

CONTINUOUS PROCESS

# ACM PRIME

ASPHALT-MIXING PLANTS  
MOBILE



**AMMANN**

# MOBILITY AND QUALITY

## KEY TO ACM PRIME PLANTS

Mobile asphalt plants need to be easily transported. Yet they also need to be productive once they arrive at their destination. Ammann mobile ACM Prime plants succeed on both fronts.

Ammann strictly adheres to international transport codes when developing mobile plants to make border crossings efficient. Plug-in components also reduce costs and speed setup.

Ammann provides all this while still offering benefits typically associated with stationary facilities. The result is highly mobile plants with production capacity of 100 to 140 tonnes per hour.

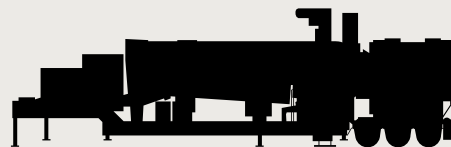
### ACM PRIME



#### ACM 100 PRIME

MIXER SIZE: 0.9 t (1 ton)

CAPACITY: 100t/h (110 tons/h)



#### ACM 140 PRIME

MIXER SIZE: 1.5 t (1.68 tons)

CAPACITY: 140t/h (154 tons/h)





# TECHNOLOGY THE DRIVER

## ACM 100 PRIME AND ACM 140 PRIME

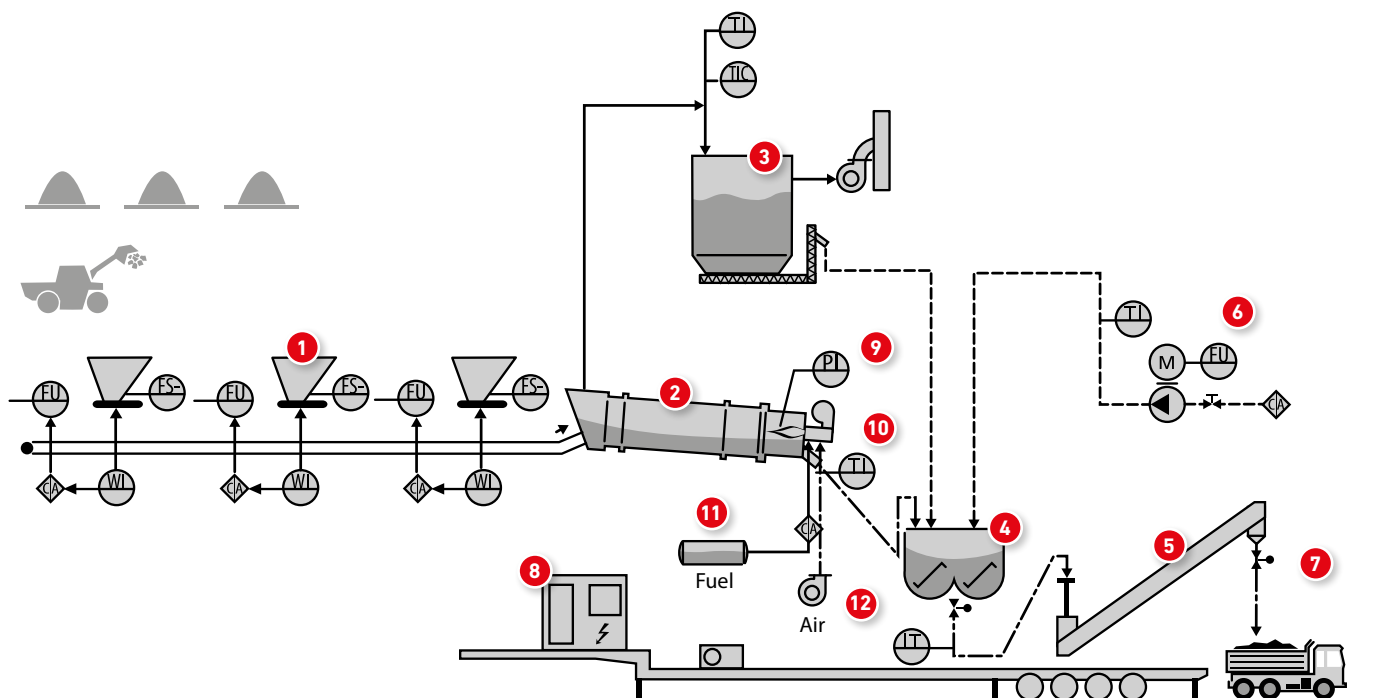
The ACM 100 Prime and ACM 140 Prime are the highly mobile versions of the successful Ammann continuous asphalt-mixing plants.

