



# SCREW MIXERS / BKSM

## MIXING



Mixers are devices used to thoroughly mix at least two different substances, without loss or modification of their physico-chemical properties. The qualitative process of mixing products, semi-finished products and raw materials is not only about combining the above-mentioned components. A mixer properly adapted to the process speeds up production, reduces energy consumption and generates a high-quality product.

BKSM mixers manufactured by Biko-Serwis are used for quick and accurate mixing of several ingredients in the form of solid, loose and dusty bodies (they are especially useful for materials of different sizes and densities) in order to obtain a homogeneous mixture.

Mixers are used in virtually all industries: from agriculture, food industry, plastics processing, to the pharmaceutical, paper, construction and manufacturing industries. Wherever it is necessary to obtain homogeneous mixtures with maximum optimization of process economy and reliability.



CEMENT  
& LIME  
INDUSTRY



CHEMICAL  
& PETROCHEMICAL  
INDUSTRY



LIMESTONE  
& GYPSUM  
INDUSTRY



WOOD  
PROCESSING  
INDUSTRY



PLASTICS  
& PACKAGING  
INDUSTRY



ENVIRONMENT  
PROTECTION  
INDUSTRY



ENERGETIC  
& FUEL  
INDUSTRY



AGGREGATE  
& MINING  
INDUSTRY



CELLULOSE  
& PAPER  
INDUSTRY



FOOD &  
AGRICULTURE  
INDUSTRY



CONSTRUCTION  
& ROAD  
INDUSTRY



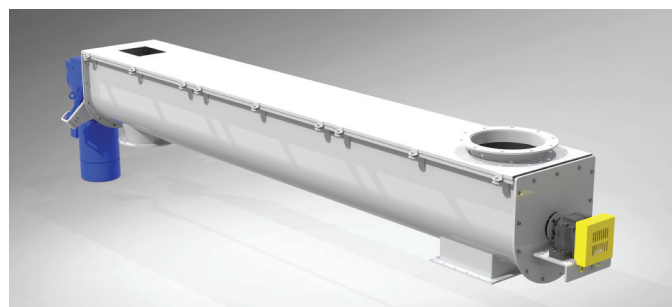
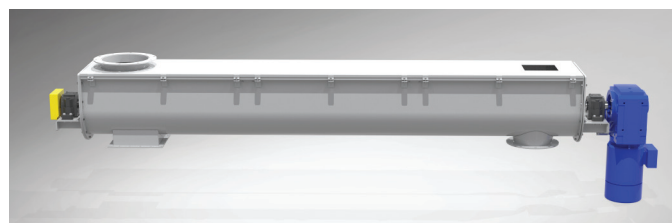
METALLURGY  
& GLASS  
INDUSTRY

Mechanical mixing is the most popular, least trouble-free and most economical method of mixing loose products. An industrial mixer with a properly matched mixer to the process increases the speed of producing the finished product and reduces energy consumption.

Screw mixers enable operation in both continuous and batch mode, have high efficiency and can operate in a multi-stage system with continuous mixing associated with material transport.

Screw mixers usually serve the function of feeding the mixed raw material directly to the working part of other elements of the technological line or storage tanks. Feeding can take place horizontally, as well as in the case of angular mixers, at a given height.

BKSM screw mixers are designed based on simulations of the homogenization of bulk materials using the discrete element method (DEM).



### PRODUCTION MATERIALS:



CARBON  
STEEL



STAINLESS  
STEEL



ACID-RESISTANT  
STEEL



SPRAY  
PAINTING



EXTRA  
SEALINGS



VIEWERS /  
VIEWFINDERS

### FINISHING OPTIONS:



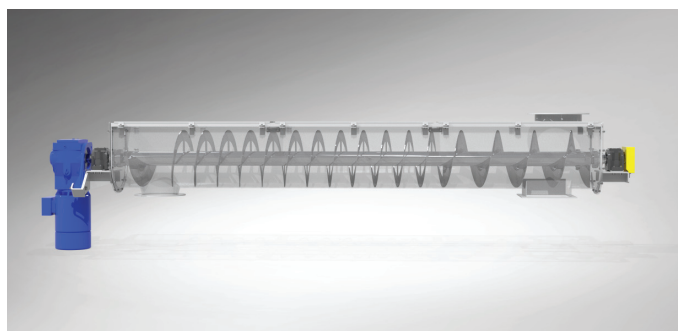
# SCREW MIXERS / BKSM

MIXING



The construction of screw mixers is relatively simple. The trough (usually of tubular construction) is equipped with at least one inlet and outlet port, a welded flange at each end of the outer tube, helicoidal helical spirals welded to the central tube with a coupling sleeve at each end, two end bearings preceded by a self-aligning shaft seal, and intermediate bearings, depending on the total length of the mixer.

