

AMF-Bruns:

Your strong partner for all conveyor technology needs

Since 1958, AMF-Bruns has been developing and building reliable, high-performance conveying and bulk material systems of outstanding quality, exactly tailored to our customers' requirements. Our globally active customers in widely varying sectors know they can rely on our long-standing expertise in planning, designing and building complex systems – as confirmed by countless references from all over the world.

From planning and designing with the latest CAD technology, up to our new laser cutting system, our targeted investments in optimising and streamlining our production in past years have enabled us to implement customer requests even more precisely and effectively.

Our performance is based on highly qualified personnel, a certified quality management system, and comprehensive, competent service – from assembling and commissioning your plant to maintaining it.

In addition, we introduced a certified energy management system.

This brochure provides an overall impression of the systems we offer as well as a detailed image of our company – convincing proof of our competence. We are at your service for further questions and information.

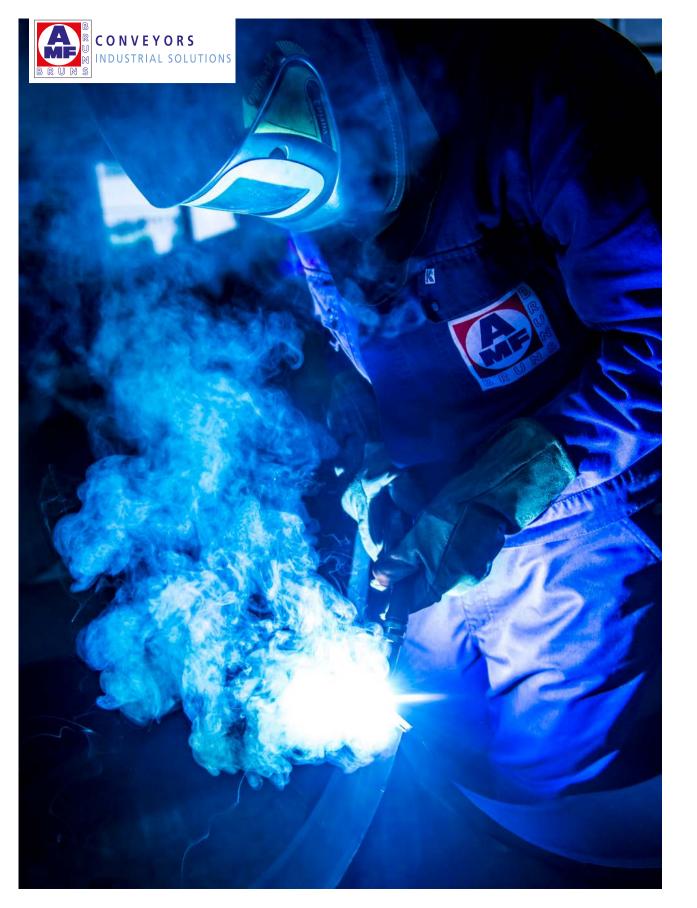
Jürgen BrunsManaging Director

Jan Woltermann Managing Director



"Our objective is to retain the confidence of our customers in the long term: through reliability and flexibility, coupled with quality and innovation."

Jürgen Bruns & Jan WoltermannManaging Directors



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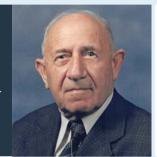


AMF-Bruns corporate history

A strong partner for over 60 years

1958

Gustav Bruns (†1993) establishes "Bruns KG", forerunner of today's "AMF-Bruns GmbH & Co. KG". The company's business is farm machinery.



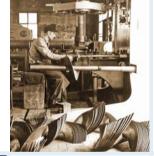
1959

Erich Bruns joins the company at the age of 23. He remained active in company management until his death (†2014).



1962

The company starts producing conveyor systems and stops manufacturing agricultural machinery.



1970

The Hubmatik division is established as a second mainstay. Production of lifts and securing systems for handicapped persons begins.



1973

To cope with the constantly high work volume in plant construction, a branch factory is established in Friesoythe, about 30 km away.



In the following years, capacities at Apen and Friesoythe are more than doubled by building extensions and investing in new machinery.



The introduction of EDP and 2D software for designing plant construction starts to replace drawing boards.



1993

Jürgen Bruns, managing shareholder and responsible for the plant construction division, joins the company at the age of 31 after several years of sales activities outside Germany.



1995

Gerit Bruns, managing shareholder and responsible for the Hubmatik division, joins the company at the age of 31.



1999

In plant construction, AMF-Bruns develops a unique residual emptying system for silos.



2000

With a total of 4,000 m² floor space, and equipped with a cutting system, open area, and paint shop, a new hall starts operations.



2005

The ERP system "Pro-Alpha" is introduced in both operational areas to support all corporate processes.

2008

More than 600 customers and suppliers as well as all employees and their families celebrate the 50th anniversary of AMF-Bruns at two venues.



2010

The introduction of lean management is launched at AMF-Bruns in cooperation with Porsche Consulting.

2011

During the revision of in-house standards, the "Solid Works" 3D design software is introduced.

2012

Gustav Bruns Maschinenbau und Förderanlagen GmbH & Co. KG" is renamed "AMF-Bruns GmbH & Co. KG".

