Trendsetter for the highest demands.
State of the art! This is an approach that BENNINGHOVEN has followed for over a century. Through consistent further development, growing from a trade workshop to a globally active company, BENNINGHOVEN is a trendsetter in the field of asphalt mixing plants today. The opening of the world’s most modern factory for asphalt mixing plants in summer 2018 was another milestone in our successful history. This allows us to offer our customers the best possible solutions when it comes to producing the highest quality asphalt in an economical process.

BENNINGHOVEN GmbH & Co. KG is a member of the expanding, worldwide active WIRTGEN GROUP which has been part of John Deere since late 2017.
Forever young.

RETROFIT SOLUTIONS AT BENNINGHOVEN
Whether one of our plants or one from another manufacturer, stay or become state-of-the-art again with BENNINGHOVEN retrofit solutions.

It’s all in the mix

Retrofitting can be a more practical solution for an existing plant than replacing it with a new one. By replacing outdated components and adding the latest technologies, existing plants are updated to the latest standard. For the operating company, the advantage lies in the modernisation of the plant and the associated increase in productivity with significantly lower costs compared to purchasing a similar new plant. The sturdy basic structure of the plant is retained.

Significant performance increase.

Retrofit solutions at BENNINGHOVEN means:

> Contemporary technology
> User-friendly
> For own and third-party plants
> Economical - lower investment costs compared to new purchase
> Making and keeping customer plants competitive
> Protecting existing sites
> Concept planning and customised solutions
> Engineering
**Increased productivity/volume**
- Component expansion on customer request (large projects)
- Higher flexibility - large variety of recipes
- Increasing competitiveness

**Compliance with legal standards/environmentally friendly**
- Lowering emissions (TA-Luft, etc.)
- Reducing CO₂ emissions
- Health and safety - noise, dust, heat
- Ergonomics concept
- Re-using reclaimed asphalt - careful use of resources

**Technology expansion**
- Low-temperature asphalt (foam bitumen)
- Recycling
- Mastic asphalt
- Feed systems

**Extended service life of the plant**
- Replacing components
- No approval process necessary (no new approval)
- Using contemporary, new materials - longer useful life

**Higher energy efficiency (savings)**
- Increase overall efficiency
- Fuels
- Energy monitoring
- Electric heating instead of thermal oil
- Retrofitting of frequency converters
- Effective material handling (storage)

**Application consulting and increased product quality**
- Updating the control system
- More efficient processes
- Storage of materials
Burns with passion.

EVO JET BURNER
Fired up for more economic efficiency

Combustion technology from BENNINGHOVEN is worldwide leading - with respect to market shares and to technology. That makes the efficient and flexible EVO JET burner highly interesting for operators of asphalt mixing plants. This especially applies for retrofit solutions - regardless of the manufacturer of the asphalt mixing plant.
BENNINGHOVEN is a world market leader when it comes to burners, and the only manufacturer of 4-fuel burners. The company’s essential expertise enables the development of unique burners with excellent characteristics:

> Modular design
> Compact structure
> Easy to maintain
> Long service life
> Low wear
> High efficiency in consumption (frequency-controlled)
> Minimum pollutant emissions thanks to state-of-the-art control technology
> Inspection doors on both sides
> Mobile burner for easier accessibility (e.g., for servicing)
> Internal fan (exclusive to BENNINGHOVEN)
> Easy to retrofit

**Burner output**

<table>
<thead>
<tr>
<th>EVO Jet 1</th>
<th>5.9 MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVO Jet 2</td>
<td>11.9 MW</td>
</tr>
<tr>
<td>EVO Jet 3</td>
<td>19 MW</td>
</tr>
<tr>
<td>EVO Jet 4</td>
<td>23.7 MW</td>
</tr>
<tr>
<td>EVO Jet 5</td>
<td>33.6 MW</td>
</tr>
</tbody>
</table>

**ALSO AVAILABLE:**

+ Pump station
+ Oil pump feed station
+ Coal dust silo
+ Oil tanks
+ Gas safety system
Competitive advantage from fuel change

By adding up to three fuels, customers can upgrade their burner, which is responsible for drying and heating the base material and is designed as a simple oil burner in its standard version.

