

**CLEAN WATER  
CLEAN ENERGY**



**EBEPLAN**

**Environment and Energy Ltd.**

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*EBEPLAN Ltd. has been playing a significant role in the supply, installation and servicing of equipment for the environmental- and energy-technological projects in Austria and Hungary for nearly thirty years. Our main activity is serving water industrial projects and facilities. Our products and services related to water and sewage treatment have gained our customers' satisfaction for long years. We implement projects applying technologies of a high standard since we regard quality as the most important aspect.*

*In implementing projects, we aim at meeting our customers' needs at a standard as high as possible, complying with deadlines as well as at meeting warranty obligations in the fairest manner. We prefer solutions that are simple but tested at the same time; however, we have great experience in implementing projects with special requirements. Our staff consists of engineers and technologists, installers, qualified welding technicians, all of them receiving continuous training, have an interest in new technologies and give positive response to all tasks to be solved.*

*Our Company is an independent product distributor and service provider, so we do not want to force one single technological method onto our customers but offer the optimal solution for each application by selecting the best from all available technologies and engineering designs.*

*We have excellent references, and are in touch with nearly all major waterworks and wastewater treatment plants in Hungary. We have implemented a number of projects abroad as well, which has given us satisfied customers in Austria, Germany, Slovenia, Romania, Bulgaria and Croatia. In major projects, we act as a subcontractor of various general contractors.*

*We have business relations with a number of industrial plants (including chemical, food, processing, industries) as well, which receive support from us in the implementation of hydrodynamic, environmental and sewage treatment projects.*



# SERVICES

## INSTALLATION OF WATER, WASTEWATER AND GAS TECHNOLOGIES

Our company performs complete engineering installation of new water and wastewater treatment plants, public baths, thermal spa facilities, sewage pump stations, water pump stations, and bio- and depot-gas projects. Our scope of activities also includes modernization, modification or upgrading of existing technologies, either as an individual contractor or as a subcontractor of a general contractor. We install, setup, maintain and repair water- and wastewater-engineering equipment and structures. In order to safely comply with the more and more rigorous emission limits, we are aiming at applying the latest technologies. Energy-saving is a priority of ours with each of our customers, so, besides offering equipment with the lowest energy consumption, we justify the choice of equipment to be applied for the required life-

cycle by providing comparative computations of energy saving. For plants of bio- and depot-gas utilization, we offer modern gas blowers, blow-off (by-pass) valves, as well as heat-exchangers suitable for heat utilization, in the dimensioning of which our experts have great experience. We also have several references around Hungary to installed blowers for the utilization of gases of thermal waters. We also have great experience in the construction of stainless steel pipeline networks, the installation of blowers, as well as the construction of floating matter separators, actuators and sedimentation tanks. Our corrosion-resistant structural elements provide an excellent solution to assure a long-term fancy appearance and uncompromised compliance with work safety regulations.



## INSTALLATION OF AERATION SYSTEMS

With new projects and upgrading existing aeration tanks, the excellent quality, correct dimensioning and professional installation of air diffusers is a critical aspect. Our professionals have great experience in installing both tube- and disc elements in new and already existing sewage aeration struc-

tures alike. Diffusers installed by Ebeplan have a long operating life, and their cleaning, whenever required, is easy and highly efficient. The reliability and durability of the diffusers installed is proven in both Hungary and abroad – numerous references are available.



## MOUNTING OF PIPELINE NETWORKS

We undertake mounting works of plastic and stainless steel pipelines, including the supply of all parts and fittings. Our

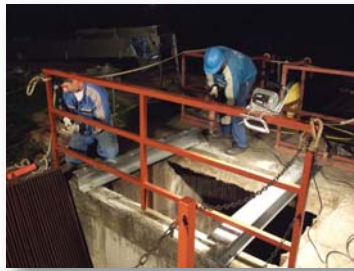
company is mainly specialized in the mounting and welding of pipeline systems of large diameter and special design.



## MISCELLANEOUS ENGINEERING INSTALLATIONS

Installation of scrapers, floating sludge separators, sand separators, mechanized grids, actuators and other sewage engi-

neering equipment. Manufacturing and repairation of overflow weirs. Installation of handrails, ladders and penstocks.



## SERVICING AND REPAIRATION OF ROTATING MACHINES

We carry out servicing and reparation of centrifugal compressors, roots- and side-channel blowers, and fans. Our professionals have great experience in the maintenance of machines

rotating at high speed and requiring precise care, so the maintenance of simpler equipment operating under other principles does not impose a challenge, either.



## INSTALLATION OF PUMPING SHAFTS

Installation of pumping shafts using customers' own fitting or those supplied by EBEPLAN. Preparation of wall penetrations required on structures. Complete overhaul-

ling of existing pumping stations. Posterior insulation to ensure water-tightness by means of clamp-affixing CPE sheets.



