

Plants

## CounterMix 90–120 DrumMix 60–120

Continuous Asphalt-Mixing Plants

# 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.



**AMMANN**  
Apollo



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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.

# CounterMix 90–120

## Counterflow Asphalt Drum Mix Plant

### New technology for the drum mixing

The new Counter flow technology continuous drum mix plant is setting new standards for asphalt mix production in the 90–120 t/h output classes. The prime benefits of the plant are fuel efficiency, low carbon foot print, environment protection and facility to add RAP.

### Efficient counter flow drum

The heart of this plant is a high efficiency counter flow drier drum with a matched fully modulating long nose burner. In conventional continuous mixing plant the parallel flow heat transfer technology is used where in the material to be heated and the hot gases flow parallel to each other in the same direction. In a counter flow drier drum, the material to be heated and the hot gases flow contra to each other meaning in opposite directions. This is highly efficient heat transfer system to maximize the transfer of heat from hot gases as well as radiation heat from the burner flame to the aggregates. And the spraying of bitumen and filler is done when the hot aggregates pass behind the burner in the same drier drum.

### Benefits at a glance

- Counter flow continuous drum for high fuel efficiency and lower carbon foot print
- Ammann engineering and quality standards
- Extremely rapid erection and implementation times with options like steel foundation and plug socket cabling
- Efficient world class bag filter for stringent pollution norms

### The plant overview

The plant has cold feeder, counter flow drier drum unit, efficient bag house, load out conveyor, bitumen tank and mineral filler silo. It also offers host of options from the simplest basic plant to more sophisticated advanced version depending upon the customer needs.



## Pre-feeders

Compact and modular standard four bin feeder ensures quick transport and erection. With the sufficient storage of 8 m<sup>3</sup> per bin, the quality of a mix is decisively influenced right from the feed stage. Frequency controlled feed regulating conveyers extending upto drum inlet chute ensures hassle free conveyance accompanied by simple calibration system. Its low tipping height can help eliminate the need of construction of expensive full ramps and one can work with a loader and small ramp. All Shaft mounted geared motors ensures low maintenance and high energy efficiency.

## Oversize removal vibratory screen

The drum hot mix plant is supplied with oversize removal vibratory screen for protection of drum. Any oversize material, detrimental for the heating and mixing thermodrum internals, are screened out ensuring better performance and safety of the plant.

## Counterflow continuous dryer

Special design continuous drier drum with counterflow heat transfer technology yields significant fuel efficiency and much better pollution control. The drum is fitted with a long nose fully modulating burner extending inside the drier. The flight arrangement in the drum will be classified as Loosening zone, Convecting zone, Radiating zone in front of the burner flame and mixing zone behind the burner flame. The unique flight design ensures total heat transfer, a through mixing & coating, lower emissions and prevention of bitumen oxidation. Four friction drive through shaft mounted gear motors, sufficiently sized drier rings with robust leaf supports, covered material inlet section to minimize dust suction makes it a very powerful and compatible to perform in diverse climatic conditions. In addition, one can choose an optional feature of 25 mm thick cerawool insulation to cope with very cold climatic conditions.



**Apollo dryer optimally tailored to the requirements. This results in high long-term performance and low fuel consumption as well low emissions.**

## Long Nose Burner

High pressure fuel atomizing short flame and low noise fully modulating burner with automatic ignition device is a proven and efficient burner module on liquid fuels like Diesel/LDO/FO. Built in high pressure pump with multistage filtration enables tackling fuel impurities. The built in fuel meter helps monitoring the fuel consumption. Adequately sized burner fan provides sufficient air for proper combustion. The Long nose burner designed in such way that the drier is extended behind the burner flame point, the hot aggregates passes through the burner and travels behind the burner and the bitumen is sprayed in this extended drier behind the burner.

