

PENGUIN

PUMPS AND FILTERING SYSTEMS



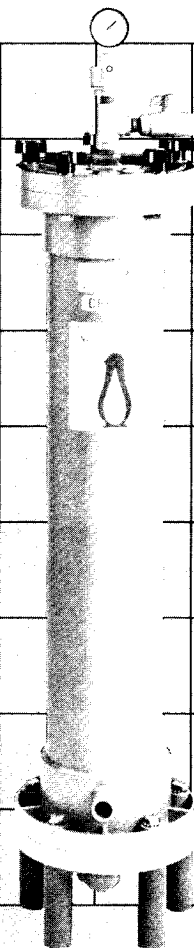
SERIES C/CN FILTER CHAMBERS

MODELS

6C
6CN
8C
12C

MATERIALS

A - CPVC
B - Polypropylene
C - PVDF



INTRODUCTION

Penguin filter chambers are designed to handle a large range of chemicals without difficulty. Completely constructed of CPVC 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 design with heavy reinforced ribbing in the molded parts, the double O-ring labyrinth sealing, and the long-sleeved flanges attached to the chamber shell, these chambers can operate at higher temperatures and/or 100 psi at ambient temperatures.

INSTALLATION

PLUMBING

Model 6C/8C/12C filter chambers must be mounted vertically on the base legs with the outlet port at the bottom. Do not mount in the solution unless a B-mount is included. The inlet and outlet ports are 6C - 1" FPT, 8C/12C - 1½" FPT. They can accept hose connections or standard pipe fittings if rigid piping is desired. If purchased as a separate unit or a complete filter system, 6C/8C/12C filter chambers can be mounted singularly or base-mounted with pump on the floor or in-tank (Series 6CN only). In-tank mounting will provide a compact unit with complete flow confined to in-tank, thus no possible loss of solution. Polypropylene based-mounted

filter systems include piping, valves, hose, fittings, clamps, and pressure gauge and guards. Model 2-6C/2-8C/2-12C filter chambers are piped in parallel and valved.

OPERATION

TUBE EXCHANGE

Each 6C/8C/12C filter chamber is equipped with one initial set of 15 micron filter tubes. Following are filter tube lengths:

MODELS	No. of tubes	Length of tube
6C — 6C-3	3	10"
6C-6/6CN-6	3	20"
6C-9/6CN-9	3	30"
8C — 8C-5	5	10"
8C-10	5	20"
8C-15	5	30"
12C — 12C-12	12	10"
12C-24	12	20"
12C-36	12	30"

There is no set timetable 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 particle size and distribution. As a helpful guide, a pressure gauge and guard is supplied to help determine differential pressure between clean tubes versus those in need of replacement. (See maintenance for filter tube replacement instructions.)

