



BIOX

**PRODUCT
CATALOG**

MIXERS • AERATORS • CRANES • GUIDES • WINCHES • FLOTATION SKIMMERS • DECANTERS



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Introduction

Since 1989, we have been designing, implementing and manufacturing equipment that improves quality of life and environmental protection, including aerators, mixers and decanters. We are known as a professional brand, valued by designers and users. We pay exceptional attention to the standards and quality of our equipment, which translates to many years of failure-free operation under heavy duty conditions. We have a professional and individual approach to every order, which is why we have gained the trust of the largest enterprises and are able to successfully execute even the most complex projects for them.

Why our equipment?

All of our products are original solutions, developed and designed in our design department. Our test tank enables us to test how equipment operates in real-life conditions, which makes it possible to optimize its specifications depending on operating conditions.

In day-to-day work, we apply CFD simulation methods, thanks to which we are able to propose the most optimal selection and localization of equipment for our customers.

We also put at your disposal the whole range of maintenance services, performed by experienced water and wastewater engineering professionals:

- maintenance of technical serviceability
- tests at test stations
- repairs
- original spare parts
- consulting



HYDRA Submersible Mixers

MZ 03-20



The essential design of HYDRA immersible mixers has remained similar to that of the first manufactured product for nearly 20 years. Thanks to the solutions applied, our mixers can work without interruption for over a decade in even the most demanding conditions. The over 2.5 thousand machines sold are the best certificate of quality that the market can give us.



SUBMERSIBLE MIXER MZ 03-20 HYDRA

Power	0,37 – 2,2	kW
Revolutions	675 – 1410	rpm
Rotor diameter	210 – 240	mm
Weight	28,2 – 32,7	kg



Features

- cast iron or stainless material
- low operating costs
- low weight facilitates installation and handling
- low risk of failure and permanent damage to the machine



Application

- in wastewater treatment plants, food processing, fish farming, agriculture, industry
- prevention of deposition of suspensions and sediments on the bottom of tanks
- homogenization facilitating pumping
- mixing of liquids, preventing putrefaction

TURBO Submersible Mixer

MK 15-55



TURBO Submersible Mixers are an ideal solution for mixing all types of liquids in small and medium-sized tanks. Their solid design and high quality of workmanship guarantee safe and long-term operation in the most difficult conditions. We test all of our equipment in a test tank simulating operation under real-life conditions, thanks to which we are able to adapt our equipment to the customer's individual requirements. The result is reliable operation and low energy consumption.



SUBMERSIBLE MIXER MK 15-55 TURBO

Power	1,5 – 5,5	kW
Revolutions	698 – 960	rpm
Rotor diameter	325 – 580	mm
Weight	48 – 59	kg



Features

- can be made entirely from stainless steel
- low operating costs
- high mixing economy coefficient
- low risk of failure and permanent damage to the machine



Application

- in wastewater treatment plants, food processing, fish farming, agriculture, industry
- prevention of deposition of suspensions and sediments on the bottom of tanks
- homogenization facilitating pumping
- mixing of liquids, preventing putrefaction



Pumping Mixer

MKP 15-55 MZP 03-20



BIOX pumping mixers are based on the tried and tested designs of the HYDRA and TURBO mixers, thanks to which we have access to a wide range of powers and materials that have been tried and tested in all conditions. Pumping mixers find applications wherever there is a need for efficient pumping of a large volume of liquid and the lifting height is simultaneously small.

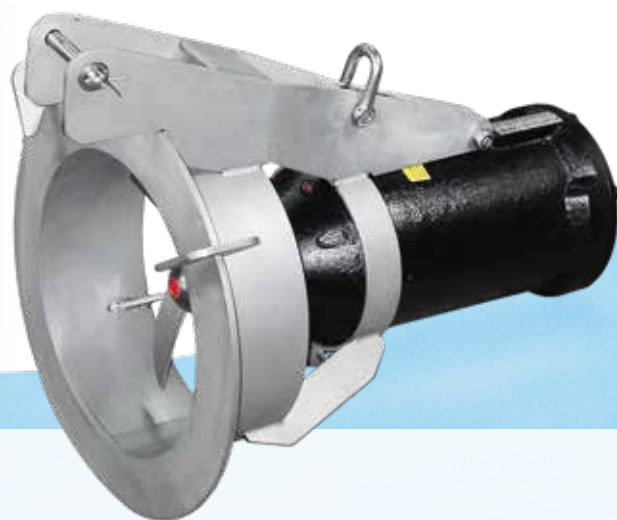


PUMPING MIXER MKP 15-55

Power	1,5 – 5,5	kW
Revolutions	940 – 976	rpm
Rotor diameter	330 – 580	mm
Pumping capacity	350 – 980	m³/h
Weight	68,2 – 70,0	kg

PUMPING MIXER MZP 03-20

Power	0,37 – 2,2	kW
Revolutions	675 – 1410	rpm
Rotor diameter	190 – 240	mm
Pumping capacity	100 – 380	m³/h
Weight	26,1 – 29,3	kg



Features

- high output and reliability
- fixture made entirely from stainless steel
- easy installation and operation
- exceptional strength in all conditions



Application

- pumping of liquid between tanks on the same level
- recirculation of active sediment

Standard Guide

PST 50-80



Guides are an indispensable component of equipment when using mixers, pumps and other submersible equipment. PST guides have a simple and universal design that can be used for nearly every machine available on the market. Standard guides are not equipped with machines enabling lifting and lowering.