2013

Jan Woltermann, who previously occupied various responsible company positions since 2002, is appointed as a further director of AMF-Bruns.



2013

The development of a plant construction project configurator triggers a market sensation.

2014

Extensive optimisation measures are completed:

- » Restructuring and rehabilitation of the shaft department (2012)
- » Centralised of metal-cutting (2013)
- » Purchase of a new laser cutting system and tandem press brake (2012)
- » Centralisation of shell work and final assembly in new hall extension
- » A new painting and pickling system is commissioned

2015

Introduction of a certified energy management system in line with DIN EN ISO 50001 as well as factory health management.

2016

Successfully reaudited by berufundfamilie. A new Development department and a new office (conveyor technology) in Poland are established. CrefoZert certification is extended until August 2017.

2018

The plant gets its own photovoltaic system. Electric forklift trucks and pallet jacks are put into operation.

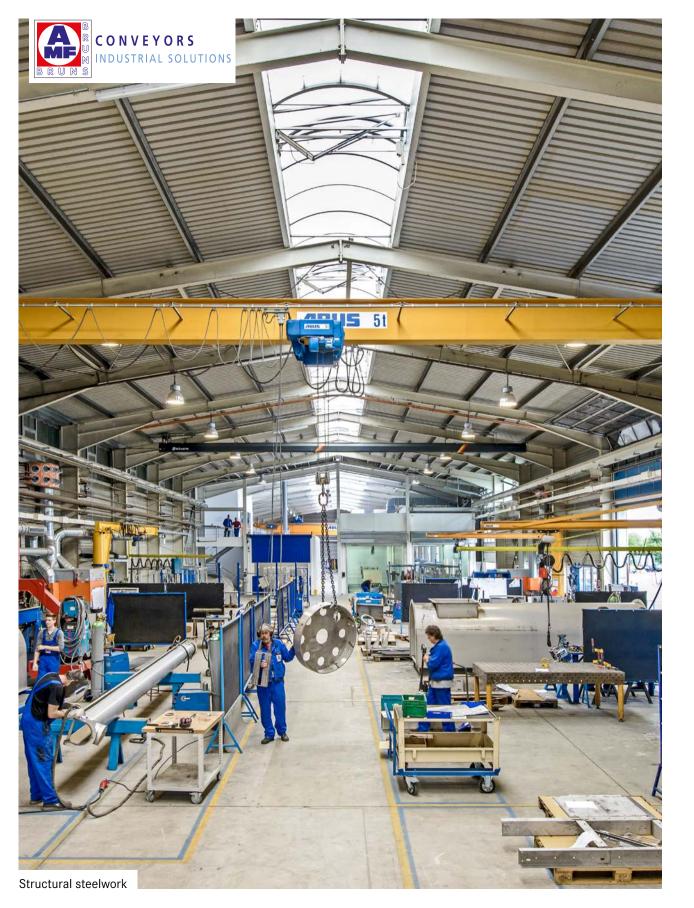
2019

Presence in Latin America is increased with local partners. Certified once again as a family-friendly employer and recertified as a demographically inclusive social partnership company.

2020

Acquisition of a new laser machine and installation of electric charging stations for employees and visitors. The Wood and Sugar business units are expanded to include Aftersales. Founding of the AMF-Bruns Foundation.



















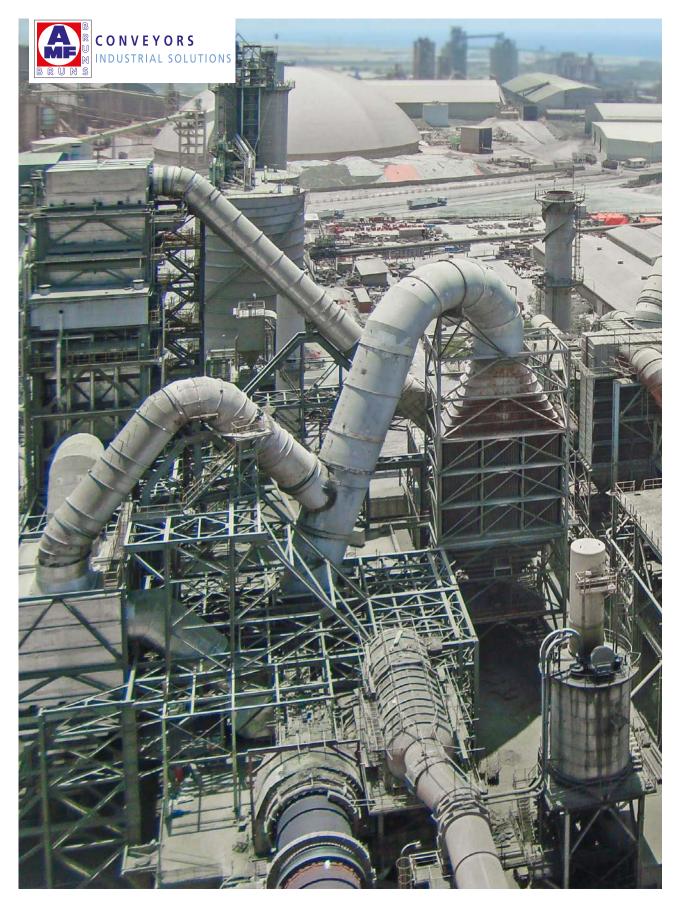
"Made in Germany" – at home all over the world Conveyor technology from AMF-Bruns

AMF-Bruns has mastered the challenge of customer requirements for over 60 years with great success – in Germany, and all over the world. With some 330 highly qualified and dedicated employees, we reliably and accurately implement our customers' wishes in the Conveyor System and Hubmatik production fields.



