



THE EXPERTS IN
ASPHALT & CONCRETE BATCH MIX PLANTS

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www.ardentgroup.co.in



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OUR GROUP COMPANIES



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Ardent Maschinfabrik Pvt. Ltd. is the perfect mix of tradition & technology. Strategically located in Pune, India; Ardent group specialises in the development, manufacturing & marketing of Asphalt & Concrete Batch Mixing Plants used in paving highways & airports, road widening & development projects.

WE DELIVER IN BLACK WHAT WE PROMISE ON WHITE



ARDENT

ASPHALT BATCH MIXING PLANTS

Ardent Asphalt Batch Mixing Plants have a compact design which fits into containers for ease of shipment. The reduced footprint of the plant layout and the screen drum concept utilizes dual-functions of drying and screening of aggregates, ensuring very short route of aggregate flow to the hot bins. These plants deliver high capacity hotmix asphalt for highway projects, large airport runways, road resurfacing; the distinguished features incorporated in these plants is that it has no hot elevator, no vibrating screen and a dual purpose screen drum. These Plants facilitates low cost production of Hotmix Asphalt due to lower fuel consumption without compromising on the quality resulting in competitive investment with lower cost of operation with high performance.



PROBATCH SERIES

PROBATCH SERIES



EASY TRANSPORTATION

Plants are customised to fit into containers for the purpose of ease of shipment.



ADDITIONAL ATTACHMENTS

Due to the modular design it is easy to order various attachments basis the requirements & install it at the plant location with ease.



QUICK INSTALLATION

The preassembled stackable unit design of the plant with plug & play feature makes it fast & easy to assemble & Commission.



ECONOMICAL OPERATIONS

Lower fuel consumption & lower maintenance cost with complete cladding on the plant provides optimum production costs. Galvanised ladder and railing provides for a long life of the equipment .



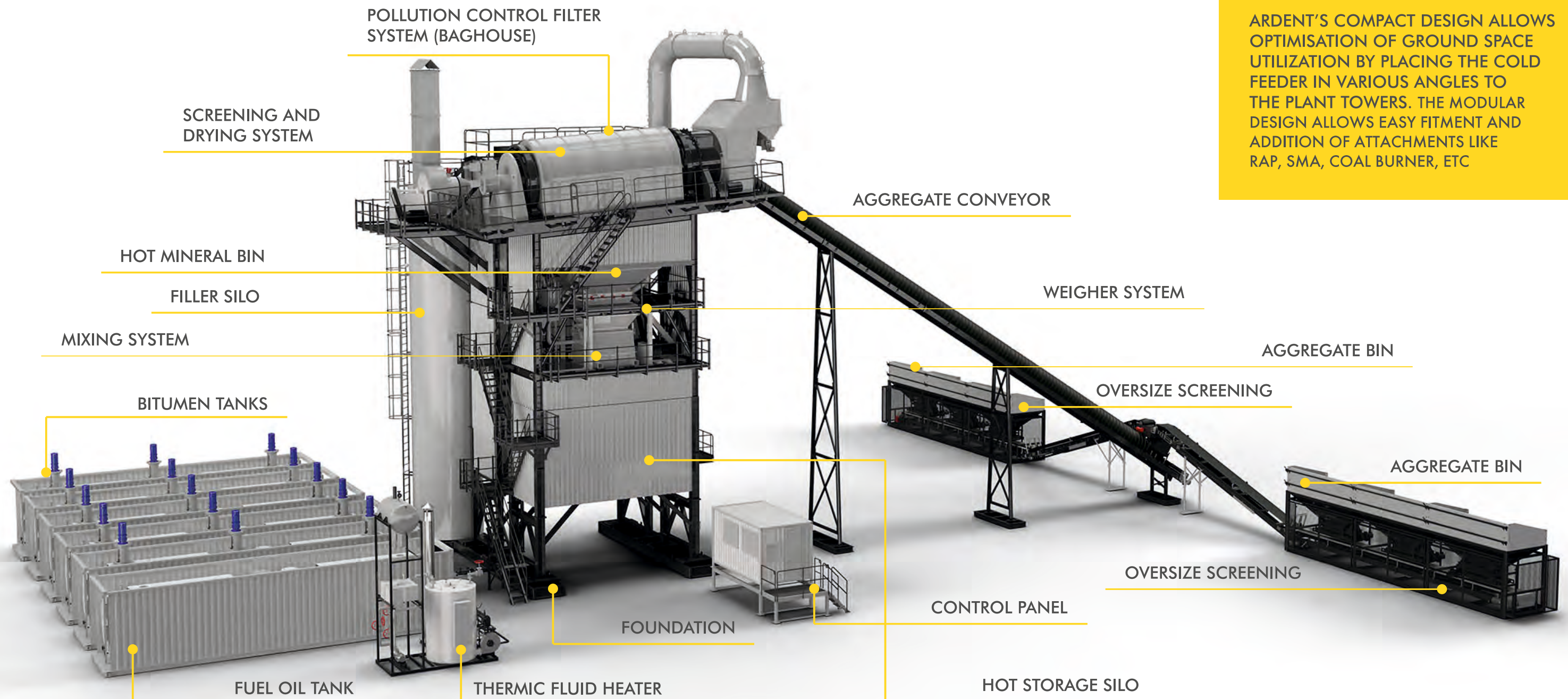
LOWER MAINTENANCE COST

No need to change worn-off buckets, bearings, chains, sprockets as hot elevator is not required. No separate screening section required.



PROBATCH PLANT VARIANTS

- ProBatch 100 (100 Tons per Hour)
- ProBatch 140 (140 Tons per Hour)
- ProBatch 180 (180 Tons per Hour)
- ProBatch 240 (240 Tons per Hour)



ARDENT'S COMPACT DESIGN ALLOWS OPTIMISATION OF GROUND SPACE UTILIZATION BY PLACING THE COLD FEEDER IN VARIOUS ANGLES TO THE PLANT TOWERS. THE MODULAR DESIGN ALLOWS EASY FITMENT AND ADDITION OF ATTACHMENTS LIKE RAP, SMA, COAL BURNER, ETC

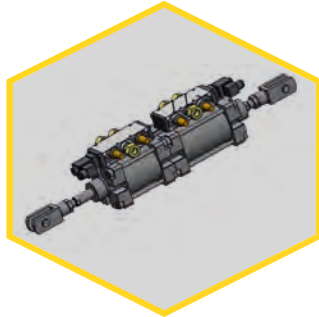
FEATURES

Features that make Ardent Batch Mixing Plants to be the preferred choice of the Customers for development of Roads & Highways

COMPACT AND EFFICIENT DESIGN

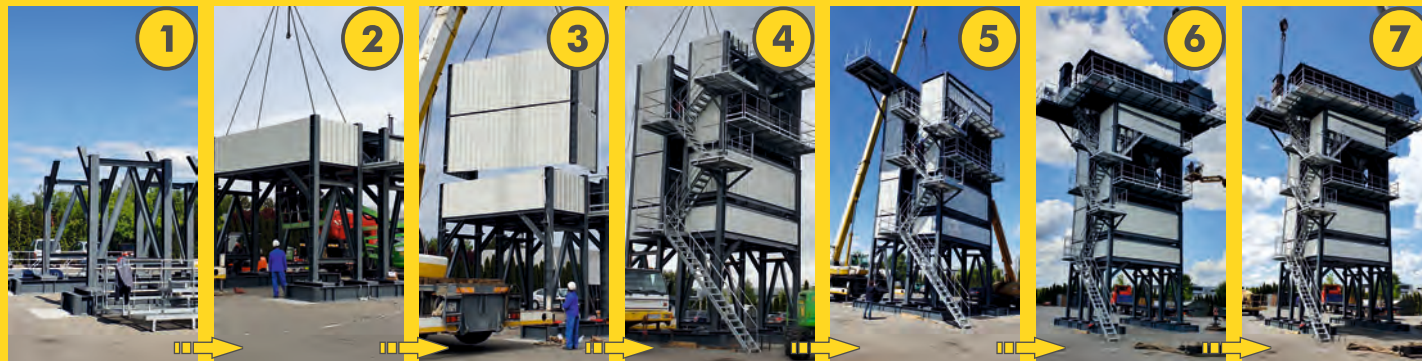


Large capacity hot bin storage to ensure quick batching



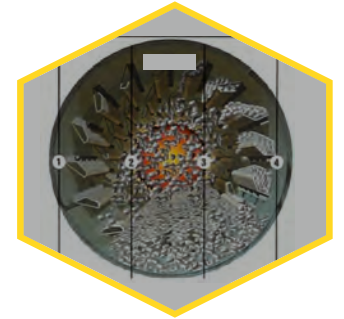
Two stage pneumatic cylinders ensure reduction in batch cycle time as there is no jogging of the cylinders.

DESIGNED FOR QUICK & EASY INSTALLATION AND COMMISSIONING

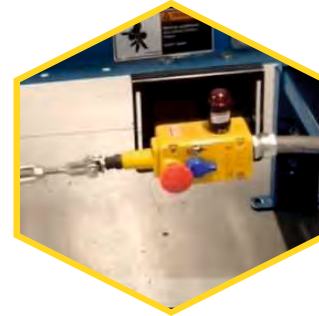


All cages are specially built in aluminium to ensure no rusting & ensure a good bag life

Specially designed drum / dryer flights to ensure higher retention time and low fuel consumption



Specially incorporated safety features like emergency pull chords & emergency switches



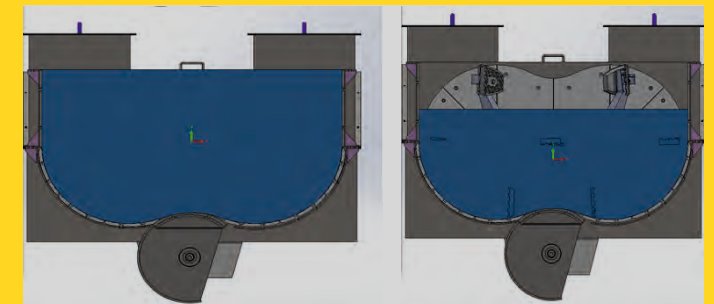
Plug & socket system connected to the junction boxes for easy & fast installation



The plants are designed to be easily accessible, central access provided between the two towers



Mesh on cold bins to ensure oversize removal

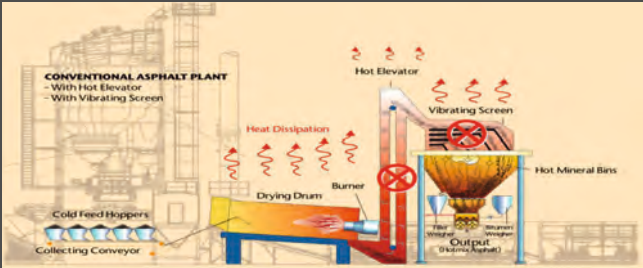


THE GAME CHANGER

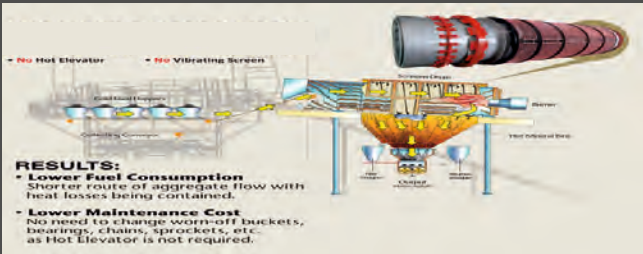
LARGE MIXER CAPACITY FOR EFFICIENT BATCHING

100% BATCH SIZE AT 70% FULL

LOW OPERATION COST



No hot elevator required resulting in less heat loss & more output and low maintenance cost as no need to change worn off buckets, bearings, chains due to transport of hot aggregates as there is no requirement of the hot elevator



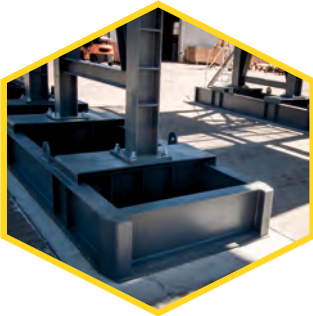
Drying & screening happens in single operation hence no separate screening deck required

Drum burner is stepless modulating for mix uniformity



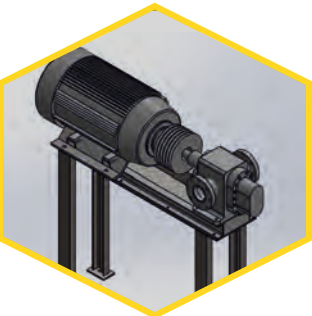
STABILITY AND ACCURACY

Robust steel foundations keeps the plant steady also avoids the need for PCC foundations



Buffer silo for filler / SMA in plant for faster batching

Galvanised handrails for long life of the plant

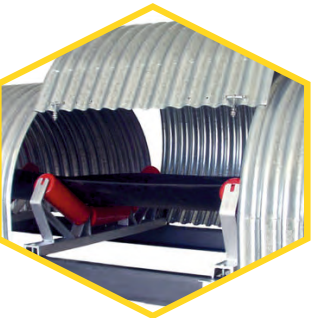


Inbuilt bitumen injection pump for faster batching

In flight control for weighing system to ensure high accuracy

WEATHER PROTECTION

Weather protection enclosure (cladding) to protect against rain, heat and strong winds