The plants maintain key aspects and benefits of other Ammann plants, including the innovative as1 Control System and tried-and-tested core components. A special benefit of the plants is a controllable outlet gate that enables the filling height and therefore the mixing time to be set depending on recipe and output.

The ACM 100 Prime has output capability of 100 tonnes per hour while the ACM Prime 140's output is 140 tonnes per hour.

### HIGHLIGHTS

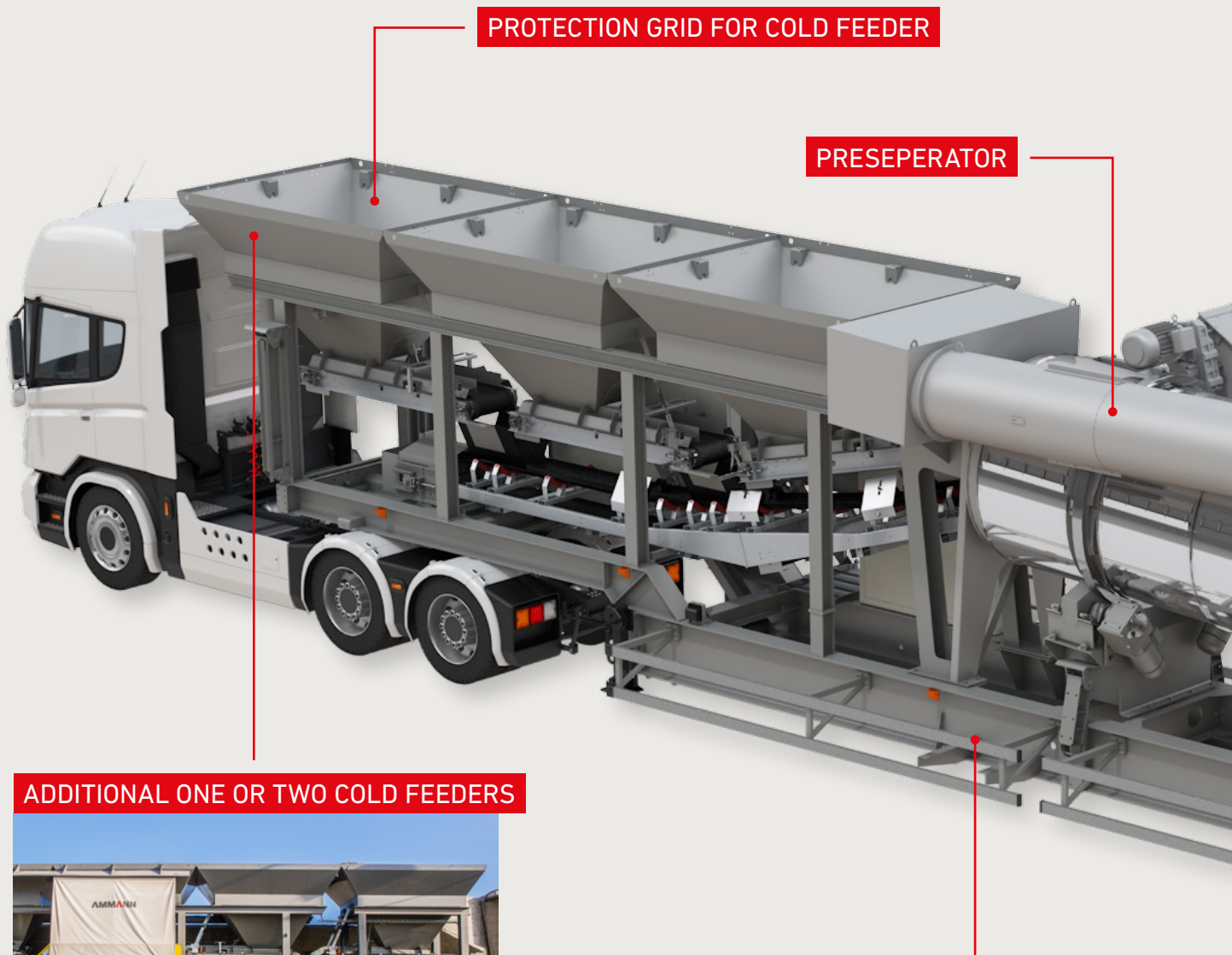
- Highly mobile with a compact design
- Excellent mixing performance and quality
- Clearly separated heating and mixing processes
- Ability to utilise as much as 20 per cent RAP in mix
- Adjustable mixing times based on recipe and capacity