Algeria Argentina Austria Australia Azerbaijan Bahrain Belarus Belgium Bosnia-Herzegovina Brazil Canada Chile China Croatia Czech Republic Denmark Egypt England Estonia Finland France Germany Greece Guatemala Iceland India Iran Italy Japan Jordan Kazakhstan Lithuania Luxembourg Mexico Morocco Netherlands Nigeria Norway **Philippines** Romania Saudi Arabia Sierra Leone South Africa Spain Sweden Switzerland Turkey Ukraine United Arab Emirates

> Uruguay USA Venezuela Vietnam



Technical Customer Consultation

Dependable advice for your project

AMF-Bruns develops and builds top-quality, highperformance conveyor and bulk material systems which are accurately geared to their specific tasks. We handle the creation and layout of complete systems as well as the entire project planning for our customers - with a wealth of technical knowhow and the experience gleaned from sophisticated projects around the globe.

technical factors to ensure a perfect integration of the new system into your production environment. On this basis, our construction team then begins working on your project.

The goal: To develop a system that will not only provide the perfect technical answer to your requirements, but will also be the most economic solution for your intended operational purpose in every respect.

"More than 15,000 systems sold in 60 countries."

We implement your ideas and visions step by step.

This starts with comprehensive technical consultation by our sales representative, enabling both sides to gain a joint on-site impression of the application area and location of the planned system. We also study the planning of the hall and the given

"The more closely we cooperate with customers in the planning phase, the better we can advise them with regard to economic efficiency."

Christian Müller Member of the Management Board/ Conveyor Systems Division (Technology)





Project Planning and Tender Preparation

Tailored for your conveyor system

Confidence in AMF-Bruns means having a partner who is always at your side to supply you with a technically and economically optimal system solution. For that reason, we don't supply "off-the-shelf" solutions – but only services that are individually tailored to your needs. This approach starts right away with project planning and tender preparation.

When projecting a new system, the essential activities are on-site technical consultation on a European and global basis, drafting of quotation drawings and, of course, reliable schedule planning. In the process, the project team cooperates closely with the technical bureau and work preparation at AMF-Bruns to ensure that the system is completed and delivered smoothly and on schedule.

"Perfect project planning right from the start."

Queries from our customers are first assigned to appropriate sector-related departments, where they are processed by two-person teams of experienced technicians and engineers. A given team will quickly draft a quotation and project the planned system. Simultaneously, it will be the customer's competent contact throughout the entire project.

"The project management at AMF-Bruns ensures that all threads are tied together so that internal and external communications works optimally."

Dennis von Horn

Head of the Sugar Business Unit





Design and Project Management

Perfect in every detail, right from the start

In the Development and Design Department at AMF-Bruns, 31 engineers, technicians and draughtsmen in order-specific project groups tackle the task of implementing their ideas and visions with new energy every day.

engineers, technicians and draughtsmen are on the job at AMF-Bruns

Because utmost precision is demanded here from the start, AMF-Bruns consistently relies on ultramodern, computer-based 3D-CAD system planning with "Solid Works" (PDM database), which enables every detail of the system to be displayed with pinpoint accuracy from the design phase onwards. Furthermore, we rely on a special product configurator that was introduced in 2013 to configure products directly out of the AMF-Bruns factory standard. It allows planning, design and calculation of a new product to be carried out clearly and efficiently in an integrated system. Besides saving time, it also guarantees maximum planning accuracy and optimal technical implementation of the system – quickly, precisely and absolutely true to the customer's wishes.



Technical Managers,
Design Conveyor Systems





Strategic Purchasing

Added value for customers through smart buying

We assess the qualification of our suppliers according to clearly defined criteria. The most important success factors in binding our suppliers to us are:

- intelligent interlocks in the supply chain
- competitive terms and constant cost optimisation
- technical competence and innovative solutions
- continuously high quality as a basic prerequisite

In addition, we regularly conduct local improvement projects with our suppliers in the fields of purchasing, production and logistics in order to continuously strengthen our effective competence network. This clear strategy has obvious benefits, both for our production processes and our custom-

"For our **customers**, we are more than a supplier: We are innovative problem solvers."

Suppliers whose performance convinces us in these respects become an important element in our value chain. Our goal is to focus on competent core suppliers, and to progress together with them in terms of technology, quality, costs and logistics.

"Only competitive suppliers allow us to retain our customers."

Gerrit Ihnen

Strategic Purchaser







Production

The area where value is created

Top-quality products, constantly reliable deliveries and the highest possible efficiency – for us and from the viewpoint of our customers, these are the decisive criteria along which we orient all our production processes.