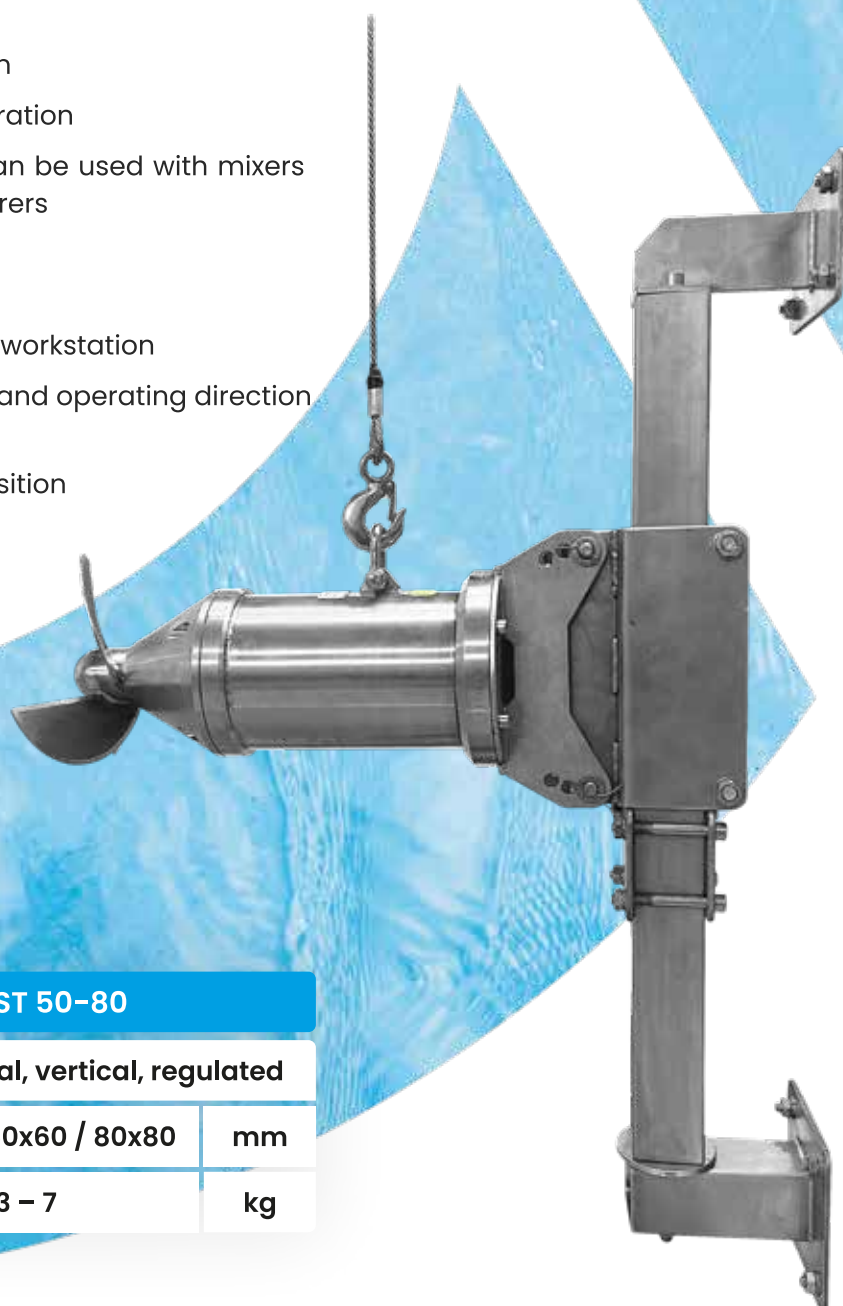
Features

- simple and reliable design
- easy installation and operation
- universal application - can be used with mixers from different manufacturers



Application

- installation of mixers at a workstation
- adjustment of the height and operating direction of mixers
- lifting to maintenance position



STANDARD GUIDE PST 50-80

Bottom installation	horizontal, vertical, regulated	
Column profile	50x50 / 60x60 / 80x80	mm
Weight	3 – 7	kg



Self-service Guide

PSO 50-80



PSO guides are equipped with a winch, thanks to which handling of submersible machines becomes even easier. Their simple and solid design ensures long use and the possibility of comprehensive service by one person. Similarly as in the case of PST guides, the universal design allows for use with most submersible machines available on the market.