## Pollution control system

The latest counter flow continuous drum enables the safe use of latest pollution control equipment bag house because of low temperature of exhaust gas and no risk of bitumen fumes going to bag house. The bag house filter designed based on Ammann design principles combining best efficiency with highest degree of mobility. Adequately sized filtration area and filter bag material ensures global standard emission control. Pre separator design ensures that the coarse dust is separated before bag chamber. In standard configuration both the dust are conveyed together to the mineral filler silo for reuse. Optionally it is possible to sepa-

rate out the coarse dust from fine dust. Efficient reverse air flow cleaning using Ammann's cleaning mechanism, direct drive exhaust fan for high efficiency make it a compact but world class bag filter design. Bags made from Aramid needle fabric with PTFE treatment make it heat resistant and it will be oil and water impermeable. Optional insulation can help in cold climatic conditions.

## Loadout conveyor

Loadout belt conveyor with gob hopper (1,5 t) is standard supply for loading the finished hot mix into the truck directly.

## Software and hardware

Proven control system for complete control of the process as per the recipe programmed starting from calibrated cold feeders with variable speed drives, continuous belt weighing to measure the aggregates being fed to the drier, calibration of bitumen supply and control with variable speed driven bitumen pump, automatic control of bitumen as per the actual aggregate weight and recipe program, filler control through variable speed driven rotary valve and

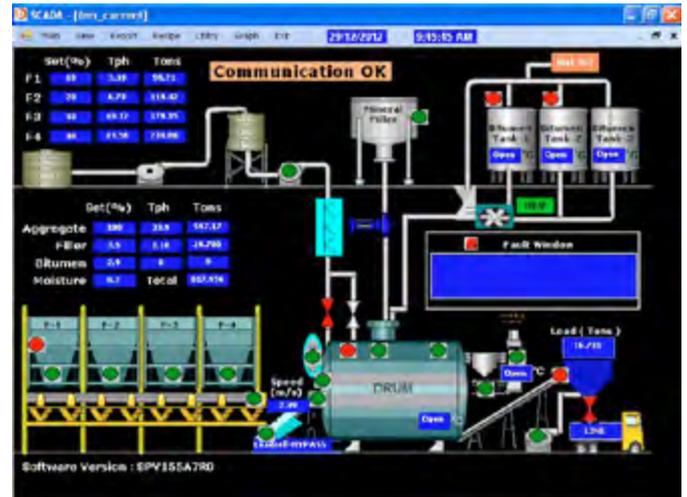


**Apollo filters are equipped with the greatest possible active filtering surfaces, even during the cleaning cycle.**

pneumatic conveying system as per the recipe program gives full control over the entire hot asphalt production process. Automatic control of burner as per the set mix temperature optimizes the fuel consumption.

Custom built continuous hot mix process controller with powerful plant control and monitoring facilities in very user friendly and simple way. Calibration of all feeders, loadcell, temperature indicators and span adjustment helps operator to easily calibrate the plant. Facility to enter the recipe, set temperatures, plant load factor, truck load hooter setting etc. helps operator to operate the plant in full auto mode as per the set recipe. All important fault alarms and log helps for easy diagnostics and quick troubleshooting. LCD display to display the plant operating values and data entry with sufficient number of touch keys give a compact but functional human machine interface. Burner sequence control ensures burner control as per the set temperature. RS232 communication port enables exchange of data with PC or printer as needed.

A reliable make PC connected with the controller makes the total control very simple, user friendly with data logging facilities. User friendly mimic process diagram of the plant makes it easy for operator to monitor the plant operation and important parameters, calibration, recipe programming and all plant settings facility makes it easy for operator. Specially developed SCADA software with seven different modules for Production data setting and monitoring, Recipe programming with facility to enter unlimited number of recipe, Inventory module for material management, Mainte-



nance module for fault logging and maintenance planning, Service module for history recording, Utility module for system management and docket module for docket printing and recording makes it a versatile control. Production data logging and host of MIS reports provides necessary details for management and control of the plant. Password protection ensures important data security.