"AMF-Bruns meets the exacting requirements of **DIN EN ISO 9001."**

In recent years, we have scrupulously analysed our internal processes, and optimised them according to the principles of lean management. This process has included the consistent introduction of precisely timed production in 1-day cycles as well as hour-by-hour work planning. These steps have led to a sustained improvement of material flow and a significant reduction of throughput and machining times, allowing us to further improve our delivery times.

However, these optimisation measures have also benefited every individual employee, since work stations have been redesigned according to ergonomic criteria. In addition, we introduced a certified DIN EN ISO 9001 quality management system several years ago. It embraces our entire design and production process and contributes to the continuously high quality of our products.

"The continuous investigation and optimisation of our processes makes AMF-Bruns a strong supplier in the long term."

Michael Siehlmann

Production Manager, Conveyor Systems
Divisional Manager, Shell Construction/Final Assembly





Final Assembly

The "marriage" of all components

Every conveyor system attains its ultimate form during final assembly. As in other production areas, system components are assembled in one-day cycles. This means that one product is completed every day on each of the four production lines at AMF-Bruns.

From the first to the last step, every process is monitored by the respective operator and the results are logged in writing. Final assembly is followed by a test run and final approval by the quality management supervisor.

certified welders guarantee high-quality production

At the same time, a wide range of products is produced in 10 stages on the four flexibly configured assembly lines. Conveyor systems with lengths of more than eight metres are "cut" into segments to pass them through production in a convenient size.

"The interaction and coordination of all departments to make all the individual parts flow together punctually in one area is a major challenge that is always impressive."

Michael Siehlmann

Production Manager, Conveyor Systems
Divisional Manager, Shell Construction/Final Assembly





Assembly and Commissioning

You can rely on us

Your satisfaction is our goal. That starts with planning and is by no means finished when a new system is completed.

Experienced site supervisors work all over the world for AMF-Bruns

Their job is to make everything run smoothly from the first hour in operation. Of course, our engineers and technicians will be ready to advise and assist you at any time – for instance when optimising or maintaining the system.

Our site supervisors, fitters and engineers are deployed all over the world to install and commission the new systems of our customers. They accompany you personally from assembly and commissioning to a final, successful function test and instruct your personnel on how to handle the conveyor system.

"AMF-Bruns has experienced site supervisors at work all over the world to ensure that your conveyor system is set up correctly."

Robert Bauer

Site Supervisor, Conveyor Systems





After Sales Service

Also first-class

Reliable, high-performance technology is the prerequisite for economic and efficient production. So that you can always rely on your systems, we supply an individually tailored service portfolio along with our top-notch technology. Because we want you to be able to concentrate on essentials and fully exploit the potential of your investments. The use of original AMF components keeps you constantly at the cutting edge of technology. Moreover, our special maintenance packages ensure a high degree of functional readiness for your system. AMF-Bruns maintains its own stocks of spare parts, but also offers you local storage of spares on your premises.

after sales employees guarantee first-rate service

Regular maintenance and servicing by our site supervisors, fitters and engineers are your guarantee for utmost operational reliability. Our engineers provide individual consultation to support you in optimising your production processes, make your systems cost-effective, and minimise the risk of undesirable down times.

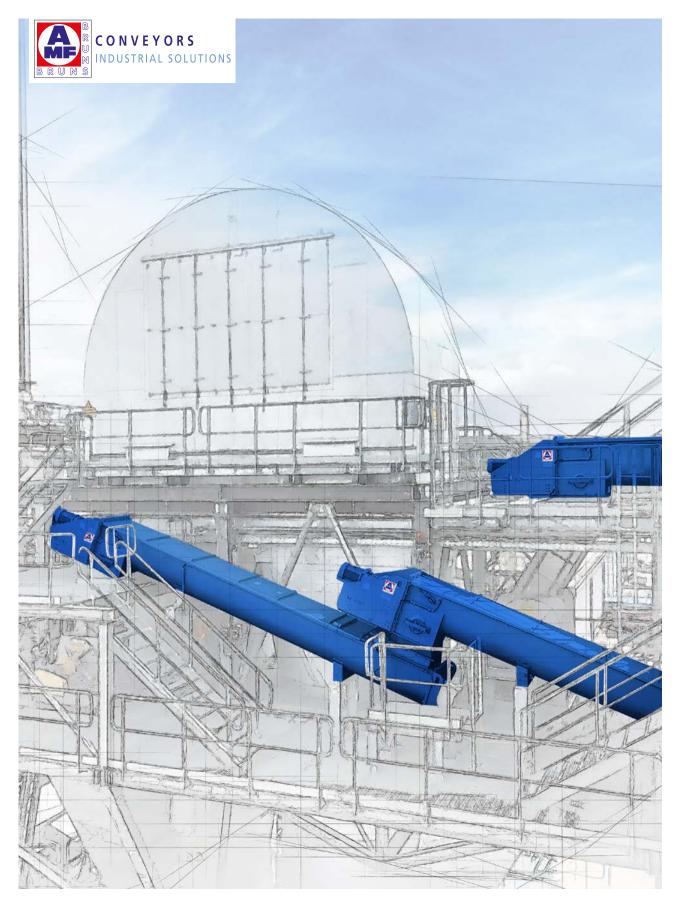
"We understand the complex requirements of our customers and are always ready to offer you advice and assistance."

