

# SPECIALISTS IN **SCREW LOADERS**





## Exact conveying of all materials

The basic need of a BEMA customer is to have a bulk material conveyed from A to B. And the main component of these solutions is a screw flight.

Experience, technology, precision, and quality control are keywords in the production of all our solutions. The basic criterion always being the type of material to be conveyed. This applies equally to ash, dog food, or vegetables that should avoid damage during conveying. But BEMA's competences go much further. As do our efforts to be a flexible and straightforward collaborative partner.

To this end, we have produced this brochure. It tells you what we produce – and how. Taking you through our processes with a description of the specifications and information we need in order to solve your task.

Certain orders, e.g. for screw flights, are simple and require only the completion of a single dimensions chart while plant and machinery may require more detailed data, which we will formulate together.

Irrespective of the type of task – and whether you are an existing or new customer – we intend to make it easy and enjoyable to be a BEMA customer.

# EXPERIENCE, TECHNOLOGY, PRECISION & QUALITY CONTROL

are keywords in the production of  
all our solutions



## Specialists in internal conveying

Our competences can generally be divided into four types:

- » Manufacture of individual screw flights
- » Manufacture of screw conveyors
- » Expert knowledge on customised screw loaders
- » Design of complete conveying applications, including extra components/hoppers, etc.

Our applications are provided with comprehensive documentation, including operating instructions, safety standards, drawings, parts lists, etc.

BEMA screw loaders are used in different industries including the energy and environmental sectors, the food and chemical industries, recycling, and the offshore industry.

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# SCREW FLIGHTS

## - at the core of BEMA conveying solutions

BEMA is a full-service provider of helicoid flighting and flight segments, including tapered flights. Screw flights is the core of our conveying solutions and we have acquired a solid expertise through many years of production. Screw flights are cold-pressed, ensuring a reliable accurate result with maximum strength for the particular project.

We have developed a well grounded production technology, enabling us to produce screw flights capable of compensating for the deviations between theoretical models and the actual product. Deviations that occur because the tensile strength and yield of various steel types differ.





## EASY AND SIMPLE

- » Contact our sales department and state your specifications
- » We can assist you with the calculation of specialised solutions
- » Order confirmation sent to you for approval
- » We deliver as agreed, including documentation

**BEMA screw flights are cold-pressed. Available in the following materials and dimensions**

- » Regular carbon steel EN 1.0570 and EN 1.0038
- » Stainless/acid-resistant EN 1.4301 onwards
- » Abrasion-resistant steel Hardox, Creusabro, and others
- » High-temperature steel EN 1.4835
- » Hastelloy, and others

### DIMENSIONS

- » Thicknesses from 2 mm upwards
- » Diameters from Ø 25 mm upwards
- » Tapered finish inside and out
- » Various pitches
- » Forward or rearward flights





## SCREW CONVEYORS – infinite pitching options

Screw conveyors are intended for conveying bulk materials and can be designed to convey any type of material from fly ash to foodstuff.

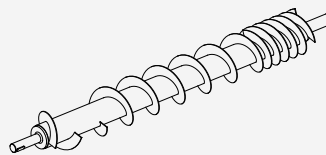
The Archimedean screw was invented several thousand years ago and since then, we have used the principle of conveying material by means of shafted or shaftless screw flights, depending on the product and the task. This is a method that continues to work year after year with a minimum of wear as opposed to e.g. pumps, which endure heavy wear on moving parts.

BEMA manufactures screw conveyors capable of conveying all types of materials from strongly abrasive materials to foodstuffs. Needless to say, we have all the necessary certifications required as a supplier to the food and pharmaceutical industries.

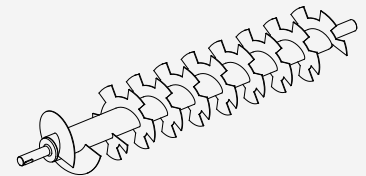
Extensive expert knowledge of screw conveyors is at the core of our screw flight production. We have developed a well grounded production technology, enabling us to produce screw flights capable of compensating for the deviations between theoretical models and the actual product.

Deviations that occur because the tensile strength and yield of various steel types differ. The result is reliable screw conveyors requiring a minimum of maintenance.