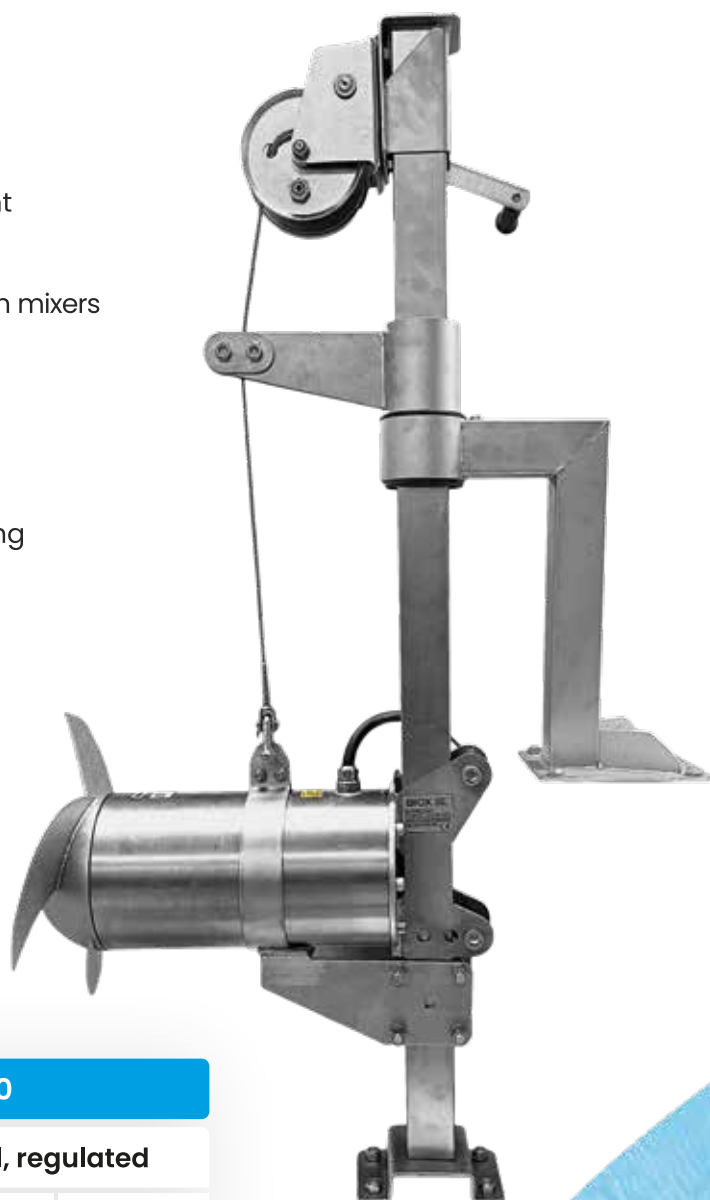
Features

- simple and reliable design
- does not require additional equipment
- easy installation and operation
- universal application – can be used with mixers from different manufacturers



Application

- installation of mixers at a workstation
- adjustment of the height and operating direction of mixers
- lifting to maintenance position



SELF-SERVICE GUIDE PSO 50-80

Bottom installation	horizontal, vertical, regulated	
Column profile	50x50 / 60x60 / 80x80	mm
Weight	10 – 15	kg

Self-supporting Guide

PSN 50-80



The PSN self-supporting guide is a modified version of the PSO guide, adapted to the situation where it is not possible to permanently fix it to the bottom foot of the guide column. Just as the PST and PSO guides, the self-supporting guide can be used with most of the submersible machines available on the market.

SELF-SUPPORTING GUIDE PSN 50-80

Column profile	50x50 / 60x60 / 80x80	mm
Weight	17 – 24	kg



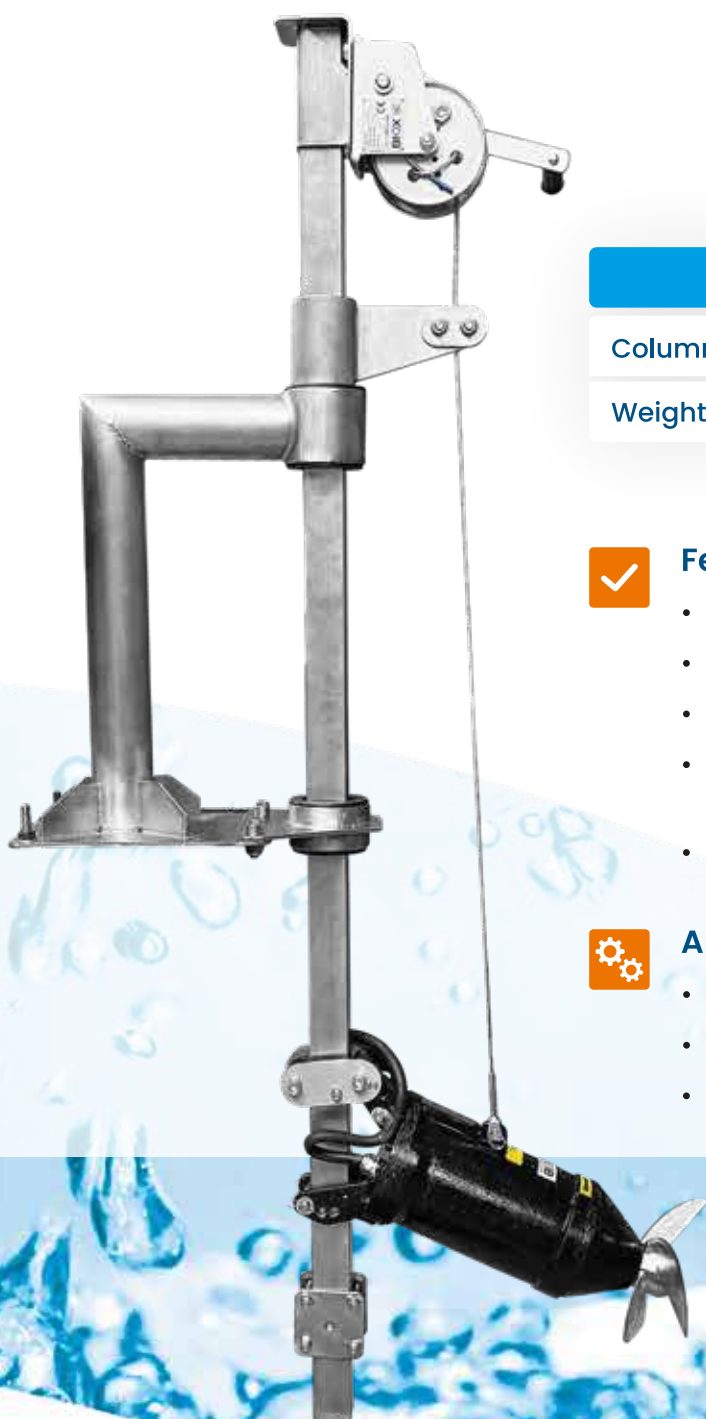
Features

- simple and reliable design
- does not require additional equipment
- easy installation and operation
- universal application – can be used with mixers from different manufacturers
- do not require anchoring to the bottom foot of the column