Hans Kösters

After-Sales Service, Conveyor Technology







Screw Conveyors

Transporting your valuable goods

Screw conveyors from AMF-Bruns gently transport your bulk goods in any desired direction – horizontally, vertically, or at angle. Hereby, they handle mass flows of up to 1,400 m³/hour over distances of up to 60 metres per unit.

Whether your bulk goods are pulverised, granular or semi-moist, our screw conveyors are extremely robust and stand up to the toughest conditions – also in continuous operation. Moreover, they need little space, are highly efficient and require only minimum maintenance. AMF-Bruns screw conveyors are available in many versions for countless applications – even gas-proof and pressure-tight if required.

Humidifying screw conveyors:

For moistening, blending and transporting dry bulk material. For material that tends to cake, we can also supply double-shaft versions with combing equipment that has a self-cleaning effect.

Vertical screw conveyors:

For transporting bulk material vertically 20 metres or more. Advantages: great performance, a very small space requirement, good transition from horizontal to vertical conveying and a clean, low-noise and dust-tight design.

Trough screw conveyors:

For transport at angles of up to 30 degrees. Good access to the conveying chamber through screw-fastened cover.

Pipe screw conveyors:

Used as steep-angle screw conveyors to transport material up inclines of more than 30 degrees or as dosing screw conveyors for the volumetric dosage of bulk goods.

Screw heat exchanger:

To cool or heat products for conditions processes in the engineering process.

Advantages of our screw conveyors:

- Transport of dust, granulate, powders, slurries and problematic substances
- Horizontal, angled & vertical alignment
- Can be built absolutely dust-tight, shock pressure resistant, and gas tight
- Self-cleaning screws for sticky and pasty materials
- Can be manufactured from special materials
- · Minimum space requirement
- Low-noise material transport
- Minimum maintenance requirement



Chain Conveyors

Compact and versatile

Trough and drag-chain conveyors from AMF-Bruns can be used for many tasks. They transport bulk material with grain sizes of 0 to 300 mm, whether dry, pulverised, pourable, granular, small-sized or flocculent. We are also able to produce trough conveyors for coarser grains or hot bulk materials.

The conveying process can be combined with other operations, such as discharging, dosing, collecting, distributing, sieving and cooling. Depending on the nature of the conveyed material, we can handle mass flows up to 1,500 m3/h.

Trough chain conveyors:

Trough chain conveyors are continuous conveyors which can transport nearly all non-caking materials horizontally, vertically or at an angle via single or dual-stranded conveyor belts. Their operation is dust-free and environmentally compatible, and they can be supplied in gas tight versions. The key advantage is their low space requirement, coupled with their high transport performance.

Drag-chain conveyors:

Drag-chain conveyors are particularly suitable for transporting large volumes of coarse wood chips or shavings.

Advantages of our trough chain and drag-chain conveyors:

- High performance up to 1,500 m³/hour
- Transport of dusty, granular and pulverised goods, slurries and problematic coarsegrained materials
- Flexible line layout, suitable for long transport distances of up to 100 metres
- Low space requirement
- Material feeding and discharging at any desired point
- Transport of hot bulk material up to 400 °C
- Screening, cooling and dosing are possible
- Absolutely dustproof, shock pressure resistant, and gas tight versions can be manufactured
- Suitable for transporting hot material
- Little maintenance required



Bucket Elevators

With us, you get things moving upwards

Bucket belt and bucket chain elevators from AMF-Bruns stand for efficient vertical goods movement combined with extremely high availability – also during continuous operation under very tough conditions. That makes them a cost-effective, space-saving, and gentle product-handling alternative to long, angled, or steep conveyor belts.

Right from the design phase, our engineers ensure that buckets, belts, chains and drives exactly match your needs. Naturally, that also applies to the individual adaptation to your local technical and spatial conditions. Our bucket elevators therefore guarantee maximum efficiency and investment security from the start.

Central bucket chain elevators:

For abrasive and demanding bulk goods.

Special types like slow-running or centrally discharging chain bucket elevators:

For light and sensitive bulk materials.

Gas tight bucket elevators in pipe shaft design: For inerted bulk materials.

Standard-bucket belt elevators:

For bulk volume flows up to 600 m3/hour.

High-performance bucket elevators:

