

# TOURMIX

The Top Class of Mobile Systems  
for Concentrated Feed



*Optimize your feed production:  
Fast, economic, livestock- and 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 outstanding 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. Whether a vario- or a suction-pressure-mixer is suited best – Buschhoff provides the optimum solution for specific requirements.

### *New Types for more Efficient Production*

With the TOURMIX 02 series Buschhoff introduced in 2001 the new generation of mobile



*TOURMIX assembly workshop*

concentrated feed systems. Maximum economy and reliability, simplicity of handling and overall technological maturity of the types **TOURMIX 02-VE**, **TOURMIX 02-V-VE** and **TOURMIX 02-SD** ensure their successful operation in feed production. As always Buschhoff delivers systems which leave nothing to be desired.

### **Three powerpacks ready to contribute to your success.**

There are several variants of the TOURMIX 02 series:

Type	TOURMIX 02-VE		TOURMIX 02-V-VE	TOURMIX 02-V-VE-400	TOURMIX 02-SD		
Volume of the weighing mixer (liter)	8.300	9.300	8.200 – 11.700 (variable)	9.200 – 13.600 (variable)	9.300	10.300	10.800
Capacity at a piled density of 550 kg	4,6 t	5,1 t	4,5 t – 6,4 t	5,0 t – 7,5 t	5,1 t	5,7 t	6,0 t
of 600 kg	5,0 t	5,6 t	4,9 t – 7,0 t	5,5 t – 8,2 t	5,6 t	6,2 t	6,5 t
Height of super-structure (mm)	2.750	2.950	2.750 – 3.500	2.950 – 3.900	2.750	2.950	3.050

# Technology at Full Throttle

## TOURMIX

### **Performance**

The TOURMIX 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 the 6-cylinder-V-engine with 260 kW (354 PS). If so required by the customer, 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 m<sup>2</sup> with a milling width of 400 mm. The round-hole or wire screens of the mill can fast and easily be exchanged. This mill has excellently proven itself even in the processing of awkward materials.

### **Powerful grain rolling unit GQ 64-2**

With an hourly throughput of up to 20 tons the rolling unit is very efficient. 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 mixing accuracy**

Within only five minutes, the weighing mixers of the TOURMIX 02 series deliver an evenly mixed product of between 1.000 to 7.000 kg, with a very low tendency towards demixing. All requirements by FVO (german feeding guideline) are fulfilled; therefore, precise mixing is ensured.

The LUPUS weighing system has three loadcells. A large swivelling illuminated digital remote display – supplemented optionally by a small display in the driving cab – 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-SD  
with direct drive*

## Data and Facts at a Glance

# TOURMIX

### Engine

- Mercedes-Benz OM 501 LA engine, 260 kW (354 PS) at 1.600 – 1.800 min<sup>-1</sup>, optionally 290 kW (395 PS)
- 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 loadcells
- Large swivelling illuminated digital remote display
- Easy ascent via hinged ladder
- Maintenance-free dust separator
- Residue emptying by bottom extraction

### Pneumatic system

- High-volume rotary piston blower with intake air pre-cooling
- 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
- Easy v-belt exchange by clutch with removable intermediate ring



*TOURMIX 02-VE with direct drive during continuous grinding*

- 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 roller drive**
  - high efficiency and low strain on the hydraulic system
- **Efficient soundproofing**

# Powerful Model

## TOURMIX 02-VE

### Success systematically

The basic model is the TOURMIX 02-VE 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 rolled grain. Taking samples for an immediate assessment of quality and condition of the rolled 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 directly 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-VE and TOURMIX 02-V-VE models can do this in a continuous workflow: The grain is first sucked in, then rolled, and immediately discharged. Within the swivelling discharge auger preservative is added.



