



FD WAAGENBAU
CUSTOMIZED SYSTEMS



Try the Versatility
of our modular systems

FD Waagenbau – Customized Systems



Standard weighers

A vast array of standard scales for any application.

Specialist solutions

If you are looking for something very specific, we can tailor any system and make it fit for your case.

Services

We perform calibration, maintenance and repair works, supply spare parts and help you out with any issue in dealing with your scale.



FD Waagen - Quality and Versatility like no other

FD Waagenbau GmbH, formerly F&D Wägetechnik Waagenbau GmbH, is a leading manufacturer of weighing devices and technologies based in the area of Fürstenwalde/Spree, Germany.

We started out in 1990 with our early production of **metering and weighing devices for any type of bulk and liquid media.**

Our technology allows users to ensure their customers accurate compliance with their specifications at all times.

Being **DIN EN ISO certified 9001**, we avail ourselves of skilled and qualified technicians for the execution of quality assurance tests and the EC-Safety-Marking of all (automatic and non-automatic) scales and weighing equipment that we bring on the market, along with supplementary EC metrology marking and PTB (Physikalisch-Technischen Bundesanstalt ID-Number).

We stand by you for all your weighing requirements all over the world.



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Continuous weighers

The SWT (calibratable) incoming and loading weighers, as well as the PK (not calibratable) process weighers are designed to allow the accurate determination of the exact quantity of any bulk product either at shipping and receiving or in-process.

Automatic continuous weighers SWT



SWT 100



SWT 400

- The calibratable bulk weighers SWT are ideal for weighing friable bulk products such as grain, crops, pellets, etc...
- They are recommended for use in shipping/receiving or in-process applications. They are designed to receive a product flow in a continuous process and to weigh it quickly and accurately.
- The steel-plate weigh-vessel is equipped with a discharge flap operated by the electric-pneumatic system for a fast discharging.
- A flow-stop flap is electric-pneumatically operated to shut the product flow.
- Dust-free, removable enclosure with replaceable filter cartridges.
- Suction connection port = D 100 – D 250
- The pneumatic and electric systems are both installed inside a control box.
- Bulk weighers support the following bulk materials: cereals, granular particles, compound feed, grain flour, sugar and alike.



SWT 200



SWT 3000

Process weighers PK

- Process weighers are designed for the processing of the internal output/flow quantities and conveyance to downstream grinding and mixing plants.
- The output/flow quantity can be checked anytime by detecting the total capacity and hourly output.
- For conveyance to downstream processing units, the control electronics automatically breaks the user's predefined quantity down into individual charges. The exact discharge quantity is accomplished by optimizing the last batch.
- Close-loop, dust-free system with pressure adjustment and provisions for connection to the customized aspiration.
- Round weigh vessel from a rugged steel plate with leaf-gate operated by the electric-pneumatic system for a fast out-stream.
- Suitable for flour, cereals, bran and alike.





Bagging weighers

Bagging weighers for calibratable and semi-automatic filling of bulk goods and liquids in many types of packagings, including plastic and paper bags, cartons, boxes, buckets, barrels, etc...