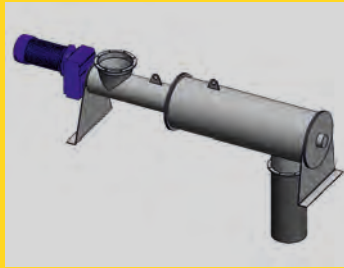


Rain covers on belt conveyors for protection against additional moisture

The drum comes with an extended roof for burner protection

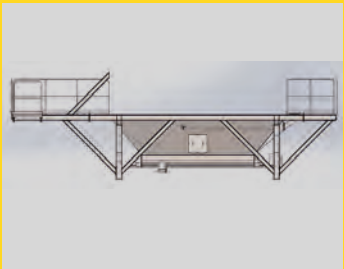


EFFICIENT POLLUTION CONTROL SYSTEM



Dust conditioner for easy disposal of dust resulting in better pollution control

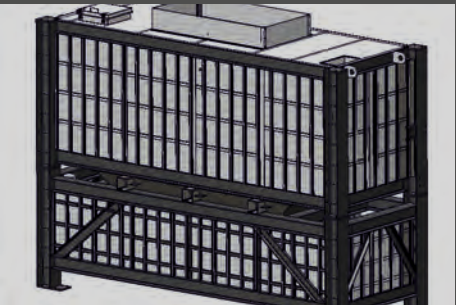
Specially designed recuperated Silo below baghouse to collect fine & feed back to the mix



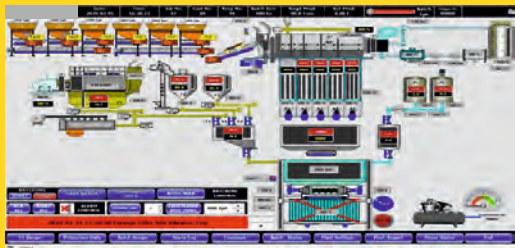
High capacity reverse air bag house with large surface area to collect dust efficiently

STORAGE FACILITY

Linear expandable hot storage silo allows availability of hot asphalt for the customer at all times

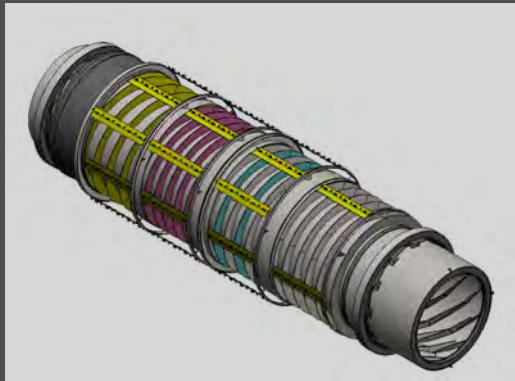


PROPRIETARY SOFTWARE



ProBatch® Scada based software for best user friendly operation & experience

MAXIMUM OUTPUT



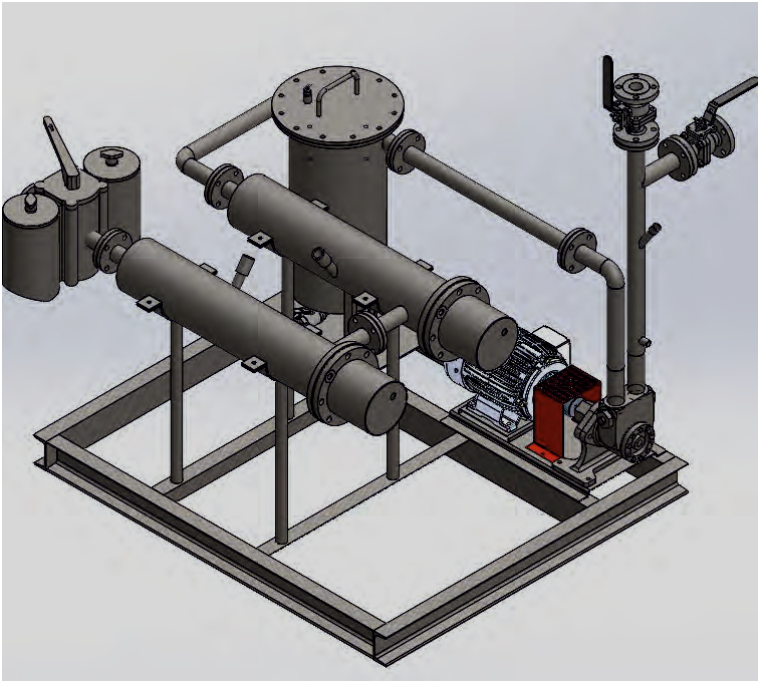
Double screening provides more screening area for optimum efficiency & maximum output

EFFICIENT CONTROL SYSTEMS



The exhaust fan is VFD controlled instead of damper

HEATING & PUMPING SYSTEM



Specially augmented fuel system complete with preheating & heating; pumping station to ensure optimised flow & temperature while using ISHS/FO

TECHNICAL SPECIFICATIONS OF ARDENT PROBATCH PLANTS

PLANT MODEL	ProBatch 100	ProBatch 140	ProBatch 180	ProBatch 240
Rated Output at 3% Moisture	100 TPH	140 TPH	180 TPH	240 TPH
Cold Feed Hoppers Capacity	4 X 9 M3 (one Bin With Partition)	6 X 9 M3	6 X 9 M3	6 X 12 M3
Mesh on Bins	YES			
Collecting Belt Including Grizzly to Remove Oversize Capacity	100 TONS/HR	140 TONS/HR	180 TONS/HR	240 TONS/HR
Screen Drum/Dryer Screening Area	21 M²	40 M²	48 M²	82 M²
Screening Method	DOUBLE SCREENING			
Burner C/W Blower for Diesel & Heavy Fuel, Optional Gas, Output <small>* Always subject to chosen burner and fuel type</small>	8 MW	12 MW	14 MW	18 MW
Hot Mineral Bins - Total Capacity	8 TONS	20 TONS	32 TONS	45 TONS
No. of Compartments in Hot Bin	5 BINS			
Aggregate Weigher Capacity	1,250 KGS	2,000 KGS	2,500 KGS	3,500 KGS
Filler Weigher Capacity	100 KGS	150 KGS	300 KGS	400 KGS
Bitumen Weigher Capacity	150 KGS	150 KGS	200 KGS	300 KGS
Twin-Shaft Mixer (@70% Full)	1,250 KGS	2,000 KGS	2,500 KGS	3,500 KGS
Average Batching Cycle Time	45 SECONDS			
Bitumen Supply Pump	250 LITRES/MIN	500 LITRES/MIN	500 LITRES/MIN	700 LITRES/MIN
Baghouse Ambient Air Cleaning System Filter Area	340 M²	445 M²	650 M²	900 M²
Recuperated Filler Silo With Dosing Screw Capacity	15 TONS	20 TONS	30 TONS	32 TONS
Control Cabin Electrical System 3 Phase, 4 Pole, 50 Hz	415 V	415 V	415 V	415 V
Recommended Power Supply (Minimum)	320 KVA	380 KVA	500 KVA	500 KVA
Plant Control & Monitoring System (Cabin Fitted with Aircon & Easy 3 Side View Cabin)	PRE-INSTALLED CONTROL SOFTWARE WITH SCADA BASED SYSTEM ProBatch®			
Foreign Filler Silo with Bucket Elevator & Screw, Capacity with Inclined Screw / Elevator	INCLUDED			
Weather Protection Enclosure	YES			
Steel Foundation for Plant	YES			
Dust Conditioner to Treat Fines	YES			
Bitumen Tank - Capacity	INDIRECT HEATED 1 X 30 KL	INDIRECT HEATED 2 X 45 KL	INDIRECT HEATED 2 X 45 KL	INDIRECT HEATED 3 X 45 KL
Thermal Hot Oil Heater - Capacity Per Hour - Light / Heavy Oil, Option Of Gas / Dual Fuels / Coal Gas	200,000 KCALS	400,000 KCALS	500,000 KCALS	500,000 KCALS
Fuel Oil Tank - Capacity	18 KL	24 KL	24 KL	24 KL
Pipelines for Fuel Oil / Bitumen / Thermal Oil	INCLUDED			
Hot Storage Silo Below Mixer Capacity	15 TON	30 TON	50 TON	80 TON

Materials and Specifications are subject to change without prior notice.



ECOBATCH SERIES

ECOBATCH SERIES



EASY TRANSPORTATION

Plants are customised to fit into standard trucks for the purpose of ease of shipment.



ADDITIONAL ATTACHMENTS

Due to the modular design it is easy to order various attachments basis the requirements & install it at the plant location with ease.



QUICK INSTALLATION

The assembled stackable unit design of the plant makes it fast & easy to assemble & Commission.



ECONOMICAL OPERATIONS

Lower fuel consumption & lower maintenance cost results in lower operating and production cost.



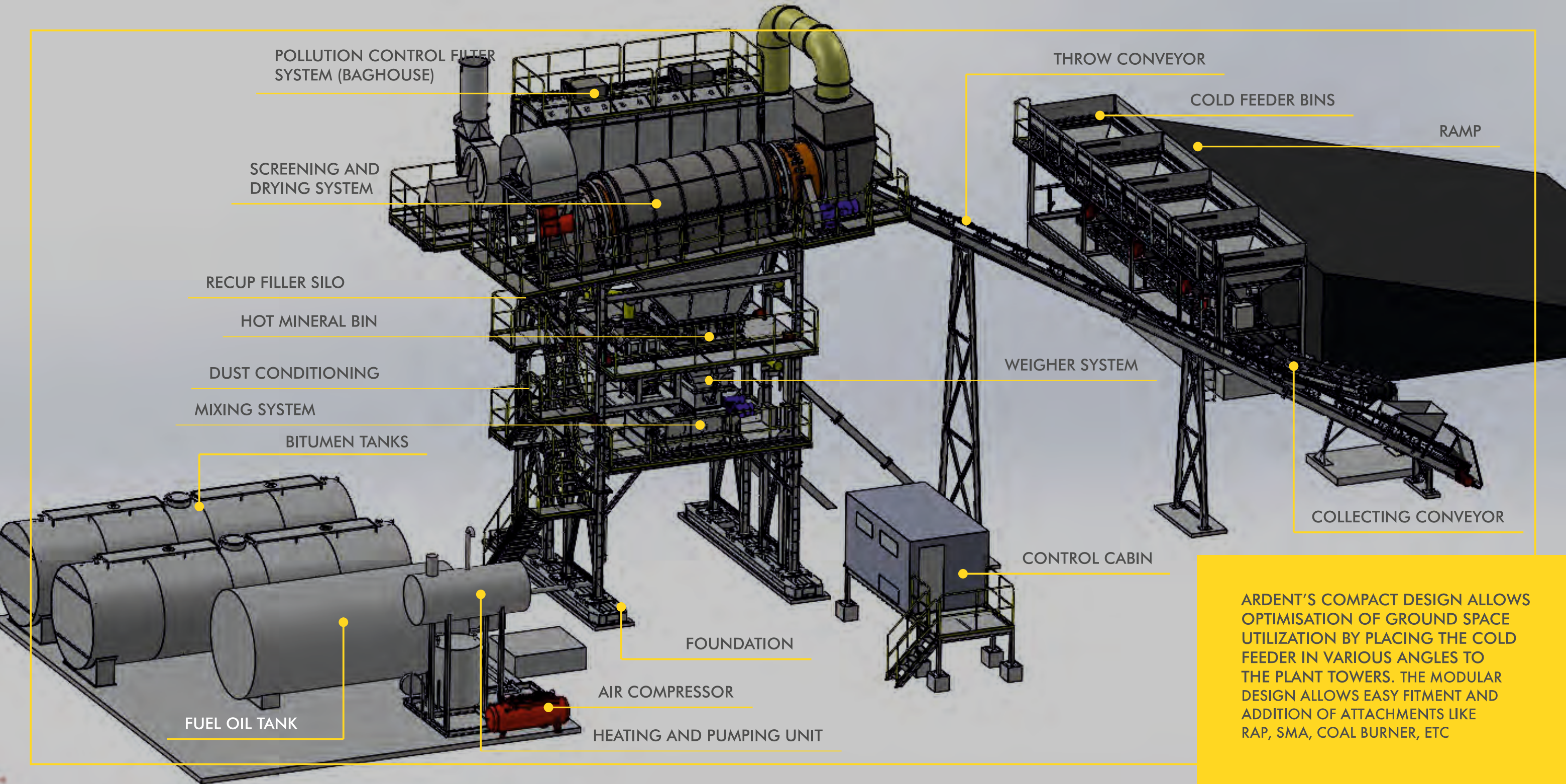
LOWER MAINTENANCE COST

No need to change worn-off buckets, bearings, chains, sprockets as hot elevator is not required. No separate screening section required.



ECOBATCH PLANT VARIANTS

EcoBatch 80 (80 Tons per Hour)
EcoBatch 120 (120 Tons per Hour)
EcoBatch 160 (160 Tons per Hour)
EcoBatch 200 (200 Tons per Hour)



ARDENT'S COMPACT DESIGN ALLOWS OPTIMISATION OF GROUND SPACE UTILIZATION BY PLACING THE COLD FEEDER IN VARIOUS ANGLES TO THE PLANT TOWERS. THE MODULAR DESIGN ALLOWS EASY FITMENT AND ADDITION OF ATTACHMENTS LIKE RAP, SMA, COAL BURNER, ETC

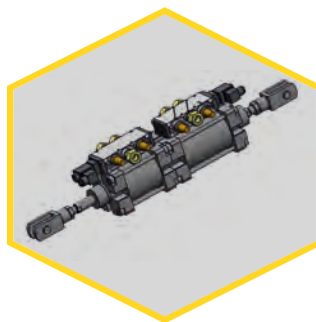
FEATURES

Features that make Ardent Batch Mixing Plants to be the preferred choice of the Customers for development of Roads & Highways

COMPACT AND EFFICIENT DESIGN



Large capacity hot bin storage to ensure quick batching

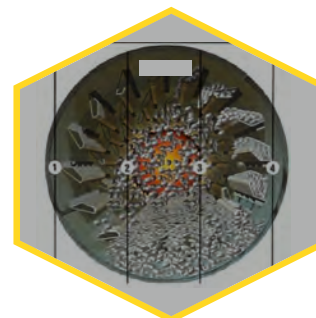


Two stage pneumatic cylinders ensure reduction in batch cycle time as there is no jogging of the cylinders.

