

# SECTION 18

## Commercial Backwashing Filters



**WATER QUALITY PRODUCTS**  
**Catalog 10**

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# Commercial Backwashing Filters

With high efficiency Micro-Z™ filter media.



## Outperforms sand & multimedia filters!

Watts® engineered commercial filtration systems for sediment removal incorporate the use of our performance Micro-Z filter media for superior performance.

Micro-Z is a granular filter media that outperforms conventional multimedia materials due to its unique Zeolite structure, allowing particulate to penetrate deeply into the filter bed to provide superior filtration at increased flow rates.

The increased surface area and deep bed filtration allows Micro-Z to outperform conventional sand filters in every way, including reduced water consumption because the need to backwash is dramatically reduced!

## Features & benefits

- Higher solids loading capability.
- Designed for higher flow rates.
- Superior filtration performance.
- Reduced backwash frequency.
- Removes finer particulate.
- Reduced pressure drop.
- Lightweight for lower shipping costs.
- Easy to handle.
- Eliminates need for multimedia

## MICRO-Z™ vs Other Filter Media

Media	Nominal Micron Rating	Loading Capacity
Sand	20	1.0 X
Sand & Anthracite	15	1.4 X Sand
Multimedia	12	1.6 X Sand
Micro-Z	5	2.8 X Sand

## Performance Recommendations

Service flow rate	12-20 GPM/sq. ft.
Backwash flow rate	16-18 GPM/sq. ft.
Backwash bed expansion	30-40 percent

Note: Allow bed to soak overnight before initial backwash.

## Models

Part Number	Description	Valve	Pipe Size	FRP Tank Size	Media Cu. Ft.	Service Flow GPM	Pressure Drop PSI	Backwash Flow GPM	Ship Wt. (lbs)
N5245-14	AMZ14F2850	2850	1.5"	14X65	3	13/21	15/25	15	200
N5245-16	AMZ16F2850	2850	1.5"	16X65	4	17/28	15/25	20	265
N5245-22	AMZ22F2850	2850	1.5"	21X62	7	30/50	15/25	40	822
N5245-24-3150	AMZ24F3150	3150	2.0"	24X72	8	38/62	15/25	50	1160
N5245-30-3150	AMZ30F3150	3150	2.0"	30X72	10	59/98	15/25	85	1838
N5245-36-3150	AMZ36F3150	3150	2.0"	36X72	20	85/130	15/25	100	2585
N5245-48-DVN	AMZ48FDVN	DVN	3.0"	48x72	35	150/250	15/25	200	4757

NOTE: Lower flow rates are recommended for RO pre-treatment. Higher flow rates are recommended for general filtration.

# Commercial Activated Carbon Filters

*Engineered activated carbon water filtration systems.*



Custom twin system with valve nest shown above. Standard models are listed below.

## Contaminates adsorbed:

- Chlorine
- Organic Chemicals
- Fertilizers
- TCE (Trichloroethylene)
- EDB (Ethylene dibromide)
- THM (Trihalomethanes)
- Sediment
- Odors
- Pesticides
- Detergents
- Chloramines

## Selection & sizing concerns:

- Contaminant
- EBCT (Empty bed contact time).
- Service flow rate
- Hours of operation
- Carbon base
- Carbon mesh size
- Backwash requirement
- Installation space
- Drain location

**Tank material** FPR

**Max. Pressure** 150 psi

**Max. Temp** 120°

## Adsorption Influencing Factors

**Temperature** Most effective 60°F - 80°F.

**pH** Most organics in water are more soluble at pH lower than 7.0.

**Contact time** Contact time is a very important consideration related to performance. Please contact tech support for more information.

## Models

Part Number	Description	Valve	Pipe Size	FRP Tank Size	Media Cu. Ft.	Service Flow GPM	Pressure Drop PSI	Backwash Flow GPM	Ship Wt. (lbs)
N2058-14	AC14F2850	2850	1.5"	14X65	3	5/11	15/25	10	125
N2058-16	AC16F2850	2850	1.5"	16X65	4	7/15	15/25	12	190
N2058-22	AC22F2850	2850	1.5"	21X62	6	11/22	15/25	26	672
N2058-24-3150	AC24F3150	3150	2.0"	24X72	8	16/30	15/25	30	960
N2058-30-3150	AC30F3150	3150	2.0"	30X72	15	25/56	15/25	50	1463
N2058-36-3150	AC36F3150	3150	2.0"	36X72	20	35/75	15/25	70	2085
N2058-48-DVN	AC48FDVN	DVN	3.0"	48x72	35	60/130	15/25	125	3882
N2058-63-DVN	AC63FDVN	DVN	3.0"	63X86	50	75/187	15/25	210	6175

*NOTE: Use lower flow rates (above) for increased contact time. Typical flow rates are from 4 and 2 minutes, empty bed contact time. Chloramines and some organics may require up to 10 minutes EBCT. For more information please contact technical support.*

**SAFETY MESSAGE:** Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate procedures for potentially low-oxygen environment should be followed.