Integrated compact control room with visibility made from superior fabrication and high quality paint with option to fix AC makes it a comfortable and safe operator office. Optional remote connectivity by incorporating GSM/GPRS modules and software one can have facility for transmitting important plant data through email or sms.

## A host of options

Wide range of options cover all needs of road specifications and future retrofit provisions make your investment scalable and future ready.

## CS100 control systems reliable and easy to operate

The future-oriented CS100 control system is the result of total in house research and development and combines proven Apollo process know how with the latest software technology.

CS100 controls the entire continuous hot asphalt production process. Dynamic plant operation view and display of all important operational parameters makes it the most comfortable control for the operator. The user friendly CS100 handling makes it easy to monitor and operate the plant and all important functionalities such as parameter optimization, calibration, recipe programming and diagnostic. The system is very quick and easy to learn and due to its simplicity safe to operate at any time. CS100 provides a comprehensive production

protocol, day reporting and various production and component statistics. The protocols and predefined statistics are automatically converted into PDF and systematically archived. Various optional software modules like HTML real-time production data export, EcoView, maintenance management or process data trending makes it the complete software package for your asphalt production plant. The CS100 control system hardware has been designed and tested for use in tough environments. The proven field bus system is robust and ensures a reliable plant process signal exchange. Faults can be detected efficiently and rectified by means of the diagnostic tools. Integration to the Ammann Group remote service platform, operated by our experienced global Hotline staff, ensures support in any part of the world.



## Cold RAP addition solutions

The usability of reclaimed asphalt, or recycling, is gaining popularity today and may become necessity tomorrow. Because of counterflow design of the drum the mixing takes place behind the burner flame and hence facilitates adding of RAP material through specially designed RAP introduction flights and mixing flights.

## Drag slat conveyor

The Drag slat conveyor is the international norm for conveying the hot mix as compared to the traditional hot belt conveyor. The drag slat conveyor is fully enclosed to avoid heat loss and oxidation of mix, the mix material is dragged by scraping and hence all the fines which are very important for proper bonding of the road mix are conveyed and not lost. In case of belt conveyor the fines have tendency to stick to the belt. The optional system for the conveying the ready mix material at shorter distance directly in to truck or on 50 t ready mix silo is available. Drag slat conveyor carries the gob hopper.

## Hot mix silo

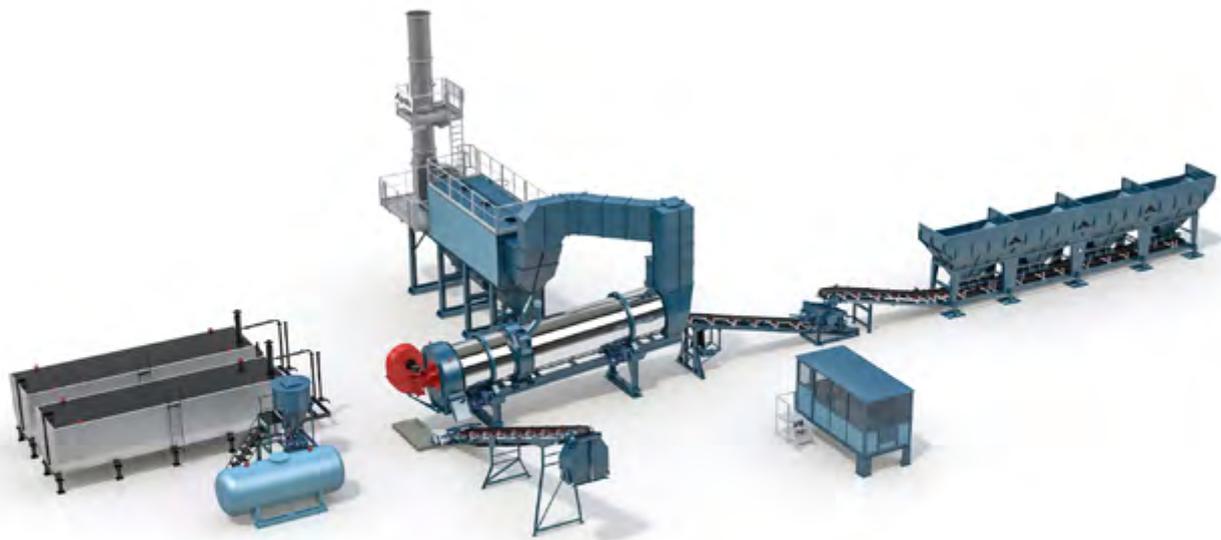
Complete range of customized solutions for the asphalt storage. The MONOPAK silos are available with storage capacities from 10 to 80 t. The twinpak silos are available with storage capacities from 50 to 80 t with an additional feature of storing different mix designs. Various storage combinations can be availed by opting for customized multipak designs. The silos are supplied with automated standard safety controls and process interlocks.