MAINTENANCE

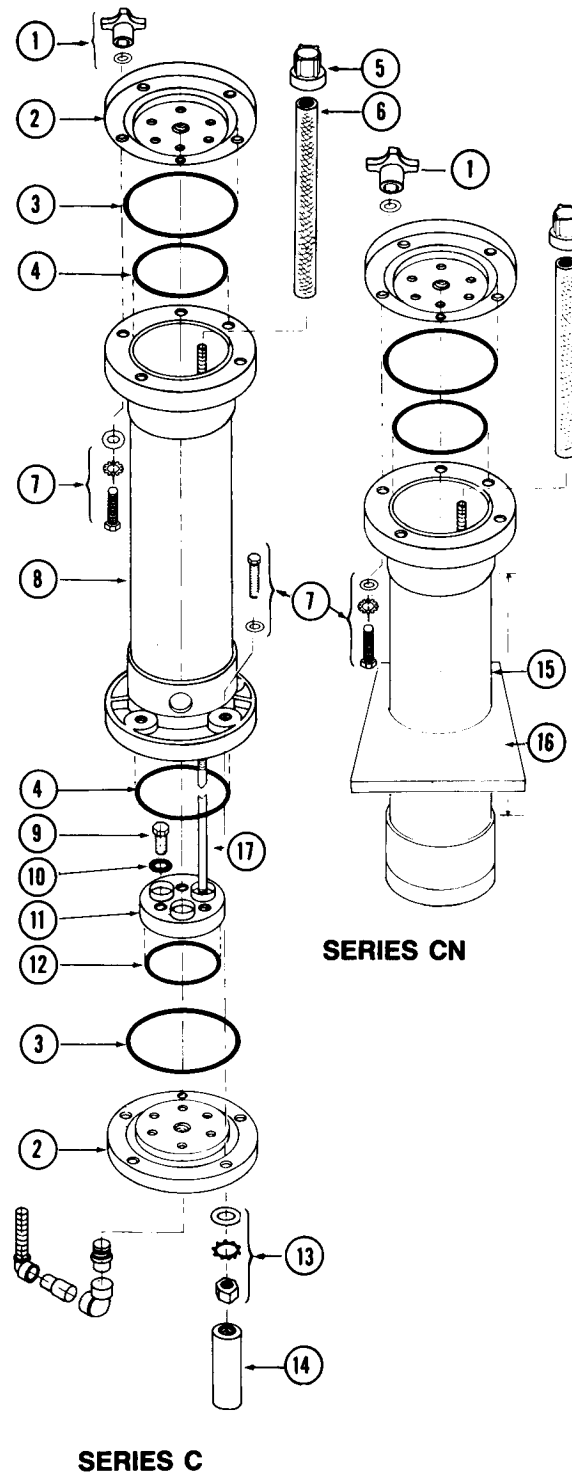
ASSEMBLY 6C/8C/12C

- 1) Screw the 10/10/18 1/2-13X3" hex head bolts with large washers into both shell flanges where the metal inserts are exposed. Tighten the bolts using a 3/4" wrench. Do not overtighten.
- 2) Press two (2) of the #4 O-rings evenly into the grooves located on flanges. Press one (1) #3 O-ring evenly into the groove of the bottom flange. Press the #12 O-ring into the groove of the #11 manifold. The manifold is undersized and must be stretched while pressing into the groove. Moistening this O-ring with water will ease this operation.
- 3) Place 3/5/3 #10 O-rings underneath the 3/4" manifold bolt. Align the timing mark on the manifold with the timing mark on the bottom flange. Remember that the knife edges of the manifold must face upwards. Tighten the manifold via the 3/5/3 plastic bolts using a 15/16" wrench. Do not overtighten.
- 4) Align the timing mark on the side of the bottom flange containing the manifold with the timing mark on the shell flange. Be sure the 1 1/2"/1 1/2"/1 1/2" threaded side hole is at the bottom. Tighten the bottom flange onto the shell diagonally tightening the 5/5/9 large flat washers, lock washers, and nuts using a 3/4" wrench. The chamber legs have a recessed cavity on one side. Screw the 5/5/9 chamber legs with the cavity over the 5/5/9 nuts, hand tightening only. Do not use any tools to tighten these legs.
- 5) Press the second #3 O-ring into the head groove. Position the chamber with the remaining 5/5/9 bolts at the top. Place the head over the bolts. Tighten the head down by hand using the 5/5/9 #1 washers and knobs. Alignment of the timing marks is not necessary.

6C/8C/12C FILTER CHAMBER SPARE PARTS LIST

Item	Description	Part Number			Quantity Required		
		6C	8C	12C	6C	8C	12C
1	Knob & Washer	C-600-01	C-600-01	C-600-01	5	5	9
2A	Head/Flange - CPVC	C-600-02A	C-800-02A	C-120-02A	1	1	1
3E	Head O-ring - EPR	C-600-03E	C-800-03E	C-120-03E	2	2	2
3V	Head O-ring - Viton	C-600-03V	C-800-03V	C-120-03V	2	2	2
4E	Shell O-ring - EPR	C-600-04E	C-800-04E	C-120-04E	2	2	2
4V	Shell O-ring - Viton	C-600-04V	C-800-04V	C-120-04V	2	2	2
5A	Tube Nut - CPVC	C-400-04A	C-400-04A	C-400-04A	3	5	12
6	Filter Tube	**	**	**	3	5	12
7	Flange Bolt & Washer Ass'y	C-600-07	C-600-07	C-600-07	10	10	18
7	Flange Bolt & Washer Ass'y (6CN)	C-600-07	NA	NA	5	NA	NA
8A-1	Shell - CPVC 10"	C-600-08A-1	C-800-08A-1	C-120-08A-1	1	1	1
8A-2	Shell - CPVC 20"	C-600-08A-2	C-800-08A-2	C-120-08A-2	1	1	1
8A-3	Shell - CPVC 30"	C-600-08A-3	C-800-08A-3	C-120-08A-3	1	1	1
9	Manifold Bolt	C-600-09	C-600-09	C-600-09	3	5	3
10E	Manifold Bolt O-ring - EPR	C-600-10E	C-600-10E	C-600-10E	3	5	3
10V	Manifold Bolt O-ring - Viton	C-600-10V	C-600-10V	C-600-10V	3	5	3
11A	Manifold - CVPC	C-600-11A	C-800-11A	C-120-11A	1	1	1
12E	Manifold Chamber O-ring - EPR	C-600-12E	C-800-12E	C-120-12E	1	1	1
12V	Manifold Chamber O-ring - Viton	C-600-12V	C-800-12V	C-120-12V	1	1	1
13	Nut, Lock Washer & Washer Ass'y	C-600-13	C-600-13	C-600-13	5	5	9
14	Chamber Leg	C-600-14	C-600-14	C-600-14	5	5	9
15A-2	Shell - CPVC 20" (6CN)	C-600-15A-2	NA	NA	1	NA	NA
15A-3	Shell - CPVC 30" (6CN)	C-600-15A-3	NA	NA	1	NA	NA
16	B-Mount (6CN)	B-6C	NA	NA	1	NA	NA
17A-1	Tube Rod - CPVC 10"	C-400-03A-1	C-400-03A-1	C-400-03A-1	3	5	12
17A-2	Tube Rod - CPVC 20"	C-400-03A-2	C-400-03A-2	C-400-03A-2	3	5	12
17A-3	Tube Rod - CPVC 30"	C-600-03A-3	C-600-03A-3	C-600-03A-3	3	5	12

**Consult Factory



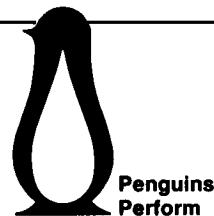
SERIES CN

SERIES C

FILTER PUMP INDUSTRIES

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