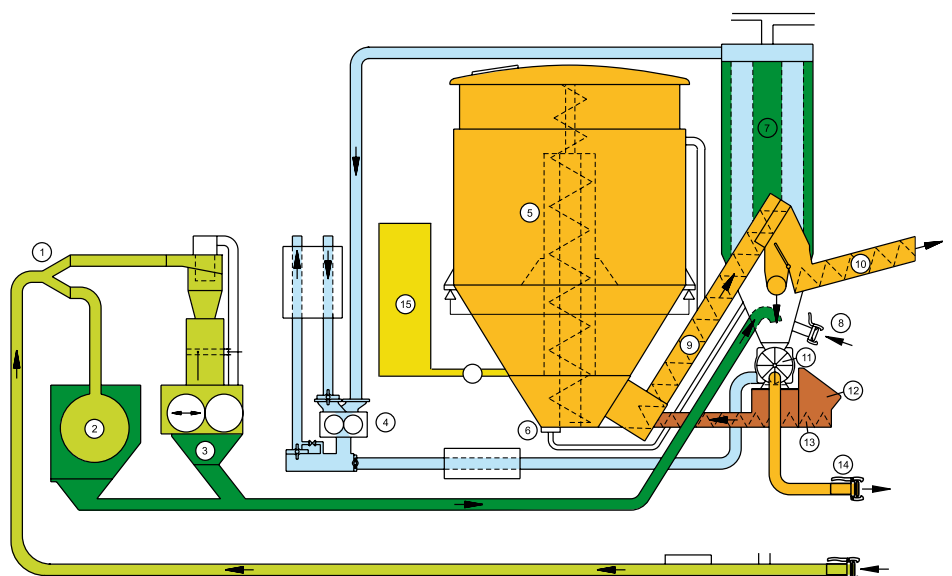
Component hopper with bag opener



TOURMIX operating stand

Flowchart TOURMIX 02-V-VE

- 1 Suction flap
- 2 Hammer mill
- 3 Grain rolling unit
- 4 Rotary piston blower
- 5 Weighing mixer
- 6 Bottom extraction
- 7 Dust separator
- 8 Additional intake socket
- 9 Extraction auger
- 10 Swivelling auger
- 11 Combination valve
- 12 Feed component hopper
- 13 Intake auger
- 14 Discharge pipe
- 15 Dosing container for feed oil



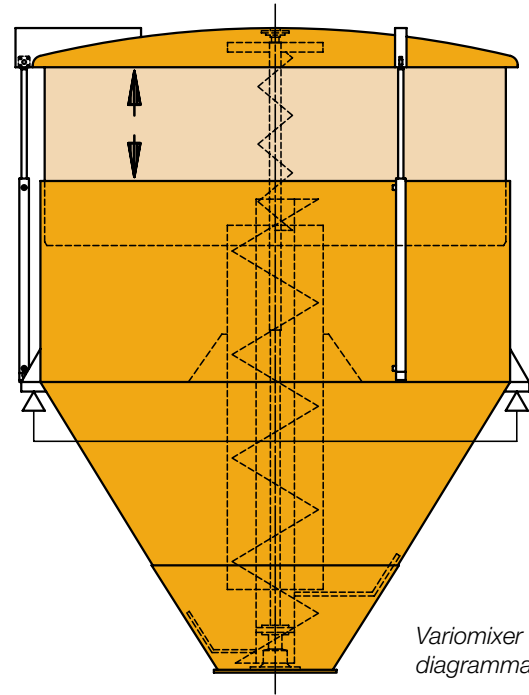
## Flexible Investment

# TOURMIX 02-V-VE

Where economy of operation and flexibility are a prime consideration, the TOURMIX 02-V-VE 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.

**NEW:** We offer the TOURMIX 02-V-VE also with an **enlarged capacity** of 9.200 - 13.600 l. This equals **8.2 t** at a piled density of 600 kg/m<sup>3</sup>.



Variomixer T02-V-VE  
diagrammatic sketch

### Advantages at a glance

- Mixer volume \_\_\_\_\_ variable from 8.200 l to 11.700 l
- Height of superstructure \_\_\_\_\_ 2,75 m in driving position
- Residue \_\_\_\_\_ minimized by bottom extraction
- Height adjustment \_\_\_\_\_ possible during operation
- Combination valve \_\_\_\_\_ combines the functionality of a rotary and a blow-through valve, high durability achieved by wear-resistant materials and intake wedge
- Discharge performance \_\_\_\_\_ up to 50t/h



