

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series AC

Commercial Carbon Filter Systems

Connection Sizes: 1½" to 3" (38 - 80mm)

Flow Rates: Up to 129 gpm (488 lpm)

Watts Series AC activated carbon filters are time tested, highly effective backwashing media filtration systems for the removal of chlorine as well as taste, odor, and color caused by organics, from water.

These systems are designed for commercial applications with dechlorination flow rates up to 129 gpm (488 lpm) with media bed sizes ranging from 4 to 35 cubic feet in size. If higher flow rates are required, multiple units can be installed in parallel. The media bed is cleaned of captured sediment by periodic backwashing and flushing. This cleaning cycle is time clock demand initiated and can be programmed to occur at any time that is convenient for the user. All steps of the cleaning cycle as well as returning to service are fully automatic and do not require manual actuation.

Series AC activated carbon filters are designed for point of use or point of entry applications where dechlorinated water is required. Chlorine, an oxidizing agent, is added to municipal water to destroy micro-organisms. Chlorine causes the destruction of reverse osmosis membranes and polymer based ion exchange resins. Chlorine also causes objectionable tastes and odors in certain applications. Activated carbon in general is used for dechlorination, removal of taste, color, and odor caused by organics, as well as trace hydrocarbon removal from water. For applications involving trace hydrocarbon removal or taste, color, and odor removal due to organics, consult your Watts representative for proper sizing and carbon system selection. Series AC activated carbon filters utilize 12x40 mesh coconut shell carbon granules which are tailored for chlorine removal. Coconut shell carbon media has a high micro-porosity which makes it ideally suited for the removal of low molecular weight contaminants such as chlorine. Another advantage of this carbon is its superior hardness, which combined with a de-dusting process in its production, creates an exceptionally clean product with low fines.

Series AC systems are ideal for food and bottled water processing, restaurant drink station water treatment, commercial ice production, soft drink water processing, reverse osmosis pretreatment, ion exchange resin pretreatment, and general dechlorination of municipal water.



Series
AC 1½"

Series
AC 2"

Series
AC 3"

Features

- Durable brass bodied control valve for years of service
- Fully automatic time clock initiated control valve
- Sophisticated digital electronic controls that store operating history that can be accessed by the user
- Fully adjustable backwash and flush cycles
- Dry contact lock out switch for remote interface is standard
- High surface area, with a minimum of 1,050 m²/g, low carbon fines, and coconut shell carbon
- Highly corrosion resistant fiberglass tanks
- Durable polypropylene lower distribution system

⚠ WARNING

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Specifications

A Series AC activated carbon filter system shall be installed on the building's main water line just after it enters the building. The installation point shall be after any backflow prevention or pressure regulating valves. Other installation options are to install a system just before the plumbing equipment or processes requiring dechlorinated water. In installations where the dedicated cold water make up to a water heater is the installation point, a backflow preventer and a thermal expansion tank must be installed as well. The system shall be installed with a bypass valve to allow for the shut down and removal of the unit without interrupting the water supply to the building.

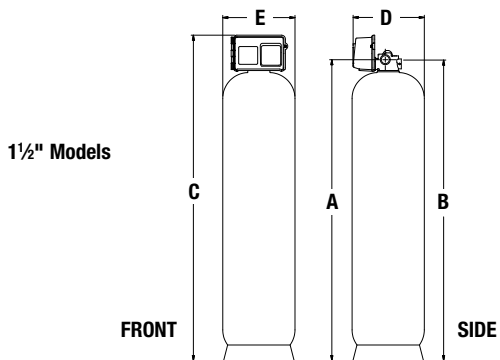
The filter system shall be a backwashing granular media bed type with digital programmable time clock initiated backwash and high capacity coconut shell carbon filter media. The carbon media shall be rated at 1,050 m²/g minimum surface area and have a minimum iodine number of 1,000. The system shall include all components necessary for proper operation. Electrical requirements are 100-240 VAC, 50/60 Hz. A local drain is required to accept drain water from the system.