The device is driven by a gear motor with parameters selected according to the given application, device efficiency and the type of components mixed in it. Mixers can have single- or double-shaft designs. In the second case, it is necessary to create a system of spirals with counter-rotating directions of work.



## RECOMMENDED TEMPERATURES:

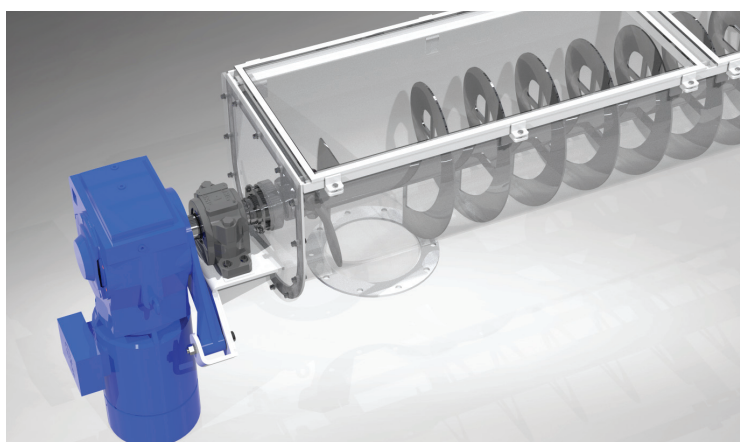
### DEVICE WORKING:

-10 °C to +50 °C

### MIXED MEDIUM:

standard < 80 °C

(according to the arrangements with the investor)



Our devices enable us to create products of the quality that not only our customers deserve, but also the final consumers of products that include mixtures produced using our devices.

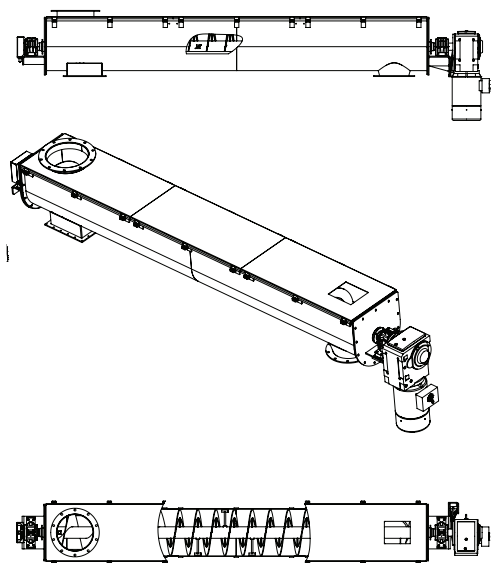
Single-shaft mixers can be connected to the power grid directly or via an inverter. Controlling them is very simple and involves turning on and stopping the drive. The devices do not require a complicated control system. In the case of twin-shaft mixers, the mixing process is usually progressive and requires a control system that performs the functions of changing the direction of rotation / opening and closing valves at the inlet and outlet while filling and emptying the mixer.

## ADVANTAGES OF USING BIKO-SERWIS SCREW MIXERS:

- easy cleaning
- hygienic design with a minimum number of blind corners
- low maintenance and service costs
- low demand for electrical energy



ECO-FRIENDLY



MODEL:	COLLAR DIAMETER:	INDICATIVE EFFICIENCY:	DRIVE POWER:
BKSM 160	160 mm	1.0 - 5.0 m3/h	2.5 kW
BKSM 200	200 mm	5.0 - 10.0 m3/h	4.0 kW
BKSM 300	300 mm	10.0 - 20.0 m3/h	5.5 kW
BKSM 500	500 mm	20.0 - 100.0 m3/h	22.0 kW
BKSM 630	630 mm	50.0 - 150.0 m3/h	2 x 30.0 kW