

PENGUIN

Installation & Maintenance

SERIES 4C FILTER CHAMBERS

4C-A CPVC
4C-B Polypropylene
4C-C PVDF



4C-A CPVC



4C-B Polypropylene



4C-C PVDF

Introduction

Penguin filter chambers are designed to handle a large range of chemicals without difficulty. Completely constructed of CPVC, polypropylene or PVDF and viton elastomers where in contact with the solution being filtered, there is no fragile lucite or glass. There are no springs, no crushed tubes, and no metal to liquid contact. Because of the unique tube chamber design, these chambers can accept various filter tube lengths, carbon tubes as well as specially adapted chambers for sub-micron filters. All filter chambers have been tested for leakage before leaving the factory. To obtain optimum service life, please follow all installation and operation instructions.

Installation

Plumbing

Model 4C filter chambers must be mounted vertically with the screwed head at the top. The inlet and outlet ports are 1" FPT. They can accept hose connections or standard pipe fittings if rigid piping is desired. If purchased as a separate unit of a complete filter system, 4C filter chambers can be mounted singularly or base-mounted with pump on the floor. All chambers purchased as systems include hoses, fittings, and clamps.

Operation

Tube Exchange

Each 4C filter chamber is equipped with one initial 15 micron filter tube or carbon tube if the chamber is purchased as a Model 4CT. Sub-micron chambers are not supplied with initial tubes. Following are filter tube lengths:

Model	No. of tubes	Length of Tube
4C-1	1	10"
4C-2	1	20"
4C-3	1	30"

Additional filter tubes in various micron ratings are available. Consult the factory for stock item.

There is no set timeable for filter tube replacement. The frequency of tube replacement varies based on type of solution, if continuous operation, filter tube micron porosity as well as practical size and distribution. As a helpful guide, an optional pressure gauge and guard can be supplied to help determine differential pressure between clean tubes versus those in need of replacement. (See maintenance for filter tube replacement instructions). The gauge/guard should not be installed directly onto the chamber lid, for it will be prone to breakage when removing the lid for cartridge replacement. We suggest that a tee fitting be attached directly to the chamber inlet, outlet, or both, with the gauge/guard attaching on the middle tee hole in a vertical position. An optional air vent valve can also be supplied to vent any entrapped air from the inside of the chamber.

Series 4C Filter Chambers

Installation & Maintenance

All Penguin 4C filter chambers can be used for carbon treating. Carbon tubes are available in multiple tube lengths. Consult the factory for stock items.

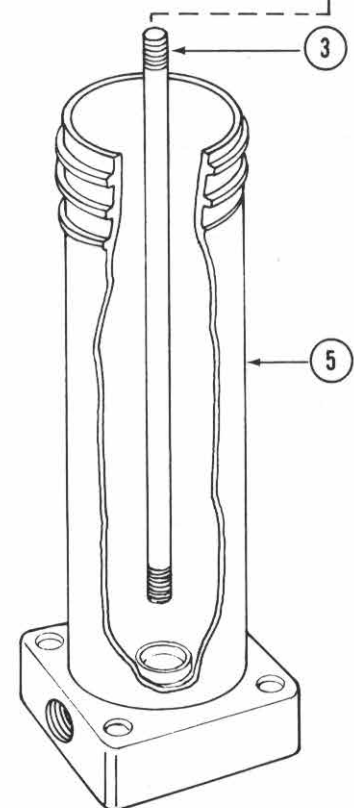
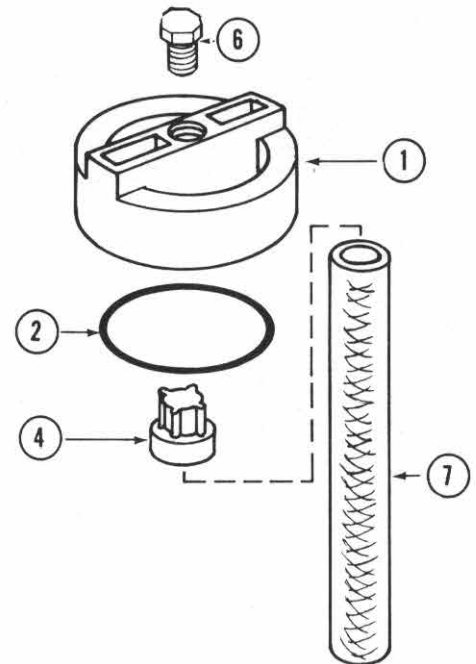
Maintenance

DISASSEMBLY

- 1) Grip head, press down, turn clockwise and remove. Head O-ring can easily be replaced.
- 2) Turn tube nut counterclockwise to remove. Filter tube can be removed from chamber for replacement.
- 3) Center tube rod need never be removed.

ASSEMBLY

- 1) Place new filter tube into chamber over tube rod.
- 2) Screw tube nut onto tube rod until knife edge bottoms out on filter tube.
- 3) Place head on chamber rim and turn clockwise until hand tight. Head should then be turned an additional quarter turn.



4C FILTER CHAMBER SPARE PARTS LIST

4C Filter Chambers			Quantity
Item	Description	Part Number	Required
1A	Head - CPVC	C-400-01A	1
1B	Head - Polypro	C-400-01B	1
1C	Head - PVDF	C-400-01C	1
2E	Head O-Ring - EPR	C-300-02E	1
2V	Head O-Ring - Viton	C-300-02V	1
3A-1	Tube Rod - CPVC 10"	C-400-03A-1	1
3A-2	Tube Rod - CPVC 20"	C-400-03A-2	1
3B-1	Tube Rod - Polypro 10"	C-400-03B-1	1
3B-2	Tube Rod - Polypro 20"	C-400-03B-2	1
3B-3	Tube Rod - Polypro 30"	C-400-03B-3	1
3C-1	Tube Rod - PVDF 10"	C-400-03C-1	1
3C-2	Tube Rod - PVDF 20"	C-400-03C-2	1
3C-3	Tube Rod - PVDF 30"	C-400-03C-3	1
4A	Tube Nut - CPVC	C-400-04A	1
4B	Tube Nut - Polypro	C-400-04B	1
4C	Tube Nut - PVDF	C-400-04C	1
5A-1	Shell & Base - CPVC 10"	C-400-05A-1	1
5A-2	Shell & Base - CPVC 20"	C-400-05A-2	1
5B-1	Shell & Base - Polypro 10"	C-400-05B-1	1
5B-2	Shell & Base - Polypro 20"	C-400-05B-2	1
5B-3	Shell & Base - Polypro 30"	C-400-05B-3	1
5C-1	Shell & Base - PVDF 10"	C-400-05C-1	1
5C-2	Shell & Base - PVDF 20"	C-400-05C-2	1
5C-3	Shell & Base - PVDF 30"	C-400-05C-3	1
6A	Bleed Valve - PVC	C-300-07ABV	1
6B	Bleed Plug - Polypro	C-300-07B	1
6C	Bleed Plug - PVDF	C-300-07C	1
7-1	Filter Tube - CPVC	**	1
7-2	Filter Tube - Polypro	**	1
7-3	Filter Tube - PVDF	**	1
8-A	B-Mount (4CN) CPVC	4C-1A	1
8-B	B-Mount (4CN) Polypro	4C-1B	1
8-C	B-Mount (4CN) PVDF	4C-1C	1
**	Consult Factory		