Net bagging weighers N-SWA



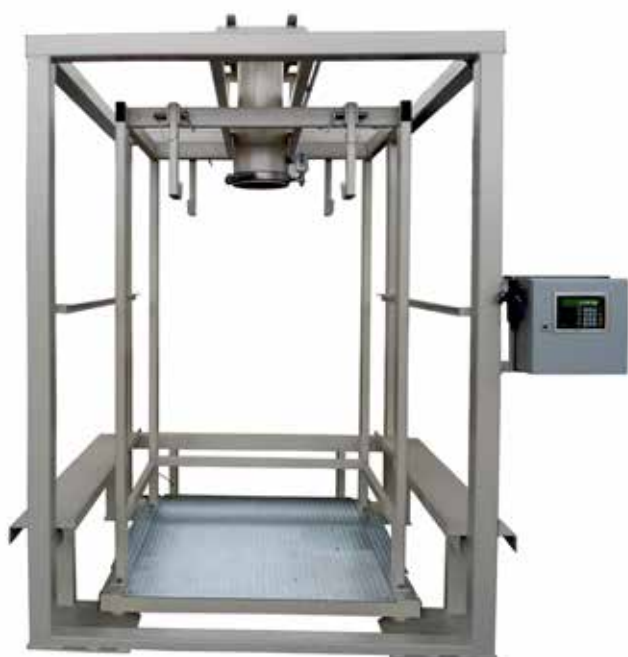
- High-performance automatic weigher
- The material inside the load contained is first weighed and then transferred to the filling unit.
- This high-speed weigher allows very fast cycle time with dosing and bagging operations taking place concurrently.
- Modular system:
 - Basic unit
 - Sturdy steel frame
 - Weighing electronics
 - ATEX
 - Metering unit
 - Bag clamp
 - Accessory

Gross bagging weighers B-SWA



- Medium-performance automatic bagging weigher
- Gross bagging weigher designed to feed and weigh the material directly into the bag to a preset weight.
- The special advantages of this machine are its outstanding flexibility and the compact size requiring just a limited vertical clearance.
- Modular system:
 - Basic unit
 - Weighing electronics
 - ATEX
 - Metering unit
 - Bag clamp
 - Accessory

Big-Bag filler BBWU



- Very efficient packaging solution for the filling of big bags and octabins in vertical/ standing position
- Packaging size: big-bags and octabins: approx. 1100 x 1100 mm approx. height 1200 x 2000 mm
- Max capacity (accuracy): 1500 kg (500 g) or 3000 kg (1000 g)
- Metering unit: sealed double-slide valves for smooth, accurate feeding of the required quantity of coarse or fine flows or metering screw / pneumatic butterfly valve
- Dust protection: the filling hose has a connector for in-house dust extractors

Small packaging machine

- Our shortys are perfect machines for weighing of different medium in small quantities.



SHORTY I-R
Gross bag weigher with
vibration dosing feeder



SHORTY II-S
Net bag weigher with
screw feeder



SHORTY I-S
Gross bag weigher with
screw dosing feeder



SHORTY III
Net bagger
up to 12.5 kg



Batch weighers

Our batch weighers are constructed to accept many media and components (powders, granules and liquids), weigh them quickly and accurately dose them out into a down-stream production process.

Ingredient dosing station KDA

- The KDA dosing system allows the dispensing of a precise quantity of any component from micro, through small, up to large size ones.
- KDA-M: High-precision dosing systems for the pre-batching of powdery through fine-grain micro-ingredients of compound feed and premix.
- KDA-G: Modular system with standard weighing for floury and grainy compound feed ingredients.
- KDA-K: Dosing system for floury compound feed ingredients.



**Micro-ingredients
dosing system**



**Dosing system for large-size
ingredients**

Container weighers for liquid media CWP

- The CWP range is recommended for efficient exact weighing and dispensing of liquid media.
- CWP Gravimetric Liquid Weigher: 1 – 4 Stainless steel vessels in 5, 15 or 30 l capacity
- CWP-MAXI Gravimetric Liquid Weigher: 1 – 8 Stainless steel vessels in 30, 45 or 60 l capacity
- CWP-E Liquid Weigher with discharge pumps: Each vessel is provided with a discharge pump with angle-seat valve, air scavenger and suction-side vent. Suitable up to 30 litre
- CWP-Maxi-E Liquid Weigher with discharge pumps: Each vessel is provided with a discharge pump with angle-seat valve, air scavenger and suction-side vent. Suitable up to 60 litre
- CWP-S Liquid Weigher w. steel housing enclosure: 1 – 2 Stainless steel vessels in 5, 15 l capacity