## Bitumen heating and storage solutions

Customer can opt for a direct heating type or hot oil heated bitumen storage tanks. Storage capacities range from 15–50 t. The Indirect heating tanks are supplied with imported Thermic oil heater. The Direct heating tanks are supplied with automatic imported pressure jet burner. The Bitumen tanks are supplied with auto thermostatic controls and level indicators.

## Quick version with steel foundation

This option enables easy relocation of the plant and eliminates expensive concrete foundations. Adequately designed steel foundation for Indian wind load and earth quake conditions needs a compacted and levelled ground with top load bearing capacity of 25 t/m<sup>2</sup>. The control panel is also given with plugs and sockets for quick wiring.



## Technical Specifications



| PLANT TYPE                                 | 90  | 120   |
|--|---|---|
| CONTINUAL PLANT CAPACITY AT 3 % MOISTURE * | 90 t/h  | 120 t/h                                       |
| CONTINUAL PLANT CAPACITY AT 5 % MOISTURE * | 70 t/h  | 100 t/h                                       |
| NUMBER OF COLD FEEDERS                     | 4   |   |
| CONTENT COLD FEEDERS                       | 8 m <sup>3</sup> each bin with extension plates   |   |
| AUXILLIARY CONVEYOR BELT AND DRIVE         | 450 mm × 1.4 m / 1.1 kW × 4 nos = 4.4 kW  |   |
| GATHERING CONVEYOR BELT AND DRIVE          | 500 mm × 11 m / 2.2 kW  | 600 mm / 3.7 kW                               |
| BIN VIBRATOR MOTOR                         | 0.18 kW   |   |
| OVERSIZE REMOVAL SCREEN MESH AND DRIVE     | 45 × 45 mm / 0.18 kW  |   |
| SLINGER CONVEYOR BELT AND DRIVE            | 500 mm / 3.7 kW   | 500 mm / 4.5 kW                               |
| TYPE DRYING DRUM                           | Cylindrical, inclined counter flow  |   |
| DIAMETER / LENGTH                          | 1650 / 7080 mm (with RAP ring)  | 1800 / 8500 mm (with RAP ring)                |
| DRUM DRIVE                                 | 4.5 × 4 = 18 kW (Total 4 nos) (with RAP ring)   | 9.5 × 4 = 38 kW (Total 4 nos) (with RAP ring) |
| BURNER POWER OUTPUT                        | 6.59 MW (long nose S8 burner)   | 7.67 MW (long nose S10 burner)                |
| FUELS                                      | Standard burner for LDO / Diesel. Heavy oil as an options.  |   |
| FILTER CAPACITY                            | 15 000 Nm <sup>3</sup> /h   | 31 000 Nm <sup>3</sup> /h                     |
| FILTER SURFACE                             | 200 m <sup>2</sup>  | 420 m <sup>2</sup>                            |
| EXHAUSTER CAPACITY                         | 45 kW motor power   | 75 kW motor power                             |
| LOAD-OUT CONVEYOR CAPACITY                 | 200 t/h   |   |
| LOAD-OUT CONVEYOR BELT WIDTH               | 600 mm  |   |
| LOAD-OUT CONVEYOR DRIVE                    | 5.5 kW  |   |
| GOB HOPPER CAPACITY                        | 1.5 t   |   |
| HYD POWER PACK                             | 3.7 kW  |   |
| FILLER SUPPLY                              | Mineral filler tank capacity 1.5 m <sup>3</sup> , Drive 1.5 kW. Air compressor 11 kW. Other sizes and types on request. |   |
| <b>OPTIONAL ITEMS</b>                      |   |   |
| DRAG SLAT CONVEYOR CAPACITY                | 100 t/h   | 120 t/h                                       |
| HOT MIX STORAGE SILO                       | 50 t  |   |
| BITUMEN TANKS                              | 20 kl / 30 kl Horizontal type. Direct heating / Hot oil heating.  |   |
| RECYCLING ADDITION                         | Through RAP addition ring in the drum   |   |
| Special size on request.                   |   |   |