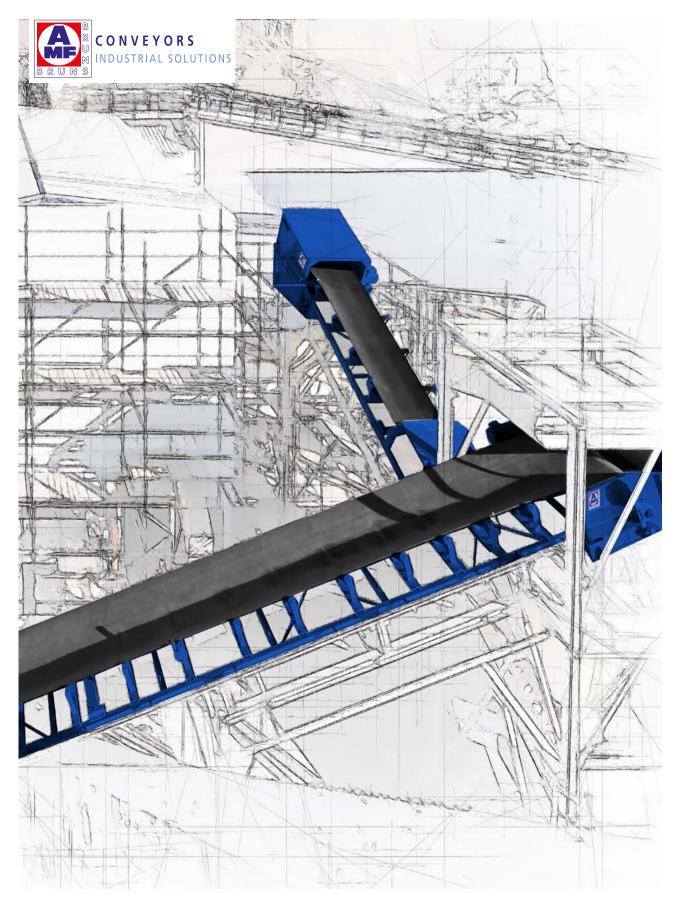
For high-speed operation with a mass flow of up to 1,200 m3/hour.

Standard bucket chain elevators:

For coarse and hot material transport.

Advantages of our bucket elevators:

- High performance of over 1,000 tonnes/ hour maximum
- Vertical conveying distances of over 100 metres
- Low space requirement
- Absolutely dust-free, shock pressure resistant, and gas tight versions can be manufactured
- Bucket chain elevators for transporting hot materials up to 400 °C
- Suitable for heavy and abrasive materials
- Little maintenance required
- Low-noise material transport



Belt Conveyors

Extremely flexible bulk transport

Belt conveyors from AMF-Bruns provide gentle and wear-free transport of all types of bulk material – also over distances of several hundred metres.

Flexible support spans and variable accessories allow them to be adapted for nearly every application. In addition, our belt conveyors have low space and energy requirements and need very little maintenance while offering high-volume performance. Like all AMF-Bruns conveyors, they can be combined easily with other transport equipment and are therefore ideally suited for building complex systems, for instance in the foodstuffs industry.

Troughed belt conveyors:

They are frequently used for high-volume transport over distances of several hundred metres. The three-way troughed belts are mainly used for highthroughput of heavy bulk material. In combination with catwalks, structural steel conveyor bridges and carriages that can discharge on one or both sides at random points, they ensure maximum flexibility.

Cleated or corrugated-edge belt conveyors:

Cleated or corrugated-edge belt conveyors are chiefly used for steep uphill transport. Depending on the application, the rubber belts most frequently used for this purpose are smooth, profiled or cleated. They can be cleaned by inner or outer belt scrapers, rapper pulleys or powered brushing rollers. On request, we can fit safety devices such as ripcords, off-track detectors and speed sensors.

Sliding belt conveyors

are used in the wood industry for gentle and dustfree transport over conveyor lengths of up to 40 metres. They are characterised by low-noise operation and low maintenance costs. Hinged floors make cleaning sliding belt conveyors significantly simpler. Optimised troughing means the belt is protected and therefore less susceptible to wear.

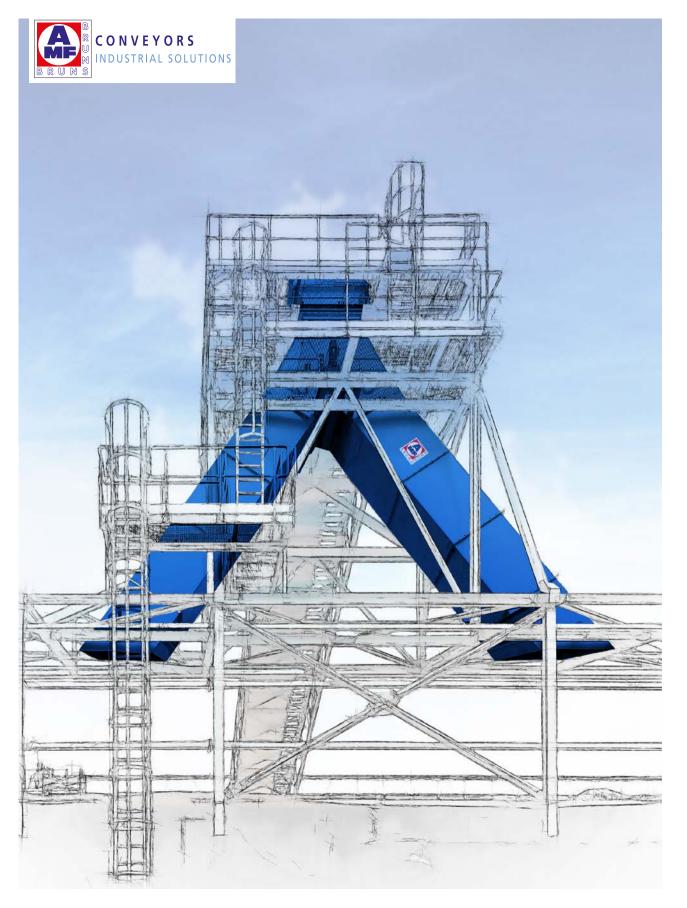
Belt widths of up to 1.6 metres and conveying speeds of up to 1.7 m/sec. can be realised.

