

BATCH PROCESS

ABP UNIVERSAL ABP HRT

ASPHALT-MIXING PLANTS
PREMIUM

150



Years of
Innovation
Since 1869

AMMANN

HIGH QUALITY, HIGH CAPACITY

PREMIUM PLANTS OFFER MANY OPTIONS

Ammann batch plants provide the consistency that is crucial to your mix quality. All plant processes and components are carefully developed to ensure that feeding, heating, drying, screening and mixing seamlessly blend together. Helping integrate all the moving parts is the as1 Control System, which provides leading technology with a user-friendly interface.

The Ammann premium batch plant lineup consists of ABP Universal and ABP HRT (High Recycling Technology) plants. Both produce high quality mix and offer a full range of options to meet your specific needs. The premium plants also are capable of producing high volumes of mix.

ABP UNIVERSAL



ABP 240 UNIVERSAL

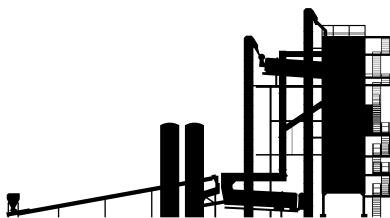
MIXER SIZE: 4 t or 5 t
CAPACITY: 240 t/h



ABP 320 UNIVERSAL

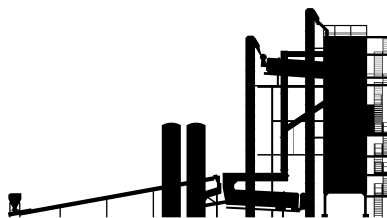
MIXER SIZE: 4 t or 5 t
CAPACITY: 260 t/h / 320 t/h

ABP HRT



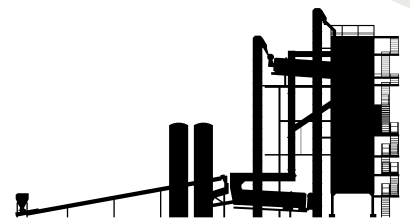
ABP 240 HRT

MIXER SIZE: 4 t
CAPACITY: 320 t/h



ABP 320 HRT

MIXER SIZE: 5 t
CAPACITY: 320–400 t/h



ABP 400 HRT

MIXER SIZE: 5 t
CAPACITY: 320–400 t/h



ABP 240–320 UNIVERSAL

THRIVING IN URBAN SETTINGS

Exceptional production volumes, advanced asphalt mix recipes and high RAP utilisation are among the key features of Ammann ABP Universal Asphalt-Mixing Plants.

The ABP Universal plant series represents the medium to high performance range, with outputs ranging from 240–320 tonnes per hour. The plants can provide diverse mixes while maintaining peak production to satisfy the needs of businesses large or small.

A clearly structured component philosophy forms the basis of the Universal series. That structure ensures virtually any configuration can be implemented to provide customers with flexibility and “combine-ability.”