\* Hot mix production capacity based on following conditions: 10 % bitumen and 12 % filler addition, input moisture of aggregates 3 %, hot mix temperature of 150 °C and 0/2 fraction share max. 40 %.

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

# DrumMix 60–120

## Parallelfow Asphalt Drum Mix Plant

With years of experience in asphalt mixing, and an installed base of over 2400 plants, Apollo has mastered the continuous asphalt mixing technology. The world over, DrumMix plants from Apollo have produced millions of tons of quality asphalt. Apollo plants are known for quality of mix, lower operating costs, productivity, efficiency and high uptime.

### Cold aggregates bin feeders

The bins are all welded and modular in construction, permitting easy addition of bins to meet growing needs. Steep bin walls and valley angels allow free flow of aggregate from the feeders minimizing hold up of materials in the corner and bridging with sticky aggregates. The bins supplied with adjustable calibrated gate openings and variable speed feeders drive, together offers total proportional control, greater flexibility and accuracy of operations.

### Burner

The high pressure atomized, fully automatic remotely controlled burner unit has a very good reputation for its fuel efficiency, ease of operation and high uptime. Completely automatic process control with systems interlocks ensure conformance to high safety standards.

### Thermodrum unit

The drying and mixing unit of the asphalt plant demands complex flight design and heat transfer technology. The thermodrum unit has undergone continuous R & D and incorporation of the latest design up – gradation. Our thermodrum unit follows a triple heat transfer system that ensures a total transfer of heat to the aggregates, translating into higher productivity and lower fuel consumption. The heat is transferred to the aggregates using the conductive, convective and radiation techniques. The unique flight design ensures total heat transfer, thorough mixing & coating, lower emissions and prevention of bitumen oxidation.

The 60–90 t/h plants are supplied with maintenance free cradle type drum drive. The auto lubrication systems ensure proper and adequate lubrication on the chain drive thereby

### Benefits at a glance

- Ease of operation, high efficiency, high productivity and high uptime.
- Minimum investment and operating cost
- Country specific compliance in electrical, mechanical and safety standards
- Easy relocation and transportation within permissible transport dimensions

**“DrumMix is a simple plant with excellent economics.”**

ensuring long years of trouble free service. The 120 t/h comes with four wheel friction drive. Specially treated sprockets, trunion rings and rollers, engineered precisely for flawless and trouble free drier drum operation, ensures high productivity.







## Controls

Apollo plants come with fully computerized and air conditioned control cabin with on board electrical power control console, distribution switch board, fully automatic process and sequence controls. The control is equipped with function keys and numeric keys and does not require special skills for operation.