Cleated or corrugated edge belt conveyors

are primarily used for steep conveyance operations. Rubber belts are typically used here, in smooth, profiled or cleated form, depending on the situation. They can be cleaned using inner and outer belt scrapers, impact rollers or motorised brush rollers. We can also optionally provide safety devices such as release cords, off-track detectors and speed sensors.

Belt conveyors:

- High performance of over 2,200 m³/hour
 maximum
- Transport of granulates, powders, slurries and problematic coarse-grained materials
- For extremely wide horizontal conveying routes
- Low energy consumption
- Low space requirement coupled with high-volume transport capability
- Low-noise material transport
- Low maintenance requirement
- Gentle handling of transported goods



Dosing and Shut-Off Devices

All about distribution

AMF-Bruns offers a comprehensive range of highprecision dosing and shut-off devices. They enable the desired volume of transported material to be fed to various procedural steps at the right moment or can reliably shut off transport routes.

Our dosing and shut-off devices are adapted precisely to the customer's conveyor system according to his needs, and therefore ensure extremely high process reliability. Depending on your requirement, the materials we use are standard, stainless, heat-resistant, or wear-resistant steel. On request, other materials are also possible.

Diverter flaps:

These dosing devices, also known as breeches chutes, two-way chutes or deviation flaps, feature a swivelling plate operated either by an electric motor, pneumatically or manually to distribute the material into two conveying directions.

Rotary valves:

These are well-proven, simple dosing devices that are particularly suitable for transporting pourable and fine-sized materials. The dosing volume depends on the cell contents and motor speed. Selfcleaning rotary valves are suitable for sticky materials. In special cases, we can also direct the material into three conveying directions.

Slide valve:

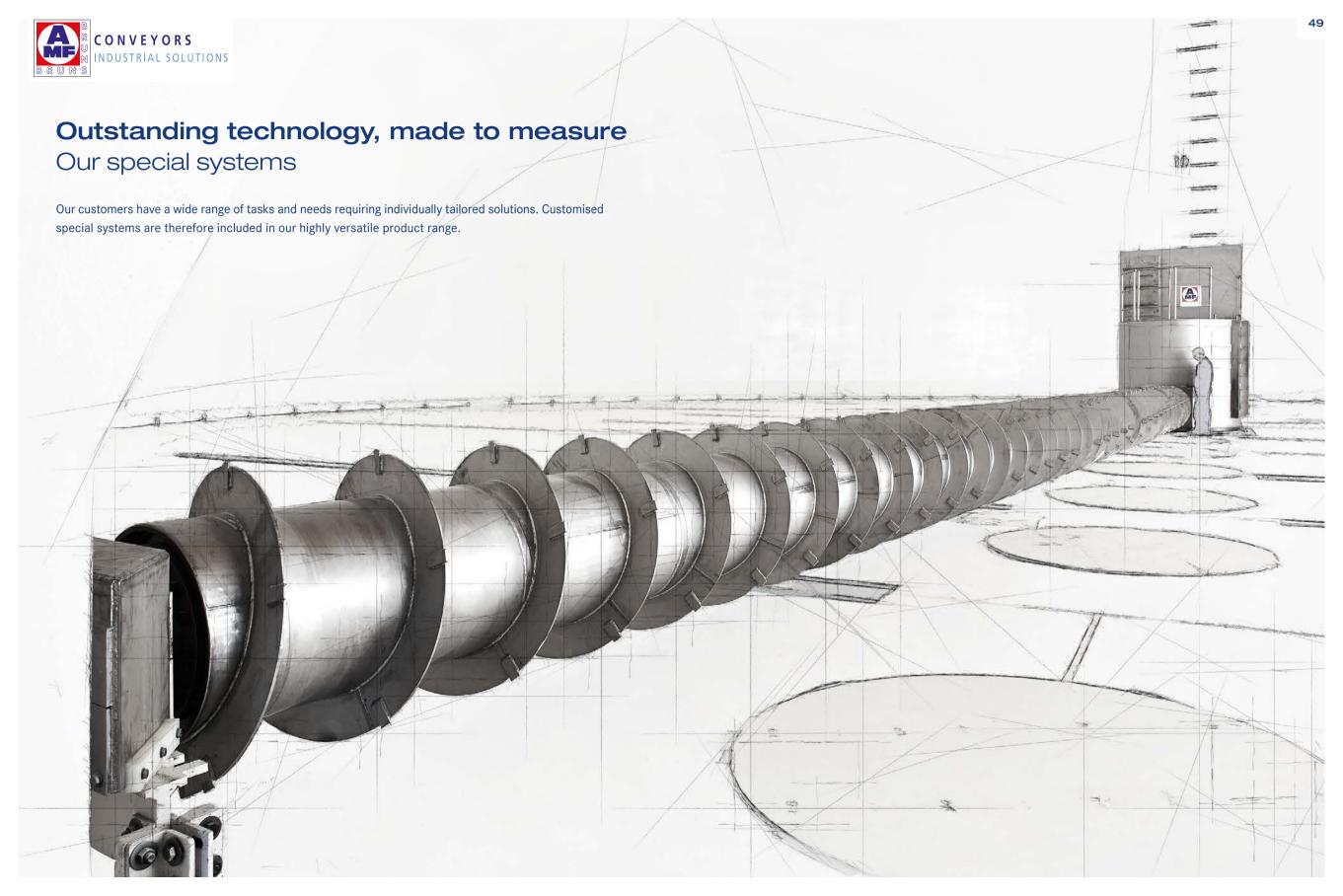
They serve to shut off transport routes. We produce them in rugged, welded-steel versions with electric or pneumatic drives or for manual operation. The slider plates are mounted on slides or roller bearings, and are separated from the drive unit by means of scraper sealing strips or stuffing-box seals. Possible versions: Fully encapsulated, seal gas flushed and – for high-temperature applications – water-cooled.