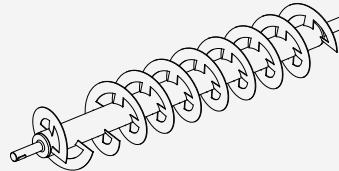
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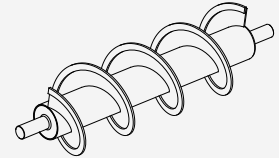
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Type C



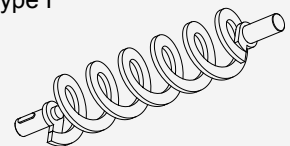
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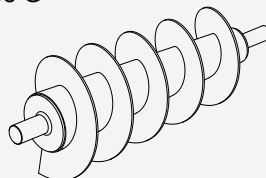
Type E



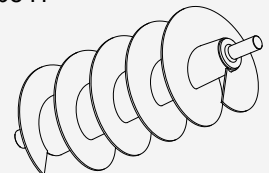
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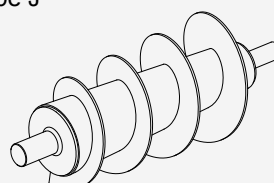
Type G



Type H



Type J



Type K

**YOUR SUGGESTION**

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# CUSTOMISED SCREW CONVEYORS

**BEMA manufactures all types of screw conveyors.**  
**Page 6 shows a selection of the variants we can supply**

Variants are produced in all steel types.

BEMA screw conveyors are produced to customer specifications.  
The smallest we have produced had diameters of less than 25 mm  
and the largest measured 4,000 mm.

## It's easy:

- Contact our sales department and state your specifications
- State the type required
- We are happy to help you with the calculation of special applications and ready to assist in all respects
- Order confirmation sent to you for approval
- We deliver as agreed, including relevant documentation

SCREW CONVEYORS





Case: 25440 from [www.bema.as](http://www.bema.as)

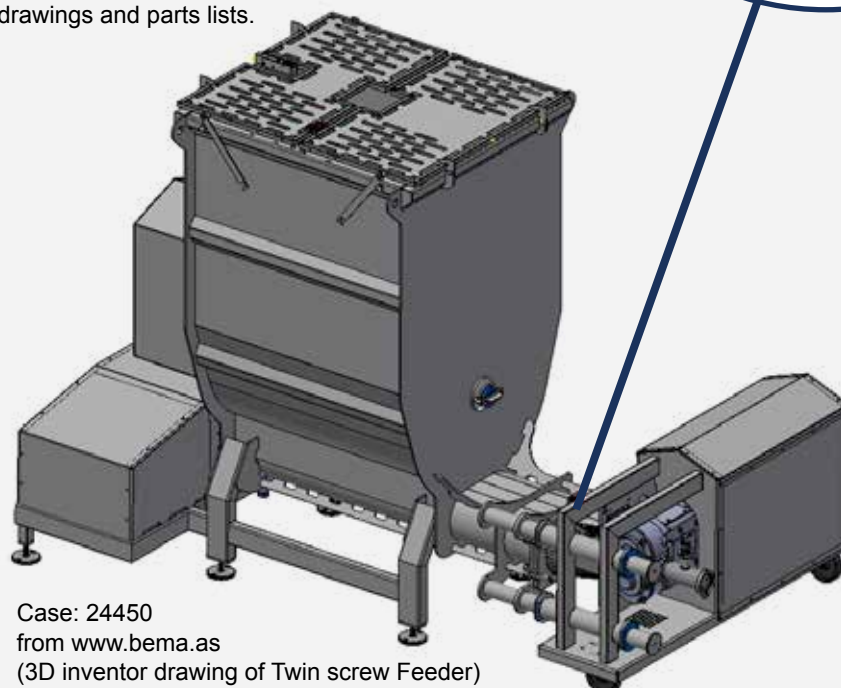
## Applications – screw loaders in a complete unit

BEMA has proven experience in the dimensioning of screw loaders providing conveying applications for many different purposes. We make a point of meticulous order processing.

The order can be based on a complete specification from the customer or it might be formulated as a proposed solution for a particular task.

We identify with the needs and expectations of customers and, working closely together, we produce the right solution. We install and run in the application – and assume full functional responsibility.

BEMA applications are always supplied complete with documentation on e.g. operational and maintenance instructions, safety drawings and parts lists.