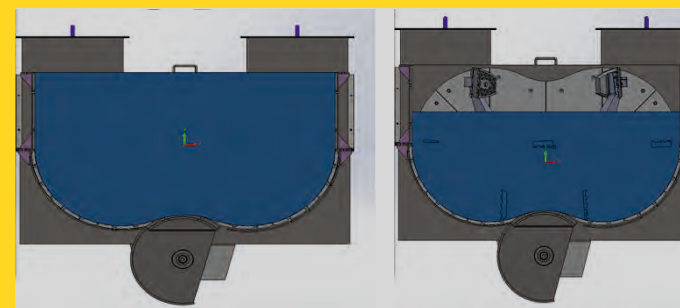
DESIGNED FOR QUICK & EASY INSTALLATION AND COMMISSIONING



Specially designed drum / dryer flights to ensure higher retention time and low fuel consumption



All cages are specially built in aluminium to ensure no rusting & ensure a good bag life

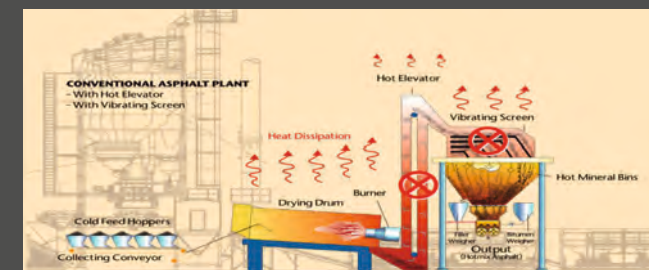


THE GAME CHANGER

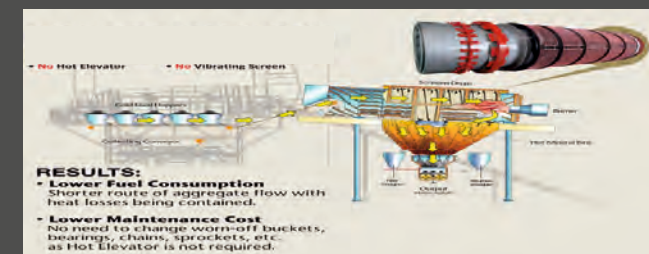
LARGE MIXER CAPACITY FOR EFFICIENT BATCHING

100% BATCH SIZE AT 70% FULL

LOW OPERATION COST



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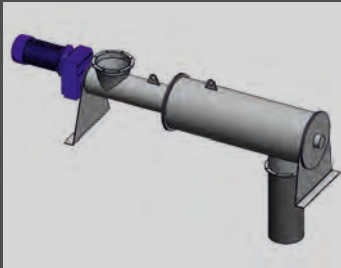


Drying & screening happens in single operation hence no separate screening deck required

Drum burner is stepless modulating for mix uniformity

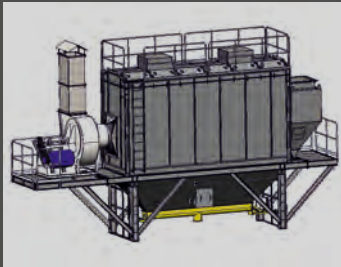
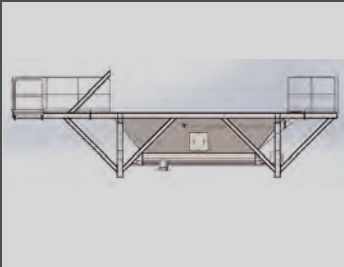


EFFICIENT POLLUTION CONTROL SYSTEM



Dust conditioner for easy disposal of dust resulting in better pollution control

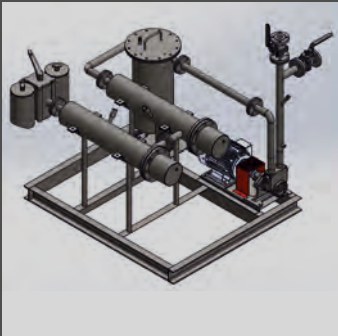
Specially designed recuperated Silo below baghouse to collect fine & feed back to the mix



Reverse air bag house with large surface area to collect dust efficiently

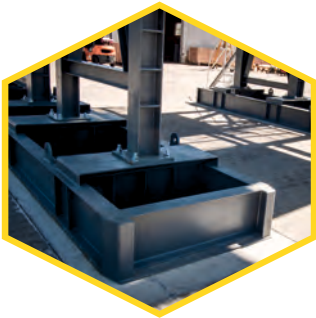
HEATING & PUMPING SYSTEM

Specially augmented fuel system complete with preheating & heating; pumping station to ensure optimised flow & temperature while using ISHS/FO



STABILITY AND ACCURACY

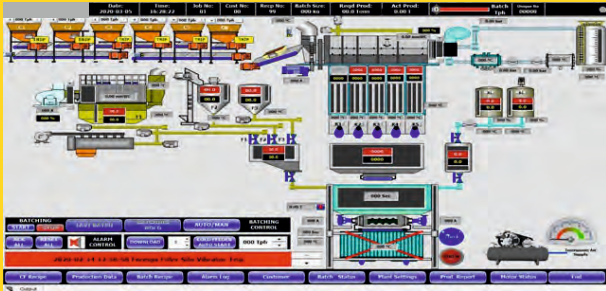
Robust steel foundations keeps the plant steady also avoids the need for PCC foundations



Buffer silo for filler / SMA in plant for faster batching

In flight control for weighing system to ensure high accuracy

PROPRIETARY SOFTWARE



Scada based software for best user friendly operation & experience

TECHNICAL SPECIFICATIONS ARDENT ECOBATCH PLANTS

PLANT MODEL	ECOBATCH 80	ECOBATCH 120	ECOBATCH 160	ECOBATCH 200
Rated Output at 3% Moisture	80 TPH	120 TPH	160 TPH	200 TPH
Cold Feed Hoppers Capacity	4 X 9 M3	4 X 9 M3	4 X 9 M3	5 X 9 M3
Collecting Belt Including Grizzly to Remove Oversize Capacity	80 TONS/HR	120 TONS/HR	160 TONS/HR	200 TONS/HR
Screen Drum/Dryer Screening Area	17 M²	28 M²	32 M²	40.5 M²
Screening Method	SINGLE SCREENING			
Burner C/W Blower for Diesel & Heavy Fuel, Optional Gas, Output <small>*Always subject to chosen burner and fuel type</small>	6 MW	10 MW	12 MW	14 MW
Hot Mineral Bins - Total Capacity	8 TONS	20 TONS	30 TONS	32 TONS
No. of Compartments in Hot Bin	4 BINS			
Aggregate Weigher Capacity	1,250 KGS	1,500 KGS	2,000 KGS	3,000 KGS
Filler Weigher Capacity	100 KGS	150 KGS	300 KGS	300 KGS
Bitumen Weigher Capacity	150 KGS	150 KGS	200 KGS	300 KGS
Twin-Shaft Mixer (@70% Full)	1,000 KGS	1,500 KGS	2,000 KGS	3,000 KGS
Average Batching Cycle Time	45 SECONDS			
Bitumen Supply Pump	250 LITRES/MIN	250 LITRES/MIN	500 LITRES/MIN	700 LITRES/MIN
Baghouse Ambient Air Cleaning System Filter Area	280 M²	385 M²	525 M²	750 M²
Recuperated Filler Silo With Dosing Screw Capacity	15 TONS	20 TONS	28 TONS	30 TONS
Control Cabin Electrical System 3 Phase, 4 Pole, 50 Hz	415 V	415 V	415 V	415 V
Recommended Power Supply (Minimum)	320 KVA	380 KVA	400 KVA	500 KVA
Plant Control & Monitoring System (Cabin Fitted with Aircon & Easy 3 Side View Cabin)	PRE-INSTALLED CONTROL SOFTWARE WITH SCADA BASED SYSTEM			
Foreign Filler Silo with Bucket Elevator & Screw, Capacity with Inclined Screw / Elevator	NOT INCLUDED	INCLUDED	INCLUDED	INCLUDED
Steel Foundation for Plant	INCLUDED			
Dust Conditioner to Treat Fines	INCLUDED			
Bitumen Tank - Capacity	INDIRECT HEATED 1 X 30 KL	INDIRECT HEATED 2 X 30 KL	INDIRECT HEATED 2 X 45 KL	INDIRECT HEATED 3 X 45 KL
Thermal Hot Oil Heater - Capacity Per Hour - Light / Heavy Oil, Option Of Gas / Dual Fuels / Coal Gas	200,000 KCALS	300,000 KCALS	400,000 KCALS	500,000 KCALS
Fuel Oil Tank - Capacity	18 KL	24 KL	24 KL	24 KL
Pipelines for Fuel Oil / Bitumen / Thermal Oil	INCLUDED			

Materials and Specifications are subject to change without prior notice.



MAX MOBILE SERIES

MAXMOBILE SERIES



EASY TRANSPORTATION

Plants are customised to fit into containers for the purpose of ease of shipment.



ECONOMICAL OPERATIONS

Lower fuel consumption & lower maintenance cost results in lower operating and production cost.



ADDITIONAL ATTACHMENTS

All attachments offered for the mobile plant models are also offered in Mobile version.



LOWER MAINTANENCE COST

No need to change worn-off buckets, bearings, chains, sprockets as hot elevator is not required. No separate screening section required.



QUICK INSTALLATION

Power packed Hydraulic Self Jacking system makes it fast & easy to assemble & commission. No heavy cranes required.



MAX MOBILE PLANT VARIANTS

MaxMobile 120 (120 Tons per Hour)

MaxMobile 160 (160 Tons per Hour)



ARDENT MAX MOBILE
ASPHALT BATCH MIXING PLANT

SPRINT WITH ARDENT MOBILE ASPHALT BATCHING PLANT

BETTER MOBILITY • SELF LIFTING • QUICK SET-UP

Ardent Mobile Asphalt Batching plant is the answer to all your job requirements, its ingenious and simple design allows easy transportation from one site to another. Setting up time is short and final installation of minor components can be done easily.

ADVANTAGES

- Easy Transportation
- Easy Set-up
- Quick Installation
- No Heavy Concrete Foundation
- No Heavy Lifting Required
- Less Manpower Required
- Factory Prewired With Quick Coupled Cables
- Lower Fuel Consumption
- Lower Maintenance Cost

Mobile Cold Feed Hoppers



Mobile Screen Drum



Mobile Weighing & Mixing Unit



Mobile Bag Filter & Control Cabin

TECHNICAL SPECIFICATIONS OF ARDENT MAX MOBILE PLANTS

PLANT MODEL	MAXMOBILE 120	MAXMOBILE 160
CAPACITY	120 TPH	160 TPH
MOBILE COLD FEED HOPPER UNIT		
No. of cold feed hopper	3 + 1 (EQUIPPED WITH VIBRATOR)	3 + 2 (EQUIPPED WITH VIBRATOR)
Volume of each hopper	6 M³	8 M³
Feeder belt capacity	50 TPH	80 TPH
Feeder belt drive motor	1.5 KW	1.5 KW
Feeder belt width	500 MM	500 MM
COLLECTING BELT	ENDLESS BELT	
Capacity	120 TPH	160 TPH
Drive motor	3 KW	5.5 KW
Belt width	500 MM	600 MM
THROW BELT CLEATED BELT C/W BACKSTOP		
Capacity	120 TPH	160 TPH
Drive motor	5.5 KW	9.2 KW
Belt width	500 MM	600 MM
MOBILE SCREEN DRUM UNIT		
Dryer capacity	120 TPH	160 TPH
Drum diameter	1600 MM	1800 MM
Drum drive motor	30 KW	45 KW
No. of screen section	4	5
Total screening area	25 M²	46 M²
BURENR C/W BLOWER		
Type of fuel	DIESEL / HEAVY OIL / GAS**	
Heat output	600 KG/HR	1000 KG/HR
Fuel pump	GEAR PUMP	GEAR PUMP
Start-up	AUTO	AUTO
Blower drive motor	15 KW	22 KW
HOT MINERAL BINS	4 COMPARTMENTS WITH OVERFLOW & OVERSIZE CHUTES	
Total capacity	12 TONS	15 TONS
Discharge flap	TWO STAGE	TWO STAGE
Compressor	1000 LPM	1000 LPM

* As per standard Performance Conditions

Materials and Specifications are subject to change without prior notice.

