Model 4822 Asphalt Drum Mixer

GENERAL

DESIGN AND PRODUCTION: The ALmix Model 4822 Drum Mixer is of the parallel flow design and includes a special herringbone bolt-in flight design for maximum drying and mixing efficiency, lower stack temperature and reduced fuel consumption. This mixer is designed to produce 30-60 TPH depending upon aggregate and moisture characteristics. More specifically, the above plant is guaranteed to produce 50 TPH of 290°F hot mix from material having an initial moisture content of 5%.

DRUM MIXER: The 48" diameter x 22' long drum is constructed from 5/16" thick steel plate. The drum is trunnion driven through four shaft mounted reducers by two 7-1/2 H.P. motors. The main frame features unitized construction from heavy, structural steel members with beams supporting the trunnions and drum. Four 10" diameter x 4" face flanged trunnions are machined and heat treated to 500 brinell and are fitted with 1-15/16"diameter ball bearings. Each trunnion assembly is mounted on a 1/2" thick steel plate allowing the assembly to be adjusted as a unit. The trunnions drive two 1-1/2" thick steel tires made from one piece forgings. Material is discharged from the drum by bolt-in steel sweeper flights through a side discharge.

DRAG CONVEYOR: The 16" wide x 23' long single chain drag type conveyor is driven by a 10 H.P., motor through a shaft mounted speed reducer. The chain is 4" pitch roller type, having alloy steel side bars, carburized bushings, case hardened pins and hardened rollers. The conveyor operates at approximately a fifty (50) degree incline for high efficiency and low abrasion. The conveyor bottom is fitted with 1/2" thick abrasion resistant steel plate liners and the sides are fitted with 3/8" thick abrasion resistant steel plate liners.

BURNER ASSEMBLY: The Model 4822 Drum Mixer employs the Hauck StarJet burner assembly. The burner is capable (with the appropriate optional equipment) of burning any grade of fuel oil, natural gas, liquid LP and combustible liquid waste. The burner assembly includes a high efficiency 36 oz. blower driven by a 20 H.P., motor, automatic temperature control and flame safeguards. The burner capacity is 15.2 MBTU/HR. A skid mounted fuel oil pump driven by a 1/2 H.P., motor is provided.

POLLUTION CONTROL DEVICE: A frame mounted wet collection system includes an enlarged, hinged discharge breaching on the drum mixer, an in-duct adjustable venturi section, primary separator, Model-23 exhaust fan driven by a 40 H.P., motor and hinged exhaust stack. A spray bar located in the duct contains clog resistant brass nozzles which completely saturate the air stream. The primary wear sections in the pollution control system are constructed from abrasion resistant steel plate to assure long life. A 40 gpm water pump directly coupled to a 7-1/2 H.P., 3600 rpm, motor is furnished skid mounted to permit location next to the settling pond.

ASPHALT BLENDING SYSTEM

GENERAL: The Model 4822 Drum Mixer includes the ALmix Millennium Control System. The heart of this control system is an IBM PC compatible computer. The Premium Control features a fully graphic operator interface to provide complete plant status at-a-glance. Premium is a Windows based system employing "point and click" technology. The system retains information, system constants and scale calibrations in case of power failure or power off conditions on a hard disk.

FORMAT: Included in the system is a 17" full color monitor with key board entry panel. The operator uses the monitor to preset the percent of liquid asphalt desired in mix, the percent of reclaimed material desired in mix, the percent of liquid asphalt in reclaimed material, separate start and stop delay times for AC injection, liquid asphalt tolerance percent and aggregate moisture compensation setting for each aggregate. The following items are displayed on the video monitor: The aggregate TPH for each aggregate, aggregate total TPH at point of asphalt injection, liquid asphalt TPH, recycle TPH, total mix TPH, desired % of aggregates, recycle and liquid asphalt, actual % of aggregates, recycle and liquid asphalt, accumulated total tons of each aggregate, accumulated total tons of liquid asphalt, accumulated total tons of mix, incline conveyor FPM and liquid asphalt temperature.

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BLENDING EQUIPMENT: The asphalt pump package consists of a 1-1/2" jacketed, positive displacement asphalt pump driven by a 2 H.P. motor and flux vector drive. Following the pump assembly is a jacketed, 3-way, air cylinder actuated by-pass valve to pass asphalt to the drum (through the meter) or recirculate the asphalt to the tank. Next is a second jacketed, positive displacement, asphalt pump which is used as a meter to monitor the asphalt flow rate. The accuracy and durability of this second pump complete with optical encoder make it far superior to traditional asphalt flow meters. Temperature compensation is accomplished through the Millennium control system.

OPTIONS:

- Stationery or Portable Asphalt Plant Design Configurations
- Single or 2 bin Cold Feed System – mounted on frame with drum mixer
- 3 or 4 bin Portable Cold Feed Systems Unitized pollution control equipment Baghouse or Wet Collector
- Variety of Asphalt Storage Silos and Slat Conveyors; self erect portable units or stationery
- Portable or stationery Asphalt Tanks, with indirect or direct fired heating systems
- Various optional blending equipment control features including: Automatic feed control, multiple mix design storage, virgin aggregate tolerance alarm and asphalt temperature compensation

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