Case: 24450  
from [www.bema.as](http://www.bema.as)  
(3D inventor drawing of Twin screw Feeder)

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# THIS IS HOW WE SOLVE YOUR TASK

## Either

- » Send specification or sketch on the application(s) you would like us to provide
- » We will send you a quotation – possibly including proposals for changes and preconditions
- » Effectuation of the order on your acceptance
- » Installation and running in of the application, if required, by BEMA's supervisor/fitters
- » Provision of the required documentation on the application

## Or

- » You contact us for the solution of a particular task
- » We will visit the proposed site for the application and make calculations for the plant, if required
- » Together, we prepare a proposed solution that meets your needs
- » We estimate, calculate, and prepare a quotation – perhaps including a drawing to give you an overview
- » On your acceptance, we prepare drawings as a base for further discussions and approval
- » The draughting process is concluded with a layout drawing
- » We will make a detail design and prepare for production
- » Installation and running in of the application if required, by BEMA's supervisor/fitters
- » We are willing to assume full functional responsibility
- » Provision of the required documentation



Case: 26161 from [www.bema.as](http://www.bema.as) (Archimedean screw)

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# UNDERSTANDING AND TECHNICAL KNOW-HOW COMPLETES THE TOTAL PROJECT

## When a number of applications are assembled to form a complete unit

BEMA is a serious collaborative partner in projects where our applications form a complete conveying and/or processing unit. We have the physical framework to handle large projects and also the resources needed to manage long-term projects.

We realise the importance of giving a qualified professional response and of meeting the commercial requirements expected by the customer. A natural parameter we set ourselves is to have an empathic appreciation of the task and its importance for the total project.

As the project manager, you will contact us. Send us your drawings and commercial conditions.

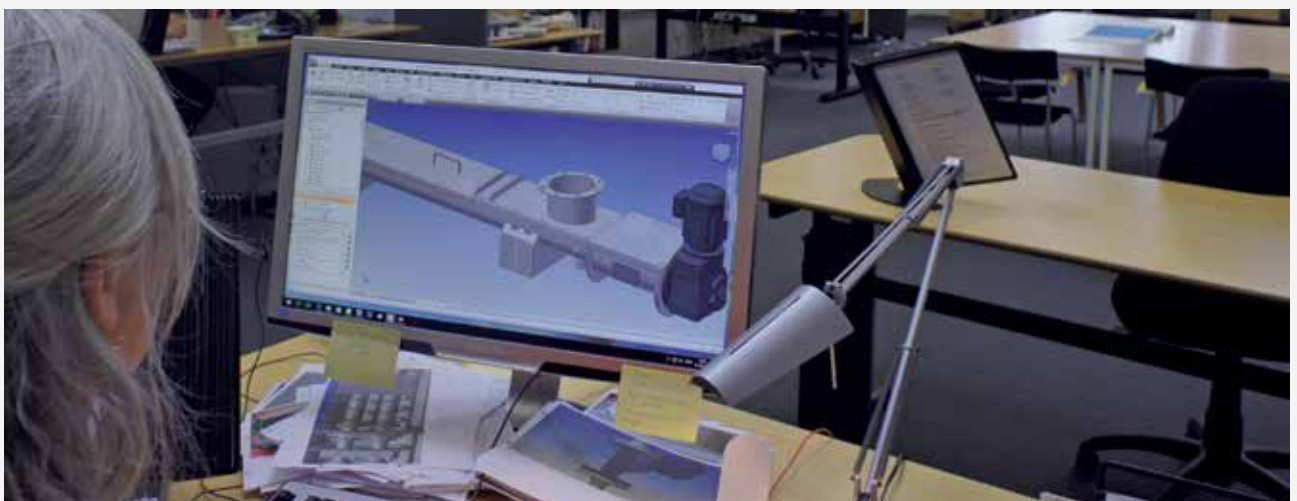
We will assess, comment, and propose changes, if any. We are available for all technical and commercial discussions at your place. We estimate, calculate, and prepare a quote.

BEMA applications are manufactured in compliance with the Machinery Directive. Standard documentation includes incorporation declaration, maintenance guidelines, etc.

### DESIGN PARAMETERS AND DOCUMENTATION

We are willing to assume full functional responsibility. Moreover, we will provide the total solution from the required design to the full documentation subject to further dialogue and agreement.

