

TOURMIX

The Top Class of Mobile Systems for Concentrated Feed



*Optimize your feed production:
Fast, economic, all livestock, environment-friendly*

Buschhoff
Seit 1873 Technik für Futter & Erfolg

Innovation and Commitment For a Successful Feed Production

Top Performance Custom-made

The reputation of the Buschhoff company is due to these main factors: strong innovative capability and above-average commitment.

Dialogue creates Innovation

Intensive dialogue with our customers is the basis of our success in the design and construction of mobile systems. The professionals at Buschhoff are always aware that a company can only develop future-proof products and services when it is familiar with customers' desires and objectives, and acts focused on customers' success. Since the introduction of mobile systems in 1968, the Buschhoff company has demonstrated this attitude again and again. Customers are provided by the Buschhoff company with exactly the product that is optimized for their specific requirements.

New Types for more Efficient Production

The TOURMIX 02 series introduces the new



TOURMIX-assembly workshop

generation of mobile concentrated feed systems to the market. Maximum economy and reliability, simplicity, and comfort of handling are the aspects which ensure successful operation of the three new types **TOURMIX 02**, **TOURMIX 02-V** and **TOURMIX 02-SD**. The Buschhoff company again lives up to its claim: Delivering systems which satisfy customer demands from A to Z.

Three powerpacks ready to contribute to your success.

There are numerous variants of the TOURMIX 02 series:

| Type | TOURMIX 02 | | TOURMIX 02-V | TOURMIX 02-SD | | |
|---|------------|-------|---------------------------|---------------|--------|--------|
| Volume capacity of mixing unit (litre): | 8.300 | 9.300 | 8.200 – 11.700 (variabel) | 9.300 | 10.300 | 10.800 |
| Storage capacity dependent on specific weight | | | | | | |
| at 550 kg: | 4,6 t | 5,1 t | 4,5 t – 6,4 t | 5,1 t | 5,7 t | 6,0 t |
| at 600 kg: | 5,0 t | 5,6 t | 4,9 t – 7,0 t | 5,6 t | 6,2 t | 6,5 t |
| Height of superstructure (mm): | 2.750 | 2.950 | 2.750 – 3.500 | 2.750 | 2.950 | 3.050 |

Technology full throttle

TOURMIX

Performance

The new types are characterized by their high efficiency and performance. Their reliability in day-to-day use impresses as much as their operational economies, low operating cost, and longevity.

Trucks with a wheelbase of 3.300 mm and more can be used without the need for any modification to the vehicle chassis. Additional cost for a purpose-designed truck is avoided.

All three types share the same engine, milling, and rolling components. Emptying of the system is fast and practically without residue; moreover, performance of milling and rolling has been improved compared to earlier models, giving the Buschhoff products again the edge over the competition.

Reliable drive technology

Mercedes-Benz diesel engines provide power for the system. We use exclusively the 6-cylinder-V-engine with 260 kW (354 PS). If required, the system can also be powered by direct drive from the truck engine.



Proven hammer mill HF 400

The mill handles up to 25 tons of grain per hour and is equipped with 72 hard-metal hammers. The screen area is 0,80 m² with a milling width of 400 mm. The round-hole or wire screens of the mill can fast and easily be exchanged.

This mill is a well-trying product that has proven itself in the processing of awkward materials.

Powerful grain rolling unit GQ 64-2

The rolling unit is especially efficient with a throughput of up to 20 t/h. The rollers have a diameter of 400 mm and a width of 600 mm. Hydraulic pre-tensioning ensures that foreign objects can pass through without causing damage.

Guaranteed accuracy of mixing

Within only 5 minutes, the weighing mixers of the TOURMIX 02 series deliver an evenly-processed mixture at a quantity of between 1.000 to 7.000 kg. The result has a very low tendency towards separation. All requirements by FVO (german feeding guideline) are fulfilled; therefore, precise mixing is ensured.

The LUPUS weighing system has three electronic weighing elements. A large, swiveling illuminated digital remote display provides easy and safe control of the mixing process.

By way of the maintenance-free dust separator all exhaust air is released dust-free from the system.