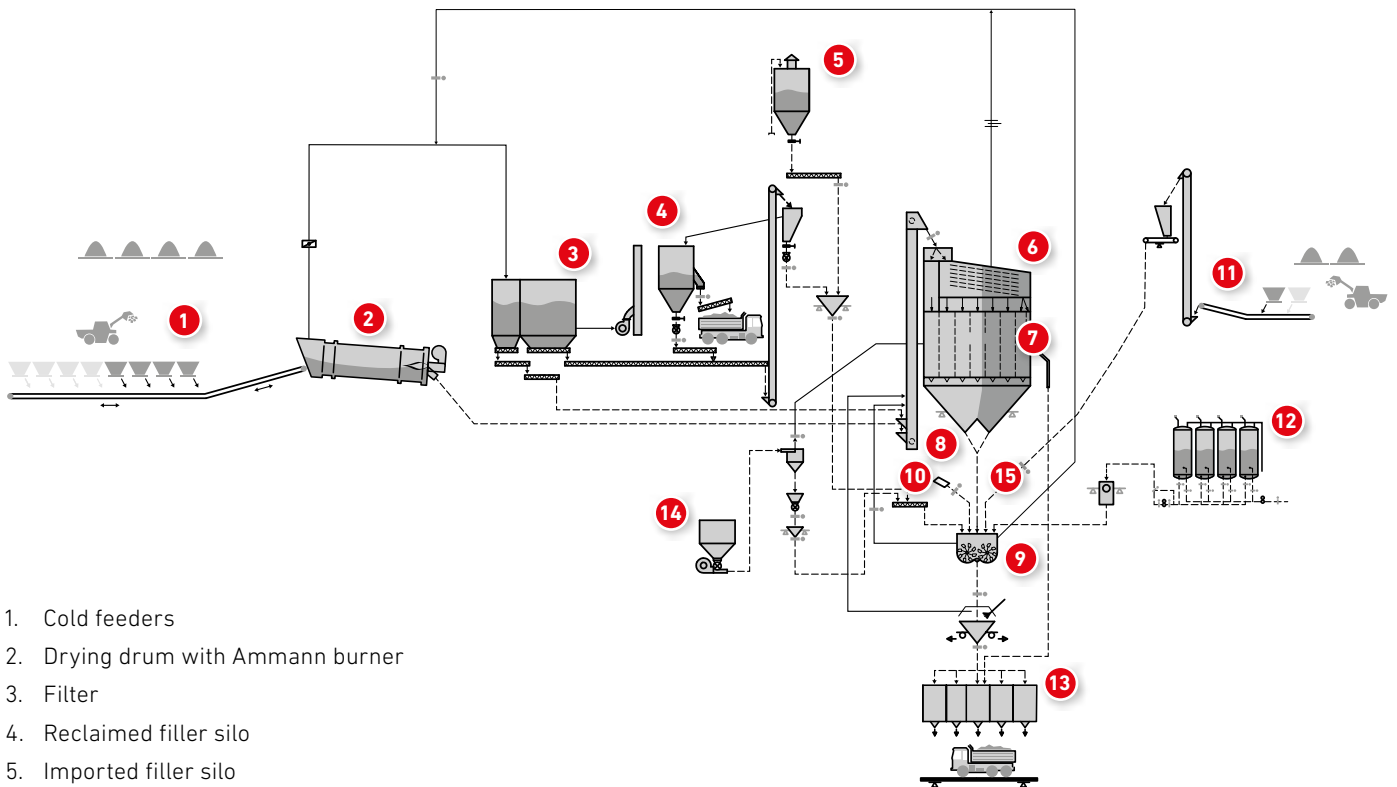
The ABP Universal offers up to 200 tonnes of hot mineral content in two separate rows of silos, a parallel drum to feed RAP, and a 5-tonne mixer or a large hot screen with a surface of 56 m². No matter what the customer requests, it can be built into the ABP Universal.

