



# BLEU™ UNDERDRAIN

## Low Profile Stainless Steel Dual Parallel Underdrain



### BLEU™

#### Blockless Engineered Underdrain

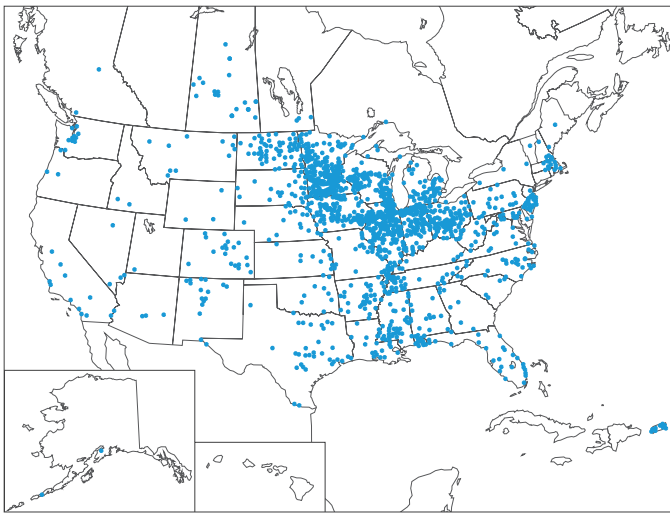
Ideal for a concrete filter retrofit or new concrete construction, BLEU™ is easy to install, fits into existing plant hydraulics, and is an engineered underdrain covered by Tonka Water's full system guarantee.

Complete systems can include other Tonka Water engineered components:

- Simul-Wash™
- Uni-Pac™ parallel plates
- Flocculators/rapid mixers
- Media
- Other components

### BLEU™ Benefits

- **No Dead Zones** - The design for Tonka Water, a U.S. Water Brand's BLEU™ underdrain incorporates our Uni-Scour™ air grid allowing for air to be located outside the underdrain. Combined with fine slotted stainless steel airwash laterals, BLEU™ eliminates dead zones between laterals, achieving complete media turnover.
- **Even Flow Distribution** - Even flow throughout the dual parallel laterals is confirmed through Computational Fluid Dynamic Modeling (CFD).
- **Integrates with Simul-Wash™** - BLEU™ takes advantage of Tonka Water's simultaneous air and water backwash system, Simul-Wash™.
- **Lowest Profile System Available** - The low profile system is ideal for concrete filter retrofits that have height restrictions.
- **Rugged Stainless Steel Construction** - Durable stainless steel construction can sustain backwash pump pressures without damaging the underdrain.
- **Cost Efficient** - This design reduces overall cost of ownership by maximizing filter media cleaning through elimination of dead spots.
- **Ease of Installation** - BLEU™ is fabricated in modular units for both through-wall or gullet configurations.



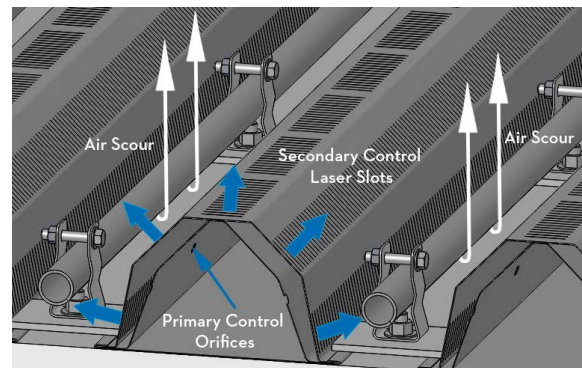
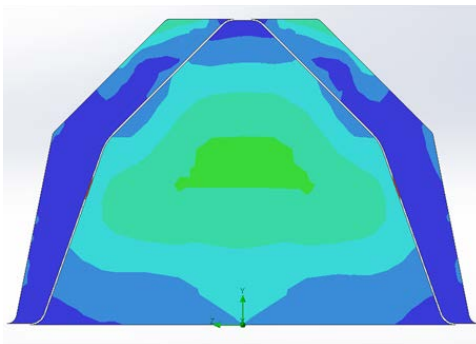
## Tonka Water Guarantee

Tonka Water provides the best custom manufactured water treatment systems in the industry. Our people will deliver excellent service and support for your project from conceptual and cost-effective design, to construction and commissioning; and throughout the system warranty and operational life of the project.

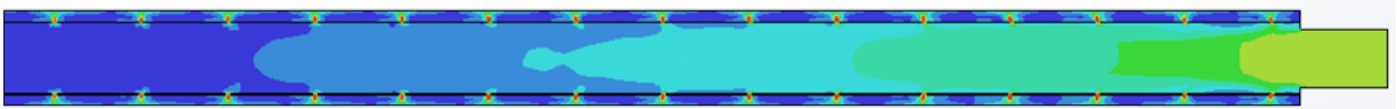
*Thousands of quality water treatment installations since 1956.*

## Proven Independent Hydraulic Modeling

- **Computation Fluid Dynamics** - An independent consultant performed a Computational Fluid Dynamic Modeling (CFD) on the BLEU™ design to simulate water distribution through the lateral.
- **Mal-Distribution** - Mal-distribution is the variation from the average flow. Industry average is +/- 5%.
- **Results** - Tonka Water's results showed an average mal-distribution less than 3% in an eight foot lateral, the standard manufactured length of the underdrain.
- **Even Flow Guarantee** - These results and images show consistent and uniform velocity contours throughout the lateral.



BLEU™ eliminates dead zones with external air scour



CFD modeling displaying the uniformity of the flow for the full length of the underdrain.



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 Tonka Water, a U.S. Water Brand

 **U.S. WATER**  
 The *future* of water™