Reduce Alkalinity of pH with Filtration for Bridge or Highway Repairs

Utilize Rain for Rent’s expertise and project management to create a system to re-use water for hydroblasting

1. Supporting hydroblasting applications
   Water- and equipment-intensive resources are normally required to remove highly alkaline runoff that is discharged from hydroblasting concrete down to the rebar level. Rain for Rent provides savings through an alternative to a traditionally high cost application.

2. Filtering through weirs and tanks
   A series of weirs are designed to direct the runoff from hydroblasting to a weir tank for heavy solids settling.

3. Treating discharged water for re-use
   Produced water is pulled in through pumps where the pH is monitored by an instrumentation mobile unit and injected with CO$_2$ gas as a solution to reduce the water alkalinity.

4. Polishing with advanced filtration
   pH is dialed down to the 7-8 range through bag and cartridge filtration before routed to a frac tank for storage.

5. Eliminating daily vacuum truck trips
   Instead of numerous tanks of contaminated water being carted away every day, all that is needed is a single vacuum truck coming in weekly to remove the collected sludge in the weir tanks.

6. Sourcing additional water supply
   The system is also connected to a long pipe run and pumped from a hydrant to supply additional water as needed to keep the system full.
Pumps

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Flow Rate</th>
<th>Head</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH80c</td>
<td>3&quot; x 3&quot; 76 x 76 mm</td>
<td>450 GPM 28 l/sec</td>
<td>360 FT HEAD 110 m</td>
</tr>
<tr>
<td>DV100e</td>
<td>Size 4&quot; x 4&quot; 102 x 102 mm</td>
<td>700 GPM 44 l/sec</td>
<td>100 FT HEAD 30 m</td>
</tr>
<tr>
<td>DV150i</td>
<td>Size 6&quot; x 6&quot; 152 x 152 mm</td>
<td>2,750 GPM 173 l/sec</td>
<td>195 FT HEAD 59 m</td>
</tr>
<tr>
<td>DV150cSA</td>
<td>Size 6&quot; x 6&quot; 152 x 152 mm</td>
<td>2,775 GPM 175 l/sec</td>
<td>150 FT HEAD 46 m</td>
</tr>
</tbody>
</table>

VFDs

- RiteFlo® VFD Available in 50 HP - 500 HP

Filtration

- Bag or Cartridge Filters 50 – 6,000 GPM
- Media Filters 70 – 1,960 GPM

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow Rate</th>
<th>Head</th>
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<tbody>
<tr>
<td>BF1000</td>
<td>1,000 GPM 63 l/sec</td>
<td></td>
</tr>
<tr>
<td>BF4000</td>
<td>4,000 GPM 252 l/sec</td>
<td></td>
</tr>
<tr>
<td>48-4</td>
<td>1,000 GPM 63 l/sec</td>
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Tanks

- Steel Flat Top Coated Tank 21,000 Gallons
- Weir Tank 18,100 Gallons Over and Under Weirs

Box Filter

- FILTER BOX 25 Yard 19 m³

Safety Products & Jobsite Protection

- Spillguards
  - Portable spill containment systems improve environmental safety by capturing liquids, preventing accidental spills. Ideal under tanks, pumps, pipelines, and valves.

- RampLox®
  - Modular and durable temporary pipe and hose ramps for pedestrian or vehicle traffic. Protects pipe and hose up to 5" in diameter (up to 7" pipe and hose when Clearance Plate is used). U.S. Patent # D725,748

- PipeStax®
  - Replace wood used for cribbing to provide stability and support to your pipe and hoses.

- SolidGround® Traction Mats
  - Provide a stable surface for increased traction on muddy or sandy soil and protect landscapes.

Rain for Rent is a registered trademark of Western Oilfields Supply Company. Features and specifications are subject to change without notice.