Application

- installation of mixers at a workstation
- lifting to maintenance position
- adjustment of the height and operating direction of mixers

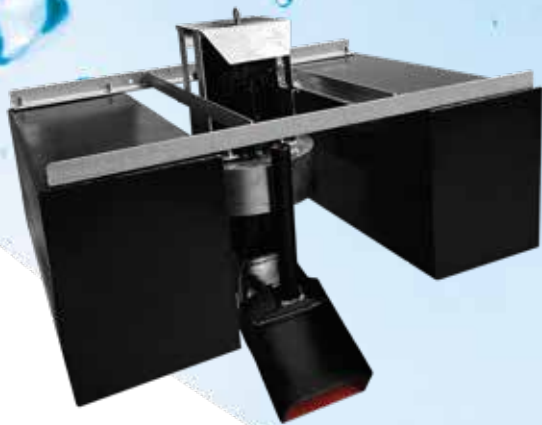


Jet Aerators

NS 15-50



NS jet aerators are the first machines designed by us back in the 1990's. Since that time, they have undergone a series of improvements which have made them one of the most universal machines for aeration and mixing. They are an exceptionally economical way to simultaneously aerate and mix wastewater and storm drainage water in tanks, as well as to aerate e.g. fish farming ponds. They are used as a standalone system, auxiliary machines or as substitute machines during periodical breaks in operation of machines under repair or maintenance.



JET AERATORS NS 15-50

Power	1,5 – 5,0	kW
Aeration capacity	2,2 – 9,0	kgO ₂ /h
Mixing capacity	12 – 15	W/m ³
Weight	70 – 107	kg



Features

- high oxygen output with relatively low energy consumption
- low cost of equipment
- can operate independently or support existing equipment
- quiet and stable operation when immersed
- does not splash or cool wastewater
- insensitivity to work at negative



Application

- aeration and mixing of wastewater
- refreshing and preliminary aeration
- support or replacement of existing aeration systems



Aerating Mixer

MZ 10.30–20.30 MK 15.30–55.30



Slightly modified HYDRA and Turbo mixers are perfectly suited as supplementary aeration machines. The combination of solutions applied in aerators and the design of mixers allows for fluid control of the amount of air being pumped in, and if necessary, aeration can be deactivated completely. The universal system of fixation allows for easy installation, uninstallation or potentially, replacement, of the machine.



Features

- simultaneously mixes and aerates wastewater
- prevents putrefaction of wastewater and emission of burdensome odors



Application

- mixing with simultaneous aeration for refreshing and aeration of wastewater in drainage basins, buffer tanks and intermediate pumping stations



AERATING MIXER

Power	1,1 – 5,5	kW
Revolutions	920 – 1410	rpm
Rotor diameter	230 – 380	mm
Aeration capacity	1,2 – 5,3	kgO ₂ /h
Weight	28 – 64	kg