*TOURMIX 02-V with
7-m³-container unit*

Data and Facts at a Glance

TOURMIX

Engine

- Mercedes-Benz OM 501 LA engine, 260 kW (354 PS) at 1.600 – 1.800 min⁻¹ alternatively
- Direct drive by truck engine

Hammer mill HF 400

- Throughput up to 25 t/h
- 72 hard-metal hammers
- 2 screens (round hole or wire mesh)

Grain rolling unit GQ 64-2

- Throughput up to 20 t/h
- Mechanically driven
- Roller diameter 400 mm
- Roller width 600 mm
- Hydraulic roller pre-tensioning
- Quick adjustment of roller gap

Mixer

- Weighing system type LUPUS with 3 shear force sensors
- Large swiveling illuminated digital remote display
- Easy ascent via hinged ladder
- Maintenance-free dust separator

Pneumatic system

- High-volume rotary piston blower, with intake air pre-cooling (standard for TOURMIX 02-SD, optional for other types)
- Conveying pipes with 90 or 100 mm diameter

Operation and maintenance

- All parts of the system easily accessible
- Easy ascent to mixer and radiator
- Protective rain cover over operating station



Ascent to the mixer and radiator

- Wireless remote control TOURMIX-PILOT (optional)
- Weighing and dosing computer TOURMIX-CONTROL (optional)

Key advantages

- **Low operating cost**
 - minimum number of wearing parts
 - minimal residue
 - near-complete emptying of mixer and system
- **Long life cycle**
 - extra robust wearing parts
 - protection of blower by dust separator
- **Mechanical drive for rolling unit**
 - high efficiency and low strain on the hydraulic system
- **Efficient sound-proofing**

Powerful Model TOURMIX 02

Success systematically

The basic model of the new series is the TOURMIX 02 with a weighing mixer capacity of 8.300 litres. Its design is based on the proven Buschhoff system (see flowchart) which ensures high performance and a homogenous composition of the processed feed. As soon as the coarse meal has reached the condition which is determined by the screen, it is pneumatically conveyed to the combination valve and further on to the mixer. Pneumatic transport preserves best the quality of the squeezed grain. Taking samples for an immediate assessment of quality and condition of the squeezed grain is possible from the very first stage of operation directly from the outlet side of the combination valve. Further feed components, for example soy pellets, may optionally be added to the feed mixture without passing through the milling and rolling process.

Even processing of fresh grain is possible with the TOURMIX. The TOURMIX 02 and TOURMIX 02-V models can do this in a continuous workflow: The grain is first sucked in, then rolled, and immediately discharged. Within the swiveling discharge auger preservative is added.