**Gravity
discharge**



with discharge pumps



with steel housing



Weighing electronics for continuous bulk, bagging and batch weighers

Product overview



IT 3000M

- Just for weighers with flow-stop flap and manual bag clamp
- Number of product memory locations: 9
- Number of material inlets/outlets: 2/2
- Use with:
 - Big-Bag fillers
 - Single gross bagging weighers
 - Vehicle weighing stations



IT 4000E

- Number of product memory locations: 10
- Membrane keypad: Function and numeric keys
- Use with:
 - Non-calibrated bagging weighers



IT 6000E

- Number of product memory locations: 99
- Number of material inlets/outlets: 8/8
- Use with:
 - Calibrated bagging weighers (bag-software)
 - Bulk weigher (bulk-software)



IT 8000E

- Compact stainless steel housing – dust and water splash proof
- TFT luminous colour display with up to 8 entry lines
- User's interface with plain text display
- Membrane keypad: Function and numeric keys
- RS 232 serial interface for connection with the PC / printer
- Effective digital filter for high throughput rates
- Supporting the entry of product-related parameters
- Saving up to 99 products / silos
- Connecting to in-house IT applications / networks through Profi-Bus systems
- Operation:
 - Either from a built-in operator's terminal or from any existing management (IT) systems
- Use with:
 - Calibrated bagging weighers (bag-software)
 - Bulk weigher (bulk-software)



IT 8000E TWIN

- Number of product memory locations: 99
- 2 Weighment entries for use of two weighers at the same time
- Use with:
 - High-efficiency bagging weighers
 - High-efficiency bulk weighers



Weighbridges

Effective weighing stations for measuring vehicle and axle weight of any van, lorry, trailer, tractor for farming, recycling and industrial applications.

Steel weighbridges

- Our weighbridges with calibration facility can be installed above floor or underfloor for stationary or portable use.



Stationary

- Designed for pit (underfloor) and surface installation
- If installed in a pit (flush with ground level), the vehicle can drive on the weighbridge from any side.
- Scale capacity: 30.000-60.000 kg
- Available in various sizes from 6 x 3 m up to 18 x 3 m



Transportable

- The modular construction (the heaviest module is approx 1.000 kg heavy), the weighbridge model FMS 18 can be also conveniently installed under a silo or under a roof.
- All you need for short-distance moving of the modules is a fork-lift or loader.

Axle load weigher

- Axle load weighers are the most efficient alternative to large weighbridges.
- They are recommended for any application if farming, industry and retail.
- When making a choice you should consider the following general differences:
 - Weighbridges are a static system, in which the vehicle must be parked through the complete weighing process.
 - Axle load weighers are dynamic systems and axle load is measured while the vehicle drives through.
 - Moreover, one should distinguish between wired and wireless systems.



Concrete weighbridge

- We can provide concrete weighbridge of any size and type. Please contact our office for additional details or help.



BUE-F (surface-mounted)

- Scale capacity: 50 or 60 t
- Bridge length: 8, 10, 12, 16, 18, 20, or 24 meters
- Bridge width: 3 or 3.5 m



BUN-F (pit-mounted)

- Scale capacity: 50 or 60 t
- Bridge length: 8, 10, 12, 16, 18, 20, or 24 meters
- Bridge width: 3 or 3.5 m

Loader scales

- Calibrated scales for earthmovers, front and rear loaders
- Heavy-duty, rugged construction designed for use even in critical and harsh operating conditions like environments exposed to dust, vibration and extreme temperatures.
- We can provide any configuration from basic to modern technology with web-based data transmission, external display and much more.



Software for vehicle weighing stations

Vehicle weighing and weighbridges in particular, are complex systems that require a special Software for their operation.

