HYDRAULIC MIXING ATTACHMENTS

STABILIZATION
SOLIDIFICATION AND
REMEDIATION EQUIPMENT
FOR IN SITU TREATMENT OF:

- SOIL
- SLUDGE
- DREDGED MATERIAL
- CONTAMINATED SITES
- OIL & GAS DRILLING WASTE

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Mixing projects for remediation and stabilization are executed most efficiently when you have the right tool for the project. Because of wide variability in job scale (area & depth), physical properties of material to be blended, and available equipment it is vital that contractors and design engineers have a range of tools to select from.

Alpine’s comprehensive line of excavator-based, hydraulically driven mixing attachments is designed for power and efficiency to meet the demands of your mixing project.

Alpine’s robust transmissions evolved from our roots in mining and tunneling are coupled with drum configurations developed from both field experience and computer modeling of ground conditions. The result is the most diverse and purpose-built mixing tools in the world.
**BENEFITS OF ALPINE MIXING ATTACHMENTS**

- **Uniform Incorporation**
  Additives into the substrate reduces the amount of additive required. This results in significant cost savings.

- **Consistent quality control**
  Mean elimination of “hot spots”. Reduces re-mixing required from inconsistent additive distribution.

- **Standard excavation equipment**
  By utilizing standard auxiliary hydraulics, the need for specialized carriers is eliminated. This can dramatically reduce mobilization costs since excavators can be sourced locally.

- **Scalability**
  Attachments are available in a range of sizes to suit compact and minis all the way up to 100+ ton excavators.

- **Specificity**
  The configuration of mixing tools on the drums are selected to suit the material being blended. Moreover, hydraulic motor sizes are selected to be suit the carrier and allow for correct drums speed and torque.

**BASE CONFIGURATIONS**

We offer mixer attachments that fit nearly all carrier sizes and types and meet project-specific requirements. Each base model can be sized, modified or customized.
Alpine’s top of the line patented gear reduction transmission provides unparalleled power and a variety of motor options to best suit your project requirements.

Alpine’s Transverse Mixer is available in 7 models, ranging from 20 hp - 295 hp.

Alpine TM-Series with Quick-Hitch bucket offers two tools in one for efficient mechanical and bucket mixing. Also excellent for scooping dry additives to mixing zone.

Available picks for transverse drum soil mixers
### TM-SERIES
#### TRANSVERSE TWIN-DRUM MIXERS

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<tbody>
<tr>
<td>Hydr. Input Power hp (kW)</td>
<td>24-30 (18-22)</td>
<td>40 (30)</td>
<td>75 (55)</td>
<td>95 (70)</td>
<td>150 (110)</td>
<td>160-190 (120-140)</td>
</tr>
<tr>
<td>Max. Operating Pressure psi (bar)</td>
<td>5439 (375)</td>
<td>5439 (375)</td>
<td>5075 (350)</td>
<td>5075 (350)</td>
<td>5075 (350)</td>
<td>5075 (350)</td>
</tr>
<tr>
<td>Cutting Head Width in (mm)</td>
<td>22 (557)</td>
<td>26.7 (678)</td>
<td>29.5 (750)</td>
<td>35.4 (900)</td>
<td>35.4 (900)</td>
<td>47.2 (1200)</td>
</tr>
<tr>
<td>Output Shaft Torque ft lb (Nm) @ 5075 psi (350 bar)</td>
<td>3271 (4400)</td>
<td>4050 (5500)</td>
<td>7364 (10000)</td>
<td>10,065 (13,600)</td>
<td>17,800 (24,100)</td>
<td>32,111 (36,200)</td>
</tr>
<tr>
<td>Weight (approx) lbs (kg)</td>
<td>441 (200)</td>
<td>790 (360)</td>
<td>1915 (870)</td>
<td>3080 (1400)</td>
<td>3100 (1400)</td>
<td>6220 (2830)</td>
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* Available with optional XHD power boost motor

**NOTE: Multiple motor displacement options are available within each TM-Series model. This allows us to tailor the cutting unit to your project and excavator’s hydraulic capacity.

- Each model available with various motor displacements to match carrier’s hydraulic capacity
- Variable mixing head speed (RPM) for maximum production in any material
- Greater mixing forces than any other hydraulic mixer on the market!

Ask us for a comparison!
AX-SERIES
AXIAL DRUM MIXERS

A wide selection of hydraulic motors permits optimal mixer speed and torque to suit your ground conditions. The AX-E can operate from 95 – 150 hp at speeds of 0 – 150 rpm. This bidirectional head allows augering for penetration and reversal for tool extraction and injection of reagent.

Alpine AX-Series offer industry-leading machines that deliver more power, torque and uniform delivery of remediation amendments than competitors. Alpine assures mixing blade configurations that are optimized for each project.

### AX-D70
- **Power Max**: 95 hp, 70 kW
- **Rotation**: 0-150 rpm
- **Torque (@350 bar)**: 8,625 ft lb, 11,695 Nm
- **Flow Requirement**: 35-75 gpm, 130-285 l/min
- **Excavator Class**: 15-30 ton, 13-27 tons

### AX-E110
- **Power Max**: 150 hp, 110 kW
- **Rotation**: 0-140 rpm
- **Torque (@350 bar)**: 17,250 ft lb, 23,385 Nm
- **Flow Requirement**: 75-120 gpm, 285-455 l/min
- **Excavator Class**: 20-45 ton, 18-41 tons

### AX-E110/70 Drum Configurations:
- Short drum w/ picks
- Welded paddles
- Weldments/soil picks

The AX-E110 with Tri-paddle welded paddles, liquid reagent injection nozzles, and optional auger tip

Available picks for axial drum soil mixers
DH-SERIES
AXIAL TWIN-DRUM MIXER

Alpine Double Header Mixer DH-4-B

The Double Header Axial Mixer is designed for large scale mixing and remediation projects. This unit is most effective blending slurry, sludge, or dredged material. Large twin drums, each with a powerful 140kW (190hp) motor for a total power of 280kW and reagent delivery nozzles provide a uniformly mixed substrate.

- Counter rotating ‘blender’ drums for maximum mixing energy
- For soil remediation or stabilization applications
- Couples with wet or dry injection systems
- Ideal for stabilization of slurry, sludge, or dredged material

**DH-4-B**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
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<tbody>
<tr>
<td>Maximum Input Power</td>
<td>376hp</td>
</tr>
<tr>
<td>Rotation (bi-directional)</td>
<td>10-110rpm</td>
</tr>
<tr>
<td>Flow Requirements</td>
<td>160-240 gpm</td>
</tr>
<tr>
<td>Shaft Torque</td>
<td>24,700 ft/lbs</td>
</tr>
<tr>
<td>Number Mixing Blades</td>
<td>2 x 16</td>
</tr>
<tr>
<td>Weight (w/6’ bracket extension)</td>
<td>13,200lbs</td>
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