CEI portable Asphalt-Rubber Blending Plants produce a consistently high quality product at the highest continuous production rate available in the market. Highly accurate mass measurement controllers, and a fully automated PLC control system ensure product compliance with a minimal amount of operator functions. The component selections are based upon reliable and readily available suppliers. When service is required, you are assured that it is not only available but also affordable.
Portable Mixing Unit

Ground Tire Rubber (GTR) is loaded into the hopper before mixing begins and must be replenished during the mixing process. Next, the screw conveyor carries the GTR to the mixing chamber. Then, the GTR is blended with virgin asphalt by a high shear mixer running at a speed of 3400 rpm. As the materials are mixed, they are pumped to the portable holding tank. During the mixing process, fresh materials are continuously fed into the chamber until the required volume of material has been mixed.

Portable Reaction Tank

One compartment in the Portable Holding Tank contains fresh mix for a specified time while aged mix is used out of another compartment to make Hot Mix Asphalt (HMA). Each compartment has an auger mounted horizontally in its lower compartment. The auger agitates the mix to keep crumb rubber in suspension. The augers in each compartment operate independently. A level float system diverts the hot oil flow if the asphalt-rubber drops below the top of the heating coils.

The CEI Portable Reaction Tank can be a single, double, or triple compartment design. Each compartment has individual controls for level and temperature. Blue smoke control, folding walkways, and plant supply pumping/metering systems are all inclusive. Axles are provided per permitting requirements.
Controls

Controls automatically maintain the ratio of asphalt-to-GTR set by the operator. The system incorporates a Programmable Logic Controller (PLC), a mass flow asphalt meter and load cells. The PLC controls the flow of materials into the mixing chamber based on information provided by the asphalt meter and load cells. The mass flow asphalt meter, located in the asphalt line, monitors the flow of asphalt into the mixing chamber. The load cells are mounted on the GTR hopper and monitor the amount of GTR being fed into the chamber. Running totals of asphalt and GTR are displayed so the operator can verify that the set mix ratio is being achieved.

<table>
<thead>
<tr>
<th>Nominal Continuous Capacity Rating</th>
<th>35 to 45 Tons Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction Tank</td>
<td>Single Compartment</td>
</tr>
<tr>
<td>Tons Per Hour</td>
<td>10 to 15</td>
</tr>
<tr>
<td>Double Compartment</td>
<td></td>
</tr>
<tr>
<td>Triple Compartment</td>
<td></td>
</tr>
</tbody>
</table>

Nominal capacity ratings are based upon a continuous 24 hour per day plant supply delivery in compliance with normal specifications for reaction time and temperature. Actual continuous production rates are influenced by the compatibility of the virgin asphalt with the crumb rubber, piping system designs, specified reaction times, temperatures, etc.

CEI Innovations Include

- **Booster Heaters** to elevate AC temperatures for increased production rates.
- **High Speed Augers** to maximize the agitation in the reaction tank.
- **Heat Exchangers** (Hot Oil) to blend at process requirements.
- **Extender Oil Systems** mounted and integrated for unique applications.
- **PLC Systems** - Recipe driven for fully automated control.
- **Triple Compartment Reaction Trailers** to maximize production rates.
- **Integrated Piping Systems** to allow for transfer of material between compartments.
- **Fully Automated Valves** in all phases of the product process.

Available Options

- **Bag Handling Systems** for loading crumb rubber.
- **Flood Lights** for night projects.
- **Dual Sided Connections** to readily adapt to plant space limitations.
- **Separate Plant Supply** pump skid.
- **Parallel Pumping Systems** for emergency backup.
- **Exhaust Temperature-Controlled** vent condensers.
- **Fuel Meters** and **Remote Dialer** for the hot oil heater.
- **Skid-Mounted** stationary plants.

Equipment. Parts. Service. Rely on CEI.

A legacy of innovation and quality since 1969.