WW-TruckControl

- Weighing and data collection software for weighbridges of any capacity for any application.
- Modular Software construction specifically engineered to be adjusted at wish to any operator's requirement.
- Diverse analysis and print lists can be produced for specific time periods as defined by the user. Thanks to networking options, the data of the master files and shipping bills can be easily imported/exported for weighment/measurement with an external scale/PC.
- So, you can process a limitless number of data.
- Benefits:
 - Production of different analysis and print lists over adjustable time periods
 - Import/Export of master files and shipping bill data for weighment/measurement with any external scale/PC.
 - Export of master files and shipping bill data in dBase or text format
 - Table layout adjustable for each window



WW-FSTruck

- This is our cost-effective alternative to the WW-TruckControl Software
- User-friendly weighbridge software for use in retail, industry and farming
- Weighment data collection with first and second weighment
- Vehicle request out of the yard-list (first weight memory)
- Weighment with fixed tare value (tare weighing)
- Management and follow-up of weighment tickets
- Comprehensive data management, vehicles, shipment, customers, materials, modification, cancellation, printing
- Extensive statistics
- Individual and combined print lists

Weighbridge control unit

Control electronics is the core of every weighbridge.

IT 3000Truck

- The stainless steel housing (IP65) with a compact and robust construction (IP65) is perfect for use even under the harshest operating conditions. The weight terminal is suitable for table and wall mount.
- IT 3000Truck provides operators a user-friendly terminal for rapid operation.
- The weight report contains among other the date and time of the measurement, the first and second weighment and the net weight.
- Thanks to the temporary storage of the first weighment, no weighment report is needed until the vehicle drives off the bridge. This makes the entire operation easier and faster. Printing of the report can be easily adjusted to the existing forms.
- This basic stand-alone-system can be upgraded by fitting it with a PC-supported scale.
- The system supports all latest functionalities like Alibi memory, serial interface RS232 and variable data printing.
- In the Online mode, the weighbridge is operated from an external peripheral PC. The weighing terminal collects the weighment results and archives them in an Alibi memory.
- Technical features:
 - Watertight, water splash proof, compact IP65 housing from CNS 1.4301.
 - Numeric keypad
 - Standard RS232 interface
 - Built-in 240 VAC power supply
 - Max power consumption: 20 VA
 - Battery powered real-time clock
 - Calibration data memory for 100,000 weighments





Specialist solutions

None of our standard solution fits your needs? Is your final application a customized one? No problem. Tell us more about it. We are here to help you. Together we can develop and bring up exactly what you had in mind.

Examples of some of our customized continuous weighers



SWT 200-ES

- Product-contacting parts made of stainless steel (e.g. sugar etc...)



SWT 200-TWIN

- Continuous twin-weigher for high performance solutions



SWT 100-ES

- Batch weigher from a stainless steel construction made for use with food (corn flakes, sugar and many more)

Examples of some of our customized bagging weighers



Bagging facility MAH 50

- Semi-automatic weigher, 60 kg max capacity, with built-in clamp for very efficient bag fixation.
- The bags are filled up by the customer site metering screw that is switched on/off by a programmable Control Unit.
- Depending on the type of the available infeed facility used, the self-setting control can accomplish very high bagging accuracy.



N-SWA 30 M

- Double infeed and metering lines



B-SWA Foodline

- Extremely accurate gross bagging weigher for food and additives.
- Application:
 - Grainy and floury bulk media
 - Suitable for filling paper and plastic bags, cartons with PE-Inlet and buckets
- Configuration:
 - Fully stainless steel
 - FDA-approved
 - Special flow-stop flap for special clean/hygiene requirements
 - Metering screw with quick-coupling fixation: easy to undo and remove.
- Scale specs:
 - Max capacity 15, 30 or 60 kg
 - Suitable for calibration as self-acting weigher
 - Gross weighing systems and compact size and dimensions for portable use



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Examples of some of our customized batch weighers



Container weighers for liquid media CWP 5,1 VMW

- Suitable for dosing concentrated media with 1g accuracy



Dosing weigher for fine-grained, powdery ingredients type „PDA“

- Stainless steel container with discharge tool and single-point or three-point-DMS weighing system depending on the maximum load.
- Gravity discharge via pneumatic squeeze valve