- |                                       |   |
|---------------------------------------|---|
| 1. Cold feeders with belt scale       | 7. Truck loading station                                      |
| 2. Dryer drum with Ammann burner      | 8. as1Push control system                                     |
| 3. Filter                             | 9. Pressure measurement                                       |
| 4. Mixer                              | 10. Temperature measurement with control function and display |
| 5. Drag slat conveyor with batcher    | 11. Fuel tank   |
| 6. Electrically heated bitumen system | 12. Compressed air system                                     |



# OPTIONS



HOT MIX STORAGE SILO LATERAL



MOBILE OR STATIONARY BITUMEN AND FUEL TANKS

RECYCLING ADDITION

IMPORTED FILLER ADDITIONAL

FIBRE ADDITIONAL

RECLAIMED FILLER

BITUMEN FOAM GENERATOR

# CUSTOM-MADE RECYCLING SOLUTIONS

The use of reclaimed asphalt, or recycling, is an absolute necessity of today.

We are able to offer you custom-made solutions relating to recycling. Our modern plant technology guarantees you extremely high quality asphalt using recycling asphalt (RAP).

## HIGHLIGHTS

- Significant reduction of production costs due to lower costs of bitumen, minerals and transport costs
- Supported or promoted by statutory legislation (country specific)
- Less effect on natural resources (fewer oil and mineral requirements)
- Reduction of expensive storage facilities
- CO<sub>2</sub> reductions

## 20 % COLD FEED INTO THE MIXER



## BENEFITS

- New minerals can be screened off
- Batch quantity variable with each load
- Max. flexibility (recipes)
- Independent from rest of process

20 %

# LOW-TEMPERATURE ASPHALT

ENERGY-EFFICIENT, LOW-EMISSION AND CO<sub>2</sub>- OPTIMISED

Manufacturing asphalt at reduced temperatures offers many benefits: asphalt production consumes less energy, the asphalt plant emits less CO<sub>2</sub> and on-site emissions drop dramatically. Whilst conventional hot asphalt is manufactured at around 170 °C, modern low-temperature processes allow production temperatures of around 100 °C.

The Ammann range offers a number of these technologies. Foam bitumen, waxes and other additives, WAM Foam or special bitumen are suitable for use depending on the application.

WE OFFER DIFFERENT PLANT COMPONENTS DEPENDING ON THE REQUIRED TECHNOLOGY, FOR INSTANCE:

- Foam generator
- Additive feed (solid and liquid)
- Addition of cold or wet aggregate
- Process management system

## HIGHLIGHTS

- Achieves the quality of conventional hot asphalt
- Low energy consumption
- Low emission of CO<sub>2</sub>
- Fewer emissions on the road construction site

## COMBINATION OF COLD / LOW-TEMPERATURE ASPHALT

### AMMANN FOAM ®

Ammann is convinced of low temperature mixes and their future. In collaboration with customers and laboratories, we developed the Ammann Foam System. Based on the foaming effect with water, our foam generator works on continuous and on batch plants all over the world. Ammann Foam works without additional chemicals and can be fitted to any existing plant.

### IDEAL SUPPLEMENT: FOAM BITUMEN

A foam bitumen installation enables you to expand the product portfolio of your mixing plant. The Ammann foam bitumen systems allow the foaming of carriageway construction bitumen to various degrees of hardness as well as polymer bitumen. For example even with cold base courses can be manufactured with 100 % recycled materials. This means that the use of foam bitumen optimally supplements the recycling feed in the mixer.

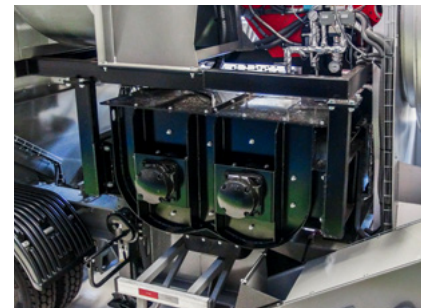


# AMMANN CORE ELEMENTS

EVERYTHING FROM ONE SOURCE

Ammann premium asphalt-mixing plants utilize complex process engineering that requires perfect interaction between all individual components. So essential is this integration that Ammann develops and manufactures all core components, including drums, burners, filters, screens, controls and mixers. Doing so is the only way to guarantee that our plants will meet the demanding requirements and standards of the modern market environment. Ammann is currently the only manufacturer of asphalt-mixing plants to offer this single-source approach, establishing us as a professional partner to handle every aspect of your asphalt-mixing plant. We provide answers when you need them and keep an open mind in order to fully understand your needs.

