



LATERAL LOADING SILOS



WHERE HEIGHTS ARE LIMITED.

LATERAL LOADING SILOS

LOADING SILOS

High level of flexibility and individual customisation



01 Your experts for a comprehensive plant solution

- > Made by BENNINGHOVEN – everything from a single source (plant including loading silo)
- > Made in Germany
- > 4,200 mm clearance height
- > Modular structure
- > Can be universally adapted to all plant types – new and existing plants
- > Option: TA-Luft compliant – housing and extraction system for the bituminous vapours
- > Weigh bridge or load cells (overload protection, loading accuracy ± 100 kg)
- > Option: long-term storage
- > Local control for loading a transport vehicle

CLEVER MODULAR SYSTEM

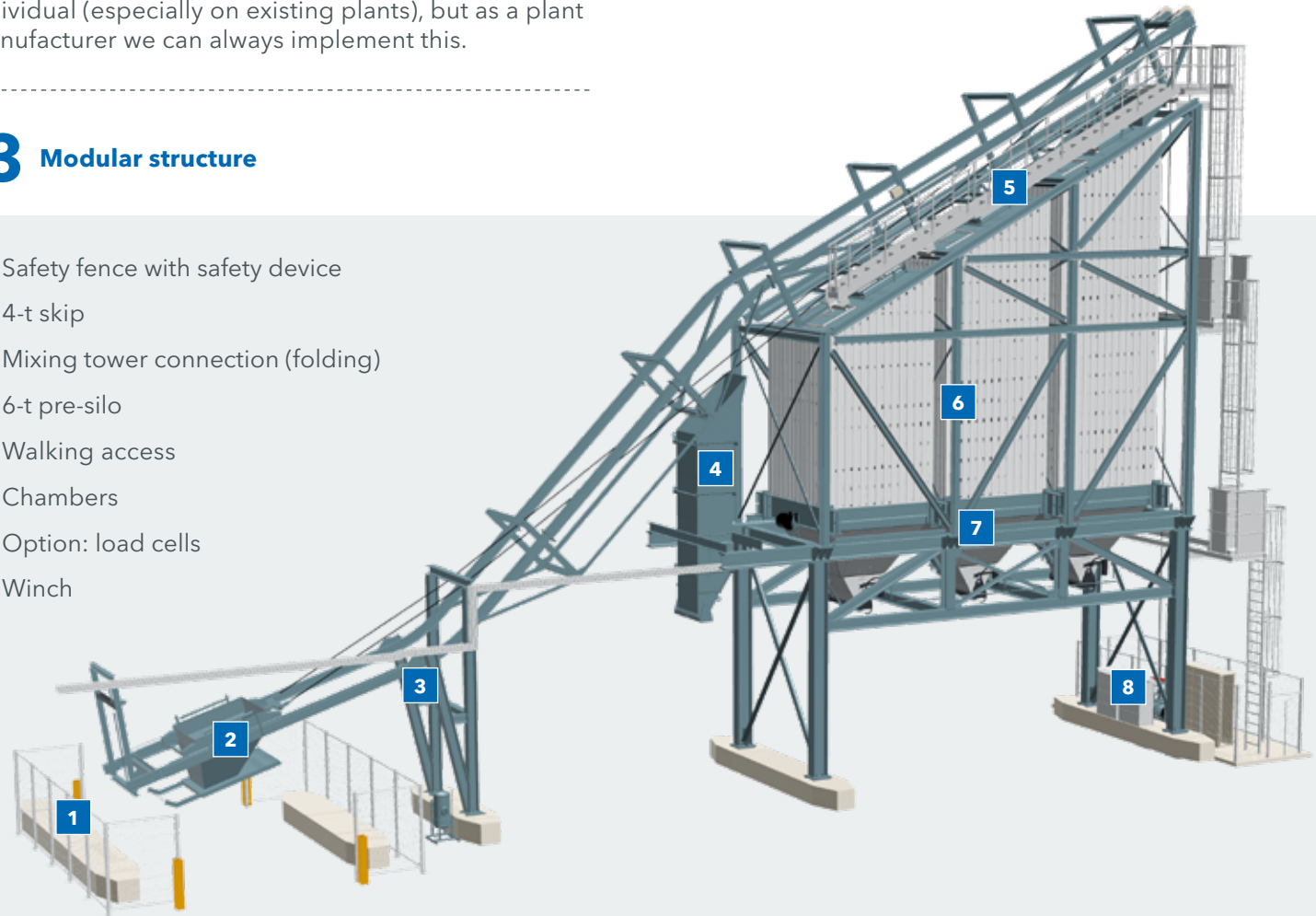
The right plant solution for any requirements profile

02 Advantages of lateral loading silos

- > Suitable solution if height restrictions are in place (airport nearby, etc.)
- > Easy to implement – installation without concrete foundations possible
- > The connection to the mixing tower is always very individual (especially on existing plants), but as a plant manufacturer we can always implement this.