HIGHLIGHTS

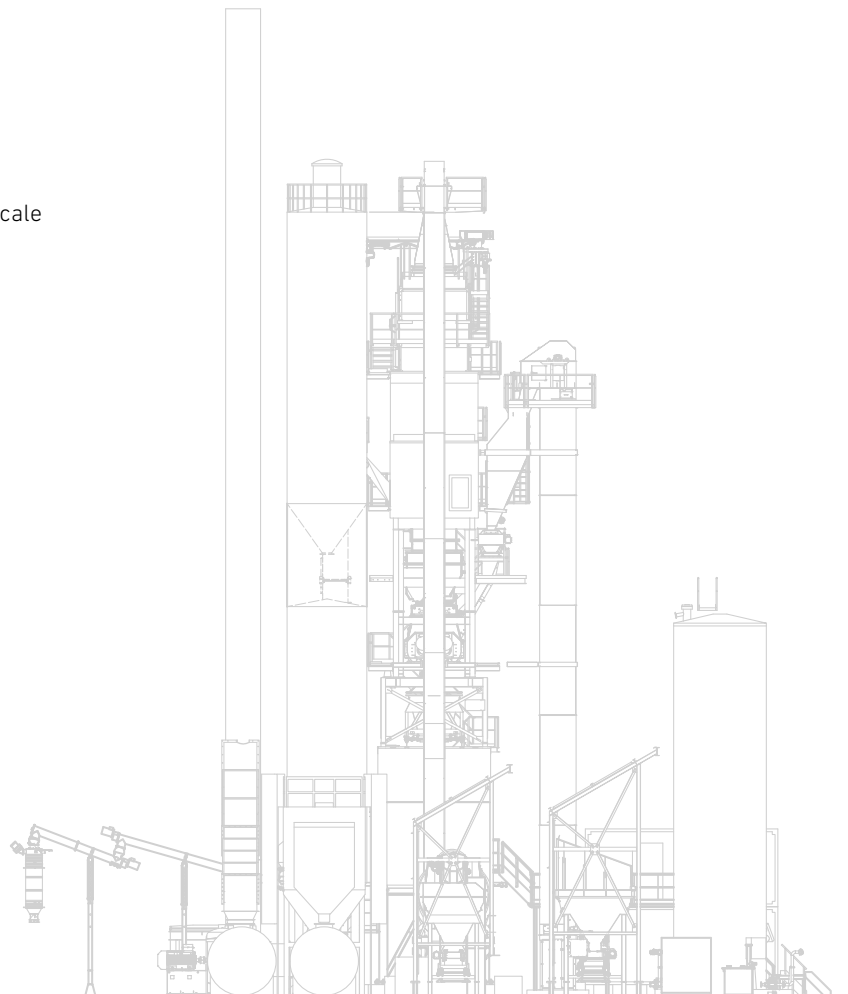
- Availability of various mineral qualities and temperatures through flexible design options that include one or two rows of storage silos
- Hot aggregate storage options between 80–200 tonnes
- Designed for the highest levels of hot aggregate processing, manufacturing flexibility and performance
- High utilisation of recyclables through the Ammann parallel drum system
- Extreme flexibility
- Latest generation of screens for efficient and reliable aggregate sizing
- Simultaneous addition of hot and cold materials possible



FLOW DIAGRAM ABP 240–320 UNIVERSAL



1. Cold feeders
2. Drying drum with Ammann burner
3. Filter
4. Reclaimed filler silo
5. Imported filler silo
6. Screen
7. Hot aggregate silo
8. Aggregate scale
9. Mixer
10. Additive addition
11. Cold recycling addition via buffer silo and belt scale
12. Bitumen tanks and bitumen scale
13. Hot mix storage silo
14. Fibre granulate addition
15. Aggregate chute