- An incorporation declaration is standard documentation
- CE documentation complying with the Machinery Directive
- Drawings and data sheets
- WPQR DS/EN ISO 15614-1 DS/EN 13445-4
- DS/EN 13480-4 (PED)
- DS/EN ISO 3834
- Welding checks carried out by impartial controller
- Approved for supplying the food industry - hygienic design
- Working with 3D Inventor
- Heat-treated wood ISDM-15
- WPS & WPQR
- Atex approved equipment



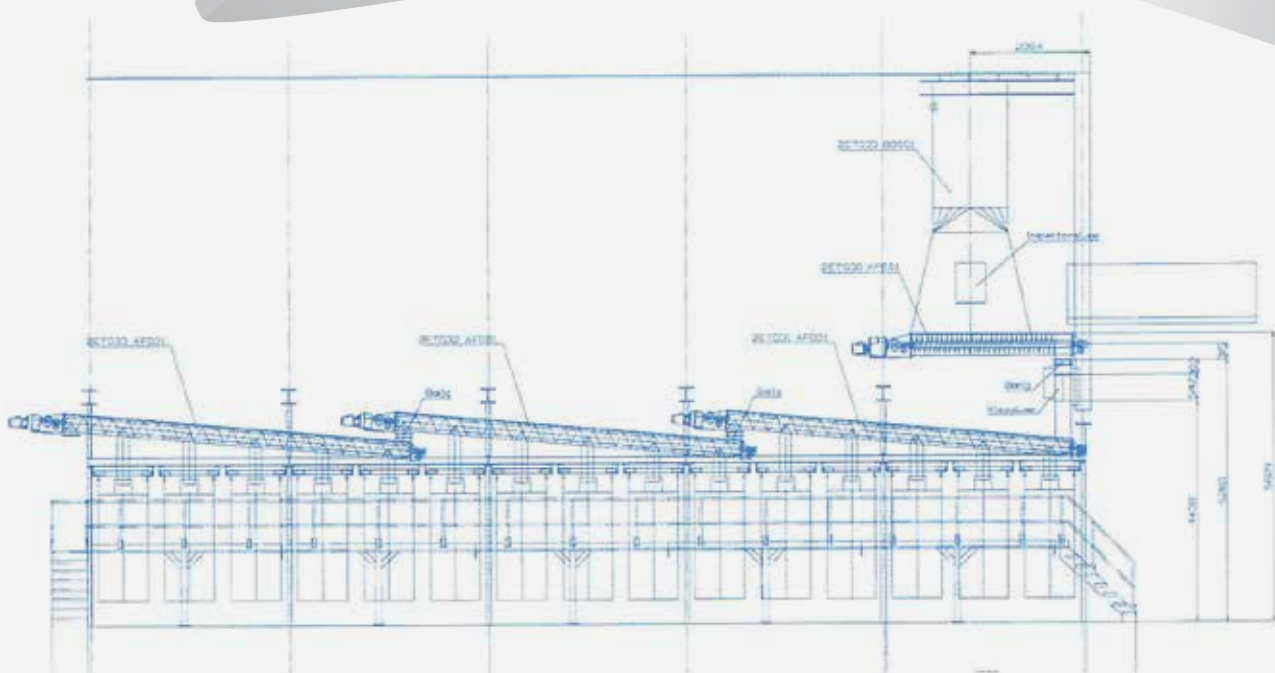


## POWERFUL PROVIDER TO ALL SECTORS

BEMA is an all-sector provider within industry, energy, and foodstuffs, including:

- Power stations and sewage treatment plants where our screw conveyors are e.g. used to convey ash and sludge, highly abrasive materials, safely handled by screws rather than conveyor belts, pumps and similar
- Food companies dealing with meat, fish, and vegetables. Needless to say, we have the necessary certifications and approvals required for working with foodstuffs
- The offshore and raw materials industries
- Recycling where our applications are e.g. used to convey shredded tyres, electronics waste, and other materials

We handle all tasks ranging from individual flights to complete turnkey solutions.





Production halls: 6.700 m<sup>2</sup> – Administration: 800 m<sup>2</sup> – Area: 35.000 m<sup>2</sup> – Established: 1947



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