Pillar cranes

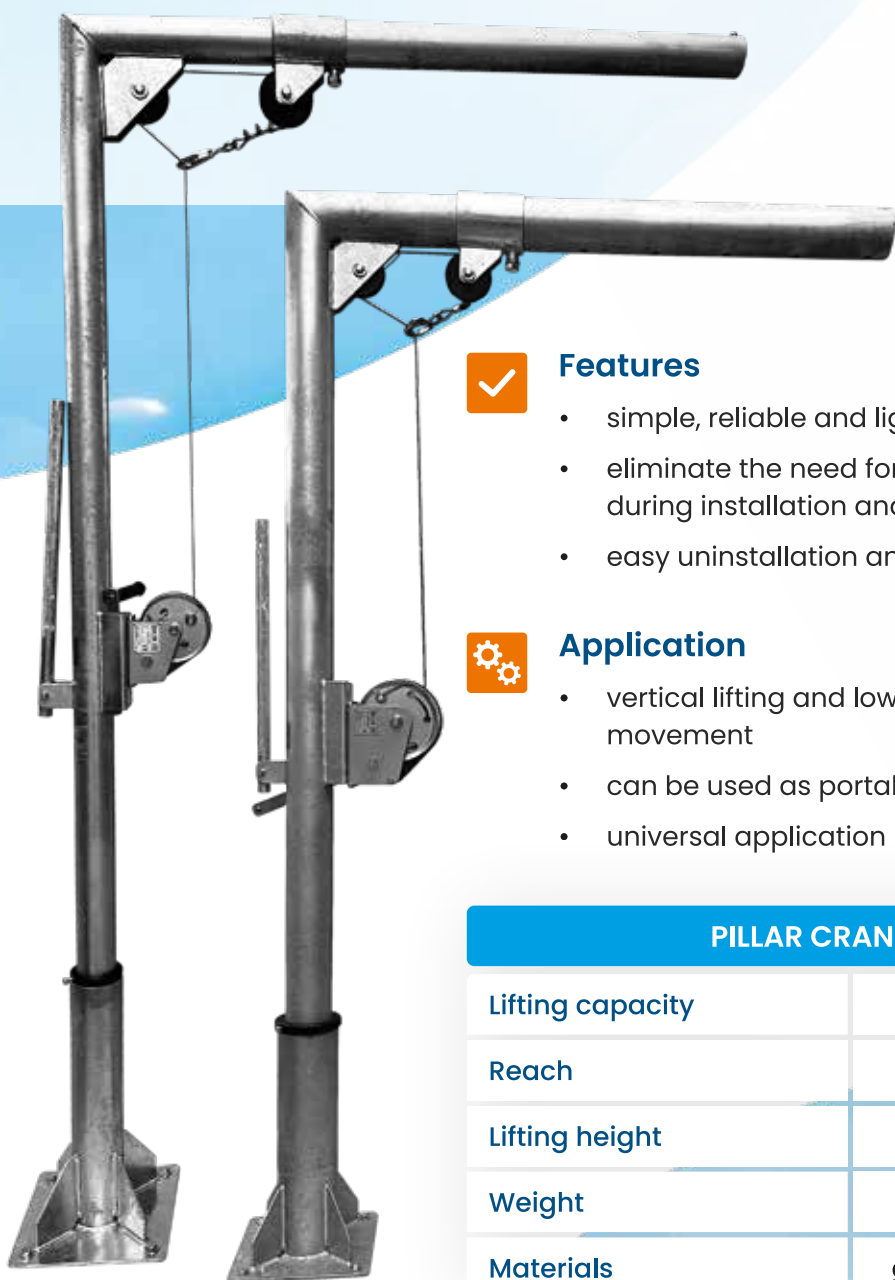
ZKM 150–800



Pillar cranes are essential machines for operating workstations containing pumps, mixers and other equipment requiring lowering.

Pillar cranes are applied at locations where height is limited, using the available space to the greatest possible extent.

We have offered cranes since the company's founding. Despite their simple design, we have made many improvements and optimizations, thanks to which our products weigh less, lift more and are stronger than the counterparts offered by the competition.



Features

- simple, reliable and lightweight design
- eliminate the need for manual moving of heavy elements during installation and maintenance works
- easy uninstallation and relocation



Application

- vertical lifting and lowering as well as horizontal movement
- can be used as portable cranes
- universal application

PILLAR CRANES ZKM 150–800

Lifting capacity	125 – 800	kg
Reach	0,45 – 1,8	m
Lifting height	2,0 – 2,5	m
Weight	45 – 77	kg
Materials	galvanized steel / stainless steel	

Slew Cranes

ZKU 150-800



Pillar cranes are essential machines for operating workstations containing pumps, mixers and other equipment requiring lowering.

Slew cranes are lighter than their pillar counterparts and consume less material, and so, they are slightly cheaper as a result.

We have offered cranes since the company's founding; despite their simple design, we have made many improvements and optimizations, thanks to which our products weigh less, lift more and are stronger than the counterparts offered by the competition.



Features

- simple, reliable and lightweight design
- eliminate the need for manual moving of heavy elements during installation and maintenance works
- easy uninstallation and relocation



Application

- vertical lifting and lowering as well as horizontal movement
- can be used as portable cranes
- universal application



SLEW CRANES ZKU 150-800

Lifting capacity	125 – 800	kg
Reach	0,45 – 1,8	m
Lifting height	2,0 – 2,5	m
Weight	40 – 67	kg
Materials	galvanized steel / stainless steel	

Collapsible Cranes

ZS 150-350



Collapsible cranes were designed for servicing of multiple workstations containing machines that do not require frequent maintenance and service. They are light, and after collapsing, can easily be transported where an inspection is currently needed.

We have offered cranes since the company's founding; despite their simple design, we have made many improvements and optimizations, thanks to which our products weigh less, lift more and are stronger than the counterparts offered by the competition.



Features

- simple, reliable and lightweight design
- eliminate the need for manual moving of heavy elements during installation and maintenance works
- easy uninstallation and relocation
- possibility of collapsing to compact sizes for transportation



Application

- vertical lifting and lowering as well as horizontal movement
- can be used as portable cranes
- universal application

COLLAPSIBLE CRANES ZS 150-350

Lifting capacity	150 – 350	kg
Reach	0,65 – 1,5	m
Lifting height	2,0 – 2,2	m
Weight	42 – 47	kg
Materials	galvanized steel / stainless steel	

Single-float Decanters

DJ 50-125 DJ 50-100 MSV



The DJ single-float decanter is a simple and very effective solution for leading off the clarified layer of wastewater and stopping any sediments floating on the surface. Thanks to the float, the decanter floats on the surface while maintaining the desired level of immersion for the entire time regardless of fluctuation of the wastewater level. The floater also serves as a deflector.



Features

- floating – insensitive to fluctuations in wastewater level
- simple design, resistant to damage
- made entirely from stainless steel
- possibility of pump installation



Application

- wastewater treatment plants, water treatment plants
- for drainage of treated wastewater
- for drainage of liquid above the sediment layer



SINGLE-FLOAT DECANTERS DJ 50-125

Outlet diameter	50 – 125	mm
Output	40 – 260	m ³ /h
Float diameter	640 – 800	mm
Weight	75 – 120	kg

SINGLE-FLOAT DECANTERS WITH PUMP DJ 50-100 MSV

Outlet diameter	60 – 110	mm
Output	dependent on pump model	
Float diameter	640 – 800	mm
Weight with	110 – 153	kg



Multi-float Decaners

DW 50-200 DW 50-100 MSV



DW multi-float decaners allow for periodic or continuous drainage of the clarified surface layer of wastewater at any point in the tank. The application of several floats significantly improves stability and allows for problem-free operation without any stabilization system. The decanter is equipped with manual adjustment of the height of the drain trough, thanks to which the trough's depth of immersion can be established in every instance.