## ACM PRIME CORE ELEMENTS



### BURNERS AND DRYERS

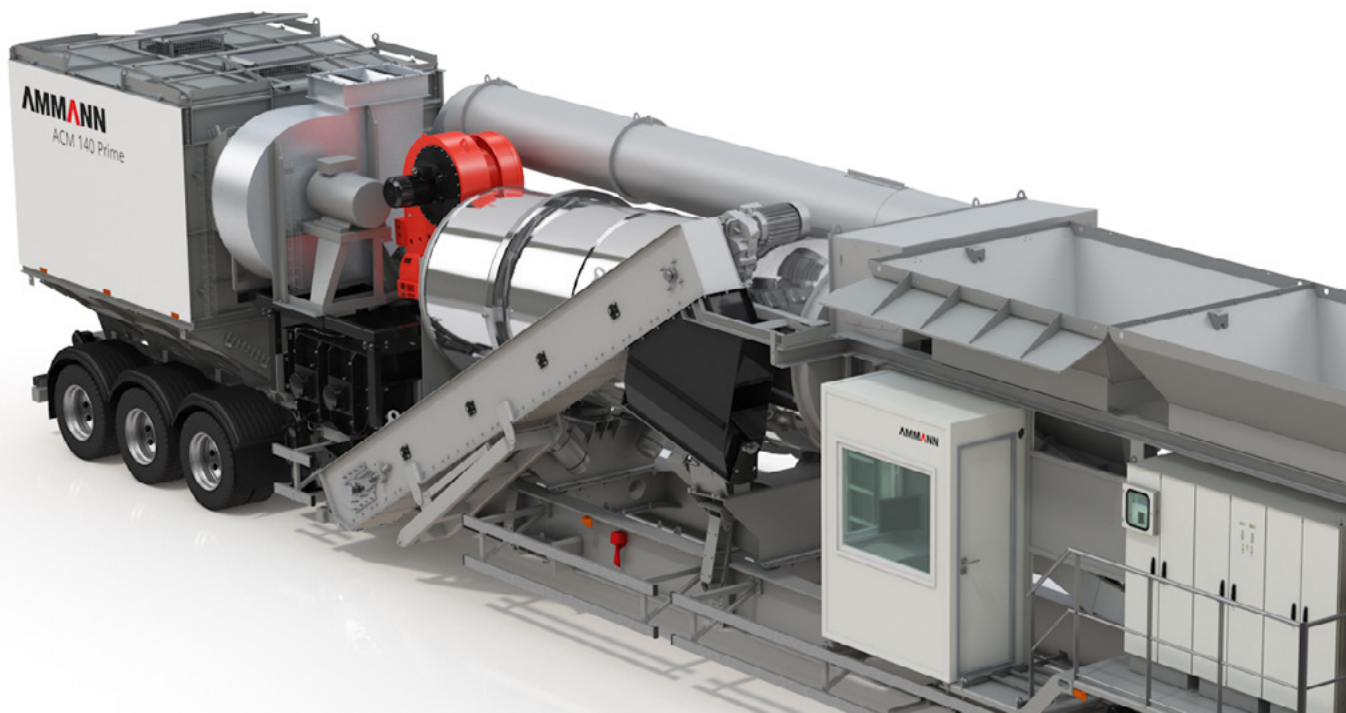
Ammann burners and dryers are highly reliable, productive and feature cutting-edge technology. Robust, compact and energy-efficient designs minimise maintenance requirements and reduce fuel consumption. The burners and dryers are adaptable to multiple Ammann plant types and built for easy operation. A wide range of options is available.

### FILTERS

Flow is optimised through a highly technical analysis. The filters perform well from top to bottom and minimise service time. Ammatex filter bags offer high temperature resistance and eliminate the need for a fresh air damper. PTFE coating and seams create exceptional resistance and longer life. Improved thermal insulation contributes to the plant's efficiency.

### MIXERS

Mixers are highly reliable with short mixing times. Maintenance is minimal and all components work seamlessly and efficiently because of Ammann's quality engineering. The operator-friendly mixers are an integral part of Ammann plants.