SWEDEN

ABP 240 UNIVERSAL



BELGIUM

ABP 320 UNIVERSAL



CHINA

ABP 380 UNIVERSAL





GERMANY

ABP 240 UNIVERSAL



SCOTLAND

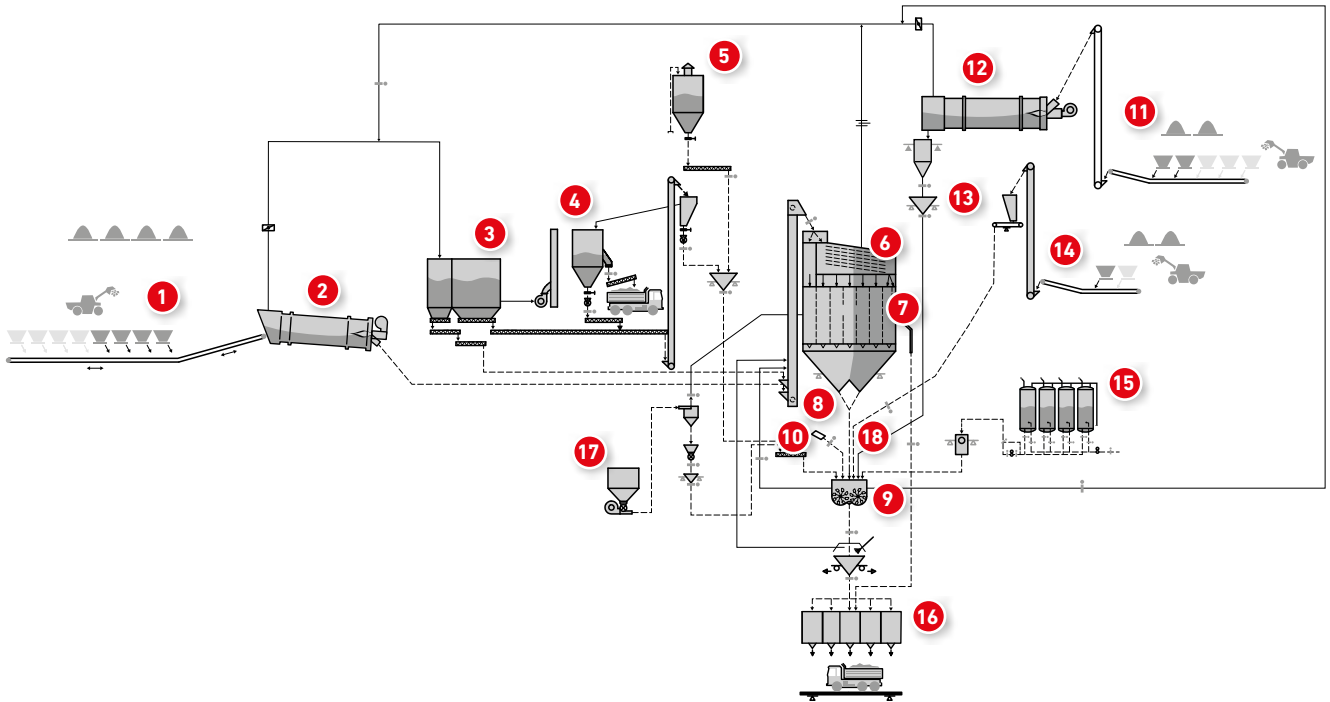
ABP 240 UNIVERSAL



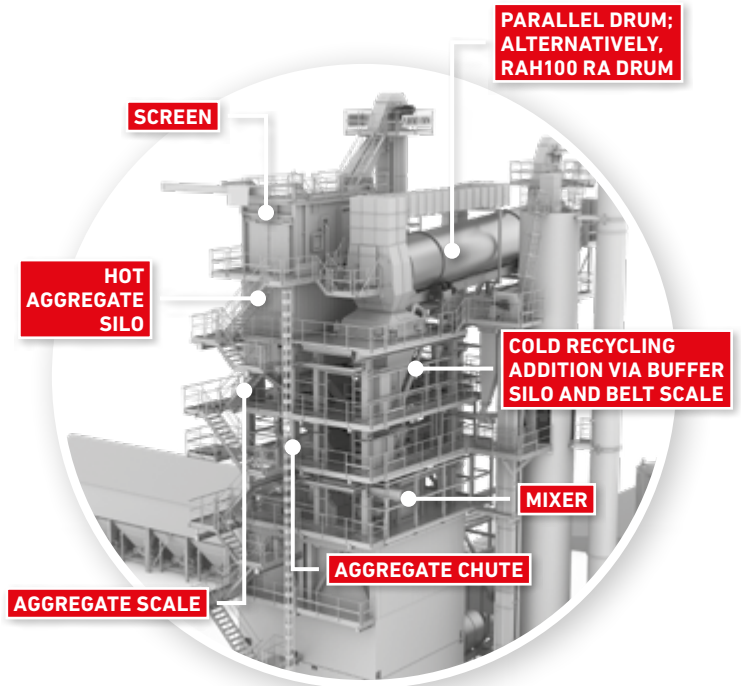
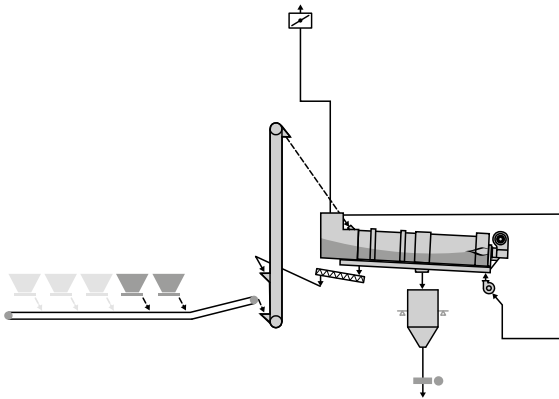
AUSTRIA