# Designed for your Success

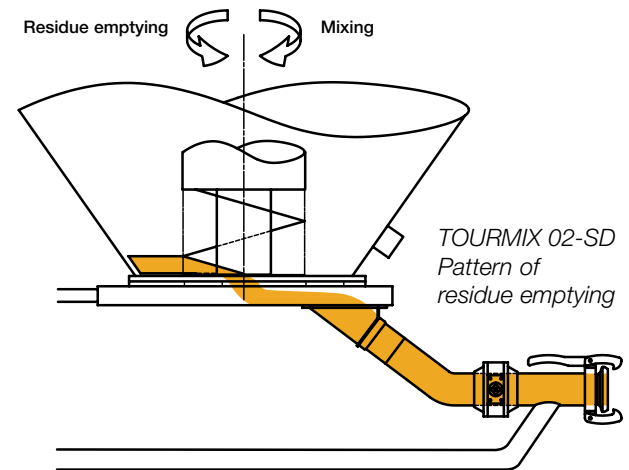
## TOURMIX 02-SD

### The TOURMIX 02-SD excels by:

- Optimum performance combined with easy handling
- User-friendly residue emptying of the complete plant
- Minimum maintenance cost through few wear parts
- The performance which results from the well proven combination of Mercedes-Benz diesel engine OM 501 LA with hammer mill HF 400 and grain rolling unit GQ 64-2 was significantly increased again by a rotary piston blower with intake air pre-cooling. An increase of 30% of the intake vacuum (-0,65 bar) provides outstanding conveying performance.
- Coarse meal, rolled goods and additional feed components are directly (without any augers) sucked into the mixer. Afterwards the mixer is emptied pneumatically.
- By means of the innovative rotational extractor, feed residue is automatically removed from the mixer bottom. At the same time, pressure inside the mixer is gradually relieved.



Suction pressure mixer filled up



# A Class of its own

## TOURMIX 02-SD

### Suction pressure mixer

- The capacity of the weighing mixer is 10.800 litres, enabling a filling with heavy bruised grain of up to 7 tons.
- The solid steel container is designed according to pressure machinery guideline 97/23EG and certificated by the German TÜV inspection authority.
- The continuous flow of ground or rolled goods directly into the mixing auger and the innovative distribution head above the mixing auger 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 pneumatic emptying works without any problems due to the electronic load control.
- The discharge performance by blow-out pipe is up to 36t/h, by discharge arm it is up to 60 t/h.
- The suction and pressure pipes as well as the discharge arm 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

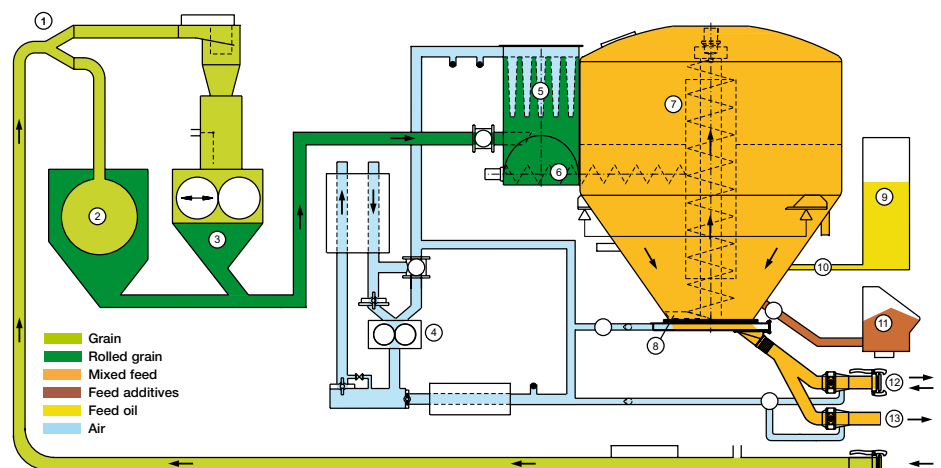
- All operating controls are arranged in a logical and ergonomical way and are, therefore, easy to use.
- All components of the machinery are easily accessible for maintenance.



TOURMIX 02-SD on two-axle trailer chassis

Flowchart TOURMIX 02-SD

- 1 Suction flap
- 2 Hammer mill
- 3 Grain rolling unit
- 4 Rotary piston blower
- 5 Separator
- 6 Filling auger
- 7 Suction pressure mixer
- 8 Rotational extractor
- 9 Feed oil tank
- 10 Flow control for feed oil
- 11 Feed component hopper
- 12 Discharge pipe
- 13 Discharge arm



## 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 feed. 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 dis-

play 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 support. 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.

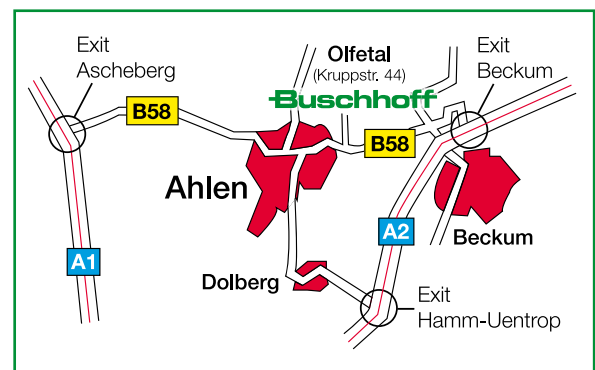
For stationary deployment, for example at large businesses in Eastern Europe, plants can be delivered on a transport/assembly frame.



Transport on flatbed semi-trailer

## 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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