MULTI-FLOAT DECANTERS DW 50-200

Outlet diameter	50 – 200	mm
Output	40 – 605	m ³ /h
Weight	145 – 205	kg

MULTI-FLOAT DECANTERS WITH PUMP DW 50-100 MSV

Outlet diameter	60 – 110	mm
Output	dependent on pump model	
Weight with pump	200 – 300	kg



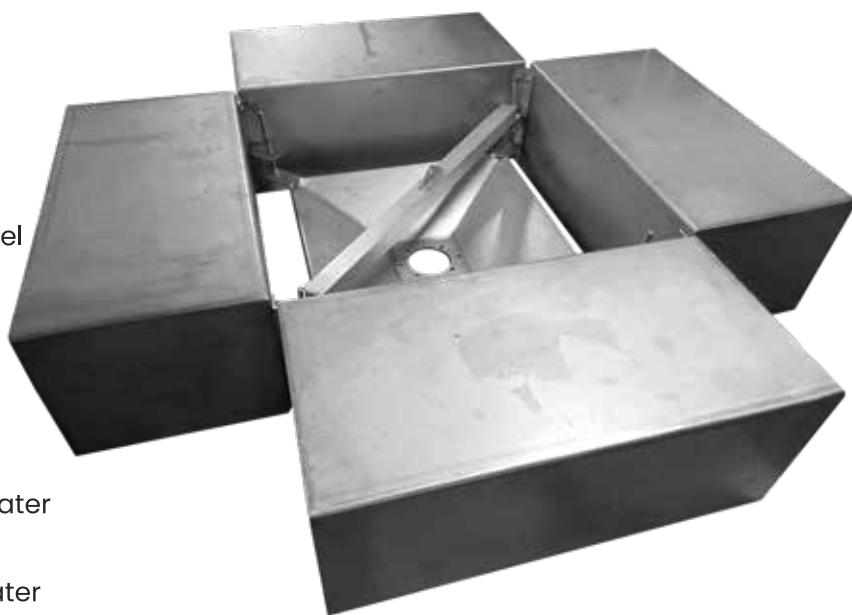
Features

- floating – insensitive to fluctuations in wastewater level
- very high stability (with 4 floats)
- possibility of adjusting the immersion of the drain trough
- made entirely from stainless steel
- possibility of pump installation



Application

- wastewater treatment plants, water treatment plants
- for drainage of treated wastewater
- for drainage of liquid above the sediment layer



Pneumatic Decanters

DP 50-150



DP pneumatic decanters with an immobile trough allow for periodic or continuous drainage of the clarified surface layer of wastewater. The machine is mounted on floats, allowing for operation with any fluctuations of the wastewater level. The immersion of floats and the trough is regulated pneumatically. The appropriate filling of floats with air changes their depth of immersion and actuates wastewater drainage. This solution is practical in places where compressed air is used in the operation of other equipment (e.g. diffusers).



Features

- floating — insensitive to fluctuations in wastewater level
- possibility of remote adjustment of the immersion of the drain trough
- electricity not required for operation
- possibility of adjusting the immersion of the drain trough
- made entirely from stainless steel



Application

- wastewater treatment plants, water treatment plants
- for drainage of treated wastewater
- for drainage of liquid above the sediment layer



PNEUMATIC DECANTERS DP 50-150

Outlet diameter	50 – 150	mm
Output	40 – 375	m ³ /h
Weight	145 – 205	kg
Required pressure	0,05 – 1,0	bar



Electrical Decaners

DE 50-125



DE electrical decaners use an electric motor to control the immersion depth of the drain trough. Thanks to this solution, it is possible to control the decanter's operation remotely as well as to set a time program.