ABP 160 UNIVERSAL

FLOW DIAGRAM ABP 320-400 HRT



RAH100 RECYCLING DRUM



- | | | |
|-----------------------------------|---|--|
| 1. Cold feeders | 9. Mixer | 14. Cold recycling addition via buffer silo and belt scale |
| 2. Drying drum with Ammann burner | 10. Additive addition | 15. Bitumen tanks and bitumen scale |
| 3. Filter | 11. Recycling addition and recycling oversize particle screening | 16. Hot mix storage silo |
| 4. Reclaimed filler silo | 12. Parallel drum; alternatively, RAH100 RA drum | 17. Fibre granulate addition |
| 5. Imported filler silo | 13. Recycling buffer silo with weighing appliance and recycling scale | 18. Aggregate chute |
| 6. Screen | | |
| 7. Hot aggregate silo | | |
| 8. Aggregate scale | | |



GERMANY

ABP 240 HRT



FRANCE

ABP 400 HRT



SWITZERLAND

ABP 240 HRT



SWITZERLAND

ABP 320-400 HRT



GERMANY

ABP 320 HRT



AUSTRALIA

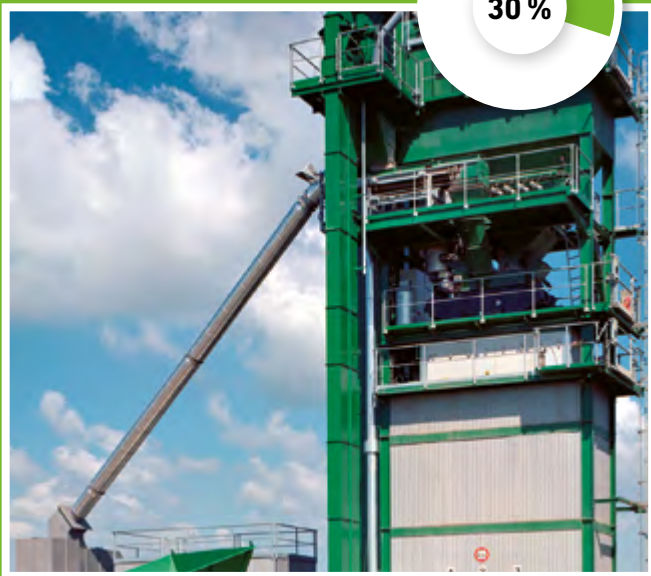
ABP 320-400 HRT

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).

COLD RECYCLING

30 % COLD FEED INTO THE MIXER



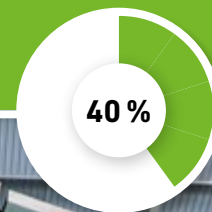
BENEFITS

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

COMBINATION OF RAP SOLUTIONS



40 % HOT FEED IN DRYER DRUM RAH50



BENEFITS

- Processes RA proportions of up to 40 %
- Energy savings of up to 15 %
- Efficient processing of new material
- Protected by international patents
- Combinable with cold feed system

COMBINATION OF RAP SOLUTIONS



“Ammann RAP feeds individually adapted to customer requirements.”

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
- CO₂ reductions

WARM RECYCLING

60 % HOT FEED IN PARALLELL DRUM



BENEFITS

- New minerals can be screened off
- High feed ratio
- Gentle heating
- Combinable with cold feed system

COMBINATION OF RAP SOLUTIONS



100 % HOT FEED IN RECYCLING DRUM RAH100



BENEFITS

- Recycling rates of up to 100% are achievable
- Improved efficiency – Cost benefit through fuel savings
- Low emissions which leads to a better argumentation during the approval process
- Recipes are more flexible as there is no need to overheat the minerals

COMBINATION OF RAP SOLUTIONS



AIR AND SOUND EMISSION CONTROL



LEVEL 1

The standard Ammann asphalt plant is designed to minimise sound levels. Insulation is placed on the dryer, filter screen, hot aggregate bins and hot storage system. The dryer utilises a friction drive instead of a chain drive, while the elevator features a single chain instead of a twin-anchor chain. The burner features a silencer and is sealed to the dryer. The air compressor is enclosed.



