



ANP

Productivity Partnership for a Lifetime

Ammann Apollo India Private Limited – a member of Ammann Group

Apollo has been the market leader for asphalt mixing plants and asphalt pavers in India for more than 30 years. A total of 500+ employees at three plants in the Gujarat province produce plant and machinery for Apollo's main market India and other emerging markets. Additionally, Apollo also has a broad network of sales and service points throughout India.





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Joint Venture Ammann Apollo

With the joint venture with Apollo, Ammann is expanding its market position in the field of asphalt mixing plants, asphalt pavers and compaction machines in India and its neighbouring markets. The joint enterprise is responsible for the sale of the Ammann product range in the region whilst the Ammann Group continues to operate on a global basis. The partnership with Apollo therefore represents a significant contribution towards strengthening Ammann's global market position.



AN INNOVATIVE FAMILY FIRM

Ammann is a world-leading supplier of mixing plants, machines and services to the construction industry, with core expertise in road-building and transportation infrastructure. Our strengths are the forthcoming approach of a family firm that has been operating for many years, coupled with our strong and well-established international presence. Since 1869, we have been setting benchmarks in the road-building industry, thanks to countless innovations and solutions that are as competitive as they are dependable.

True to our motto, "Productivity Partnership for a Lifetime," we gear our activities to the needs and requirements of our customers around the globe. We are aware that plants and machines that prove their merits day after day under tough operating conditions are the only way to give our customers the critical, competitive edge they need. As you would expect, we provide a well-developed service network and reliable supply of spare parts, together with support throughout the lifetimes of the plants and machines that we offer.











India Tunisia Algeria Saudi Arabia











Bangladesh Uganda Oman



Drying Drum

The ANP asphalt plants are renowned for their high efficiency and low maintenance Drying Drum.

The field proven flights together with an additional amount of drying volume places the ANP drying drum in its own class.

The special drying flight design, ensures the highest thermal transfer efficiency by allowing specifically designed flights to transfer the heat by radiation, convection and conduction, transferring uniform heat to all different sizes of aggregates.

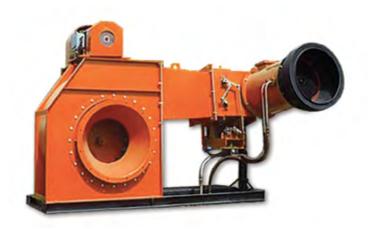
The drum features a unique air preheat system, which improves drying efficiency, aid power saving, reducing the thermal stresses on the drying drum and noise emissions from the burner.

ANP plants are supplied with a proven burner design, which has a reputation for its fuel efficiency and lower emissions. The burner meets the strictest working demands, thanks to its automatic controls and wide turndown ratio. Optionally ANP plants are also supplied with burner capable to run on gas and heavy fuel.

Pollution Control Unit

The ANP plants are supplied with a standard dual stage pollution control system, comprising of a twin cyclonic separators and a secondary bag house filter.

All ANP series plants are supplied with the air flow type bag house filter unit. It provides savings on power, lower maintenance, trouble-free service and strict conformance to stringent environmental norms.











Batching Tower

Fully enclosed inclined linear vibrating screens with high quality vibrating screen cloth, contribute to top notch performance. The inclined linear vibrating screen is provided with duplex spring absorbers, and is powered with two numbers of six-pole maintenance free vibro motors. The free-floating design prevents any vibration from being transferred to the weighing scales. A wider platform with easy access eases the maintenance of the screen.

Highly reliable weighing system with low maintenance load cells and an easy calibration system makes the ANP series highly popular with the site engineers and plant operators.

The 3D mixer unit is the heart of the ANP plants and has a large live zone, realizing a quick and even mixing of asphalt. The mixer unit is hot oil jacketed and supplied with a low-maintenance oil-bath type chain drive. The paddles, arms and tips are made of wear resistant high nickel hardened cast alloy steel. The reversible design of the mixer internals ensures a lower operating cost.

Hot stone bin sampling trays and a complete batching tower dust scavenging are standard in all the ANP series plants.

Cold Aggregate Bin Feeders

Years of experience and an installed base of around 2500 units means design expertise for top performance even under the toughest of operating conditions. The Bins are all-welded and modular in construction, permitting easy addition of bins to meet growing needs. Steep bin walls and valley angles allow free flow of aggregates from the feeders minimizing hold-up of materials in the corners and bridging with sticky aggregates. The bins supplied with adjustable calibrated gate openings and variable speed feeder drives together offer a total proportional control, greater flexibility and accuracy of operations.

Control System

Fully computerized air-conditioned control cabin, with onboard electrical power control console, distribution switch board, fully automatic process and sequence controls are a standard on all ANP series plants.

User-friendly software on the computer with a parallel PLC man machine interface gives you total reliability and ensures top notch performance.

- Automatic free fall compensation
- Fail proof power interlocks and auto process controls
- Automatic cold aggregate feeder controls linked with mix design and hot bin levels

The control is equipped with function keys and numeric keys, and does not require special skills for operation. The operator can monitor the complete process control, motor status and pneumatic controls through the colour CRT display.

SCADA features:

- Docket printing and inventory management
- Provisions to print, store and email production details, mix proportions, etc.
- Online fault detection with remote connectivity and solution





Hot Mix Storage Silo

Apollo offers a complete range of Hot mix storage solutions (11–83 m³), to meet plant requirements. Customers can choose from inline surge silos to skip-winch assisted hot mix storage silos.