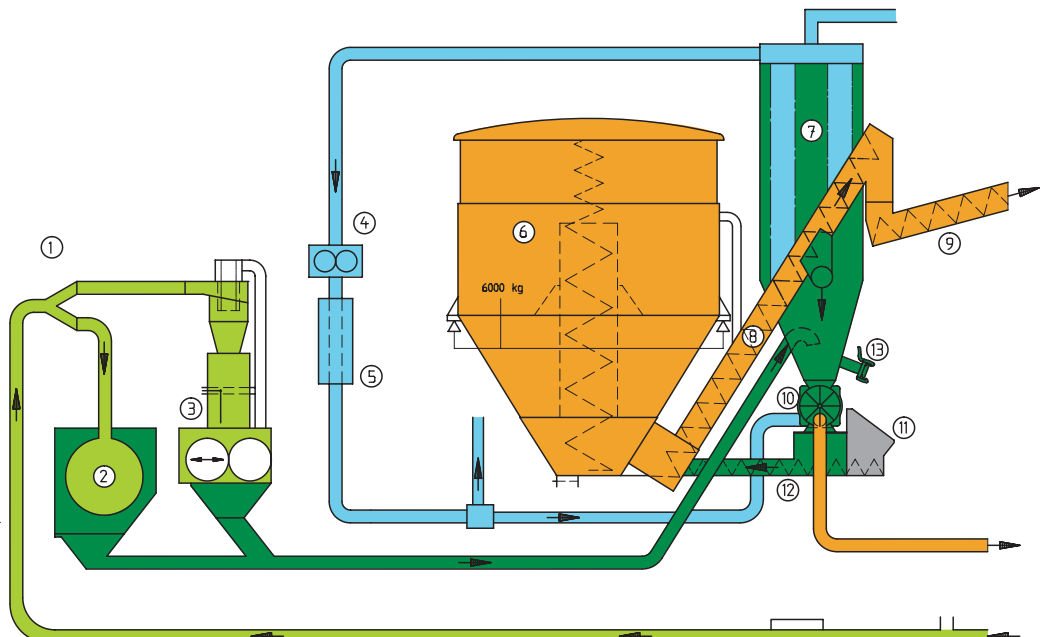
Component receiver with bag opener



TOURMIX operating position

Flowchart TOURMIX 02 TOURMIX 02-V

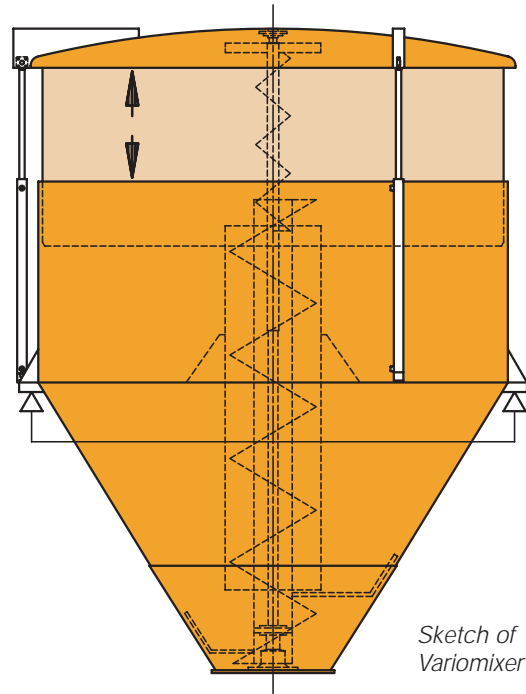
1. Suction flap
2. Hammer mill
3. Grain roller
4. Rotary piston blower
5. Silencer
6. Weighing mixer (6000 kg)
7. Separator
8. Extraction auger
9. Swiveling auger
10. Combination valve
11. Feed component hopper
12. Filling auger
13. Additional suction nozzle



Flexibility which pays off TOURMIX 02-V

Where economy of operation and flexibility are a prime consideration, the TOURMIX 02-V can hardly be surpassed. The upper part of the patented Variomixer can be extended telescopically. Thereby the container volume can be increased from 8.200 litres up to a maximum of 11.700 litres. Driving and setup time are minimized which in turn reduces operating cost. Furthermore, the low profile in driving configuration (ca. 3,70 m) enables to pass under low bridges and gateways; an invaluable asset in a rural environment.

Another advantage: By means of a special sealing no dust is allowed to escape from the mixer. All dust remains within the system.



Sketch of
Variomixer T02-V

Advantages at a glance

- Mixer volume _____ variable from 8.200 l to 11.700 l
- Height of module _____ 2,75 m in driving position
- Minimal residue _____ because of special layout of mixer bottom
- Height adjustment _____ possible during operation
- Combination _____ valve combines the functions of a rotary valve and a blow-off sluice
- Discharge performance _____ up to 40t/h



Designed for your Success

TOURMIX 02-SD

Objective and Solution

In the design of the TOURMIX 02-SD the Buschhoff team was focused on two objectives: maximum performance and easy handling. But moreover, this model offers user-friendly operation, which enables a complete emptying of the system. There are few wearing parts, which contributes to low maintenance costs.