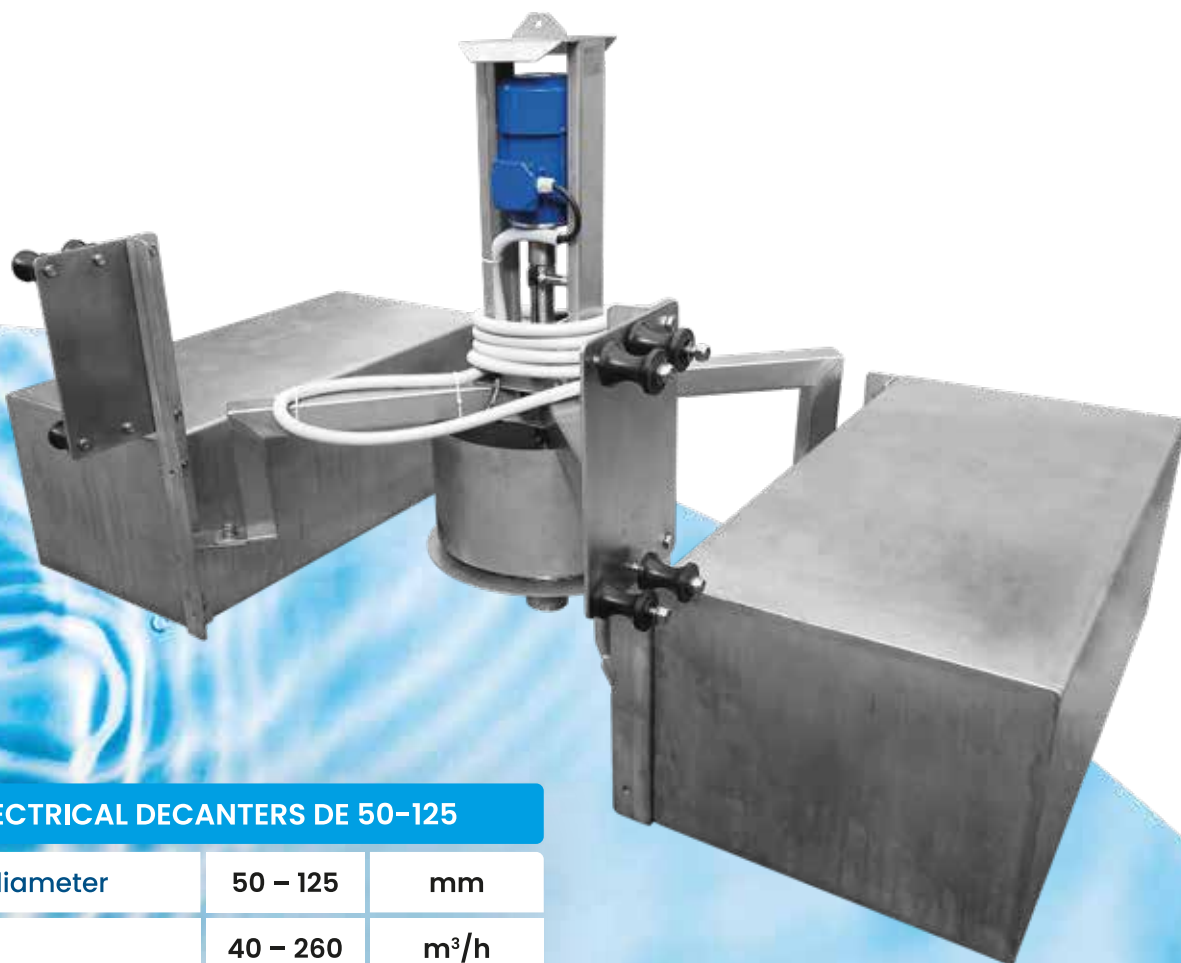
Features

- floating – insensitive to fluctuations in wastewater level
- possibility of remote regulation of the immersion of the drain trough
- made entirely from stainless steel



Application

- wastewater treatment plants, water treatment stations
- for drainage of treated wastewater
- for drainage of liquid above the sediment layer



ELECTRICAL DECANTERS DE 50-125

Outlet diameter	50 – 125	mm
Output	40 – 260	m ³ /h
Weight	145 – 215	kg
Motor power	0,25	kW

Brake Hand Winches

WLS 250-800



The WLS hand winches enables easy lifting and moving of heavy loads and machines by a single person without the need for engaging advanced equipment. This is a machine with high strength, and it owes this feature to, among other things, a steel, torsion-resistant line. Another advantage of the WLS hand winch is its compact design, which also facilitates use in tight spaces. Its simple design makes it resistant to failures and easy to repair.



Features

- simple and reliable design
- easy installation and use
- galvanized and stainless steel options available



Application

- lifting/lowering of loads or other machines, i.e. pumps, mixers, etc.
- as a component of lifting machines, i.e. cranes, tripods, etc.



BRAKE HAND WINCHES WLS 250-800

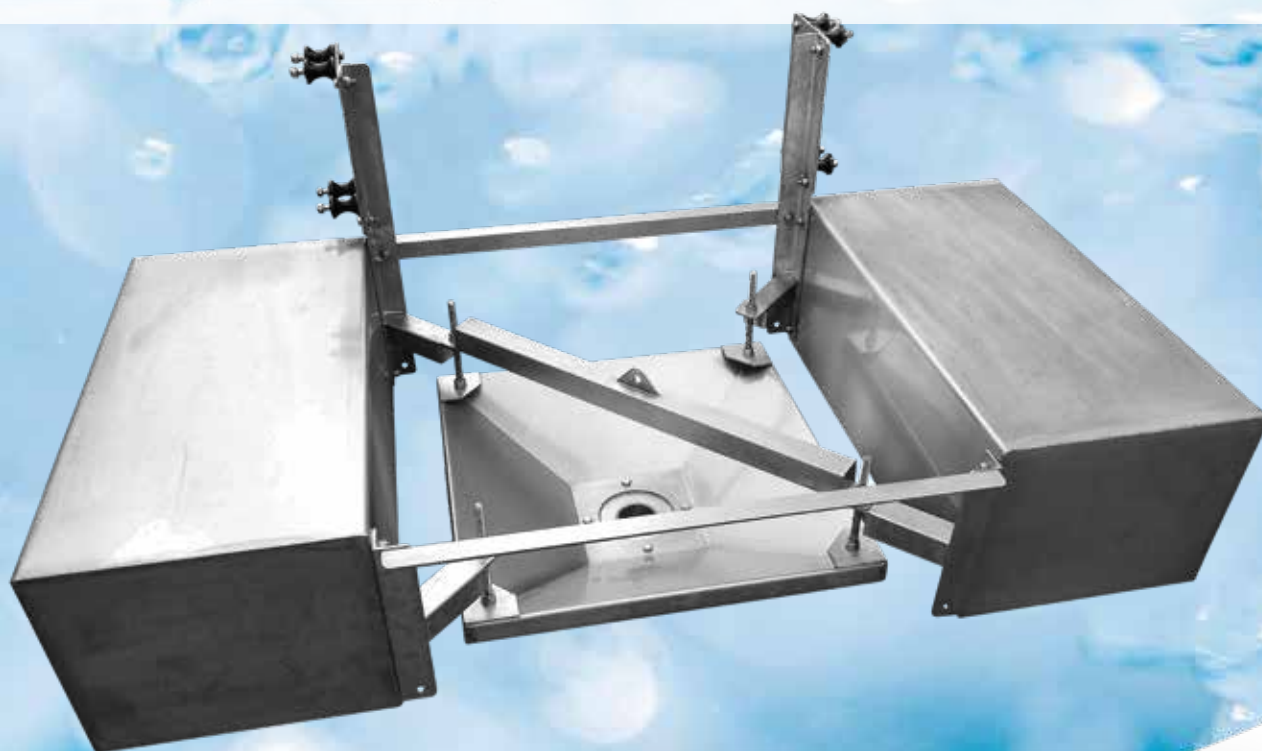
Lifting capacity	190 – 800	kg
Weight	3,3 – 10,1	kg
Material	galvanized steel / stainless steel	