Feed Water Guidelines*

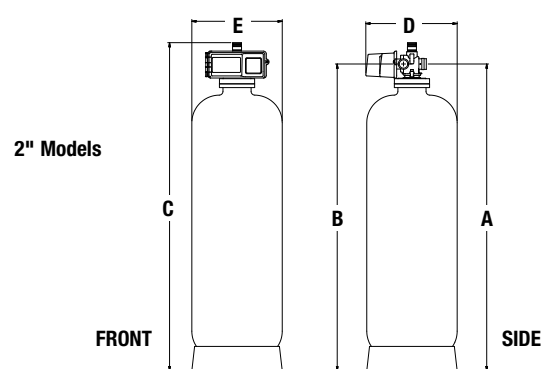
pH	6 to 8.5
Water Pressure	30 psi to 125 psi (205 kPa to 8.5 bar)
Water Temperature	34 - 110°F (1 - 43°C)
Oil and H ₂ S	None Allowed
Iron	Less than 1 ppm
Total Chlorine	Less than 5 ppm

* For all other guideline information please contact your Watts representative.

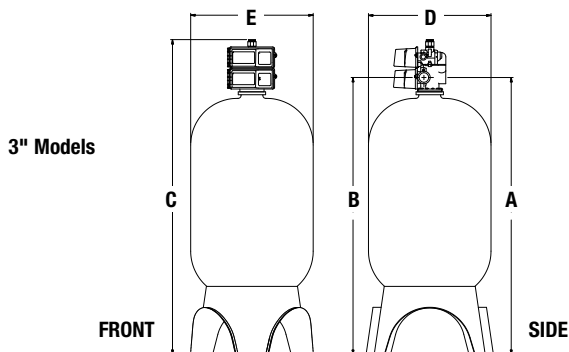
Dimensions - Weights



MODEL NO.	DIMENSIONS					WEIGHTS	
	A	B	C	D	E		
	in. mm	in. mm	in. mm	in. mm	in. mm	lbs.	kgs
N2058-285NT	66 ³ / ₈ 1686	67 ¹ / ₄ 1708	72 ³ / ₄ 1848	15 ¹⁵ / ₁₆ 405	16 ¹ / ₈ 409	254	115
N2059-285NT	70 1778	71 1803	76 ⁷ / ₁₆ 1941	21 ¹ / ₈ 536	21 ¹ / ₈ 536	471	214
N7032-285NT	81 ³ / ₁₆ 2062	80 ¹ / ₄ 2038	86 ⁹ / ₁₆ 2199	24 ¹ / ₄ 616	24 ¹ / ₄ 616	670	303



MODEL NO.	DIMENSIONS					WEIGHTS	
	A	B	C	D	E		
	in. mm	in. mm	in. mm	in. mm	in. mm	lbs.	kgs
N2332-315NT	81 ⁷ / ₈ 2079	81 ⁷ / ₈ 2079	87 ¹ / ₂ 2222	24 ⁷ / ₁₆ 620	24 ¹ / ₈ 612	735	334
N2333-315NT	83 ³ / ₈ 2118	83 ³ / ₈ 2118	89 2260	30 ¹ / ₈ 765	30 ¹ / ₈ 765	1432	651
N2334-315NT	87 ⁹ / ₁₆ 2224	87 ⁹ / ₁₆ 2224	93 ¹ / ₁₆ 2364	36 ¹ / ₈ 917	36 ¹ / ₈ 917	3038	1378



MODEL NO.	DIMENSIONS					WEIGHTS	
	A	B	C	D	E		
	in. mm	in. mm	in. mm	in. mm	in. mm	lbs.	kgs
N4110-39NT	85 ¹ / ₄ 2165	85 ¹ / ₄ 2165	97 ¹³ / ₁₆ 2484	29 ³ / ₄ 756	29 ³ / ₄ 756	1450	657
N4112-39NT	87 ¹ / ₄ 2216	87 ¹ / ₄ 2216	100 2540	36 ¹ / ₈ 917	36 ¹ / ₈ 917	1965	893
N4114-39NT	95 ¹ / ₄ 2419	95 ¹ / ₄ 2419	108 ¹ / ₄ 2750	44 1118	44 1118	3038	1381
N4116-39NT	99 ⁵ / ₈ 2530	99 ⁵ / ₈ 2530	112 ⁵ / ₈ 2860	50 ³ / ₈ 1280	50 ³ / ₈ 1280	3645	1657