A user-friendly software gives you total reliability and ensures top notch performance:

- Fail proof power interlocks and auto process controls
- Online fault detection
- Online printing facility
- Provisions to print store and edit production details, mix proportions, etc.
- Display of all process control parameters
- Auto/manual operation



## Wet dust collector

Apollo offers CV Series venturi type efficient wet dust collector that maintains the required environmental standard in specified areas. The extreme turbulence type venturi design ensures a very good entrapping of the dust laden exhaust gas. Large stainless steel spray nozzles provide clog free operation and assure minimum water make-up requirements. The adjustable venture throat permits "fine tuning" to get optimum cleaning efficiency to meet specific plant operating requirements.

## Continuous electronic belt weighing systems

The state-of-art SCADA system processes and meters the mix proportioning. The feedback from the load cell is processed by the PLC, which further automatically controls and processes the bitumen and filler proportioning.





## Bitumen injection

A high capacity hot oil jacketed gear type pump, controlled by an AC variable speed drive feeds the metered amount of bitumen into the mixing section of the Thermodrum unit. The fully automatic SCADA/PLC control ensures a precise metering of bitumen.

## Filler silo

Apollo offers a wide range (1.5–28 cum) of filler storage and feeding solutions for the customers to choose from, depending on the site requirements. A variable speed computerized synchronized metering systems ensures the right proportioning in the mix.

## Hot mix silo

Apollo offers a complete range of customized solutions for asphalt storage. The standard range includes silo with storage capacity from 14 to 28 cum – MONOPAK and TWINPAK designs. Storage combinations can be availed by opting for customized MULTIPAK designs. The silos are supplied with automated standard safety controls and process interlocks. The storage silo can be with swiveling load out conveyors.

## Drag slat conveyor

Drag slat conveyor is the international norm for conveying the hot mix as compared to the traditional belt conveyor. The drag slat is fully enclosed to avoid heat loss. The mix material is dragged by scraping and hence all the fines which are important for proper bonding of mix are conveyed and not lost. It can convey the ready mix material directly into truck or on hot mix silo. Drag slat carried gob hoppe.

## Bitumen heating & storage solution

Customers can opt for a direct heating type or hot oil heated bitumen storage tanks. Storage capacities range from 15–50 KL. The indirect heating tanks are supplied with a thermic oil heater. The direct heating tanks are supplied with automatic pressure jet burner. All bitumen tanks are supplied with auto thermostatic controls and level indicators.





## Mobile version

Apollo continuous drum mix plant is also available on wheels for customers looking for mobility.

## Sample arrangement

Chassis 1: cold bin feeders.

Chassis 2: thermo drum, primary dry dust collector and secondary wet dust collector.

Chassis 3: control cabin, filler silo (1.5 CUM), fuel tank up to 5000 liters or space to mount genset.

Bitumen tanks can be provided on additional chassis with required accessories.

Portable Units: charging/slinger conveyor, oversize removal single deck screen, burner, belt load out conveyor with gob hopper, belt long load out conveyor or drag slat conveyor, hot mix storage silo.

## Advantages

- Rapid erection and lower implementation time
- Customized solutions to meet specific transportation norms
- Perfect for remote areas and/or short duration projects
- Sets up and packs up with a minimum number of loads
- Completely pre-wired with socket arrangements – plug and play