KDA-G

Examples of some of our customized vehicle weighing systems and weighbridges



SB Terminal

- SB Terminal for any type of weighbridge, designed for most rational placement of the vehicle
- Compact, heavy-duty construction
- With stainless steel enclosure suitable for heavy-duty use even at the most difficult operating conditions
- Suitable for table or wall-mount
- It comes with radio receiver and 2 handheld transmitters in price (more handheld transmitters available on request)



BUN-F-OB

- The BUN-F series is recommended for heavy-duty and continuous use in any sector, from farming to recycling, retailing or production controls. High-quality-concrete and nearly wear-free bearings make this series perfect for frequent and intensive users.
- Scale capacity: 50 or 60 t
- Load capacity to DIN 8119: 60 t
- Digit step: 20 kg
- Bridge size: 18 x 3 m in segments
- Configuration: Flat-Platform height: 40 cm

Please contact us for any custom requirement. Our staff is glad to help.



Specialist solutions

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More special designs and projects



Automatic barrel filling machine

- Compact equipment with inbuilt roller belt for the conveyance of a Europallet with up to four barrels.
- The filler pipe is driven to the bunghole by means of the efficient laser-pointer and joystick control and then moved down for filling „bottom up“ during the bagging process.
- For automatic filling of the barrel, the filling spout is up-lifted by a PLC-control.
- As soon as the nominal weight is filled in, the filling pipe is retracted from the barrel and secured against dripping.
- At this point, the next barrel is advanced with the joystick, raised and filled up automatically.
- When all four barrels are filled, the pallet is moved on the roller belt to the outlet station.



Filling machine for liquids



Continuous weigher mounted to an Harvester



Weigh belt feeder for tyre production



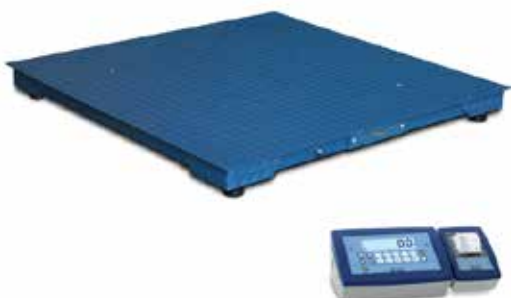
Silo weighing system for components

Industrial, retail, medical and lab scales

From platform and floor scales up to table and lab scales, we have all you need for any application.

All products are available in various variants.

- Platform scales
 - Floor scales
 - Pallet weighing system
 - Table scales
 - Industrial weighing and labelling machines
 - Retail and supermarket scales
 - Forklift truck scales
 - Medical scales
 - Laboratory scales
-
- ATEX weighing solutions also available on request.





Services

We can support you for all your calibration, maintenance and repair works, as well as spare part supplies.

We can back you up from the office, or even side you on site for:



- Repairs of our own systems and even other brands and supplies
- Modernization and upgrading, conversion and modification of existing scales
- Repairs and validations
- Certified calibrations (we are members of KERN calibration board)
- Preparations and execution of calibrations
- Installation and set-up of own products
- Rental of masses
- Testing and release of test protocols to DIN EN ISO 9001:2000
- Assessment of compliance, partly in collaboration with local calibration authorities
- Delivery and maintenance of tubular screw and belt feeders, butterfly valves, slide valves, valves and other accessories
- Delivery and maintenance of centrifugal pumps, gear pumps, double membrane pumps and relative accessories
- Delivery and/or installation of flexible hoses, bellows, pipes and tubes

General sales conditions

All orders are meant as accepted and deliverable strictly at the terms and conditions of the manufacturer. No other diverging term and condition of the customer will be applicable to our supplies. By accepting the goods, customers tacitly agree and accept these conditions. Any other arrangement must be agreed in writing by the parties for validity.