This turns the burner into a combination burner, meaning that oil, natural gas, liquid gas, coal dust and heavy oil are all available as fuels. A combination burner has the advantage of eliminating downtimes of the plant caused by raw materials shortage or delivery problems. In the event of price fluctuations for any particular fuel, the cheapest fuel can always be selected.

Flexible fuel change at the press of a button
(individually or in combination)

Independent - flexible - cost-efficient

Raw material shortage - Downtimes
Safe number.

DRYER DRUM
> Different drum sizes from 8 to 12 m
> Inner diameter 2 - 3 m in various steps
> According to material moisture content 3%, 4%, 5%
> According to compliance with TA-Luft regulation
> Temperature-resistant elements (coal dust, mastic asphalt, recycling)
> Frequency-converter control (continuous drive)
> Wear materials/elements
> Stainless steel or aluminium cladding
> Air or mineral wool insulation
Perfectly coordinated.

The trifecta - coordination of these three components is extremely important.
An overall analysis is indispensable for all retrofitting solutions.
Always in a good position.

BITUMEN TANKS

+ 60 / 80 / 100 m³ bitumen tanks (useful volume)
+ 1 or 2 chamber tanks
+ 200 mm or 300 mm insulation
+ With agitator or mixing nozzle
+ Electrically heated
Just take it a step up.

LOADING SILOS

The well thought-out modular system allows expansions with additional components at any time.

High level of flexibility and individual customisation

The flexible expansion of the capacities is a great advantage of the plants. BENNINGHOVEN offers the right plant and component solution for any requirement profile.

YOUR BENEFITS:
+ Capacity expansion
+ Long-term silos
+ Various expansion options
+ Flexible positioning
Just a question of adjustment.

BLS 3000 CONTROL UNIT

The BLS 3000 control units feature simple, intuitive operation, a very clear interface and perfectly realistic virtualisation.

Always get the latest live data

The production process and the plant components are displayed in real time on just two screens. The recipe management, job handling and statistics are all self-explanatory. The BLS 3000 can be retrofitted to any asphalt mixing plant on the market, at any time.

> Control and switch control cabinet container
> Control cabinet for auxiliary drives
> 2 monitors + plant and process visualisation
> 3rd monitor
> Printer b/w, colour
> Energy monitoring
> RAP recipe generator
> Integration of weigh bridge
> NAS backup system + replacement PC
> Second client workstation
> Reporting (daily, energy, RAP report)
> Electric load shedding
> Emissions limitation 20 MW
> Data interface to customer system
For today and tomorrow.

RECYCLING SYSTEMS
All plants can also be optimised with regard to recycling components, e.g. by retrofitting a parallel drum.
Added value.
BENNINGHOVEN RECYCLING SYSTEMS

BENNINGHOVEN offers a wide range of products and services in the area of recycling feed systems.

Economical and environmentally friendly

In addition, the recycling components are adapted and integrated for the retrofitting of existing systems from all manufacturers according to individual customer requirements. With BENNINGHOVEN, you can choose from a large variety of recycling systems for hot and cold feed, to suit your demands or normative and legislative requirements.

This strengthens the environmental concept and achieves low CO₂ emissions as well as reduced use of resources.
**RECYCLING**

- **Middle ring dosing system**
  - 25%

- **Dosing system into the mixer**
  - 30%

- **Variable dosing system (RC only)**
  - 40%

- **Multivariable dosing system (RC and bulk materials)**

- **Parallel drum**
  - 70%

- **Recycling drum with hot-gas generator**
  - 80%

**YOUR BENEFITS:**

- Environmentally friendly production
- Multiple cost savings
- Government grants
- Easy retrofitting

**RECYCLING**
For that little bit extra.

FEED SYSTEMS
Additive feed systems

**Quantities**
- Small quantities
- Large quantities

**Dosing**
- Manual feed
- Automated feed

**Substances**
- Solids
- Solids
- Liquids

**Types**
- Powder
- Granulate
- Rubber granulate
- Cellulose
- Hydrated lime
- Fibre
- Colour pigment
- Liquide additive
- Separating agent
- Flux oil
- Foam bitumen

**Solutions**
- Manual bag feed unit
- Granulate dosing system
- Powder granulate dosing system
- Fibre dosing system
- Multi-variable dosing system
- Liquide additive dosing system
- Foam bitumen system
- Dosing system of separating agent/flux oil