# Technical Specifications



| PLANT TYPE                                  | 60                        | 90  | 120                       |
|---|---------------------------|---|---------------------------|
| <b>UNITS</b>                                |                           |   |                           |
| RATED OUTPUT                                | 40–60 tph **              | 60–90 tph **                              | 90–120 tph **             |
| FEEDER (NO. OF BINS/TOTAL CAPACITY)         | 4/20 nos / m <sup>3</sup> | 4/25 nos / m <sup>3</sup>                 | 4/32 nos / m <sup>3</sup> |
| CHARGING WIDTH                              | 2.55 m                    | 3.05 m                                    | 3.66 m                    |
| AUX CONVEYOR MOTOR                          | 4 × 1.1 kw                | 4 × 1.5 kw                                | 4 × 2.2 kw                |
| GATH CONVEYOR BELT (W×L)                    | 500 × 22 450 mm           | 600 × 25 600 mm                           | 600 × 29 600 mm           |
| GATH CONVEYOR MOTOR                         | 2.2 kw                    | 3.7 kw                                    | 5.5 kw                    |
| BIN VIBRATOR                                | 0.18 kw                   | 0.18 kw                                   | 0.18 kw                   |
| FEEDING CAPACITY                            | 80 tph                    | 110 tph                                   | 140 tph                   |
| OVER SIZE (MESH SIZE)                       | 45 × 45 mm                | 45 × 45 mm                                | 45 × 45 mm                |
| REMOVAL SCREEN VIBRATOR                     | 0.75 kw                   | 0.75 kw                                   | 0.75 kw                   |
| <b>SLINGER CONVEYOR</b>                     |                           |   |                           |
| BELT (W×L)                                  | 500 × 15 025 mm           | 500 × 15 025 mm                           | 500 × 15 025 mm           |
| MOTOR                                       | 3.7 kw                    | 3.7 kw                                    | 3.7 kw                    |
| <b>THERMO DRUM</b>                          |                           |   |                           |
| DRYER (L×D)                                 | 6.0 × 1.2 m               | 6.7 × 1.5 m                               | 7.3 × 1.8 m               |
| DRIVE TYPE                                  | Cradle Type, Chain Drive  | Cradle Type, Chain Drive                  | Cradle Type, Chain Drive  |
| DRIVE MOTOR                                 | 15 kw                     | 18.5 kw                                   | 30 kw                     |
| BURNER CAPACITY                             | 2.58 mWh                  | 4.65 mWh                                  | 7.95 mWh                  |
| BLOWER CONNECTED LOAD                       | 7.5 kw                    | 15 kw                                     | 15 kw                     |
| FUEL*                                       | Diesel                    | Diesel                                    | Diesel                    |
| HIGH PRESSURE BURNER TYPE                   | Automatic Dual Stage      | –   | –                         |
| EXHAUSTER                                   | 10 500 / 15 cfm / kw      | 14 500 / 18.5 cfm / kw                    | 16 500 / 30 cfm / kw      |
| <b>LOAD OUT CONVEYOR WITH</b>               |                           |   |                           |
| BELT (WXL)                                  | 500 × 17 900 mm           | 600 × 17 900 mm                           | 600 × 20 300 mm           |
| <b>GOB HOPPER</b>                           |                           |   |                           |
| DRIVE MOTOR                                 | 3.7 kw                    | 5.5 kw                                    | 5.5 kw                    |
| GOB HOPPER CAPACITY                         | 1 MT                      | 1.5 MT                                    | 2 MT                      |
| HYDRAULIC POWER PACK                        | 3.7 kw                    | 3.7 kw                                    | 3.7 kw                    |
| <b>POLLUTION CONTROL UNIT</b>               |                           |   |                           |
| PRIMARY MULTICONE                           | 20 Nos. of Cone           | 15 Nos. of Cone                           | 21 Nos. of Cone           |
| DRY DUST COLLECTOR (DUST SCREW DRIVE)       | 1.1 kw                    | 1.1 kw                                    | 1.1 kw                    |
| <b>SECONDARY UNITS (OPTIONAL)</b>           |                           |   |                           |
| <b>WET DUST COLLECTOR CV SERIES TYPE</b>    |                           |   |                           |
| WATER PUMP                                  | 3.7 kw                    | 3.7 kw                                    | 3.7 kw                    |
