

EXCITING

SUSTAINABILITY

PARTNER OF CHOICE

CONTINUAL IMPROVEMENT

De Nora SORB™ Contaminant Removal Solutions

PROVIDING SIMPLIFIED SOLUTIONS FOR COMPLEX CHALLENGES

- Standardized systems ensure fast response times and reduce engineering requirements
- Systems are easy to operate, install, and maintain
- Technology addresses traditional and emerging contaminants, such as PFAS, arsenic, and more

 **DE NORA**
discover more

SORB Contaminant Removal Systems

STANDARDIZED ENGINEERED WATER SYSTEMS

In the early 2000s, De Nora pioneered the treatment of arsenic with the SORB 33 contaminant removal system, helping ensure safe drinking water for communities across the US. Now, as PFAS and other emerging contaminants of concern are increasingly regulated, De Nora is developing new and effective methods for addressing CECs, innovating for the future.

Our latest development in the fight against water contamination is a fully engineered system that takes the design work out of designing a treatment solution. Whether mitigating dangerous levels of arsenic, iron and manganese, fluoride or PFAS, De Nora contaminant removal systems are pre-configured to meet most needs, with vessel diameters ranging from 5 to 14 feet.



TECHNOLOGY

Proven contaminant removal: Arsenic, Iron, Manganese, Nitrate, Fluoride, and PFAS.



CAPABILITY

Experienced team can design the right systems for your needs.



ASSURANCE

In-depth knowledge backed by process guarantees.



USER EXPERIENCE

Focus on cost efficiency and ease of operation.



SOLUTIONS

Equipment and process design, from pilot to full-scale, and a suite of filtration media for your system, whether originally designed by us or not.



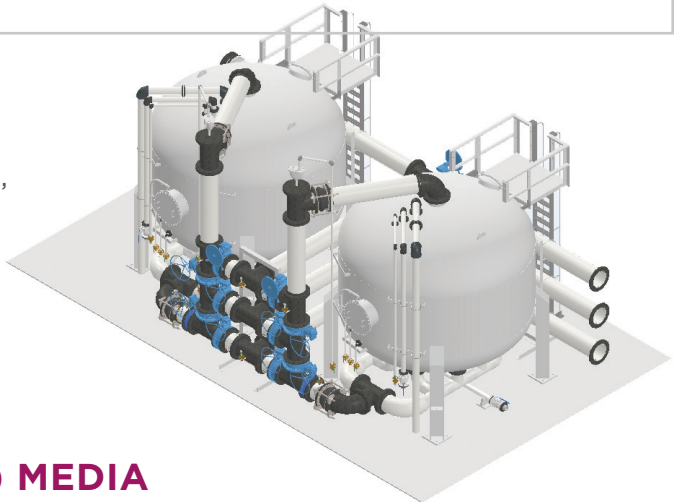
OPTIMIZATION

Optimize your existing system performance with the best available technology.

Media and Technology

SORB PER- AND POLY-FLUOROALKYL SUBSTANCES (PFAS) MEDIA

Regulations around the removal of PFAS substances continue to evolve. To meet changing guidelines, De Nora offers a complete range of media for the removal of PFAS, either combined with our SORB CRS system or retrofitted into your existing systems.



SORB ION EXCHANGE (IX) MEDIA

IX media provide the highest effectiveness for PFAS removal to achieve non-detectable limits while reducing overall OPEX. IX media is specifically formulated to attract the ionized (charged) head of PFAS regardless of long or short chain compounds.

SORB FX

Chemical-free regenerable ion exchange media for potable use. Paired with our eAOP process for PFAS destructions, this is a highly effective PFAS solution.

Purofine® (Purolite) PFA694E*

Single-use ion exchange media for potable use.

SORB CX GAC MEDIA

Granular activated carbon (GAC) is a re-agglomerated media to ensure consistent quality and a high level of performance from the media. This media is suitable for drinking water use and is formulated to remove emerging contaminants, such as PFOS and PFAS. SORB CX GAC media can be used as pretreatment/lead technology to further extend the life of SORB FX media.

SORB EAOP

Units available for pilot testing. This electrochemical water treatment system is ideal for high concentrated PFAS including leachate, RO reject treatment, or used in conjunction with SORB FX nonchemical IX regeneration to provide PFAS destruction.

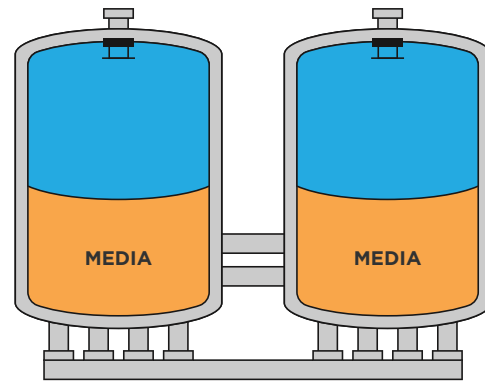
SORB CRS Advantages

FULLY ENGINEERED SYSTEMS

SORB systems are pre-designed and pre-configured to make application design simple, without the need for engineering hours. Uses ASME-rated vessels and ductile lined piping.