Flotation Skimmers

ZBF 50-100



ZBF flotation skimmers serve for collecting and leading off contaminants accumulating on the surface of wastewater. Contaminants can be led off by gravity in the case of wastewater with a thin consistency or by means of a pump, when contaminants on the surface take on the consistency of froth. The skimmer's overflow trough is suspended on floats, allowing for operation with any fluctuations of the wastewater level.



FLOTATION SKIMMERS ZBF 50-100

Outlet diameter	60 – 110	mm
Output	dependent on pump model	
Weight with pump	175 – 235	kg



Features

- simple and reliable design
- operation with any fluctuations of the wastewater level
- effective homogenization of contaminants



Application

- leading off froth or a coat forming on the surface of wastewater
- homogenization of tank contents

Flotation Sinkers

ZTF 05-40



ZTF flotation sinkers serve for eliminating contaminants accumulating on the surface of wastewater. A rotor mixer pumps contaminants from the surface into the tank, sinking and homogenizing them. The froth sinker is installed on floats, allowing for operation with any fluctuations of the wastewater level. The appropriate placement of the sinker in small tanks causes self-activated influx of the floated material in the direction of the sinker.



Features

- operation with any fluctuations of the wastewater level
- effective homogenization of contaminants
- low cost of purchase and maintenance



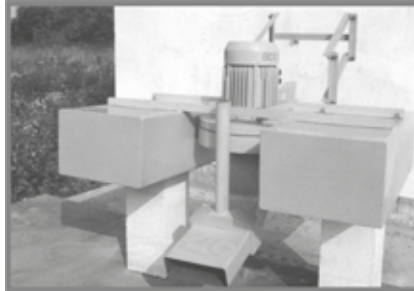
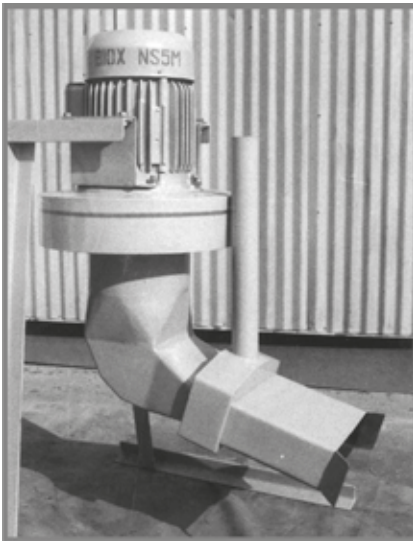
Application

- sinking and homogenization of floated material: froth and coat, accumulating on the surface of wastewater
- homogenization of wastewater
- intensive mixing of wastewater

FLOTATION SINKERS ZTF 05-40

Power	0,5 – 4,0	kW
Output	120 – 810	m ³ /h
Outlet diameter	200 – 400	mm
Weight	56 – 89	kg





About Us

BIOX was founded in Giżycko in 1989, and since the beginning of its activity, we have focused on manufacturing equipment for the water and wastewater engineering industry and other industries.

Our first products were jet aerators, which gave rise to a wide range of equipment, such as mixers, cranes and decanters, which quickly became essential equipment for many industrial plants, intermediate pumping stations and wastewater treatment plants. With professional knowledge, experience and a good grasp of the market at our disposal, we have developed and implemented into serial production several dozen types of machines.



Since the early 1990's, we have taken part in international trade fairs concerning the water and wastewater engineering industry: POLEKO in Poznań, WOD-KAN in Bydgoszcz, as well as in environmental protection fairs in Katowice, Warsaw, Wrocław and Kielce.

We are currently the largest Polish manufacturer of jet aerators, submersible mixers and decanters, as well as a supplier of auxiliary equipment such as cranes, hand winches and guides. These machines are used wherever mixing, drainage and treatment of liquid is required, including in the chemical industry, agriculture, food processing, power engineering, as well as in intermediate pumping stations and wastewater treatment plants.

About Us

Modern designs and applied materials guarantee high quality of equipment, which translates to many years of failure-free operation in very demanding conditions. The best proof of this is the several thousand machine units sold until now, many of which are still in operation.

Since the beginning of our activity, our goal was to understand customers' individual needs and provide them with solutions meeting all of their expectations. Years of building relations with our customers have led many of them to continue cooperating with us to this day – together, we are building the Polish economy.



We look to the future with optimism – in 2022, we built a new production plant and completely modernized our machine park, which made it possible for us to double our production capacity and substantially improve the quality of the machines we manufacture.

We are constantly improving our products and seeking better technological solutions in order to improve their energy efficiency, strength and reliability, so that they meet both customers' expectations and even the most stringent standards.

In the years to come, we plan to focus on marketing activity, both in Poland and abroad. Operating under the slogan "technology for the environment", we wish to become a key manufacturer of modern equipment for the water and wastewater engineering industry.



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1989

BIOX

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