HEATEC® PMA-C



Relocatable Polymer Modified Asphalt Production

Astec's new Heatec Polymer Blending System is designed for high output and easy transport. The unit fits into a standard 40 ft open-top shipping container. Easily connect and disconnect feed equipment and piping once you are at the job site or ready to move. New Astec Digital controls are built-in to complete the package.

The system features a 150 hp Heatec Barracuda colloid mill or a 300 hp mill for higher production. Two 1,700 gallon heated tanks come standard, but other configurations are available. The tanks sit on load cells to monitor fill levels. Piping, pumps, metering packages, electrical wiring, control panels, etc. all come standard.

Other modules for polymer feed systems, additive tanks, and storage/holding tanks are in development.



HEATEC PMA-C

Astec™ Polymer Blending Systems

HOW IT WORKS

Virgin AC is metered or weighed out of a heated storage tank into a heated mixing tank. The SBS pellets are augured from a hopper into the same mixing tank. In the mixing tank the virgin AC and pellets are blended with each other to make a concentrate of about 12 percent polymer. Impellers of a mixer mounted through the top of the tank pull the pellets down into the liquid AC. This wets and disburses them before they are circulated

through the Heatec Barracuda colloid mill. The pellets are sheared into smaller and smaller pieces as they make multiple passes through the mill. This speeds up the blending process and ensures that all of the pellets are dissolved.

After the initial blending, the concentrate is pumped into a heated let down or holding tank where it is blended with additional virgin AC. The virgin AC is metered to produce a mixture containing about 3 to 4 percent polymer. This tank has a mixer to constantly agitate the mixture and prevent separation. The mixture only requires about 45 to 60 minutes for blending before it is ready for load out.

It is possible to design the blending system so that the SBS pellets make only a single pass through the mill for increased production volume. However, the multi-pass method ensures greater uniformity and higher quality where there might be variations in the virgin AC used.



Model	Production Rate	Blending Operation	Configuration	Colloid Mill	Tanks	Pumps	Controls
PBS-20-B-C	20 TPH*	Batch	Container	150HP	(2) 1,700 Gallon Batch Tanks	4" Mill Feed	Astec Emulsion and PMA Controls
PBS-40-B-C	40 TPH**	Batch	Container	300HP	(2) 1,700 Gallon Batch Tanks	6" Mill Feed	Astec Emulsion and PMA Controls
PBS-20-S-C	20 TPH*	Single Pass	Container	150HP	(1) 1,700 Gallon Wetting Tanks	4" Mill Feed	Astec Emulsion and PMA Controls
PBS-20-S-C	40 TPH**	Single Pass	Container	300HP	(1) 1,700 Gallon Wetting Tanks	6" Mill Feed	Astec Emulsion and PMA Controls

^{*}The mill outlet flow rate equates to 60TPH (pumping rate), and the estimated production rate of the batch production system, including estimated melting and curing time is 20TPH, and can vary depending on blend ratios and process variability.

^{**}The mill outlet flow rate equates to 120TPH (pumping rate), and the estimated production rate of the batch production system, including estimated melting and curing time is 40TPH, and can vary depending on blend ratios and process variability.