Hot mix storage silos can be offered with options to store different types of mix designs to meet varied site demands.

All silos are supplied with state of the art fully automatic controls together with automated safety and un-interrupted productivity.

By opting for a hot mix silo customers gain large benefits:

- Achieve increased efficiencies through longer continuous production runs
- Fuel savings thanks to the uninterrupted and constant dryer drum burner operations
- Helps cater to clients with different mix design requirements
- Reduce the number of transporting trucks

Bitumen Heating and Storage Solutions

The indirect heating tanks are supplied with a high efficient thermic oil heater. All tanks are supplied with auto thermostatic controls and level indicators.

Thermic Oil Heater

The ANP plants are supplied with hot oil jacketing on bitumen pipe line, asphalt pump, bitumen weigh hopper section and pug mill body. Opting for hot oil heating reduces asphalt pump binding, asphalt pipeline blocking, smoother bitumen weigh batcher and pug mill operations.

The thermic oil heaters are supplied with auto temperature controls to maintain precise bitumen temperature.

The Thermic oil heater is supplied with independent automatic control panel including oil temperature indicator controller, low level switch, low circulation pressure switch, over temperature cut off thermostat burner control relays and burner operating circuits.

Capacity range: upto 500,000 kcal/hr.

Filler Feeding And Storage Solutions

Apollo offers a wide range filler storage solutions. The filler from the silo is transported into the filler elevator on the batching tower, which then is weighed and mixed in the pug mill unit.

The filler silos can optionally be supplied with filler feeding bucket elevator to suit bagged filler feeding. As a standard the filler silos are supplied with level indicators and process interlocks.



Technical Specifications

| PLANT MODEL | 1000 | 1500 | 2000 |
|--|--|--------------|--------------|
| PLANT CAPACITY AT 3 % MOISTURE CONTENT | 80 t/h | 120 t/h | 160 t/h |
| BATCH SIZE | 1000 kg | 1600 kg | 2000 kg |
| CYCLE TIME | 45 sec | 45 sec | 45 sec |
| UNITS | | <u> </u> | |
| COLD FEED BINS (NO. OF BINS) | 4 | 4 | 4 |
| CHARGING CONVEYOR (CAPACITY) | 140 t/h | 140 t/h | 180 t/h |
| THERMO DRUM (DRYER (LXD)) | 6.6 × 1.54 mtrs | 8 × 2.1 mtrs | 8 × 2.1 mtrs |
| DRIVE TYPE | 4W Friction drive | | |
| BURNER TYPE | High pressure, fully automatic, modulating | | |
| FUEL | Diesel / furnace oil | | |
| CAPACITY | 7.6 MW/hr | 14.1 MW/hr | 14.1 MW/hr |
| HOT ELEVATOR CAPACITY | 140 t/h | 140 t/h | 180 t/h |
| TOWER UNIT | | | |
| FILLER ELEVATOR CAPACITY | 21 t/h | 21 t/h | 21 t/h |
| SCREENING UNIT (SCREENING METHOD) | Inclined linear vibration | | |
| NO.OF DECK | 4 | 4 | 4 |
| SCREENING CAPACITY | 140 t/h | 140 t/h | 180 t/h |
| HOT AGGREGATE BIN UNIT (NO. OF BINS) | 4 | 4 | 4 |
| WEIGHING UNIT (AGGREGATE HOPPER CAPACITY) | 1600 kg | 1600 kg | 2000 kg |
| FILLER HOPPER CAPACITY | 300 kg | 300 kg | 300 kg |
| BITUMEN HOPPER CAPACITY | 225 kg | 225 kg | 225 kg |
| MIXER UNIT TYPE | Twin-shaft hot oil jacketed | | |
| MIXER CAPACITY | 1600 kg | 1600 kg | 2000 kg |
| BITUMEN PUMP | 800 lpm | 800 lpm | 800 lpm |
| POLLUTION CONTROL UNIT | | | |
| PRIMARY TYPE | Centrifugal double cyclone | | |
| SECONDARY TYPE | Bag house filter | | |
| BAG HOUSE FILTER | Reverse airflow | | |
| FILTER AREA | 330 m² | 330 m² | 330 m² |
| CONTROL PANEL TYPE | Fully computer ized with manual over-ride | | |
| ACCESSORIES | | | |
| FILLER SILO (CAPACITY RANGE) | 3 / 7 / 11 / 18 / 28 m³ | | |
| BITUMEN TANKS (CAPACITY RANGE) | 15 / 25 / 30 / 50 m³ | | |
| HEATING SYSTEM | Direct heating / thermic oil heating | | |
| THERMIC OIL HEATER (HOT OIL HEATER CAPACITY) | 300000 / 500000 kcal/hr | | |
| HOT MIX STORAGE SILO (CAPACITY RANGE) | 12-200 m³ | | |
| PLANT CAPACITY RATED AT: | 3% moisture content in cold aggregates Aggregate density of 1.6 tons / m³ Mean sea level Ambient temperature of 30°C Hot mix termperature of 150°C | | |

Per Apollo's policy of constant upgradation of products, specifications are subject to change without prior notice.

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