Design objectives for the TOURMIX 02-SD were:

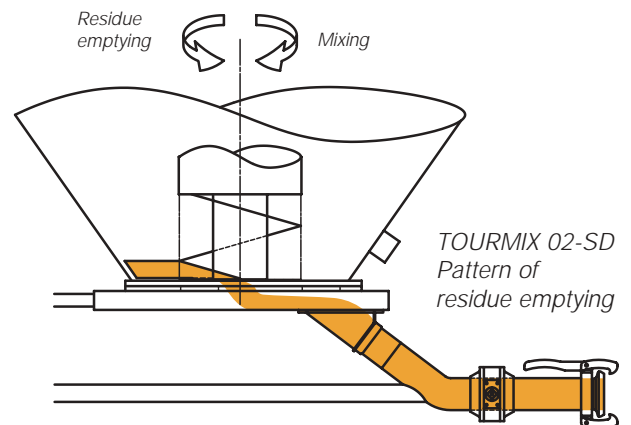
- Maximum performance and easy handling
- User-friendly emptying of the whole system
- Minimum maintenance costs by the use of only few wearing parts

The solution:

- The performance which results from the year-long proven combination of Mercedes-Benz diesel engine OM 501 LA with hammer mill HF 400 and grain rolling unit GO 64-2 was significantly increased by a rotary piston blower with intake air pre-cooling. An increase of 30 % of the suction vacuum (-0,65 bar) provides outstanding conveying performance.



Suction pressure mixer filled up



- Coarse meal, rolled goods and additional feed components are directly (without any augers) sucked into the mixer.
- By means of the innovative rotational sucker, feed residue is automatically removed from the mixer bottom. At the same time, pressure inside the mixer is gradually relieved.



A Class of its own

TOURMIX 02-SD

Suction pressure mixer

- The volume of the weighing mixer is up to 10.800 litres. Using heavy grain the weight of one filling can be up to 7 tons.
- The solid steel container is designed according to pressure machinery guideline 97/23EG and TÜV certificated.
- The continuous flow of ground or rolled goods directly into the mixing gear and the innovative distribution head above the mixing gear assure a homogenous mixture for a complete mixer filling.
- When special mixtures are required, the mixer can be disconnected from the supply components before small quantity additives are manually inserted.

Dust separator

- The detached arrangement of dust separator and mixer supports a high suction performance. Filter elements have no contact with the mixed feed, but only with the ground and rolled goods.

Conveying pipes

- Short distances and fully-opening ball valves assure low resistance and a high conveying performance.

- The discharge performance via discharge pipe is up to 36t/h, and significantly more when the discharge arm is used.
- The suction and pressure pipes are arranged on the left-hand side of the vehicle. The operating position and the hose stowage on the right-hand side remain unobstructed.

Operation and maintenance

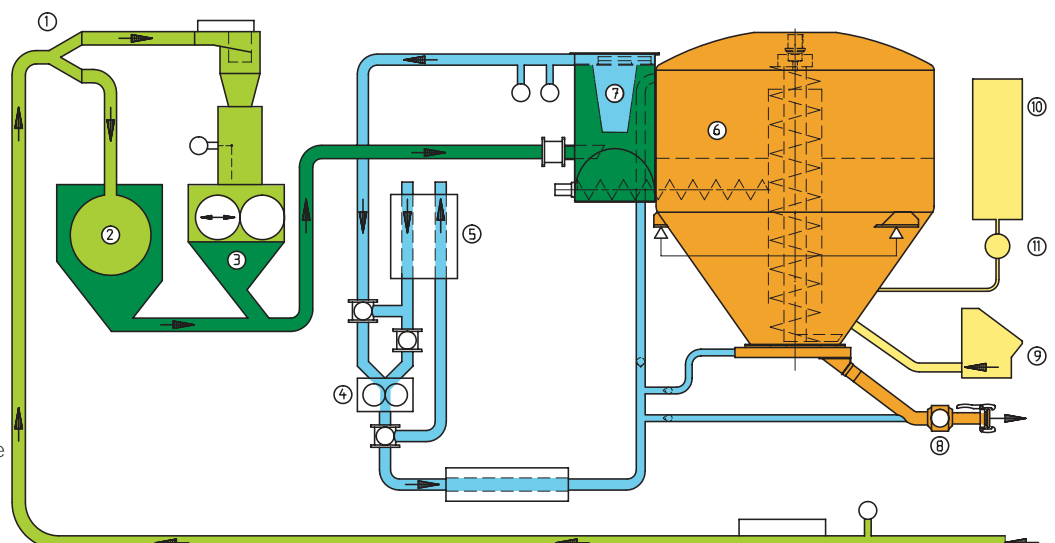
- All operating controls are arranged in a logical and ergonomical way and are, herefore, easy to use.
- All components of the machinery are easily accessible for maintenance.