| EXHAUSTER                                   | 14 500 / 18.5 cfm/kw      | 15 500 / 22 cfm/kw                        | 17 500 / 37 cfm/kw        |
| <b>MINERAL FILLER UNIT</b>                  |                           |   |                           |
| CAPACITY                                    | 1.5 m <sup>3</sup>        | 1.5 m <sup>3</sup>                        | 1.5 m <sup>3</sup>        |
| DRIVE MOTOR                                 | 1.5 kw                    | 1.5 kw                                    | 1.5 kw                    |
| ROTARY VALVE MODEL                          | 8 in                      | 8 in                                      | 8 in                      |
| AIR COMPRESSOR CONNECTED LOAD               | 5.5 kw                    | 5.5 kw                                    | 11 kw                     |
| BITUMEN TANK                                | 15 m <sup>3</sup>         | 15 m <sup>3</sup>                         | 25 m <sup>3</sup>         |
| <b>CAPACITY</b>                             |                           |   |                           |
| HEATING SYSTEM*                             | Direct Heating            | Direct Heating                            | Direct Heating            |
| BITUMEN PUMP MODEL                          | TG-GP 15-50               | TG-GP 15-50                               | TG-GP 15-50               |
| BITUMEN MOTOR                               | 3.7 kw                    | 3.7 kw                                    | 3.7 kw                    |
| HOT OIL PUMP                                | RT-3/4"                   | RT-3/4"                                   | RT-3/4"                   |
| HOT OIL MOTOR                               | 0.75 kw                   | 0.75 kw                                   | 0.75 kw                   |
| <b>FUEL TANK</b>                            |                           |   |                           |
| CAPACITY                                    | 2 m <sup>3</sup>          | 2 m <sup>3</sup>                          | 5 m <sup>3</sup>          |
| FUEL FEEDING PUMP (I/O)                     | 19.05 / 19.05 mm          | 19.05 / 19.05 mm                          | 19.05 / 19.05 mm          |
| FUEL MOTOR                                  | 0.75 kw                   | 0.75 kw                                   | 0.75 kw                   |
| <b>FURNACE OIL KIT (HEAVY OIL) OPTIONAL</b> |                           |   |                           |
| OUTFLOW HEATER                              | 4.5 kw                    | 4.5 kw                                    | 4.5 kw                    |
| IN-LINE HEATER                              | 14.5 kw                   | 18.5 kw                                   | 18.5 kw                   |
| TOTAL CONNECTED LOAD                        | 73.7 kw                   | 89.8 kw                                   | 126.2 kw                  |
| RECOMMENDED GENSET CAPACITY                 | 125 KVA                   | 150 KVA                                   | 200 KVA                   |
| OPEN LAND REQUIREMENT                       | 34 × 28 m                 | 36 × 34 m                                 | 40 × 37 m                 |
| <b>CONTROL SYSTEM TYPE</b>                  | PLC Control with HMI      | PLC Control with HMI                      | PLC Control with HMI      |
| <b>ACCESSORIES</b>                          |                           |   |                           |
| FILLER SILO (CAPACITY RANGE #)              |                           | 1.5 / 7 m <sup>3</sup>                    |                           |
| <b>BITUMEN TANKS</b>                        |                           |   |                           |
| CAPACITY RANGE                              |                           | 15 / 20 / 25 / 30 / 50 m <sup>3</sup>     |                           |
| HEATING SYSTEM                              |                           | Direct heating/ Thermic oil heating       |                           |
| THERMIC OIL HEATER TYPE                     |                           | Normal pressure horizontal tubular boiler |                           |
| HOT OIL HEATER CAPACITY                     |                           | 3000000 / 5000000 kcal / hr               |                           |
| HOT MIX STORAGE SILO CAPACITY RANGE #       |                           | 14 / 2 × 14 m <sup>3</sup>                |                           |

# Special size on request

\* Options available

\*\* Hot mix production capacity based on following conditions: 5% bitumen and 3% filler addition, input moisture of cold aggregate 3% , hot mix temperature of 150 °C, dust content less than 30% Aggregate density of 1.6 ton / Cubicm, Mean sea level.

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

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