** Option Items.

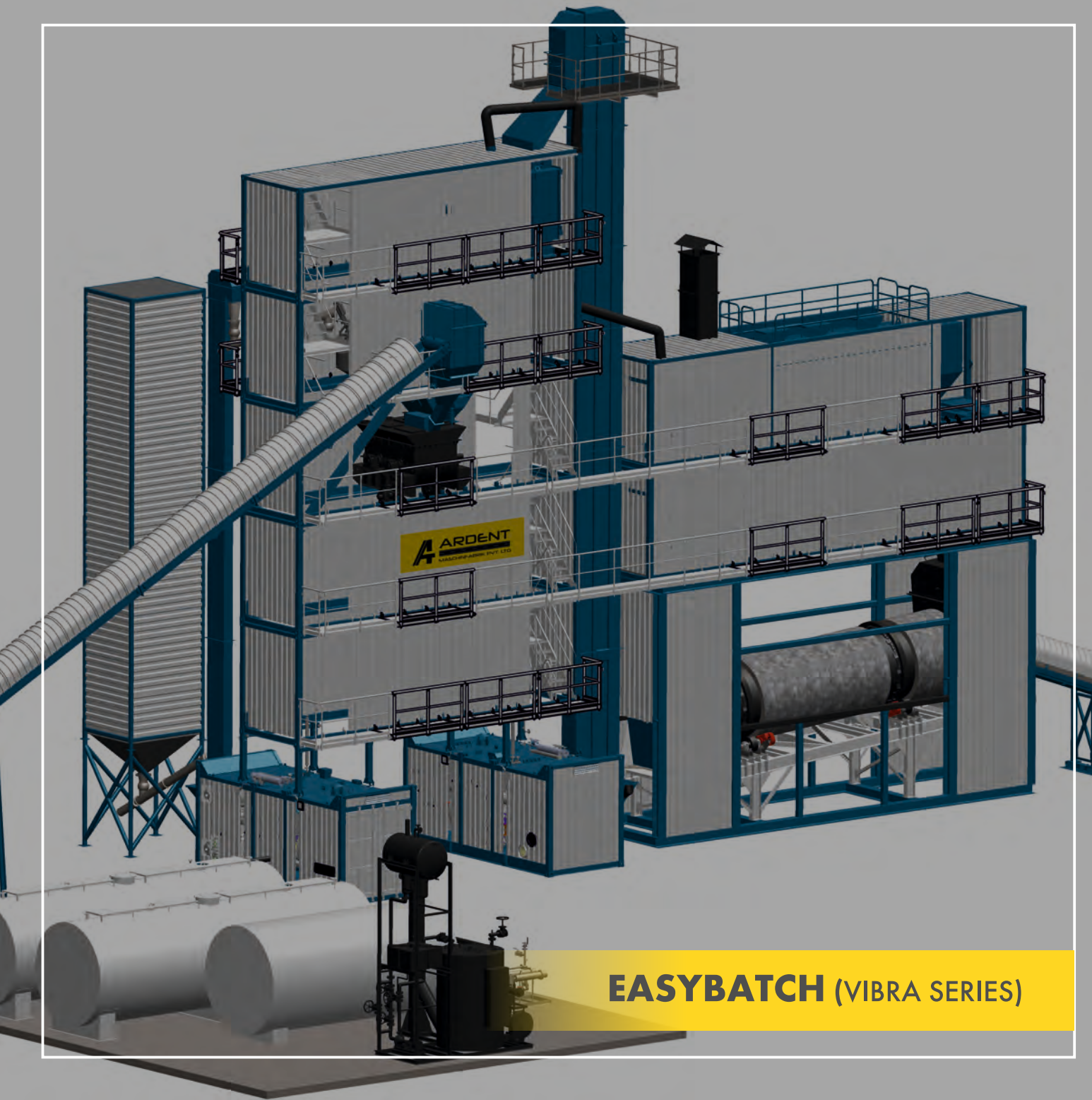
TECHNICAL SPECIFICATIONS OF ARDENT MAX MOBILE PLANTS

PLANT MODEL	MAXMOBILE 120	MAXMOBILE 160
MOBILE WEIGHING & MIXING UNIT		
Aggregate weigher capacity	1500 KG	2000 KG
Filler weigher capacity	225KG	250KG
Bitumen weigher capacity	150KG	200KG
MIXER	TWIN SHAFT SYNCHRONISED SPUR GEAR	
Mixer capacity	1500 KG	2000 KG
Mixer drive motor	2 X 22 KW	2 X 30 KW
Mixer drive motor	43 SECONDS	
MOBILE BAGHOUSE	AMBIENT AIR CLEANING BAG FILTER	
Filter area	400 M ²	550 M ²
Exhaust fan drive motor	55 KW	75 KW
Damper	RADIAL	
Recuperated filler hopper	BENEATH BAGHOUSE	
Filler screw conveyor	2 X 3 KW	2 X 4 KW
Collecting screw conveyors	2 X 5.5 KW	2 X 7.5 KW
CONTROL ROOM UNIT	Cabin With Glass Windows, Insulated, Dust Proof and Air Conditioned, Pentium Computer, 17" LCD Monitor, Printer, Pre-loaded Control Software System, Micro Series PLC, Switch Gear & Control Gear Housed within Power and Control Panels	
BITUMEN TANK Capacity Direct Heated	30 KL x 1	30 KL x 2
DUST CONDITIONER Capacity 25 Tons/Hr	TWIN SHAFT DUST CONDITIONER WITH WATER MIXING ARRANGEMENT	
FUEL OIL TANK Capacity	20 KL x 1	20 KL x 1

* As per standard Performance Conditions

Materials and Specifications are subject to change without prior notice.

** Option Items.



EASYBATCH (VIBRA SERIES)

EASYBATCH VIBRA SERIES



EASY TRANSPORTATION

Plants are customised to fit into containers for the purpose of ease of shipment.



ECONOMICAL OPERATIONS

Lower fuel consumption & lower maintenance cost with complete cladding on the plant provides optimum production costs. Galvanised ladder and railing provides for a long life of the equipment.



ADDITIONAL ATTACHMENTS

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LOWER MAINTANENCE COST

No need to change worn-off buckets, bearings, chains, sprockets as hot elevator is not required. No separate screening section required.



QUICK INSTALLATION

The preassembled stackable unit design of the plant with plug & play feature makes it fast & easy to assemble & Commission.



EASYBATCH (VIBRA SERIES) PLANT VARIANTS

EASYBATCH 140 (140 TPH)
EASYBATCH 180 (180 TPH)
EASYBATCH 240 (240 TPH)

ARDENT'S COMPACT DESIGN ALLOWS OPTIMISATION OF GROUND SPACE UTILIZATION BY PLACING THE COLD FEEDER IN VARIOUS ANGLES TO THE PLANT TOWERS. THE MODULAR DESIGN ALLOWS EASY FITMENT AND ADDITION OF ATTACHMENTS LIKE RAP, SMA, COAL BURNER, ETC

FILLER SILO

HOT ELEVATOR

VIBRATORY DECK

HOT MINERAL BIN

POLLUTION CONTROL FILTER SYSTEM (BAGHOUSE)

WEIGHER SYSTEM

RECUPERATED FILLER SILO & DUST CONTAINER

MIXING SYSTEM

HOT STORAGE SILO

VIBRA GRIZZLY

RAP

COLLECTING BELT

HOT STORAGE SILO

THROW BELT

COLD FEEDER

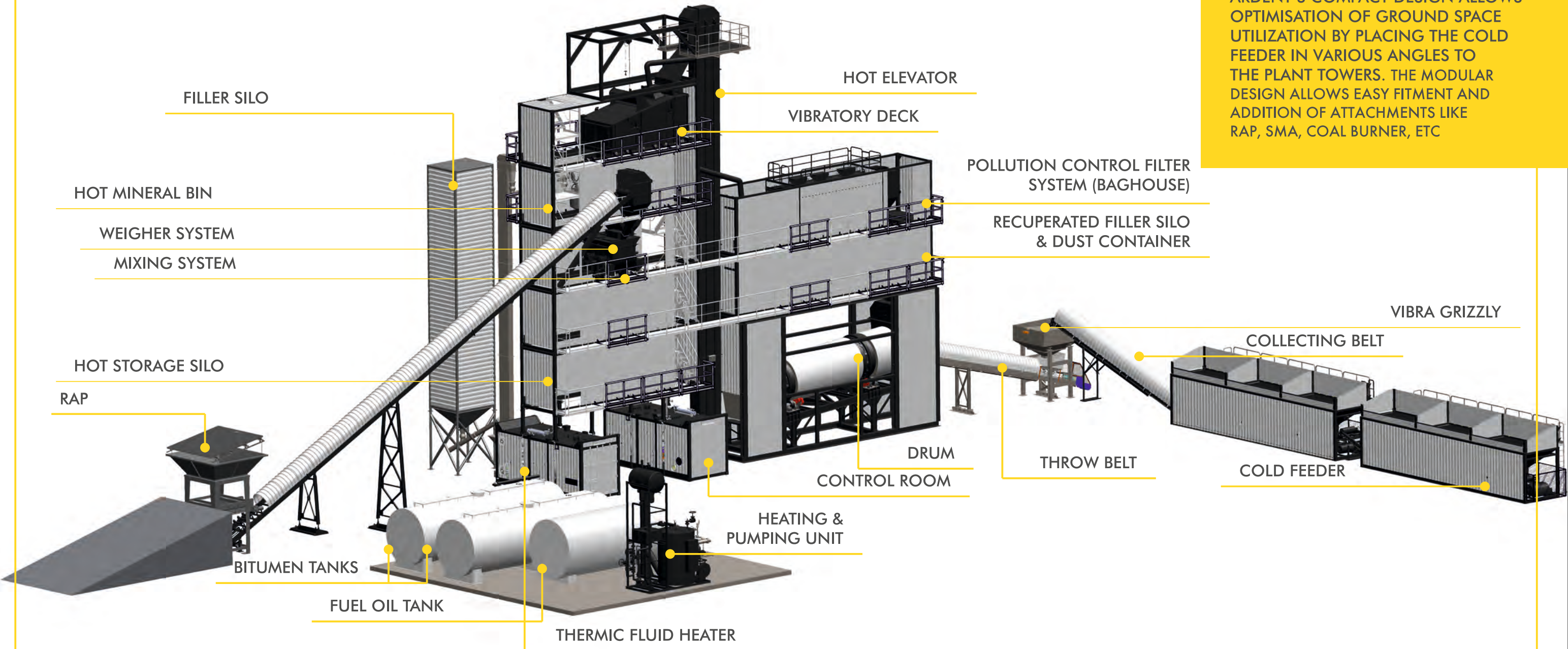
DRUM
CONTROL ROOM

HEATING &
PUMPING UNIT

BITUMEN TANKS

FUEL OIL TANK

THERMIC FLUID HEATER



FEATURES

Features that make Ardent Batch Mixing Plants to be the preferred choice of the Customers for development of Roads & Highways

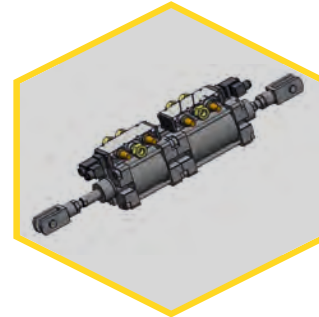
COMPACT AND EFFICIENT DESIGN



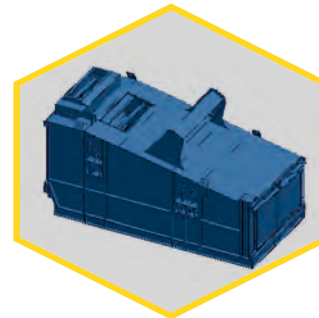
Large capacity hot bin storage to ensure quick batching



Reduced elevator maintenance – Extended bucket life decreases elevator downtime and maintenance costs associated with bucket replacement. Buckets are easy to install and replace with a variety of fastening options.



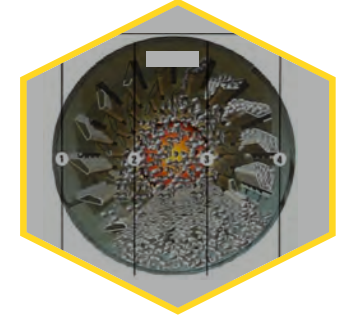
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Specially designed drum / dryer flights to ensure higher retention time and low fuel consumption

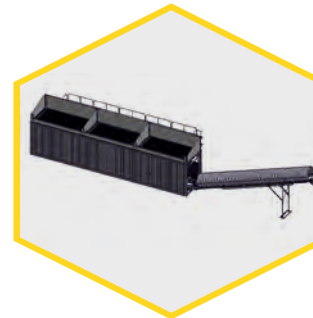
Specially incorporated safety features like emergency pull chords & emergency switches



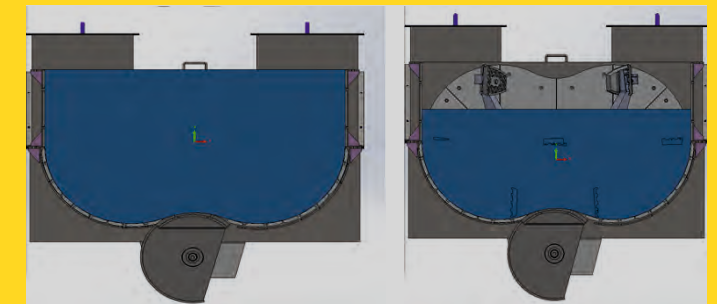
Plug & socket system connected to the junction boxes for easy & fast installation



The plants are designed to be easily accessible, central access provided between the two towers