# AS1PUSH CONTROL SYSTEM

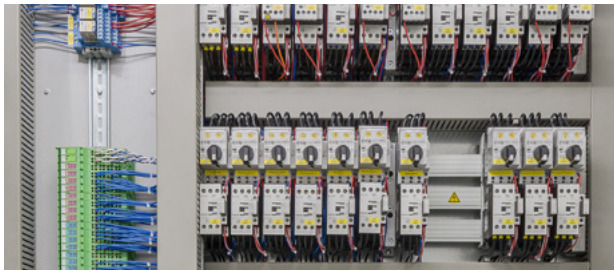
POWERFUL, RELIABLE AND PROVEN WORLDWIDE

The powerful and future-oriented as1Push system concept combines proven Ammann software with specially matched industrial hardware. The as1Push computing environment has been designed and tested for use in tough environments. It was specially designed for the requirements of continuous mixing process plants with a simplified user interface.

## THE FIELD BUS SYSTEM

### GUARANTEED FOR RELIABLE SIGNAL TRANSFER

The proven field bus system is robust and reliable under tough operation. Faults can be detected efficiently and rectified by means of the diagnostic tools, even via remote support.



## THE POWER CABINET'S COMPONENTS DESIGNED FOR TOUGH, ROUND-THE-CLOCK OPERATION

The power cabinet's components have to withstand extreme stress 24 hours a day, which is why Ammann only uses tried-and-tested, globally available quality components from renowned manufacturers.

## HIGHLIGHTS

- Comprehensive system functionality
- Quick and easy to learn
- Safe to operate
- Proven, reliable field bus and load-sharing
- Professional hotline and support organisations ready for service worldwide

## HOTLINE AND SUPPORT PLANT AVAILABILITY ASSURED

Electromechanical faults can be quickly resolved by the customer's own personnel with the help of the electrical circuit diagrams and the as1 diagnostic tools.

Ammann's knowledgeable customer service team staffs the hotline, which can be called for fault diagnosis or maintenance at any time. Modern telecommunications media increase the availability of the plant and reduce the need for costly on-site servicing.



# AFTER SALES

## COVERING ALL NEEDS

Contracted maintenance services and technician training provided by Ammann help protect your investment, while operator training ensures your team is able to utilise all the features and benefits built into your plant. When your needs change, Ammann offers retrofit options that can provide you with a good-as-new plant at a low cost.

### PUT AMMANN EXPERTISE TO WORK

Ammann offers service packages that ensure all maintenance is current, making your plant efficient and also protecting it from premature wear that can result from poor service practices. A variety of technical service packages are available. Or, if you prefer, an Ammann representative can visit your plant and together you can develop a plan that perfectly fits your needs.

### VALUE AND AVAILABILITY

Ammann parts provide the best value over the life of your plant. The parts are built to last and have a longer life than low-cost products on the market. Ammann parts also are a perfect fit for your plant, enabling other components to run more efficiently and last longer. Availability is another key Ammann focus. The Ammann logistics team recently overhauled stocking centres and processes to ensure the most essential parts are always nearby.

### READY WHEN YOU ARE

Ammann experts are ready to assist you in emergency situations 24 hours a day, seven days a week. The help line team is highly trained and experienced. Representatives can talk you through the challenges – in many different languages – with a remote connection to your system that will minimise the troubleshooting time.



# TRAINING

## FULFILL YOUR PLANT'S POTENTIAL WITH TRAINING

Your plant features components engineered for productivity and technology that can deliver benefits unheard of just a few years ago. Yet those components and that technology are only as good as the operator using them. How can you help operators make the most of the tools at their disposal? The answer is training.

### WORLDWIDE TRAINING CENTRES

Ammann has more than 10 regional training centre locations around the world. Key teaching themes connect them all.

- A good balance. The centres combine a traditional classroom setting with hands-on experience, including the availability of plant components for maintenance lessons.
- Experiment without consequences. The as1 control system simulator provides operators with realistic scenarios without running the risk of wasting material or causing plant downtime. Operators can experiment and learn from their mistakes – without costly consequences to your operations.
- Learn from peers. Operators from other facilities attend the training. Participants say the conversations with their peers – and learning how they overcome challenges – is another key benefit.
- Learn in your language. Lessons are taught in many languages, ensuring your team understands key terms and lessons and makes the most of your investment.

