

# Nelsen Water Solutions PFAS Reduction System

## **System Summary**

A class of man-made chemicals known as PFAS—short for per- and polyfluoroalkyl substances and PFOA, short for perfluorooctanoic acid—makes consumer goods water-, stain-, and grease-resistant. However, PFAS are toxic even at extremely low levels (i.e., parts per quadrillion), posing significant health risks. They are called "forever chemicals" because they are nearly indestructible.

The NWS-PFAS-8 system utilizes ResinTech's SIR-110-HP ion exchange resin, designed to remove a wide spectrum of PFAS chemicals from contaminated water down to non-detect levels. It is ideal for applications requiring a flow rate of 8 gallons per minute (GPM) or less. The GPM can be increased by adding more systems in parallel.

For optimal performance, it is recommended for two vessels in a lead/lag configuration.



#### **SYSTEM FEATURES**

- Fast Kinetics
- High PFAS/PFOA Capacity
- Economical Design
- Compact Footprint
- Low Maintenance

SYSTEM SECIFICATIONS	
Model #	NWS-PFAS-8
Flow Rate	8 GPM
Tank Size	12" x 48"
Compact Footprint	13" w x 17" d
Overall Height	54" h

The NWS-PFAS-8 system reduces PFAS concentrations to below the criteria set by the U.S. Environmental Protection Agency. The high removal capacity and superior kinetics of the SIR-110-HP resin require less media and fewer exchanges compared to carbon, resulting in lower waste volumes and a smaller footprint.

The system utilizes ResinTech SIR-110-HP
PFAS/PFOA selective media and has received the WQA
Gold Seal. Testing has shown that SIR-110-HP is effective
for removing various PFAS compounds, including PFOA and PFAS.

lon exchange offers the benefit of reduced contact times and longer throughputs compared to conventional activated carbon treatment.

## Certifications and Materials:



WQA Certified Components (tank, media)



NSF Certified Components (head, bypass)

Corrosion-Resistant Materials

### **Water Chemistry Requirements:**

To thoroughly evaluate the system's performance, an understanding of the influent water chemistry is needed. This includes levels of Total Organic Carbon (TOC), Volatile Organic Compounds (VOC), and individual PFAS compounds, in addition to basic background water chemistry (chloride, sulfate, alkalinity, etc.). Other contaminants that may impact PFAS removal, such as uranium, perchlorate, chromate, and arsenic, should also be identified.

Suitable for Single Vessel, Lead/Lag, or Parallel Operations.