Mesh on cold bins to ensure oversize removal

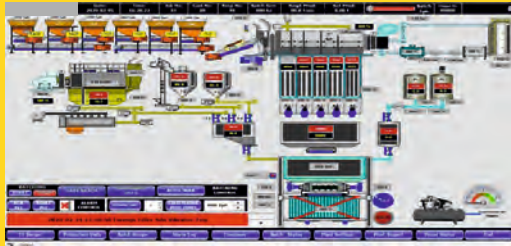


THE GAME CHANGER

LARGE MIXER CAPACITY FOR EFFICIENT BATCHING

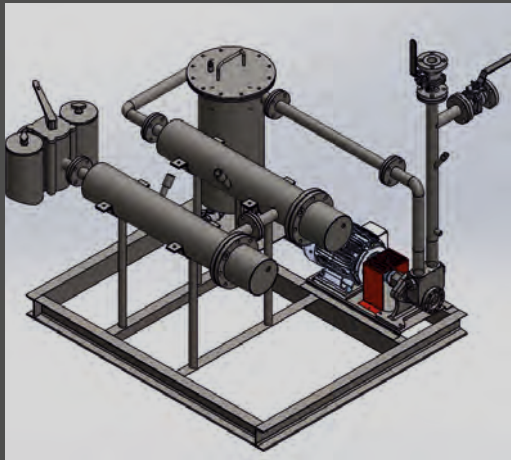
100% BATCH SIZE AT 70% FULL

PROPRIETARY SOFTWARE



ProBatch® Scada based software for best user friendly operation & experience

HEATING & PUMPING SYSTEM



Specially augmented fuel system complete with preheating & heating; pumping station to ensure optimised flow & temperature while using ISHS/FO

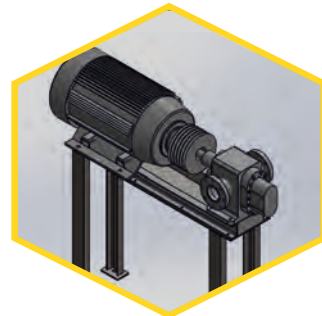
STABILITY AND ACCURACY

Robust steel foundations keeps the plant steady also avoids the need for PCC foundations



Buffer silo for filler / SMA in plant for faster batching

Galvanised handrails for long life of the plant

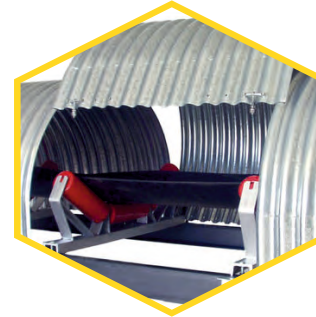
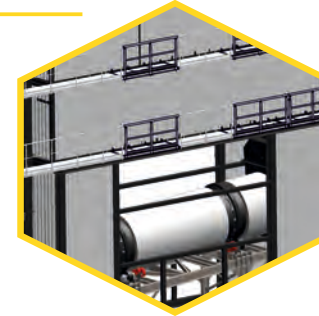


Inbuilt bitumen injection pump for faster batching

In flight control for weighing system to ensure high accuracy

WEATHER PROTECTION

Weather protection enclosure (cladding) to protect against rain, heat and strong winds



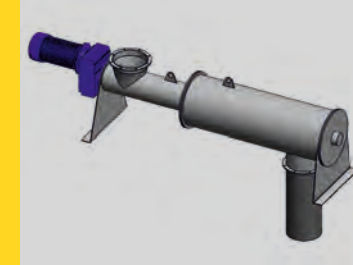
Rain covers on belt conveyors for protection against additional moisture

EFFICIENT CONTROL SYSTEMS

The exhaust fan is VFD controlled instead of damper

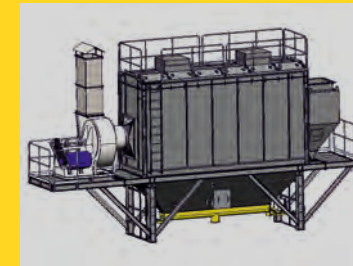
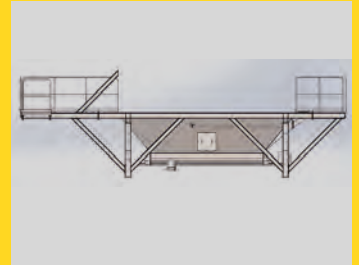


EFFICIENT POLLUTION CONTROL SYSTEM



Dust conditioner for easy disposal of dust resulting in better pollution control

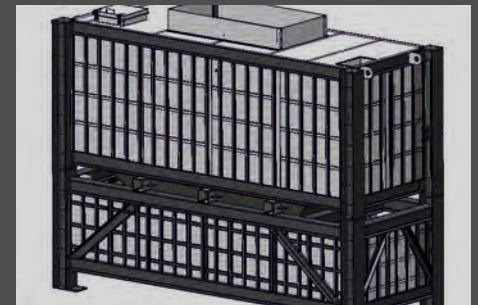
Specially designed recuperated Silo below baghouse to collect fine & feed back to the mix



High capacity reverse air bag house with large surface area to collect dust efficiently

STORAGE FACILITY

Linear expandable hot storage silo allows availability of hot asphalt for the customer at all times



TECHNICAL SPECIFICATIONS OF ARDENT EASYBATCH (VIBRA SERIES) PLANTS

PLANT MODEL	EASYBATCH 140	EASYBATCH 180	EASYBATCH 240
Rated Output At 3% Moisture	140 TPH	180 TPH	240 TPH
Cold Feed Hoppers Capacity	4+2 (Sand Bin) X 9 M3	4+2 (Sand Bin)X 9 M3	4+2 (Sand Bin) X 12 M3
Mesh On Bins (for Oversize Protection)	YES		
Collecting Belt Including Grizzly	140 TONS/HR	180 TONS/HR	240 TONS/HR
Throw Belt	140 TONS/HR	180 TONS/HR	240 TONS/HR
Thermal Drum / Dryer Capacity @ 3% Moisture	140 TONS/HR	180 TONS/HR	240 TONS/HR
Number Of Screening Sections	5 SECTIONS / 6TH SECTION OPTIONAL		
Screening Method	VIBRATION		
Hot Elevator Capacity	150 TONS/HR	200 TONS/HR	260 TONS/HR
Vibratory Deck	5 COMPARTMENTS		
Total Screening Area	20 M2	26.1 M2	33 M2
Burner C/w Blower For Diesel & Heavy Fuel, Optional Gas, Output *always Subject To Chosen Burner And Fuel Type	12 MW	14 MW	18 MW
Hot Mineral Bins - 5 Compartments, Capacity	25 TONS	25 TONS	32 TONS
Aggregate Weigher	2500 KGS	2500 KGS	3000 KGS
Filler Weigher	300 KGS	300 KGS	400 KGS
Bitumen Weigher With 3 Way Valve, Capacity	200 KGS	200 KGS	400 KGS
Twin-shaft Mixer Capacity At 70% Full	2000 KGS	2500 KGS	3000 KGS
Baghouse System Ambient Air Cleaning System With VFD Control, Filter Area	425 M²	495 M²	765 M²
Recuperated Filler Silo	10M3	10M3	30M3
Hot Storage Silo Below Mixer	20 TON	50 TON	80 TON
Silo With Linear Expansion (Optional Accessories)	80 / 100 / 200 TON MULTIPLES		
Recommended Power Supply, Minimum	320 KVA	400 KVA	500 KVA
Plant Control & Monitoring System	PRE-INSTALLED CONTROL SOFTWARE WITH SCADA BASED SYSTEM ProBatch®		
Bitumen Tank (40KL)	2	2	3
Thermal Hot Oil Heater For Light & Heavy Oil With Options Of Gas. Dual Fuel & Coal Gas	4,00,000 KCAL	5,00,000 KCAL	6,00,000 KCAL
Fuel Oil Tank	24 KL	24 KL	40 KL
Pipelines For Fuel Oil / Bitumen / Thermal Oil	INCLUDED		
SMA Dosing System	INCLUDED		
Steel Foundation For Plant	INCLUDED		
Dust Conditioner To Treat Fines	INCLUDED		
Foreign Filler Silo With Bucket Elevator	50M3	50M3	100M3

Materials and Specifications are subject to change without prior notice.

THE EXPERTS IN
ASPHALT &
CONCRETE
BATCH MIX
PLANTS





MAXBATCH PRO SERIES

MAXBATCH PRO SERIES



EASY TRANSPORTATION

Plants are customised to fit into containers for the purpose of ease of shipment.



ADDITIONAL ATTACHMENTS

Due to the modular design it is easy to order various attachments basis the requirements & install it at the plant location with ease.



QUICK INSTALLATION

The preassembled stackable unit design of the plant with plug & play feature makes it fast & easy to assemble & Commission.



ECONOMICAL OPERATIONS

Lower fuel consumption & lower maintenance cost with complete cladding on the plant provides optimum production costs. Galvanised ladder and railing provides for a long life of the equipment.



LOWER MAINTANENCE COST

No need to change worn-off buckets, bearings, chains, sprockets as hot elevator is not required. No separate screening section required.



MAXBATCH PRO (VIBRA SERIES) PLANT VARIANTS

MAXBATCH PRO 240 (240 TPH)
MAXBATCH PRO 320 (320 TPH)
MAXBATCH PRO 400 (400 TPH)

HOT ELEVATOR

VIBRATORY DECK

FILLER SILO

HOT MINERAL BIN

WEIGHER SYSTEM

MIXING SYSTEM

HOT STORAGE SILO

CONTROL ROOM

RAP

BITUMEN TANKS

DRUM

POLLUTION CONTROL FILTER
SYSTEM (BAGHOUSE)

THROW BELT

COLD FEEDER

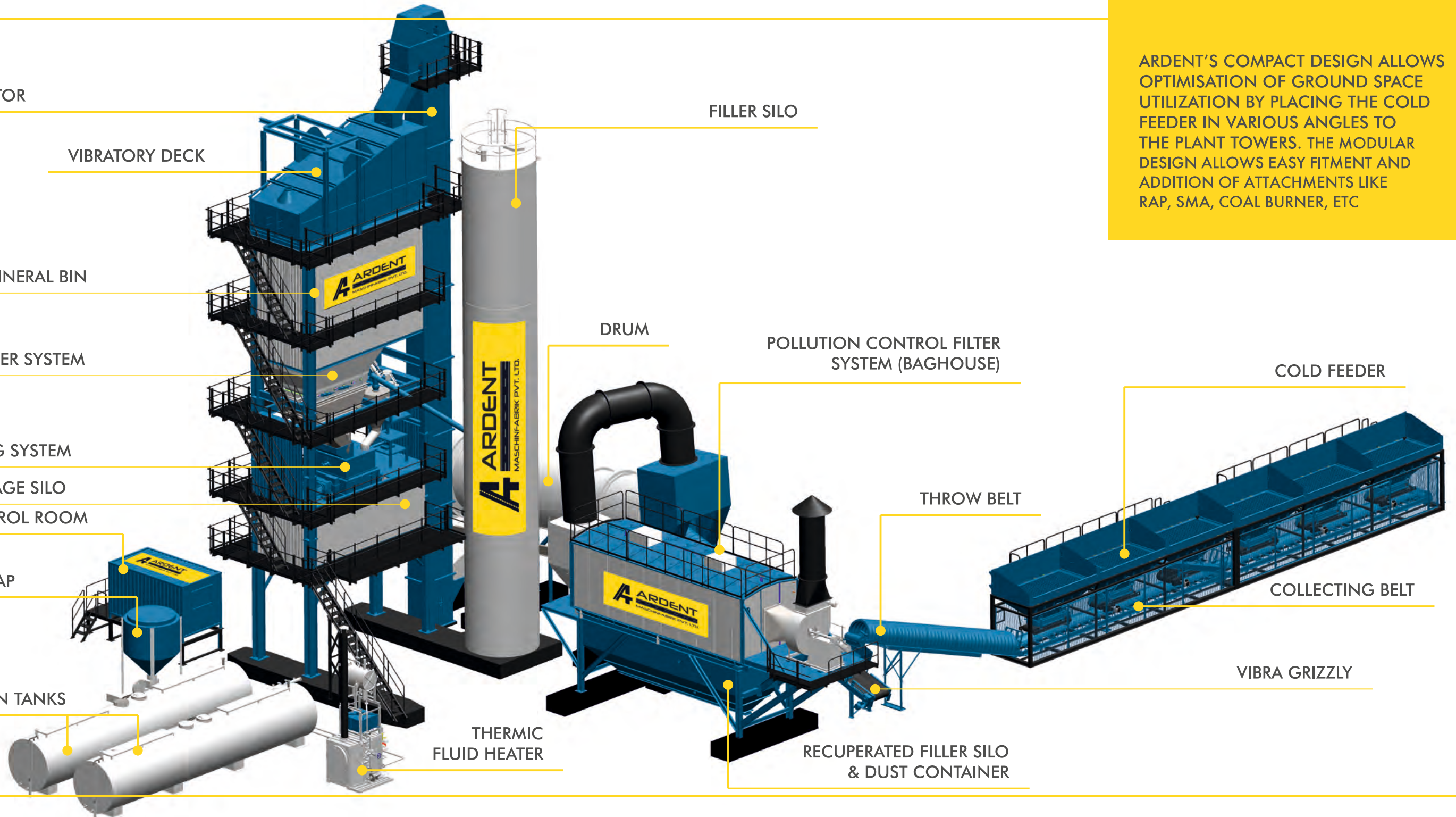
COLLECTING BELT

VIBRA GRIZZLY

THERMIC
FLUID HEATER

RECUPERATED FILLER SILO
& DUST CONTAINER

ARDENT'S COMPACT DESIGN ALLOWS
OPTIMISATION OF GROUND SPACE
UTILIZATION BY PLACING THE COLD
FEEDER IN VARIOUS ANGLES TO
THE PLANT TOWERS. THE MODULAR
DESIGN ALLOWS EASY FITMENT AND
ADDITION OF ATTACHMENTS LIKE
RAP, SMA, COAL BURNER, ETC