Specifications

MODEL NO.	TANK SIZE	MINERAL TANK		FLOW RATES FOR SERVICE AND BACKWASH	
		CARBON FT ³	UNDERBED 1/2 X 1/4 - 1/4 X 1/8 - #20	SERVICE GPM CHLORINE REDUCTION	BACKWASH GPM
N2058-285NT	16" x 65"	4.0	- / - / 80 lbs	14.8 GPM	12 GPM
N2059-285NT	21" x 62"	7.0	- / - / 100 lbs	25.9 GPM	26 GPM
N7032-285NT	24" x 72"	10	- / 100 lbs / 100 lbs	37 GPM	30 GPM
N2332-315NT	24" x 72"	10	- / 100 lbs / 100 lbs	37 GPM	30 GPM
N2333-315NT	30" x 72"	15	- / 200 lbs / 200 lbs	55.5 GPM	50 GPM
N2334-315NT	36" x 72"	20	- / 300 lbs / 200 lbs	74 GPM	70 GPM
N4110-39NT	30" x 72"	14	- / 200 lbs / 200 lbs	52 GPM	50 GPM
N4112-39NT	36" x 72"	20	- / 300 lbs / 200 lbs	74 GPM	70 GPM
N4114-39NT	42" x 72"	30	- / 400 lbs / 200 lbs	111 GPM	90 GPM
N4116-39NT	48" x 72"	35	500 lbs / 500 lbs / 500 lbs	129.5 GPM	100 GPM

Ordering Information

MODEL NO.	ORDERING CODE	DESCRIPTION	PIPE SIZE	SPACE REQUIRED W X D X H	WEIGHT	
					LBS	KGS
N2058-285NT	68105764	AC16F2850NXT 4 Cubic Foot Carbon Filter with Auto Backwash	1.5"	17" x 18" x 75"	254	115
N2059-285NT	68105766	AC21F2850NXT 7 Cubic Foot Carbon Filter with Auto Backwash	1.5"	23" x 24" x 84"	471	214
N7032-285NT	68105853	AC24F2850NXT 10 Cubic Foot Carbon Filter with Auto Backwash	1.5"	26" x 25" x 92"	670	303
N2332-315NT	68105776	AC24F3150NXT 10 Cubic Foot Carbon Filter with Auto Backwash	2"	27" x 27" x 95"	735	334
N2333-315NT	68105778	AC30F3150NXT 15 Cubic Foot Carbon Filter with Auto Backwash	2"	33" x 33" x 95"	1432	651
N2334-315NT	68110694	AC36F3150NXT 20 Cubic Foot Carbon Filter with Auto Backwash	2"	48" x 40" x 107"	3038	1378
N4110-39NT	68110695	AC30F3900NXT 14 Cubic Foot Carbon Filter with Auto Backwash	3"	38" x 30" x 114"	1450	657
N4112-39NT	68105796	AC36F3900NXT 20 Cubic Foot Carbon Filter with Auto Backwash	3"	40" x 48" x 114"	1965	893
N4114-39NT	68105798	AC42F3900NXT 30 Cubic Foot Carbon Filter with Auto Backwash	3"	46" x 54" x 114"	3038	1381
N4116-39NT	68105800	AC48F3900NXT 35 Cubic Foot Carbon Filter with Auto Backwash	3"	52" x 60" x 114"	3645	1657

NOTICE

Flow rates, dimensions, and capacities are per tank. Flow rates are calculated at a 2 minute empty bed contact time (EBCT) for chlorine reduction. Do not use flow rates stated above for reduction of chloramines or organic compounds. Chloramines reduction requires a 17-22 minute EBCT. EBCT for organic compound reduction varies by organic compound. Pipe size, tank size, and space requirements are in inches.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