LEVEL 2

Noise suppression efforts include placement of a canopy over the cold feed. The cold-feed hopper outlet is covered with rubber. The burner has a frequency converter (75 percent speed), while cladding is placed around the burner, dryer, filter and exhaust fan. Exhaust fans with frequency converters reduce noise in the chimney and the housing. A silencer is located between the ventilator and the chimney. The elevator foot and head are encapsulated, as is the connection chute between the hot elevator and the screen. Cladding around the mixing and weighing sections includes a horizontal skip on the finished product silo.



LEVEL 3

The building is clad with sandwich panels and full sound suppression on the components. The sound pressure is 52 dBA at a distance of 100 metres from the plant.



LEVEL 4

The asphalt plant – including dryer, filter, ventilator, compressor and more – is located in a building clad with sandwich panels. The silo for cold aggregates is in a concrete or cladded building. No wheel loader is utilised; a rail off-load system delivers aggregates, bitumen, fines and recycling materials. The sound pressure is 40 dBA at a distance of 100 metres from the plant.



LOW-TEMPERATURE ASPHALT

ENERGY-EFFICIENT, LOW-EMISSION AND CO₂- OPTIMISED

Manufacturing asphalt at reduced temperatures offers many benefits: asphalt production consumes less energy, the asphalt plant emits less CO₂ 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 CO₂
- 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.



ADDITIVES

SPECIAL COATINGS OF ALL TYPES ARE POSSIBLE

Ammann provides the foundation for the production of all types of special coatings and guarantees product-adapted storage, conveyance and batching of the most diverse additive mixtures.

PRECISE DOSING GUARANTEED

All bulk material admixtures are precisely batched by means of weigh scale/kettle measurement, regardless of apparent density, grain size and other physical characteristics. Thanks to the positioning of the scales directly at the mixer, feeding problems and incorrect dosing can be ruled out. With our equipment, every batch is accurate. This guarantees your batch quality whilst simultaneously optimising admixture utilisation.

HIGHLIGHTS

- Tried and tested solutions for batching granulate, fibrous materials, wax or liquid admixtures
- Weigh scale / kettle batching of bulk materials
- Weighing executed directly at the mixer

FEED	PROPERTY	BATCHING	ACTION	APPLICATION
FIBRE GRANULATE	Granulate	Gravimetric	Stabilisation of batch, especially for surfaces with gap grading, stiffening of binder	e.g. for Splitmastix manufacture
COLOUR FEED	Powder (filler silo)	Gravimetric	Colouring of batch	Coloured asphalt, e.g. for cycle paths and parks
COLOUR FEED	Granulate (Big-Bag)	Gravimetric	Colouring of batch	Coloured asphalt, e.g. for cycle paths and parks
SPECIAL FILLER (CALCIUM HYDROXIDE)	Dust	Gravimetric	Improvement of adhesion and increase of batch stability	Application for acidic or basic mineral
COLOURLESS BINDER	Liquid	Volumetric	Prevents blackening	To manufacture coloured asphalt
WATER AND CEMENT	Liquid and dust	Gravimetric	Chemical reaction forms insoluble, stable compounds	e.g. for hydraulic bound weight-bearing layers
FLUX	Liquid	Volumetric	Reduction of binder hardness	Alteration of binder quality
ADHESION-PROMOTING AGENT	Liquid	Volumetric	Improvement of adhesion for bitumen and minerals	Application for acidic or basic mineral
WAM FOAM®	Foam	Gravimetric/ Volumetric	Reduction of viscosity in bitumen	Manufacture of low-temperature batches
FOAMMIX	Foam	Gravimetric/ Volumetric	Reduction of viscosity in bitumen	Manufacture of cold coatings
ODOUR NEUTRALISER	Liquid	Volumetric	Chemical binding of odorous substances	Reduction of odours/removing odours
SASOBIT	Wax	Gravimetric	Reduction of viscosity in bitumen, increase of durability	Manufacture of low-temperature asphalt
ZEOLITH	Granulate	Gravimetric	Reduction of viscosity in bitumen	Manufacture of low-temperature asphalt
NATURAL ASPHALT	Granulate	Gravimetric	Improve of bitumen sticking and coating on stone surfaces	e.g. for mastic asphalt

AMMANN CORE COMPONENTS

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 engineers all core components, including drums, burners, filters, screens, controls and mixers in house.

