DE NORA
our research - your future

Performance.
Reliability.
Longevity.

Steel Mill Water Treatment

DE NORA TETRA™ DeepBed Filters

DE NORA TETRA™ Filters

Serving the steel industry for sixty years.

De Nora is a global leader in sustainable technologies, offering energy-saving products and water treatment solutions. For sixty years, the world's top steel producers including Nucor Steel, ArcelorMittal, SDI and U.S. Steel have been relying on DE NORA TETRA™ filters for the removal of mill scale and oil and grease; side-stream filtration of cooling tower water; river and well water intake for process and drinking water, plus discharge water from the facility.

De Nora delivers reliable filtration process expertise and global innovation with its DE NORA TETRA DeepBed pressure and gravity filters for water and wastewater treatment, DE NORA TETRA Denite® denitrification systems, and submerged aerated biological filters. With the proven performance and longevity of DE NORA TETRA filters coupled with pioneering technologies like electrodes for electrochemical processes and groundbreaking disinfection technologies, De Nora provides solutions to the challenges of industrial water treatment processes.

WHY DE NORA TETRA FILTERS?

Improved mill efficiency results in higher production throughput.

Cleaner water improves steel product quality.

Cleaner water reduces maintenance.

DE NORA TETRA DeepBed Filter Features

- Unique, non-clogging underdrains separate the backwash air and water within the underdrain.
- The highly-specified coarse mono-media sand used in the filter allows high-solids loading for greater solids capture and deeper bed penetration resulting in longer run times and significantly reducing the volume of backwash water generated.
- Pre-piped and pre-wired systems with a local I/O panel can be connected to your operating control system or to a De Nora-supplied control panel, simplifying installation.
- No backwash pumps are required. Standpipe backwash design takes backwash water directly from the effluent pipe. A flow control loop ensures the correct amount of backwash water to the filter.

The DE NORA TETRA Advantage

Operational advantages

DE NORA TETRA filters offer low maintenance and annual operating costs.

- Low operator management
- Low annual maintenance required
- Lower energy consumption
- Low or no chemical usage
- Low backwash water

De Nora expertise

Treating the world's industrial water and wastewater for 60 years.

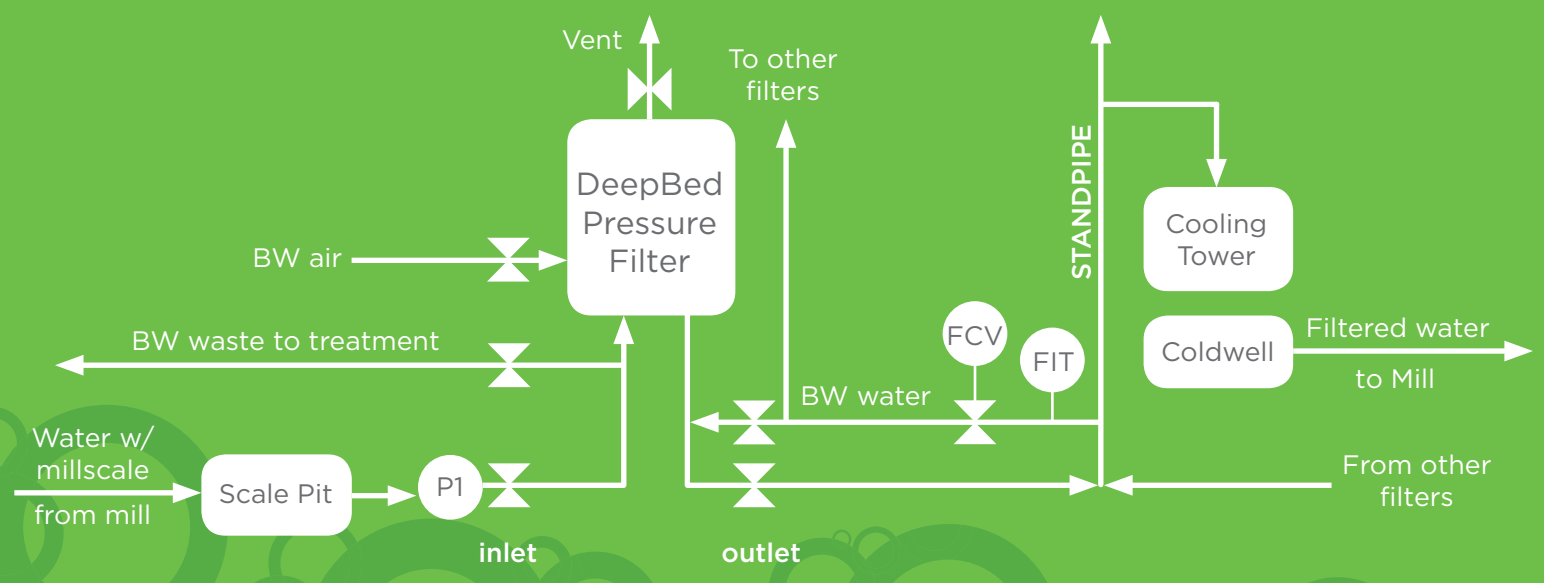
- More than 150 DE NORA TETRA filter systems in American steel operations
- Strong knowledge of equipment and processes before and after filter systems
- Extensive experience converting nozzle, stainless steel folded plate, and other types of underdrains to DE NORA TETRA underdrains

Longevity

The run time before filter needs to be rebuilt, before media replacement and before effluent quality deterioriates are critical.

- DE NORA TETRA filters operate for many years, some lasting decades before rebuilding
- Filter underdrain components rarely need to be replaced during rebuilds

Filter Standpipe Backwash Operation



Trusted Aftermarket Support

Turnkey filter rebuilds and process audits

- Inspection of filter beds and overall operation of filter system
- Removal of media, gravel, block and air laterals
- Inspection and refurbishment of all underdrain components to be re-used
- Re-installation of underdrain components (new if necessary) and grout as needed
- Installation of new gravel and media
- Assist plant operators in returning filter(s) back into service

Replacement parts

Supplied directly from De Nora and guaranteed to be produced to the original specifications and tolerances for exact form, fit and function. OEM replacement parts including valves, control panels, underdrain block, air laterals, sand and gravel available from a US-based network of suppliers.

Upgrades & retrofits

De Nora will guide you through the process of bringing your facility up to current specifications.

Asset management and solutions

De Nora can help assess the performance of your water treatment system in respect to your current and future throughput/capacity and quality goals.

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