Double-flap valves:

These shut-off devices simultaneously serve to transport material into and out of closed processes. This is done with two inner flaps that close and open alternately.

Advantages of our dosing and shut-off devices:

- Utmost process reliability
- Exact dosing
- Reliable shut-off action
- Precisely manufactured, exactly to specification
- Perfect integration into your production processes
- First-rate engineering
- Careful handling of transported goods





Discharge screw conveyors with bunker outlet Constant, uniform material flow

With the AMF-Bruns residual emptying system, residual quantities of, for example, sugar or grain are discharged following the gravimetric emptying of a cylinder or dome silo. Depending on the silo size, the residual quantities can reach up to 15,000 tonnes. Our residual emptying system thus guarantees constant, uniform material flow.

AMF-Bruns offers residual emptying augers for silo diameters of up to 55 metres. Depending on the pourability of the sugar, we can offer the following discharge capacities: screw conveyor shaft diameters of 900 mm to 1,400 mm with a discharge rate at a maximum speed of approximately 70 t/h to approximately 150 t/h are possible.

The majority of the silo emptying process occurs in a gravimetric manner, so no mechanical components need to be operated within the silo during this time. There are also no mechanical components above the material column. Consequently, there are no impurities in the stored goods due to lubricants or falling parts.

The perfect mix: with the silo facility being charged by a tried and tested AMF-Bruns charging system, we can achieve a largely uniform particle size distribution of the stored goods, resulting in excellent mixing results during the subsequent discharge. The silo volume can also be optimally used.

By using manual or electrically operated dosing screw conveyors in the silo base, the desired volume flow can be configured within the defined range at any time. This enables the discharge capacity to be adjusted precisely. Quick responses are also possible in, for example, the case of malfunctions in the subsequent area without having to interrupt the discharge completely. The silo is accessed via the silo base through the central dome. External impurities are thus prevented.

Static benefits of the silo structure: only a small base is required for installation of the conveyor beneath the silo.

Low personnel requirements: only visual monitoring is required in order to prevent bridging. The system runs automatically during regular emptying operation.

Further benefits: the residual emptying system is predominantly dustproof. All components can be thoroughly cleaned. The hygienic aspect plays an extremely important role in the design of all systems at AMF-Bruns.

Benefits of our discharge screw conveyors with bunker outlet:

- Gravimetric silo emptying
- Impurities in the stored goods are prevented
- Uniform particle size distribution of the goods
- Precise adjustment of the discharge capacity
- Static benefits of the silo structure
- Low personnel requirements thanks to automation
- Dustproof and hygienic



Special Systems

As individual as our customers

In the interests of our customers, we continuously develop ourselves and our products. This results in innovative conveying equipment and special systems that are precisely matched to the specific needs of our customers. Examples of this include our crushers, waste bunkers and silo discharge systems for problematic materials with unfavourable flow characteristics.

And if our product range does not seem to offer just the right technology for you and your process, simply contact us – we will be happy to develop a solution that fits your application in every detail. Two examples of special systems from AMF-Bruns:

Silo discharge conveyors for poorly flowing materials:

The combined discharge arm/screw conveyor system ensures efficient discharging and dosing of poorly flowing goods (e.g. pastes and slurries) or other bridging materials from silos and bunkers. The system features a rotating arm to activate the discharge, while the slotted bottom helps the material to flow evenly. Downstream combing discharge screw conveyors securely dose the poorly flowing materials from the supply flow, and ensure transport to the transfer point.

Knot and lump breakers:

Our knot and lump breakers for light, soft materials are used chiefly in the sugar industry, where they serve to break down caked material. Most of our dual-shaft, large-piece macerators are installed in power stations or in the ash section of waste incineration plants.

Advantages of our silo discharge conveyors:

- Safe discharge of poorly flowing materials from silos and bunkers
- Suitable for shredded, moist, heavy and light materials
- Absolutely dust tight, shock pressure resistant, and gas tight versions can be manufactured
- Mass flow for nearly all bulk goods can be implemented
- Low energy consumption
- Low-noise material transport
- Can be made from special work materials