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.



BURNERS AND DRYERS

Ammann burners and dryers are highly reliable, productive and feature cutting-edge technology. Robust, compact and energy-efficient designs minimize 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.



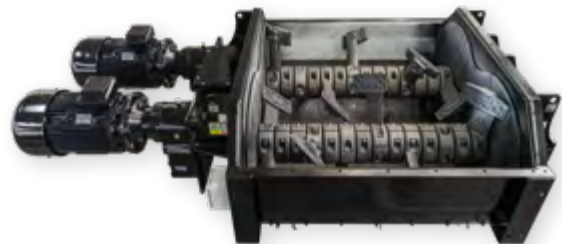
SCREENS

Ammann screens are highly reliable and properly sort materials. Optimal material load maximizes available screen area usage. A dust-free screen house is among the expertly engineered features. The screens are easy to operate and require minimal maintenance. A wide range of options is available.



FILTERS

Flow is optimized through a highly technical analysis. The filters perform well from top to bottom and minimize 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.

AS1 CONTROL SYSTEM

POWERFUL, RELIABLE AND PROVEN WORLDWIDE

The powerful and future-oriented as1 system concept combines proven Ammann software with specially matched industrial hardware. The as1 computing environment has been designed and tested for use in tough environments. Its networking capability also has been optimised. Customers profit from the flexible workstation configuration, networking and administration.

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

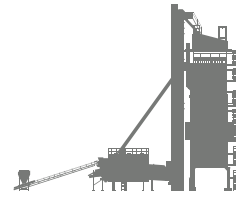
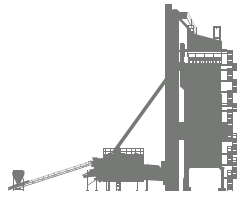
Ammann has more than 10 regional training centre locations around the world. Key teaching themes connect them all.

- 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

ABP UNIVERSAL



PLANT TYPE *	240	320	
CONTINUAL PLANT CAPACITY AT 5% MOISTURE	240 t/h	260 t/h	320 t/h
NUMBER OF COLD FEEDERS	As desired		
CONTENT COLD FEEDERS	7.5 m ³ –15 m ³		
TYPE DRYING DRUM	T 25100		T 27110
BURNER POWER OUTPUT	20 MW	24 MW	26 MW
FUELS	Natural gas, Fuel oil extra light, Heavy oil, Liquid gas, (option: Brown-coal dust)		
FILTER CAPACITY	57 000 Nm ³ /h	63 000 Nm ³ /h	70 000 Nm ³ /h
TYPE SCREEN (HMS 1-ROW)	APS-2060-S		
SCREENING	5- or 6-fraction		
SCREEN SURFACE (6-FRACTION)	APS-2060-S = 52 m ² VA-2050-S = 43.4 m ² APS-2060-NGS = 52.3 m ²		
HOT AGGREGATE SILO 1-ROW	140 t, 200 t		
HOT AGGREGATE SILO 2-ROW	140 t, 200 t Arrangement: 1/2 : 1/2 or 1/3 : 2/3		
AGGREGATE SCALE	4800 kg		
FILLER SCALE	600 kg		
BITUMEN SCALE	468 kg		
MIXER SIZE / CONTENT	4 t or 5 t		
BINDING AGENT SUPPLY	E-Bit vertical configurations, 60 m ³ , 80 m ³ , 100 m ³ , also divided tanks available.		
FILLER SUPPLY	According to customer's wishes: reclaimed and imported filler silos or filler towers in different desired configurations		
HOT MIX STORAGE SILO / COMPARTMENTS	140 t or 180 t in 2 compartments, 260 t or 340 t in 4 compartments		
RECYCLING ADDITION UP TO 30 %	RAC directly into the mixer		
RECYCLING ADDITION UP TO 40 %	Ring in the drying drum RAH50 with/without RAC in the mixer		
RECYCLING ADDITION MORE THAN 60 %	Parallel drum system or Via RAH100 drum system		

* Hot mix production capacity based on following conditions: 10% bitumen and filler addition, input moisture of aggregates 5%, aggregate temperature increase 175 K and 0/2 fraction share max. 40% | Mixing cycles 80 per hour.