FEATURES

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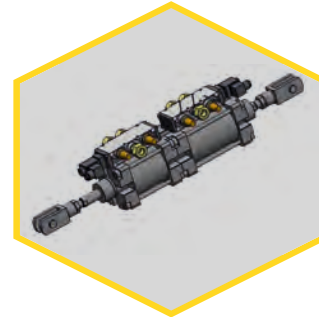
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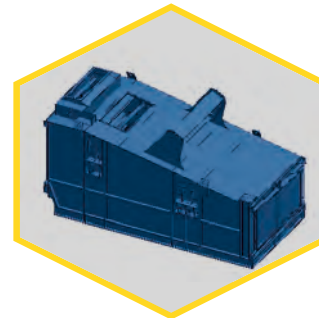
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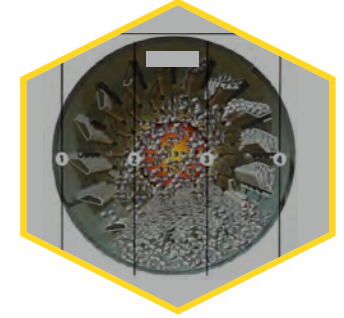
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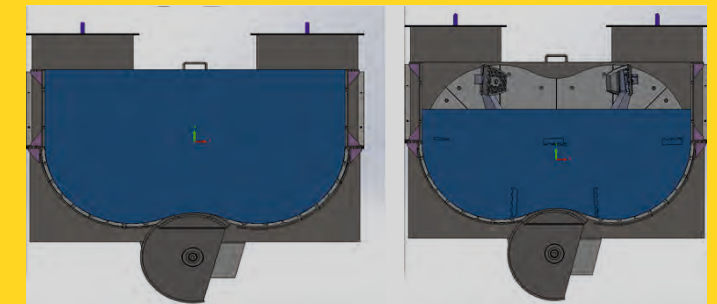
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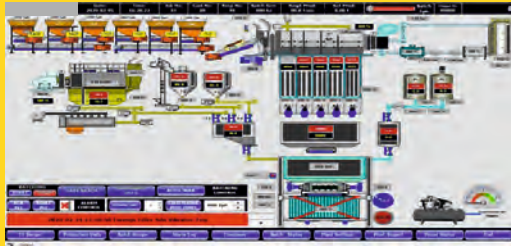


THE GAME CHANGER

LARGE MIXER CAPACITY FOR EFFICIENT BATCHING

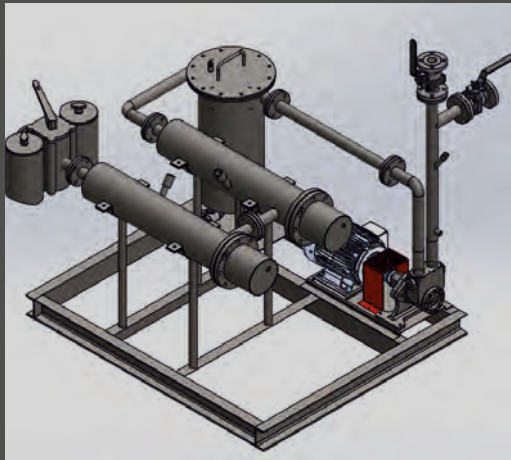
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PROPRIETARY SOFTWARE



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HEATING & PUMPING SYSTEM



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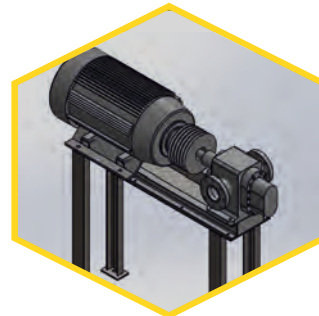
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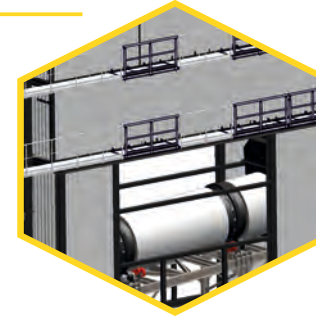


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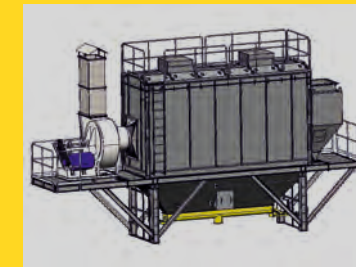
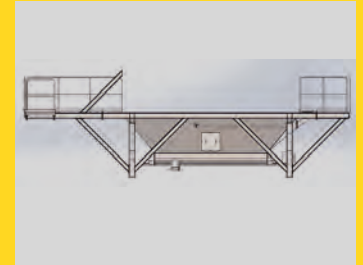


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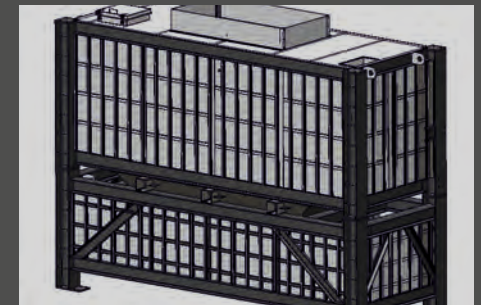
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TECHNICAL SPECIFICATIONS OF ARDENT MAXBATCH PRO PLANTS

Plant Model	MAXBATCH PRO 260	MAXBATCH PRO 320	MAXBATCH PRO 400
Rated Output At 3% Moisture	260 TPH	320 TPH	400 TPH
Cold Feed Hoppers Capacity	4+2 (Sand Bin) X 12 M3	4+2 (Sand Bin) X 15 M3	6+3 (Sand Bin) X 15 M3
Mesh On Bins (For Oversize Protection)	YES		
Collecting Belt Capacity Including Grizzly	260 TONS / HR	320 TONS / HR	400 TONS / HR
Collecting Belt Width	650 MM	750 MM	900 MM
Throw Belt Max Feeding Capacity	260 TONS / HR	320 TONS / HR	400 TONS / HR
Throw Belt Width	650 MM	750 MM	900 MM
Thermal Drum / Dryer Capacity @ 3% Moisture	260 TONS / HR	320 TONS / HR	400 TONS / HR
Drum External Diameter	2,400 MM	2,600 MM	2,900 MM
Drum Length	9,700 MM	11,000 MM	11,800 MM
Hot Elevator Capacity	280 TONS / HR	320 TONS / HR	400 TONS / HR
Vibratory Deck No Of Compartments	6 DECK		
Total Screening Area	30 M2	45 M2	55 M2
Burner C/W Blower Fuel Type	LIGHT FUEL STD, OPTIONAL HEAVY OIL, GAS & COAL DUST OR MULTIFUEL		
Heat Output	18 MW	24 MW	34 MW
Hot Mineral Bins Capacity	45 TONS	50 TONS	104 TONS
Optional Capacity Addition	32 TONS	32 TONS	NA
Bins	6 COMPARTMENTS		
Level Sensor	CONTINUOUS		
Aggregate Weigher Capacity	3,500 KGS	4,000 KGS	6,000 KGS
Filler Weigher Capacity	400 KGS	500 KGS X 2	600 KGS x 2
Bitumen Weigher Capacity	300 KGS	400 KGS	500 KGS
Bitumen Discharge Pump With Filter	YES		
Twin-Shaft Mixer Capacity	3,000 KGS	4,500 KGS	6,000 KGS
Mixer Drive Motor	2 X 45 KW	2 X 55 KW	2 X 75 KW
Pneumatic System Compressor Motor	7.5 KW X 2	7.5 KW X 2	15 KW X 2
Pneumatic System Capacity	1,000 LITRES / MIN EACH	1,000 LITRES / MIN EACH	1,380 LITRES / MIN EACH
Dryer	IN BUILT	IN BUILT	IN BUILT
Bitumen Supply Pump Capacity	1,000 LITRES / MIN		
Pump Motor	11 KW		
Bitumin Injection Pump	15KW / 750 LPM		
Baghouse System Type	REVERSE AMBIENT AIR		
Filter Area	900 M2	1,050 M2	1,325 M2
Exhaust Fan Capacity, Including VFD Drive	65,000 M³/HR	95,000 M³/HR	102,000 M³/HR
Exhaust Fan Drive Motor	110 KW	160 KW	200 KW
Capacity Of Recuperated Filler Silo, Below Baghouse	50 TONS	50 TONS	65 TONS

Materials and Specifications are subject to change without prior notice.

TECHNICAL SPECIFICATIONS OF ARDENT MAXBATCH PRO PLANTS

Plant Model	MAXBATCH PRO 260	MAXBATCH PRO 320	MAXBATCH PRO 400
Control Cabin Electricity (3 Phase, 4 Pole, 50 Hz)	380 V	380 V	380 V
Recommended Power Supply	500 KVA	750 KVA	750 KVA
Plant Control And Monitoring System	PRE-INSTALLED CONTROL SOFTWARE WITH SCADA BASED SYSTEM ProBatch®		
Steel Foundation	YES		
Dust Conditioner To Treat Fines	YES		
Bitumen Tank Capacity (Recommended Option)	3 X 40 KL	5 X 40 KL	5 X 40 KL
Thermal Hot Oil Heater Capacity (Recommended Option)	600,000 KCALS	1,000,000 KCALS	1,000,000 KCALS
Type Of Fuel	NATURAL GAS OR LIGHT OIL		
Type Of Fuel (Optional)	HEAVY OIL OR COMBINATION GAS + OIL		
Fuel Oil Tank Capacity (Recommended Option)	40 KL		
Foreign Filler Silo With Bucket Elevator And Screw Capacity (Recommended Option)	50 M3	100 M3	100 M3
Recommended Qty.	2	2	2
Hot Storage Silo (Optional)			
Silo Below Mixer Single Compartment	80 TONS	100 TONS	100 TONS
Silo Below Mixer - 2 Compartment	YES		
Expandable Option For Silo Addition	YES		
Silo With Side Skip Option Capacity	200 TONS MULTIPLES		
SMA Dosing System Total Storage Capacity	1,000 KGS		
Cold Recycling (Optional)	35%		
Hot Recycling With Parallel Drum (Optional)	70%		
Hot Recycling With Counter Flow Drum (Optional)	90%		

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HOT RECYCLING PLANT

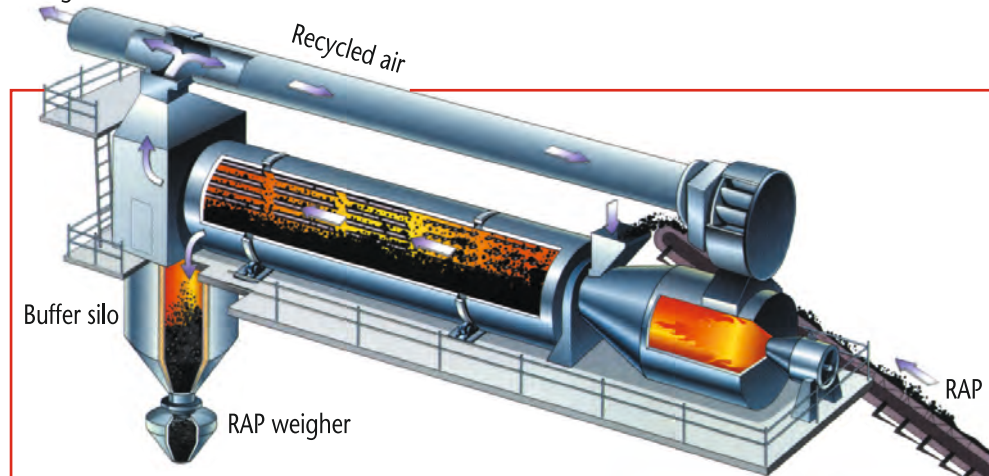
ARDENT HOT RECYCLING PLANT

Understanding today's pressing environmental issues and rapidly increasing pollution problem, as a member of the world population, ARDENT is committed to protect and conserve our last natural resources. We strive to balance between development and environmental protection by being innovative in the design of our system.

