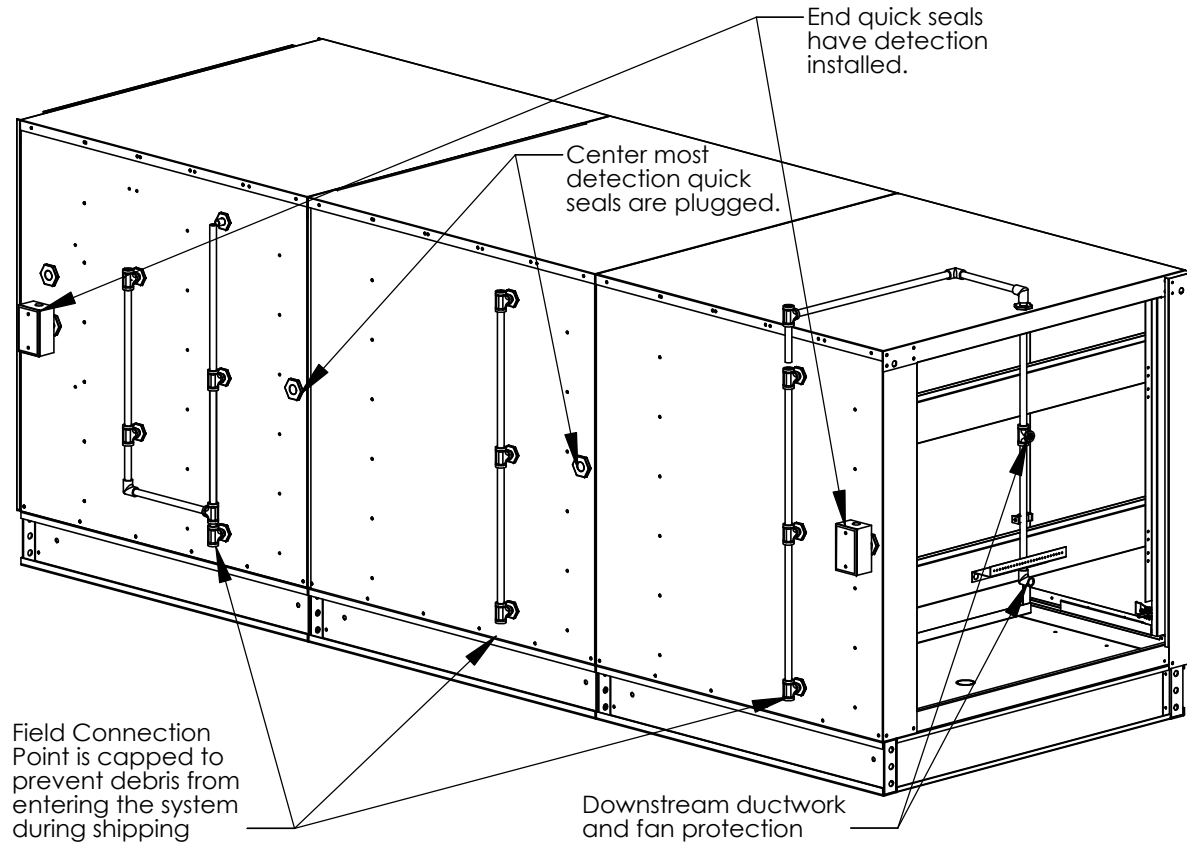
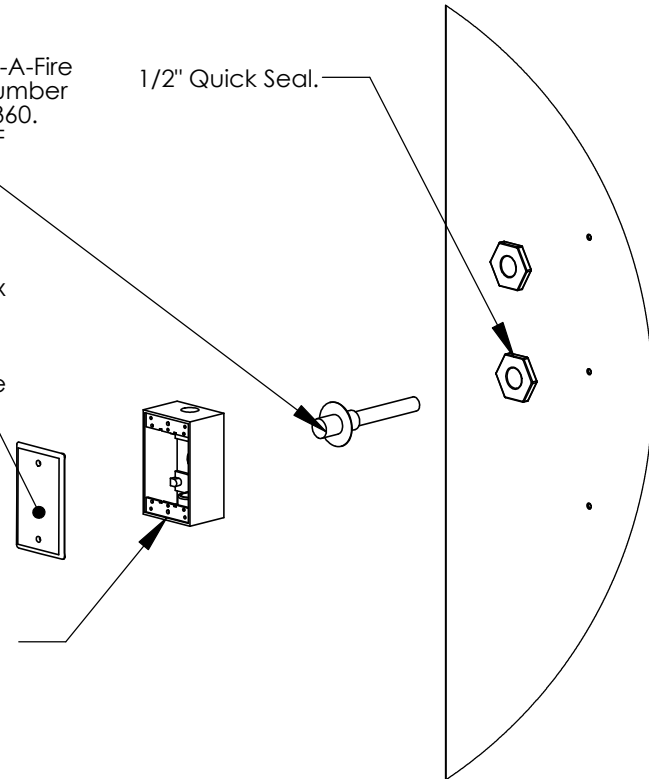
Fenwal Detect-A-Fire Sensor. Part number 12-F28021-000360. Preset for 360°F operation

1/2" Quick Seal.

Liquid Tight Box Cover.

The supplied gasket must be installed.

Liquid Tight Junction Box



Mechanical Fire Detection Sensor Installation

The Mechanical Fire Detection is one of two options for pre-piped fire systems for the PCU. The mechanical fire detection includes a detection bracket and fusible links. When a fire is detected, the fusible link separates and allows the fire system to activate. If the PCU Series Model ends in RMFS, example PCU-PF-HE-OC-RMFS, then the mechanical fire detection is installed on the unit. Scissor linkage and the fusible links are shipped with the unit in secure place to prevent loss in shipping

Detection Exploded View

Below is an exploded view of the mechanical detection installed in a Pollution Control Unit. The parts listed below are provided with the unit with mechanical detection.