SPECIFICATIONS

ABP HRT



PLANT TYPE*	240		320-400			320-400
RECYCLING SYSTEM	RAH60 (PARALLEL FLOW)		RAH60 (PARALLEL FLOW)			RAH-CF (COUNTER FLOW)
MAX. RECYCLING ADDITION	60 % (combined)		60 %			80 %
NUMBER OF RECYCLING FEEDERS	As desired					
CONTENT RECYCLING FEEDERS	8 m ³ -13 m ³					
TYPE RECYCLING DRYING DRUM	RT 22100 or RT 25140		RT 25110 or RT 25140 or RT 29120			RT 29120/220
MAX. RECYCLING CAPACITY AT 3% MOISTURE	120 t/h	180 t/h	150 t/h	180 t/h	210 t/h	190 t/h
BURNER POWER OUTPUT	8 MW	max. 12 MW	max. 10 MW	max. 12 MW	max. 14 MW	14 MW
FUELS	Natural gas, fuel oil extra light, heavy oil, brown-coal dust, wood dust					
FILTER CAPACITY	63 000 Nm ³ /h	70 000 Nm ³ /h	70 000 Nm ³ /h or 83 000 Nm ³ /h or 90 000 Nm ³ /h			
BUFFER SILO RECYCLING (RAH)	30 t, 37 t, 2 × 20 t			20 t, 40 t, 2 × 30 t		
NUMBER OF COLD FEEDERS	As desired					
CONTENT COLD FEEDERS	7.5 m ³ -15 m ³					
TYPE DRYING DRUM	T 2390	T 25100	T 2390 or T 25100 or T 27110			
MAX. DRYING CAPACITY AT 3% MOISTURE	251 t/h	335 t/h	251 t/h	335 t/h	363 t/h	
BURNER POWER OUTPUT	max. 18 MW	max. 24 MW	max. 18 MW	max. 24 MW	max. 26 MW	
FUELS	Natural gas, fuel oil extra light, heavy oil, brown-coal dust, wood dust					
TYPE SCREEN	VA-2050-S		APS-2060-S or APS-2060 NGS			
SCREENING	5- or 6-fraction					
SCREEN SURFACE	36.2 m ² (5-fraction) or 43.4 m ² (6-fraction)		43 m ² (5-fraction) or 52 m ² (6-fraction)			
HOT AGGREGATE SILO	65 t or 90 t or 115 t, 1-row / 110 t, 2-row		120 t or 200 t, 1-row / 300 t, 2-row			
AGGREGATE SCALE	4650 kg		5500 kg			
FILLER SCALE	400 kg		900 kg			
BITUMEN SCALE	363 kg		520 kg			
MIXER SIZE / CONTENT	4 t		5 t, option: 4 t, 6 t			
MAXIMUM MIXING CAPACITY	320 t/h		320 t/h (4 t), 400 t/h (5 t), 480 t/h (6 t)			
COLD RECYCLING ADDTION AT 3% MOISTURE	Up to 25 % RAC addition directly into the mixer					
COLD RECYCLING SCALE	Weigh belt					
COLD RECYCLING SILO	5 t		2 t (at 20 t RAH buffer silo) or 5 t (at 40 t RAH buffer silo)			
HOT MIX STORAGE SILO / COMPARTMENTS	200 t in 4 compartments Available expansions: 300 t in 6 compartments		400 t in 4 compartments Available expansions: 600 t in 6 compartments, 800 t in 8 compartments or 1000 t in 10 compartments			
BINDING AGENT SUPPLY	E-Bit, vertical configurations, 60 m ³ , 80 m ³ , 100 m ³ , also divided tanks available.					
FILLER SUPPLY	According to customer's wishes: filler towers Ø=3200 or Ø=3800 in different desired configurations.					

* Hot mix production capacity based on following conditions: 10% bitumen and filler addition, input moisture of aggregates 5%, aggregate temperature increase 175 K and 0/2 fraction share max. 40% | Mixing cycles 80 per hour.

For additional product information
and services please visit:
www.ammann.com