TOURMIX 02-SD

Flowchart TOURMIX 02-SD

1. Suction flap
2. Hammer mill
3. Grain roller
4. Rotary piston blower
5. Silencer
6. Weighing mixer
7. Separator
8. Discharge valve
9. Feed component hoppe
10. Feed oil tank
11. Flow control for feed oil



Investment for Efficient Operation

MATCHING ACCESSORIES

The models of the TOURMIX 02 series can be fitted with various additional accessories - simple to use, efficient to operate.

Feed Oil Dosing

By a special dosing system feed oil can be added to the mixed feeds. The supply tank is made of stainless steel with a capacity of 150 kg. The current content of the tank is shown by an illuminated digital display. The oil is conveyed by vacuum from the pneumatic system. No pump is required.

Alternatively, the feed oil can also be added by way of a hydraulically-driven pump which is equipped with an electronic flow control.

Additional feed oil tanks can be installed. Optionally, these can be fitted with heating which ensures the required flowability in a cold environment.

TOURMIX-PILOT

The wireless remote control TOURMIX-PILOT is easy to tuck away in the pockets of your overalls. Regardless of the operator's location - cab of the truck, barn, or stable - the TOURMIX system can thereby be operated and controlled. The illuminated digital display

of the TOURMIX-PILOT provides real-time information about the mixer status. This advantage will certainly be much appreciated in times of bad weather.

Additionally, engine speed and the suction release can be set via the TOURMIX-PILOT.



TOURMIX-CONTROL

This weighing and dosing computer is the digital memory of the TOURMIX concentrated feed systems. Its memory holds up to 1.500 feeding formulas and 250 customer addresses. For each customer up to eight feeding formulas can be saved. The computer controls the suction procedure of the system and, when the desired quantity has been processed, alerts the operator by buzzer and flashing light. Delivery notes are printed immediately at the driver's cab. They account for a comparison between the actually processed quantities with the programmed values. There is no simpler way to do it.



150 kg dosing container



TOURMIX-CONTROL

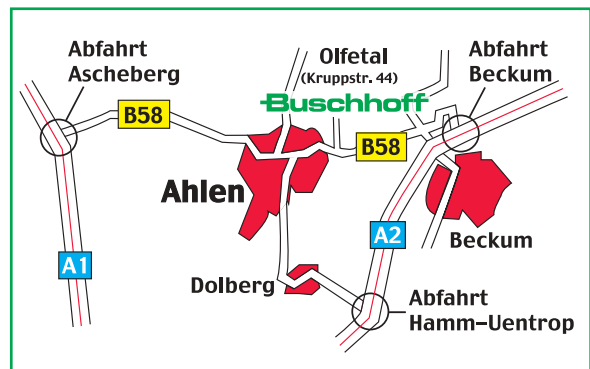
International Service Concept

Service is a primary concern of the Buschhoff company. Service specialists provide a fast and professional performance. Within a couple of hours, customers are provided with necessary assistance at whatever location in Germany. Need spare parts, technical assistance, or assembly work? The Buschhoff team will care for your needs, whenever and wherever it is required.

The Buschhoff company has built up a Europe-wide presence. In recent years, a network of local representatives was created, among others, in the states of East Europe. Regular trainings and contacts ensure that the Buschhoff representatives are always up to date with the status of ongoing product development. This ensures professional support at the local level and secures your success.

Sale and Placement of Pre-Used Systems

Especially for the newcomer to the business of mobile feeding services, acquiring pre-used Buschhoff systems is a cost-effective alternative. Before the purchase, we offer thorough inspection of pre-used systems with a careful assessment of future usability and, where necessary, the replacement of worn-out components at our Ahlen workshops. Future supply of spare parts for such systems is, of course, guaranteed. Many machines with over 10 years of full service, are convincing evidence that an investment in Buschhoff quality pays off.



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