03 Modular structure

1. Safety fence with safety device
2. 4-t skip
3. Mixing tower connection (folding)
4. 6-t pre-silo
5. Walking access
6. Chambers
7. Option: load cells
8. Winch



04 silo

- > Clad with profiled sheeting
- > Silo with one filling port including safety grid, filler lid closed
- > Insulated against thermal loss all around (mineral wool, 100 mm, 80 kg/m³)
- > Discharge cone insulated against thermal loss (mineral wool, 130 mm, 80 kg/m³)
- > Filler lid insulated (50 mm, 80 kg/m³)
- > Pneumatically actuated, electrically heated discharge doors



05 Pre-silo

- > Pneumatically actuated, electrically heated discharge doors
- > Mastic asphalt optional



06 Skip track

- > Material transfer between mixer and lateral loading silo with an inclined skip, guided on a rail system
- > Large skip with a capacity of 4 t
- > Lined with extremely wear-resistant, bolted-on material
- > Skips are drained through mechanically actuated valves in the bottom.
- > Release agent can be sprayed into the skip if necessary to prevent adhesions.



High working and functional reliability

07 Easy and safe maintenance

For inspection and maintenance work, the roof of the loading silo is equipped with stairs with a surrounding hand rail and with a platform at the highest point of the silo. Accessible via a permanently installed ladder with back protection, optionally via stairs along the skip track path.

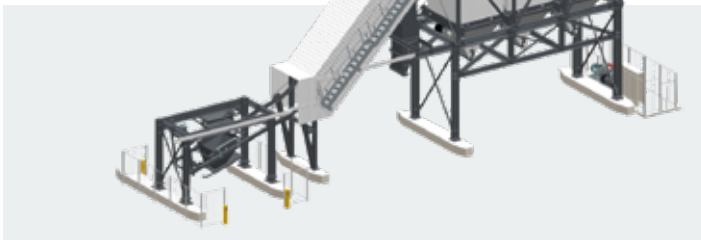
- > Maintenance of the filler lid
- > Skip mechanically secured for direct loading on the mixing tower

08 Protective devices

- > Safety fence - through double gates with key transfer system or with a light curtain for securing the loading area underneath the asphalt mixing plant

09 TA-Luft option (German legislation)

- > Skip track housing
- > Active extraction (in the dust collection system)



10 Temperature monitoring

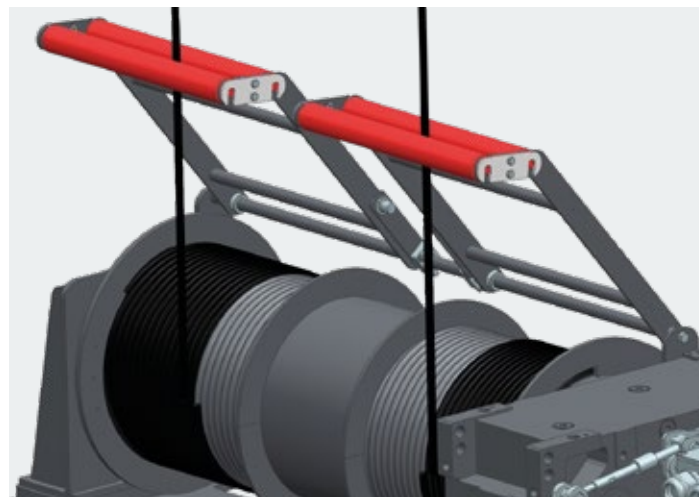
- > Temperature probes (IR probes) for determining the material temperature on the silo outlet, i.e. on all silo chambers and on the pre-silo (option)
- > The data are visualised in the control and documented.

11 Winch

Inclined skip driven via a winch, positioned for easy maintenance access, close to the ground next to the loading silo

The winch is equipped with an optimised slack cable safety using a floating guide roller mechanism for maximum work safety; the brake on the winch has a triple safety:

1. Air gap monitoring
2. Wear monitoring
3. In case of maximum wear - brake locks and remains closed



TECHNICAL DATA FOR LATERAL LOADING SILOS

General information	
Pre-silo	6 t
Foundations	Transportable. steel foundations / static concrete foundation
load cells	yes / no
Skip	4 t
Skip track, lower section	Folding
Skip track housing	Individual option
Clearance height	4,200 mm
Type 80 t - 1 chamber	
Chamber 1	80 t
Clearance width	3,100 mm
Type 180 t - 2 chambers	
Chamber 1	80 t
Chamber 2	100 t
Clearance width	6,550 mm
Type 300 t - 3 chambers	
Chamber 1	80 t
Chamber 2	100 t
Chamber 3	120 t
Clearance width	10,000 mm
Type 450 t - 4 chambers	
Chamber 1	80 t
Chamber 2	100 t
Chamber 3	120 t
Chamber 4	150 t
Clearance width	13,450 mm



Use of recycling material

The processing of recycled asphalt is a high priority when it comes to conserving natural resources. This fundamental drive for reusing materials is only one of many. Country-specific requirements, the reduction of emissions and increased economic efficiency are points in favour of recycling and environmentally friendly asphalt production, because green asphalt is possible only with the use of recycling material.

Advantages of using recycling material

- > Conserving natural resources (mineral/bitumen)
- > Highest possible reuse based on the recycling concept
- > Reducing CO₂ emissions in the entire process chain: Use of RAP material from the environment of the plant, short travel distances, production of mineral (quarrying/breaking) and bitumen (refinery) are no longer required.
- > Proactive reaction to bitumen availability
- > Increased economic efficiency





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