

Series CTS/CTM/CTL

Carbon Treatment System

Series CTS CARBON TREATMENT

Flows to 450 gph
FILTRATION
Flows to 750 gph

Series CTM CARBON TREATMENT

Flows to 1350 gph
FILTRATION
Flows to 4050 gph

Series CTS CARBON TREATMENT

Flows to 3780 gph
FILTRATION
Flows to 11,340 gph



Features:

- Leakproof
- Choice of Corrosion Resistant Pumps
- Rugged, All Plastic Construction
- Quick Changeover from Carbon Treatment to Filtration

Recommended Applications:

- Purification and/or Filtration of Acid and Alkaline Solutions
- Precious Metal Baths, and or other High Purity Solutions

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Introduction

Penguin carbon treatment systems are designed for carbon treatment purification and/or filtration. A large range of systems are offered from the smallest series CTS which utilizes a single Penguin cartridge to our series CTL which can incorporate dual chambers holding up to 100 pounds of granular carbon. Whichever series is selected, the solution is pumped continuously and steadily through a dense bed of activated, sulfur-free granular carbon. Highly selective, this carbon quickly reaches its saturation point in absorbing minimal amounts of brighteners, yet continues to have excellent absorption for organic impurities.

Series CTS

Designed for smaller applications where carbon treatment is required, series CTS incorporates a single cartridge chamber. The carbon treatment chambers are supplied in lengths ranging from 1-6" carbon cartridge to 1-30" carbon cartridge. The chambers are heavy duty CPVC one-piece construction for leakproof operation and easy carbon cartridge replacement. The chamber head is simple to remove by twisting the head. No tools are required. Each chamber when shipped comes equipped with an initial Penguin series PC carbon filter cartridge. The solution is pumped through the chamber at a flow rate carefully calculated to provide thorough carbon purification. The extra fine polypropylene fibers create additional limited filtration as well as trapping any carbon granules, which might escape from the cartridge body. If sole filtration is required, a filter cartridge can replace the carbon cartridge. A choice of five pumps is available for use with the series CTS carbon treatment chambers depending on the various operating conditions. All penguin series CTS carbon treatment systems are complete and ready to operate including 10 feet of reinforced hose. An 8-foot cord/grounding plug is supplied on single phase motors. As an option, Penguin PG series pressure gauge and guard can be supplied.

System Model	Pump Model	System Model	Pump Model	System Model	Pump Model
		CTS-P60	P-1/15A	CTS-M60	M-1/14B
		CTS-P100	P-1/15A	CTS-M100	M-1/14B
CTS-H200	HV-1/3SD	CTS-P200	P-1/6A	CTS-M200	M-1/8B
CTS-H300L	HV-1/3SD	CTS-P300L	P-1/4A	CTS-M300L	M-1/4B
CTM-H600	HV-1/3SD	CTM-P600	P-1/2A	CTM-M600	M-1/2B
CTM-H900	HV-1/4SD	CTM-P900	P-1/2A-HP	CTM-M900	M-3/4B
CTM-H1000	HV-1/4SD	CTM-P1000	P-3/4A-HP	CTM-M1000	M-3/4B
CTM-H1200	HV-1SD	CTM-P1200	P-1A	CTM-M1200	M-3/4B
CTM-H1500	HV-1SD	CTM-P1500	P- 1 1/2A	CTM-M1500	M-3/4B
CTM-H2900	HV-1 1/2SD	CTM-P1800	P- 1 1/2A	CTM-M1800	MT-1 1/2B
CTM-H3600	HV-1 1/2SD	CTM-P2000	P-2A	CTM-M2000	MT-1 1/2B
CTM-H1800	HV-2SD	CTM-P3000	P-2A	CTM-M3000	MT-2B
CTL-H2000	HV-2SD	CTL-P2400	P-2A	CTL-M2400	MT-2B
CTL-H3600	HV-3SD	CTL-P3600	P-3A	CTL-M3600	MT-3B
CTL-H4800	HV-5SD	CTL-P4800	P-5A	CTL-M4800	MT-3B
CTL-H7200	HV-7 1/2SD	CTL-P7200	P-7 1/2A		

Series CTS/CTM/CTL

Carbon Treatment System

Series CTM/CTL



Model CTM-H3000 w/ optional slurry tank

Designed for large and high volume applications where a carbon pack is required. Following organic decontamination through the granular carbon packed bag, the solution is automatically depth filtered through 3 to 12 polypropylene cartridges per chamber, entrapping all foreign particles and solids. The 6CT and 8CT chambers are constructed of heavy reinforced CPVC. The 12CT chamber is heavy duty PVC one-piece construction. Both constructions provide leakproof operation and easy carbon bag and filter cartridge replacement through the quick grip top knobs. No tools are required. The molded polypropylene carbon bag enables the maximum amount of granular carbon to be placed in each chamber. As a special Penguin feature, the carbon pack can be replaced with full length filter cartridges, thus providing a system with the flexibility for either carbon treatment/filtering or complete filtration.