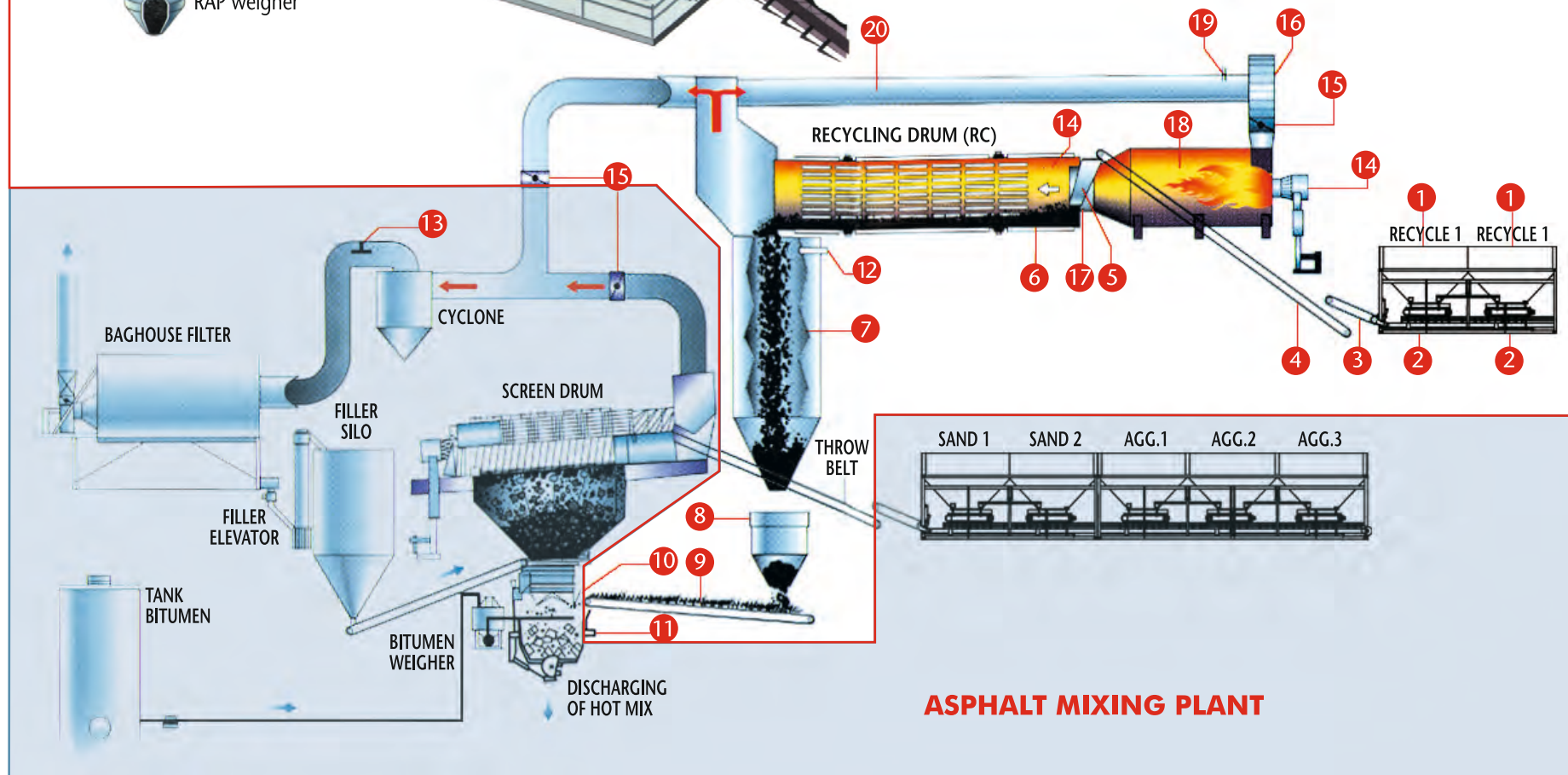
With good experiences gained from several plants in India, we learned that a total system must be able to combine Pollutants Reduction, Energy Conservation, Temperature Control and material treatment; ultimately achieving the highest level of waste recycling but not compromising the mix quality.

ARDENT IS ABLE TO OFFER THE MILL CRUSHER AS A TOTAL SOLUTION WHICH IS PROVEN FOR MORE THAN 10 YEARS IN GERMANY AS A OPTION.

To baghouse



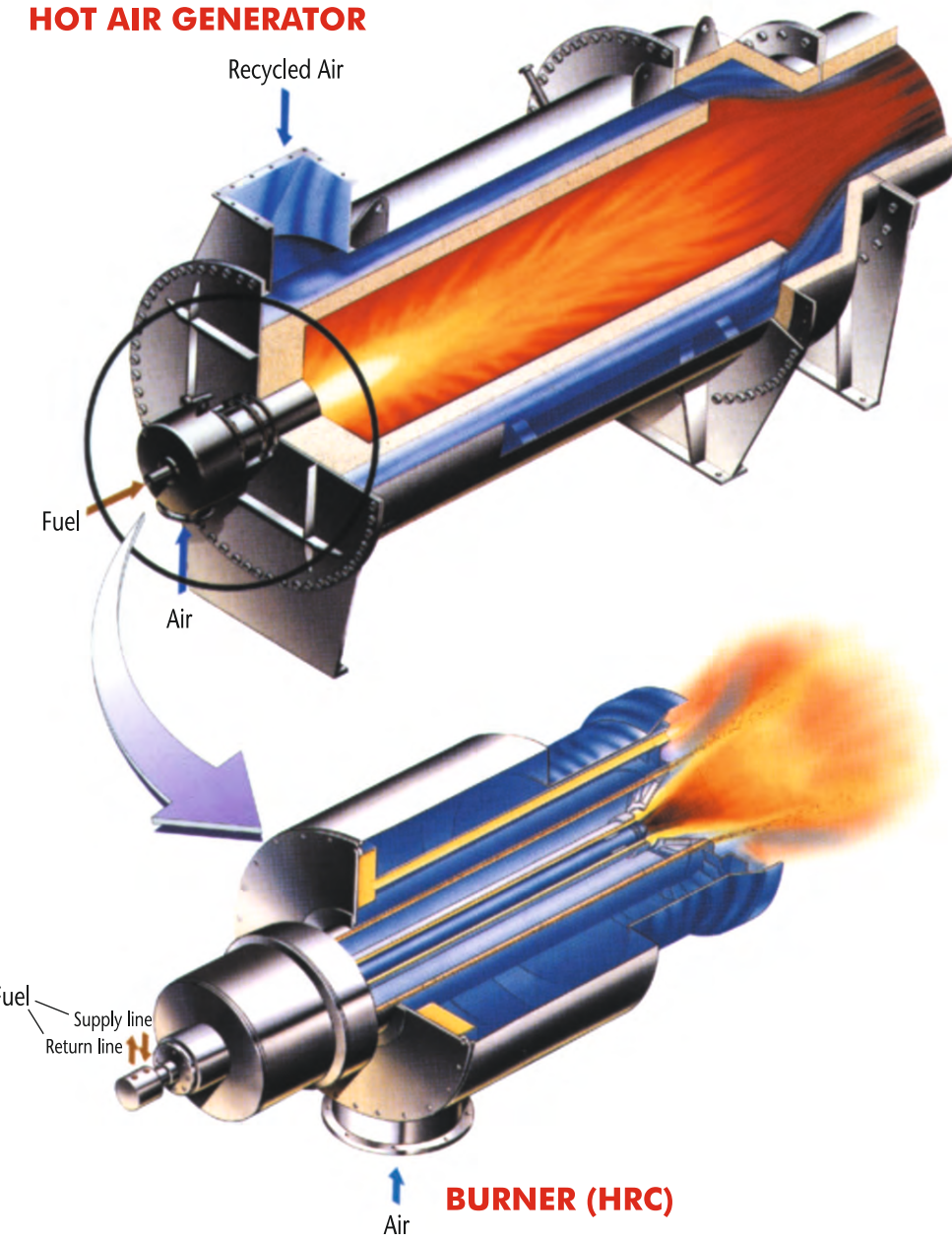
- | | | |
|---------------------------|---------------------------|--------------------------------------|
| 1 2 units RAP hoppers | 8 RAP Weigher | 15 Automatic damper |
| 2 2 units RAP feeders | 9 Conveyor belt | 16 Recirculating fan |
| 3 Collecting conveyor | 10 Mixer inlet chute | 17 Hot air temperature control |
| 4 Throw belt and transfer | 11 Mixer | 18 Hot air generator |
| 5 Inlet chute RC-drum | 12 RC-temperature control | 19 Recirculating temperature control |
| 6 Recycling drum | 13 Fume arrester | 20 Hot air return ducting |
| 7 Buffer silo | 14 Burner | |



ASPHALT MIXING PLANT

HOT RECYCLING PLANT

HOT AIR GENERATOR



BURNER (HRC)

ADVANTAGES

Advantages that make Ardent Hot Recycling Plants to be the preferred choice of the Customers.



POLLUTANTS REDUCTION

Proper control of the temperature and re-circulation of hot air minimizes the production of harmful fumes from the heating of asphalt.

The majority of the harmful substances re-circulated are being expended at the hot air generator's flame zone, thus giving us a cleaner exhaust. Asphalt fumes not circulated are being captured by fines injected at the Fumes Arrester before going into the baghouse.



MATERIAL TREATMENT

In the treatment of RAP, it is always important to prevent excessive fines or asphalt dust being produced, reasons being:

- The heated asphalt dust will be choked up the pollution control system by sticking onto the filter socks.
- The plant circulation system and drum may be progressively coated with the asphalt thus requires constant cleaning.
- Possible change in the properties of the RAP, e.g. oxidation and burning due to increased surface area where too much hot air is in contact with the asphalt.



TEMPERATURE CONTROL

Full automatic control by the computer on the air flow through the control of the dampers and the temperature monitoring by the thermometer at various positions, bringing the RAP to the ideal temperature at reduced oxidation for the mixing with the virgin material.



ENERGY CONSERVATION

The burner uses high pressure to atomize the fuel out of the nozzle. All the air required for the combustion is supplied by an incorporated radial/axial flow fan coupled with a regulator plate regulating the fuel feed valve to ensure exact air - oil proportioning, thus ensuring fully combusted flame to be developed in the burner head. Minimized fuel wastage gives the owner a significant saving over one-year operation.

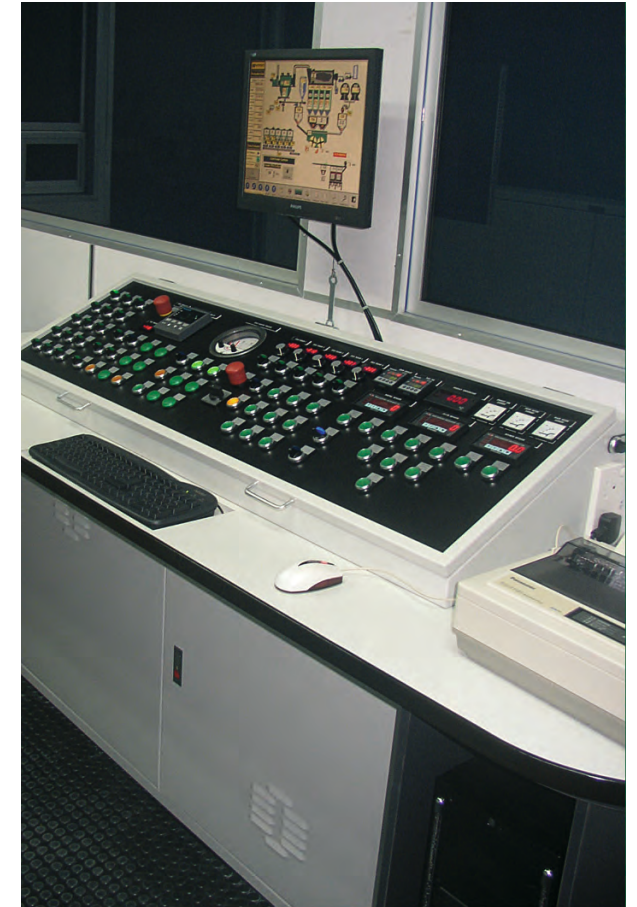
The flame entering the hot air generator is further mixed with the returned HOT air to give the air a final temperature of approximately 600°C for optimum heat transfer to the RAP. The special construction of the system ensures the optimum temperature of 140-150°C for the RAP before discharging into a buffer silo. By this method of recirculating the hot air, approximately 25% of energy is saved.

CONTROL SYSTEM

Clear flow charts and logical arrangements of function keys and control monitor guarantee ease of operation and perfect handling of all automatic control system.

Plant operator can simultaneously control various functions, thus reducing the number of people required to run the complete plant.

With the high speed computer controlling the plant in the background, essential communication with the operator is done through a mimic diagram displayed on a touch - screen monitor. The system is highly user friendly with control command to the computer being input via the computer screen by the touch of a finger.



HRC PLANT VARIANTS

- HRC 80 – (80 TPH) Hot Recycling System
- HRC 120 – (120 TPH) Hot Recycling System
- HRC 160 – (160 TPH) Hot Recycling System
- HRC 200 – (200 TPH) Hot Recycling System



LONG TERM HOTMIX STORAGE SILO

ARDENT

LONG TERM HOTMIX STORAGE SILO

Ardent Long Term Hotmix Storage Silo gives you more reasons that allow improvement to your asphalt plant efficiency and tremendous reduction to the operation cost. It helps longer operation with Maximum Heat Retention, Anti-Segregation Batcher, Oxidtion Prevention device.

Ardent understands the essential role of Silo systems in the profitability aspect of the Asphalt Mixing Plant operation. That's why Ardent designs a complete HOT STORAGE SILO system with features suitable to cater for your operation.