1. Offers and contracts are subject to change without prior notice up to the date of delivery. Eventual purchase conditions of the customer will not be binding for the seller, not even if no explicit or written objection/waiver was raised by the latter.

2. All prices are meant ex-works (or railway station at destination), in € and subject to changes without prior notice. The goods are invoiced on the date of shipment at the price and discount as applicable on that day. All prices are subject to additional VAT at the applicable rates and conditions. Packing is not included in price.

3. Payment terms: all dealer's invoices are due within 14 days from the invoice date and payable without discounts, reductions, or compensation amounts of any type whatsoever. The invoices for repair works and installers fees shall be due within 10 days from the invoice date. For supplies of customized products, the following payment terms shall apply: For supplies of customized products, the following payment terms shall apply NET (without discounts): 1/3 with the order confirmation; 1/3 with the notice of goods ready for shipment and 1/3 thirty (30) days from the invoice date. Payment shall be deemed as successfully executed strictly when received on the account of the supplier. Late payment interests shall apply as pursuant to respective bank rates for unsecured loans. Should a delivery be delayed past the agreed deadline and for a reason which is not due to the supplier, the latter will be authorized to charge the goods as-is in the actual production status.

4. Reservation of title: All goods delivered remain the property of the supplier until the full payment of all outstanding claims of the seller. All receivables caused by the resale of the goods in the property of the supplier are transferred to the supplier at the moment of their arising, so that a direct recovery can take place. On request, detailed information must be provided. In case of failure to fulfil the obligations of the buyer, the supplier is entitled to dispose of the goods at any time reclaim or otherwise, even without a court judgement. Any claim or seizure of the goods delivered under retention of title by third parties obliges the buyer to inform the supplier immediately thereof.

5. Parking is not included in the price and will be charged extra. All packaging is one-way and no return will be accepted by the supplier.

6. Freight is not included in our ex-works price. Customers are to arrange collection of the goods, bear all transport risks and pay for freight unless otherwise agreed by the parties in writing. Customers are to arrange collection of the goods as soon as they are announced by the supplier as ready for shipment. Failure of a customer to do so, the supplier may decide to store the goods at its facilities with no liability (except intentional damages), or alternatively hand them over to a shipper's logistics in which case all costs and risks will be on customer's side.

7. The supplier's leadtime is always meant as a non-binding indication of the time needed from the confirmed order (and relative clarifications) until the goods ready for collection. The applicable lead-time is always subject to unexpected events, delays in production and possible other obstacles like major force, transportation delays, business or production disruptions or occurrences affecting the normal delivery time. Customers are obliged and committed to acceptance of the goods, even in the case of delays exceeding the agreed deadlines.

8. Modifications: the manufacturer reserves itself the right of making changes of construction, shape and colour details if deemed as needed at its own discretion or on instruction of any calibration authority. Pictures and descriptions, weights, sizes, capacities, colours and other technical features are strictly indicative and subject to change.

9. Claims and complaints concerning the goods or the invoice will not be binding. However, eventual claims must be notified to the supplier promptly after the receipt of the goods. Visual damages and defects must be notified within eight days.