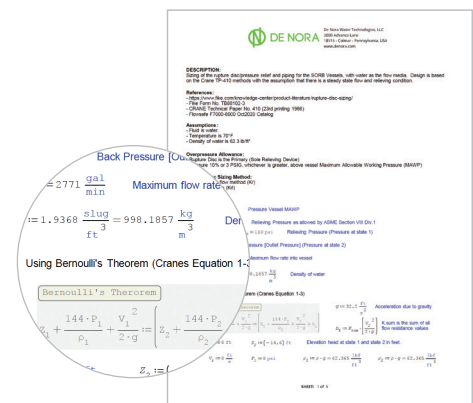
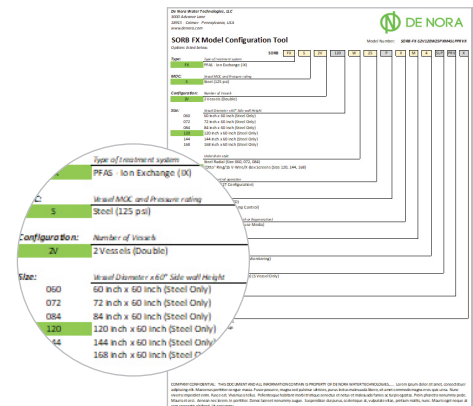
COMPLETE SUPPORT DOCUMENTATION

- Flow Rate Calculation
- Pipe, valve, and gauge sizing calculation
- O+M manuals
- Spec sheets
- PID and GA drawings



INTELLIGENT SYSTEM DESIGN

- Fully symmetrical vessels for easy installation and reduced chance of error
- SORB OTTO underdrain is fully serviceable from the outside, eliminating confined space permit requirements for most service needs
- Backwash functionality for non-PFAS applications
- Forward flow regeneration for SORB FX media
- Flow optimized for maximum media life
- Configurable for lead/lag, parallel, or series flow



Media for Established Contaminants

ARSENIC REMOVAL MEDIA

Two options allow for peak performance, reducing Arsenic III + V below 5 ug/l while meeting NSF 61 ratings. Can safely be disposed as nonhazardous waste.

Bayoxide® (LANXESS) E33**

De Nora forged the road for arsenic removal long before the 2006 EPA regulation of 10 ppb with Bayoxide E33 media and continues to support 100s of De Nora arsenic removal customers around the world.



SORB 33A

SORB 33A media is a proprietary ion-based adsorbent with a high capacity for arsenic that can reduce operating expenses.



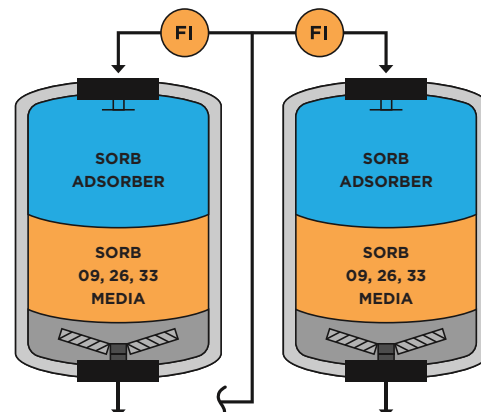
IRON AND MANGANESE REMOVAL MEDIA: SORB 26

Preferentially targets iron and manganese from water supplies and the proprietary catalytic also assists in arsenic and hydrogen sulfide reduction.



FLUORIDE REMOVAL MEDIA: SORB 09

An activated alumina media allows for the targeted removal of fluoride in a water supply to achieve removal levels below the MCL limit of 2 mg/l.



Media and Services

De Nora and our service partners have the experience and capabilities to get the most out of your water treatment systems.

- Site audits for optimization of existing systems
- Process guarantees for media exchange
- Media change out and haul away
- Systems sanitization
- Start-up and training
- On-site media regeneration (SORB FX and SORB 09)

Trust De Nora for all your water treatment needs.

Our broad, complementary portfolio of water treatment solutions includes:

- Capital Control® Ultraviolet (UV) systems
- Capital Control® Ozone generators
- DE NORA TETRA® Media Filters
- MIOX® and ClorTec® on-site generators
- And more



**20+ years of
demonstrated
effectiveness**



**100,000+ gpm
cumulative capacity
installed**

*Purofine® is a registered trademark of Purolite, an Ecolab company

**Bayoxide® E33 is a registered trademark of LANXESS AG



About De Nora

Backed by 100 years of experience, you can be confident in the reliability and safety of SORB™ Contaminant Removal Solutions. De Nora is the partner of choice for communities and companies around the globe. In fact, more than 500 million people around the world use water treated by De Nora products every single day.

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