De Nora SORB™ Contaminant Removal Solutions

SAFEGUARDING YOUR WATER WITH PROVEN CONTAMINANT REMOVAL SOLUTIONS

- Proven technology for removal of contaminants including PFAS, Arsenic, Iron & Manganese, Nitrate, Fluoride, VOCs and other organic contaminants
- 25+ years of demonstrated experience with more than 250 Million Gallons/Day or 1 Billion Liters/Day cumulative installed capacity
- Systems maximize uptime, cost efficiency and ease of operation
- Tailored process and equipment, designed to meet regulatory requirements - from pilot to full-scale

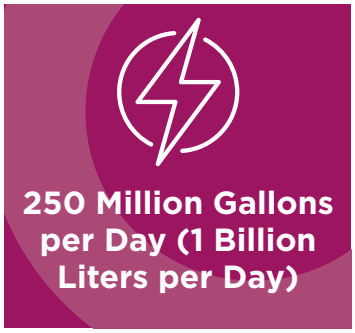
DE NORA
discover more

SORB Contaminant Removal Systems

TRUST DECADES OF CONTAMINANT REMOVAL EXPERIENCE

In the early 2000s, De Nora pioneered the treatment of arsenic with the commercialization of what is now one of the primary global methods of arsenic removal – our advances help ensure safe drinking water for communities around the world. Now, as PFAS and other Contaminants of Emerging Concern (CECs) 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 takesthe work out of designing a treatment solution. Whether mitigating PFAS, arsenic, iron and manganese, or fluoride, 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: PFAS, Arsenic, Iron, Manganese, Nitrate, and Fluoride

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 to optimize your system.

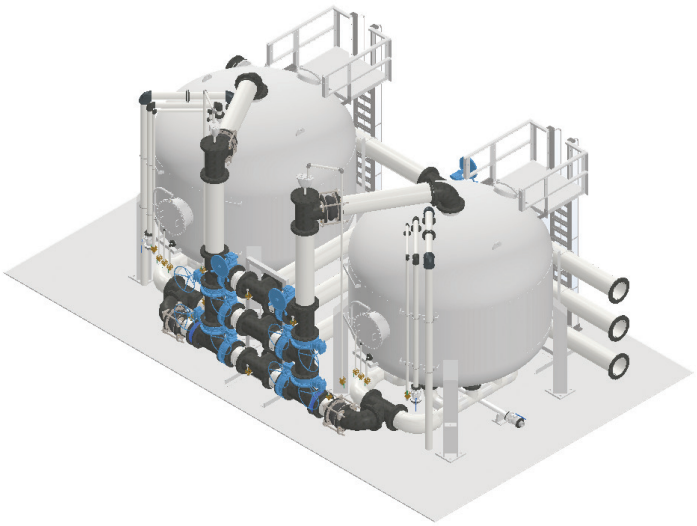
STANDARDIZATION

Standardized systems ensure faster turnaround and consistent quality.

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 PFAS whether they are long or short chain compounds.

SORB GAC MEDIA

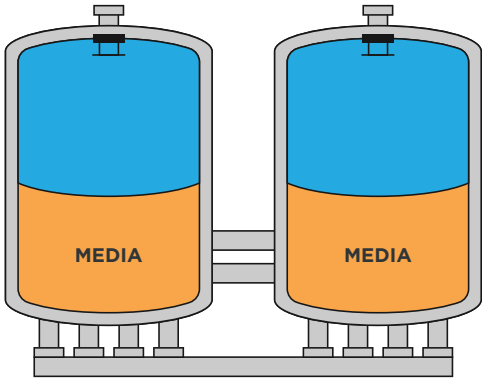
Granular activated carbon (GAC) is a re-agglomerated coal media to ensure consistent quality and a high level of performance from the media. This media is suitable for drinking water use and is formulated to remove emerging contaminants, such as PFAS. SORB GAC media can be used as pretreatment/ lead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

SORB System Advantages

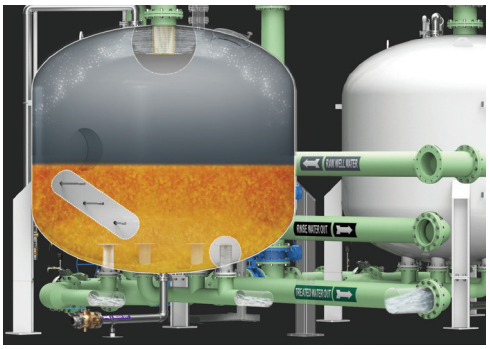
FULLY ENGINEERED SYSTEMS

SORB systems are pre-designed and pre-configured to make application design simple, while increasing consistency and quality. Uses ASME code certified vessels and ductile lined piping.

INTELLIGENT SYSTEM DESIGN



- Two underdrain choices:
  - Conventional header-lateral design to maximum media utilization
  - Patent-pending OTTO “ring” strainer design to facilitate underdrain inspection and servicing
- Patent-pending overdrain ensures equal distribution of inlet water across entire media surface area:
  - Maximize media utilization
  - Lower total cost of ownership
  - Ensure easy access to vessel interior (vs. header-lateral style inlet overdrain)



- Patent-pending sample ports allow sampling of either water or PFAS media with a single tap:
  - Help diagnose system performance
  - Trap particulate fouling of the media which may shorted life
  - Plan ahead for media changeouts
- Patent-pending OTTO strainer baffles:
  - Ensure more even collection of treated water and minimum “dead zones”
  - Maximize media life and lower operating costs
- Configurable for lead-lag, parallel or series operation

Media for Established Contaminants

ARSENIC REMOVAL

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

Bayoxide® (LANXESS) E33*

De Nora forged the path 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 33®A

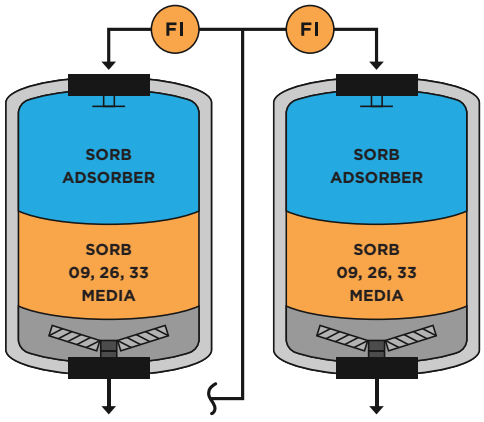
SORB 33A media is a proprietary ion-based adsorbent with a high capacity for arsenic that can reduce operating expenses.

IRON AND MANGANESE REMOVAL: SORB 26

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

FLUORIDE REMOVAL: 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

*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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