In addition, Ammann experts can customise a curriculum for your needs and work with operators and managers at your facility. The advantages include hands-on experience with your equipment and the ability to involve more of your staff than would likely be sent to a regional training centre. Choose from the Ammann training modules.



# SPECIFICATIONS

## ACM PRIME



PLANT TYPE *	100	140
CONTINUAL PLANT CAPACITY AT 3 % MOISTURE	100 t/h (110 tons/h)	140 t/h (154 tons/h)
CONTINUAL PLANT CAPACITY AT 5 % MOISTURE	80 t/h (88 tons/h)	120 t/h (132 tons/h)
NUMBER OF COLD FEEDERS	Standard: 3   + Option 4 or 5	
CONTENT COLD FEEDERS	3 × 7 m <sup>3</sup>   Option: 3 × 10 m <sup>3</sup> (3 × 246,4 ft <sup>3</sup>   option: 3 × 352 ft <sup>3</sup> )	
TYPE DRYING DRUM	T 1650 (Ø = 1.6 m / L = 5 m) T 1650 (Ø = 5'3" / L = 16'5")	T 1860 (Ø = 1.8 m / L = 6 m) T 1860 (Ø = 5'11" / L = 19'8.2")
BURNER POWER OUTPUT	7 MW (23.9 million Btu/h)	10 MW (34.1 million Btu/h)
FUELS	Standard: Light oil, heavy oil   Option: gas	
FILTER CAPACITY	22 000 Nm <sup>3</sup> /h (12,948 SCFM)	30 000 Nm <sup>3</sup> /h (17,657 SCFM)
FILTER SURFACE	265 m <sup>2</sup> (2,852 ft <sup>2</sup> )	330 m <sup>2</sup> (3,552 ft <sup>2</sup> )
AGGREGATE SCALE	Belt scale in each dosing conveyor belt	
BITUMEN SCALE	Volumetric   Option: massflow system	
TYPE MIXER	Amix twin-shaft paddle mixer with mix dwell time for filling level	
MIXER SIZE / CONTENT	0.9 t (1 ton)	1.5 t (1.68 tons)
NUMBER OF AGITATOR PLANES	12	10
CONTROL SYSTEM	as1Push	
COLD RECYCLING ADDITION UP TO 20 %	–	Directly into the mixer
MOBILITY	1 chassi	1 chassi or 2 chassi
TRANSPORT DIMENSIONS WITHOUT TRUCK	Overall length 21.7 m (71'3") Length (from kingpin) 18.6 m (61'1") Width 3.2 m (10'6")   Height 4.4 m (14'5") Number of axles 2 Maximum load per axle 9 t (19,840 lbs) Maximum vertical load 17 t (37,478 lbs) Overall weight ca. 34 t (74,957 lbs)	Overall length 22.7 m (74'6") Length (from kingpin) 19.6 m (64'4") Width 3.2 m (10'6")   Height 4.4 m (14'5") Number of axles 3 Maximum load per axle 9 t (19,840 lbs) Maximum vertical load 17 t (37,478 lbs) Overall weight ca. 43 t (94,798 lbs)
OPTIONS	Additional one or two cold feeders Protection grid for cold feeder Tri-fuel burner for additional combustibles (natural gas etc.) Mobile or stationary bitumen and fuel tanks Heater for heavy oil and bitumen Preseparator Imported filler addition (volumetric / gravimetric) Reclaimed filler addition (volumetric / gravimetric) Bitumen counter for gravimetric dosing of bitumen Bitumen foam generator Fibre addition (volumetric / gravimetric) Hot mix storage silo lateral More options upon request	Additional one or two cold feeders Protection grid for cold feeder Tri-fuel burner for additional combustibles (natural gas etc.) Mobile or stationary bitumen and fuel tanks Heater for heavy oil and bitumen Recycling addition: directly into the mixer Preseparator Imported filler addition (volumetric / gravimetric) Reclaimed filler addition (volumetric / gravimetric) Bitumen counter for gravimetric dosing of bitumen Bitumen foam generator Fibre addition (volumetric / gravimetric) Hot mix storage silo lateral More options upon request

\* Hot mix production capacity based on following conditions: 10% bitumen and filler addition, input moisture of aggregates 3%, aggregate temperature increase 175 K (347 °F) and 0/2 fraction share max. 40%.

## SOUTH AFRICA

ACM 140 PRIME



## CENTRAL AFRICA

ACM 140 PRIME



## BRAZIL

ACM 140 PRIME



For additional product information  
and services please visit:  
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