Various combinations of piping are offered from the simplest pump-filter combination to those which include drain, vent or bypass valves and tanks for filter aid or carbon mixing, priming or slurry additions and casters for portability. When dual carbon treatment chambers are supplied, they are manifolded with a valve system permitting simultaneous or alternate, independent or intermittent operation. Thus, single chamber operation allows the other chamber to be cleaned completely eliminating down time. All Penguin carbon treatment systems are complete and ready to operate including drain, Penguin series PG pressure gauge and guard assembly, 30 feet of reinforced hose, set of short rods and filter cartridges for carbon treating, set of long rods for straight filtration and 40 pounds of Penguin series GC sulfur-free activated granular carbon for start-up operation.

Chamber Model	Gallons per hour based on 70°F Water		Carbon Cartridge/ Capacity lbs. of carbon in cartridge	Filter Cartridge with carbon bag/ capacity lbs. of granular carbon in bag	Filter Cartridge without carbon bag	Dimensions pump and chamber			
	Filtration	Carbon Treatment				Ht	Wth	Lth	Wt
3CT-6A	0-150	0-75	1-6"/0.4			18	10	14	35
4CT-1A	100-200	50-100	1-10"/0.6			21	10	14	38
4CT-2A	250-450	100-200	1-20"/1.2			31	10	14	45
3CT-3A	350-650	150-300	1-30"/1.8			41	10	14	60
6CT-6A	700-1250	250-500		3-6"/5	3-20"	38	18	21	113
6CT-9A	1100-1900	400-700		3-10"/10	3-30"	48	18	21	122
8CT-10A	1200-2100	450-750		5-6"/9	5-20"	38	20	23	118
2-6CT-6A	1450-2150	450-810		6-6"/10	6-20"	38	20	33	154
8CT-15A	1800-3150	600-1050		5-10"/18	5-30"	38	20	23	132
2-6CT-9A	2150-3250	675-1080		6-10"/20	6-30"	48	20	33	164
2-8CT-10A	24050-3600	750-1350		10-6"/18	10-20"	38	24	37	175
2-8CT-15A	3600-5400	1125-1800		10-10"/36	10-30"	48	24	37	195
12CT-24A	2900-4300	1200-1920		12-6"/35	12-20"	38	28	24	175
12CT-36A	4320-6500	1800-2520		12-10"/50	12-30"	48	28	24	240
2-12CT-24A	5800-8600	1800-2880		24-6"/70	24-20"	38	32	48	360
2-12CT-36A	8500-10,000	2700-3400		24-10"/100	24-30"	48	32	48	450

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Series HV - Centrifugal Volute CPVC

A CPVC centrifugal pump featuring no metallic solution contact for maximum chemical resistant even to strong acids and alkaline solutions to 195°F. The pumps are face mounted to assure proper alignment. An internal mechanical seal is featured providing a pump for most corrosive solutions.



Series P - In-Tank CPVC

Completely constructed of CPVC, self-priming when immersed, leakproof pump eliminating all metal contact with solution. There are no bearings, bushings or seals and the pump can run dry without damage. Simple in design and efficient in performance, this pump uses a minimal amount of tank space to save valuable floor space. These pumps can easily be moved from tank to tank mounting on the tank flange. With the CPVC in contact with the solution, this pump offers excellent chemical resistance to most corrosive liquids including acid and alkaline solutions to 195°F.



Series M & MT - Magnetic Polypropylene

A sealless, leakproof, constructed of polypropylene. The only moving part in the solution is the magnetic-drive impeller which is completely encapsulated in polypropylene rotating on an ultra pure ceramic spindle. The wetted parts used offer excellent chemical resistance to a wide variety of acid and alkaline solutions to 180°F.



Series V - Sealless Polypropylene Pump

All plastic, non-leaking, sealless, self priming pump. The simplicity of design affords solution contact with only two basic parts, the polypropylene body block and the neoprene liner. This pump can be used with all acid and alkaline solutions to 180°F.