ARDENT LONG TERM HOTMIX STORAGE SILO IS BUILT FOR:

HOMOGENOUS STORAGE ANTI SEGREGATION BATCHER

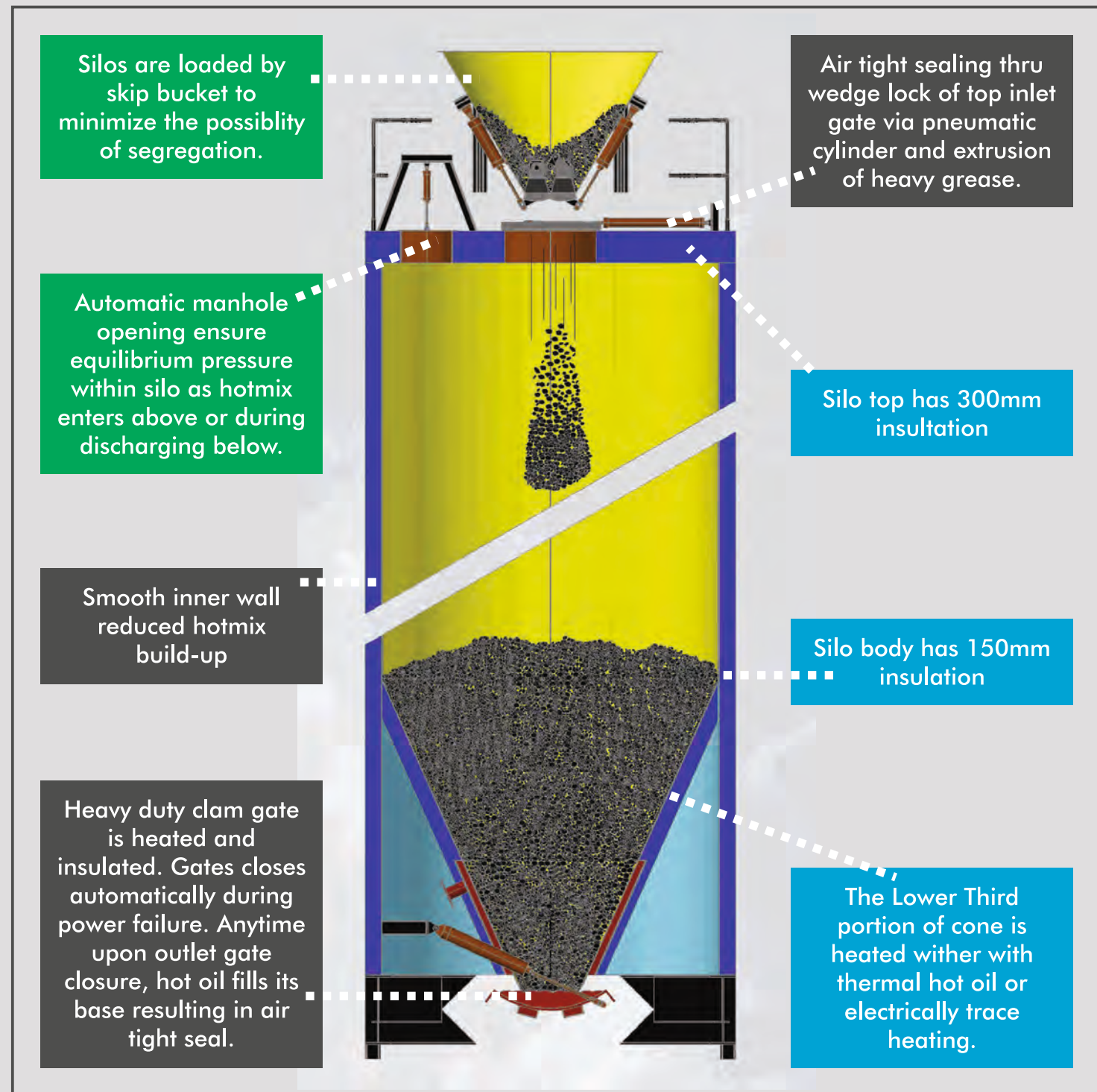
Silo has anti-segregation batcher that ensures even quality mix. It has one round compartment with dual rectangular gates that eliminates mix coning segregation.

TEMPERATURE CONTROL MAXIMUM HEAT RETENTION

The storage silo is equipped and designed with advance technology insulation. It has a consistent heat, therefore maintaining a good quality for production. The thick insulation keeps the heat, so that it can store the asphalt up to 4 Days.

QUALITY MIX OXIDATION PREVENTION

The silo has automated top/bottom gate sealing devices to prevent oxidation and permits safe, unimpeded discharge of asphalt.





WARM MIX ASPHALT SYSTEM

www.ardentgroup.co.in

ARDENT MASCHINFABRIK WARM MIX ASPHALT SYSTEM

The Ardent Maschinfabrik warm mix asphalt solution is available for all new and used Ardent asphalt mixing plants as well as retrofit for plants of other brands. The solution uses proven technology to produce high quality asphalt at temperatures from 95°C to 100°C with the foam bitumen system.

ADVANTAGES

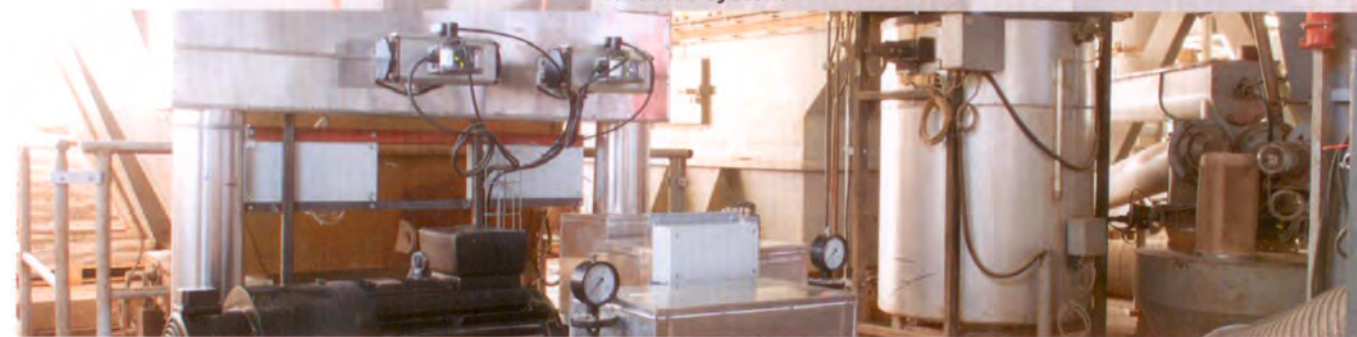
- Up to 35 % reduction in fume emissions
- Up to 35 % reduction of Co₂
- Energy savings up to 40 %
- Reduction in processing temperatures approximately 80° C
- Composition and durability of warm mix is equal to hot mix
- Production temperature 95 – 100° C
- Process type: Foam

PROCESSING OF WARM MIX ASPHALT

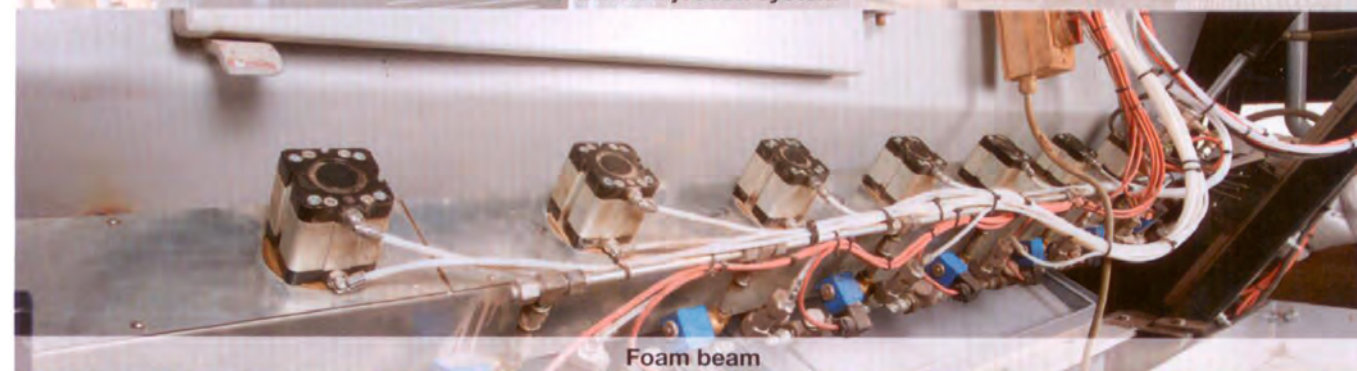
For all Asphalt Mixing Plants
New or retrofit



Additive system



Bitumen injection system



Foam beam



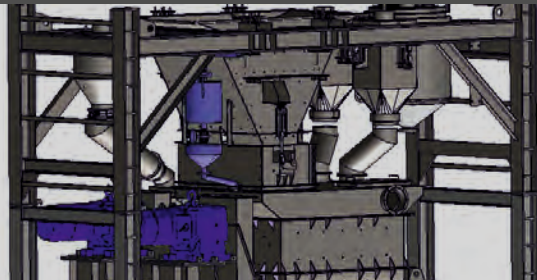
NO DIFFERENCE

WARM MIX ASPHALT

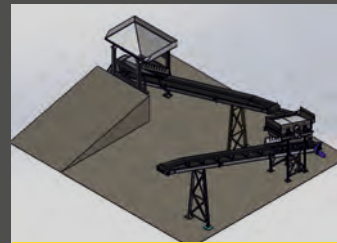
HOT MIX ASPHALT

OPTIONAL ACCESSORIES

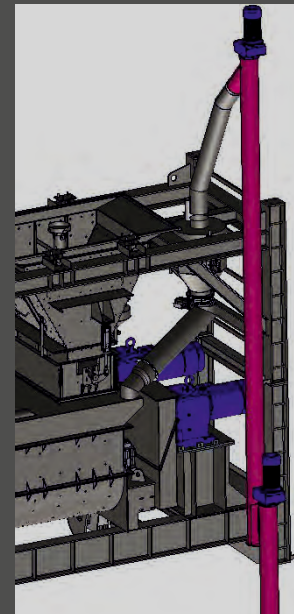
Additional accessories that can be ordered as per the requirement and can easily be installed at the plant location.



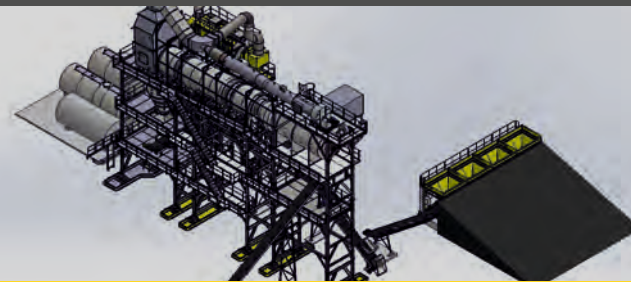
Colour Asphalt Liquid Loading System



Rap Sieving System with Conveyors



SMA Dosing System (1.5% Dosing)



Hot Recycling



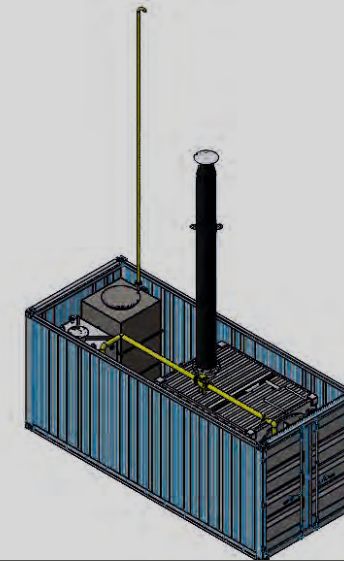
Cold Recycling



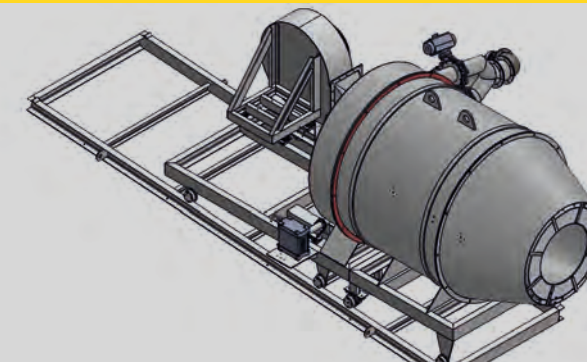
Gussaphalt / Mastic Option



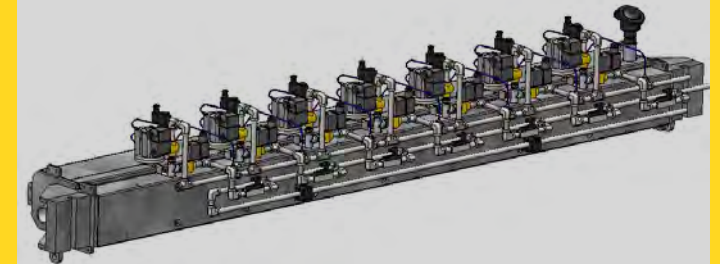
Drum Decanting System



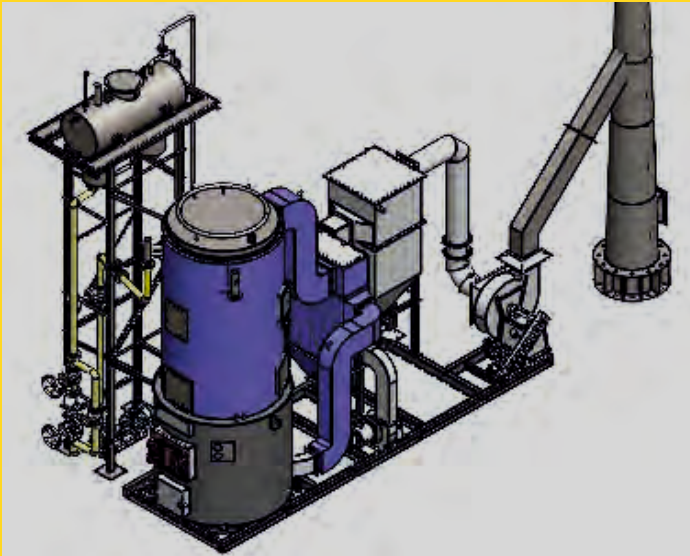
Thermal Oil Heater in Container



DustPro® Coal Burner Complete with Accessories & Storage



Warm Mix (Water Based)



Coal Fired Thermal Oil Heater

OTHER OPTIONAL ACCESSORIES

- RAP Granulator
- Fuel / Gas Metering System
- Hot RAP with Counter Flow Drum
- Waste Heat based Coal Dryer

- Optional Hot Storage Silo Side Skip from 100 to 1600 tons
- Dedust Covers for Cold Feeder with Suction Fans Connected by Duct to Bag House During Loading
- Bitumen Tank Vent Connection to Common Ground Filter for Clean Air Fume Control

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.