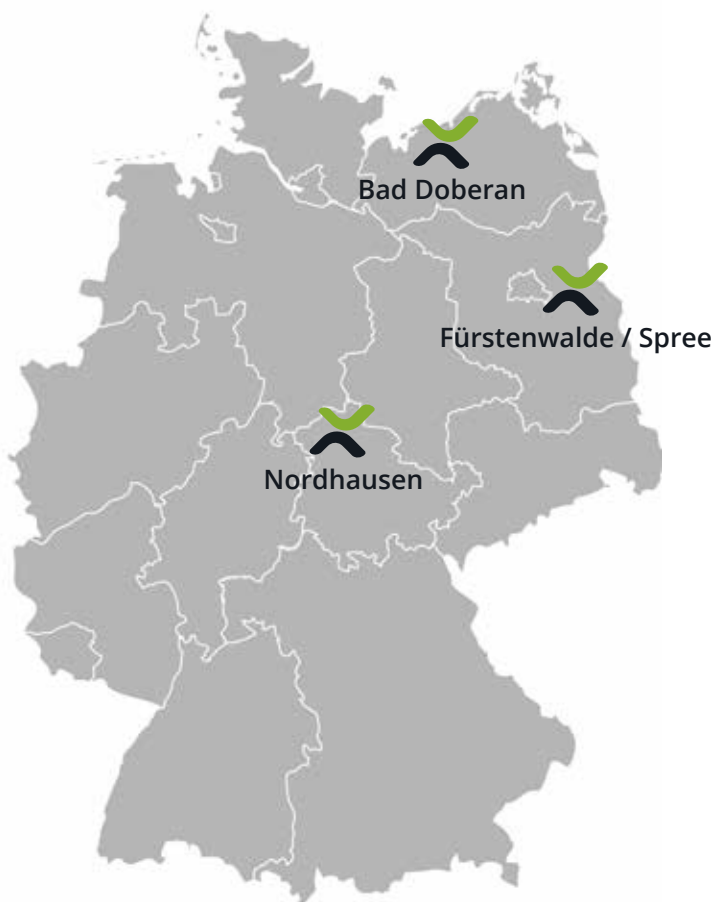
10. The manufacturer warrants and commits to free-of-charge replacement, or repair of all parts for which material flaws, or production failures have been detected and claimed within 12-month time from the date of delivery. The place of settlement of all warranty claims is Fürstenwalde. Therefore, transportation/freight cost for delivery to Fürstenwalde and back shall be invoiced extra. The warranty doesn't cover the normal wear resulting from "material fatigue and aging", or lack of cleanliness (dirt or corrosion) not even if the warranty is still in course of validity. The manufacturer's warranty is strictly granted to the original buyer and may not be transferred to any third party whatsoever. No warranty applies for damages resulting from a) intentional damage, misuse, improper or insufficient maintenance and b) repairs or modifications carried out by any third party other than the manufacturer and without approval of the latter. All further claims of the buyer shall be excluded, especially those related to annulment or reduction, or related to compensation for damages, even if the replacement/repaired goods show the same or other faults/defects. The manufacturer is not liable for consequential damages whatsoever. The liability for timely delivery and the warranty for the parts that are outsourced by the manufacturer shall be strictly limited to the liability/warranty granted by the original manufactures of these parts. Additional claims of the buyer will be rejected irrespective of legal ground. F D Waagenbau GmbH accepts no liability for consequential damages that are not directly related to the product sold. More specifically, F D Waagenbau GmbH is not liable for loss of profits or other pecuniary damages suffered by the buyer. No warranty applies to damages resulting from compliance with the specific instructions of the buyer, or misuse of the products by the buyer. For all software installed, the warranty is only applicable in terms of full compliance with the relative documentation. However, based on technical/scientific state-of-the-art, a complete exclusion of errors in the software is not possible.

11. Liability The supplier is not responsible for gross negligence of its assistants and collaborators infringing subsidiary contract obligations.

12. Jurisdiction Each and every mutual obligation of the parties under the sale contract shall be deemed as successfully executed in Fürstenwalde. The Court of Gera has exclusive jurisdiction on every dispute. However, the supplier has the right of having eventual recourse to the Court of the place of the Buyer. All contractual relationships are governed solely by the law of the Federal Republic of Germany. Application of the UN Sales Convention is excluded.



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CUSTOMIZED SYSTEMS



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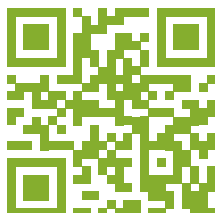
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Sales branch Bad Doberan

Counterpart: Rolf Nagel

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