## CLEANING OF AERATION SYSTEMS

External mechanical cleaning, as well as internal cleaning by means of formic acid of sewage-aeration diffusers is often required since clogged membranes result in the shortening of equipments' life cycle and an increase in energy consumption. By means of the cle-

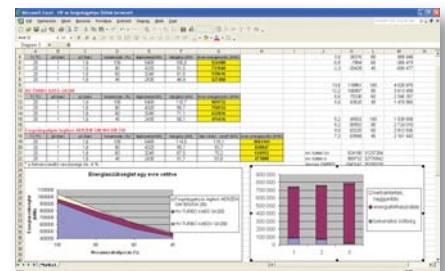
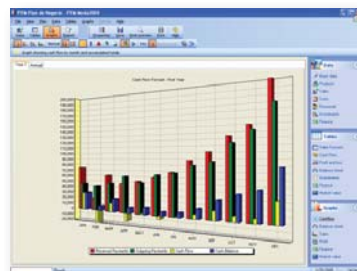
aning technology developed by EBEPLAN, an operational pressure drop of as much as 40 to 80 mbar can be achieved, which results in an increase of the life-cycle of aerating elements and blowers, and a lower power consumption during the operation of blowers.



## ENGINEERING AND TECHNICAL ADVISORY SERVICES

Dimensioning and noise reduction of rotating machines. Condition assessment of mechanized equipment, vibration diagnostics, expert examinations and appraisals. Solutions of control and regulation technology. Optimization of energy consumption.

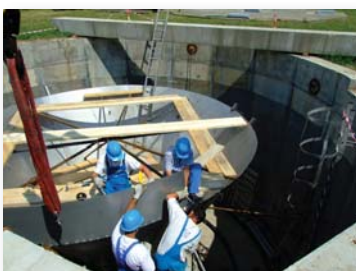
Calculation of blowers' specific power consumption, efficiency analysis, life-cycle calculation. Design and supervision of biological sewage treatment, prior impact study of actuators also in 3D view. Design of ventilation and vacuum technologies and systems.



## OTHER STAINLESS STEEL STRUCTURAL FITTING WORK

Manufacturing of fitted structures of special design from corrosion- or acid-resistant materials for water and sewage

treatment applications. Handrails, platforms, stairs, trussings, shaft covers available – also in special dimensions.

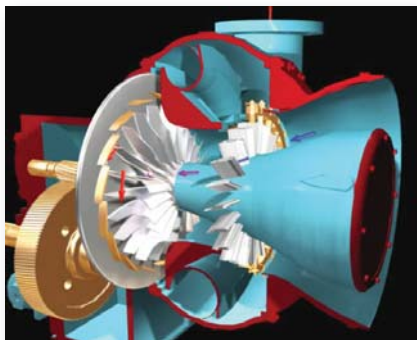


# PRODUCTS

## HV-TURBO CENTRIFUGAL COMPRESSORS (AIR BLOWERS)

Air volume: 2000-120000 m<sup>3</sup>/h  
 Pressure range:  $\Delta p$ : 0,35 – 1,6 bar  
 Field of application: everywhere where continuous, oil-free, pressurized air flow is required. They are primarily recommended to be used in air supply systems of sewage treatment

plants where a quiet, vibration-free operation, long life-cycle, and a lower energy consumption (10 to 15 per cent energy saving!) are decisive factors. They are worth using instead of rotary-piston blowers above an air flow rate of 4000 m<sup>3</sup>/h because the higher investment cost will return in a few years.



The pressure-based control of compressors, as well as their adjustability at their inlet or in- and outlet enables energy-optimization. The air-flow capacity of the machine can be decreased to as much as 40 per cent without applying a frequency converter.

## KAESER ROTARY-PISTON AIR BLOWERS

Air volume: 31 to 9420 m<sup>3</sup>/h  
 Pressure range:  $\Delta p$ : - 0,5 – 1 bar  
 Field of application: at sewage treatment plants, and everywhere where continuous, oil-free, pressurized air flow is required. They are air blowers of excellent quality and come with extra accessories. They have a lower power consumption and a si-

lent operation. Thanks to the design of their rotor unit and bearings, their operation cycle between two overhauling sessions is double of that of machines with similar capacity. Besides air blowers, we offer extra accessories, such as frequency converter or star-delta electric switchbox, water- or air-operated heat-exchangers and a superordinated control system.



By using heat-exchangers, the temperature of the air warmed up in the compressor housing can be decreased; and the hot air can heat up even a large-sized room.

By means of a superordinated control system, up to 16 machines can be connected, and, with their operation optimized, a cost-saving of 10 to 15 per cent can be achieved.

## LUTOS ROTARY-PISTON AIR-BLOWERS

Air volume: 27 to 10284 m<sup>3</sup>/h  
Pressure range:  $\Delta p$ : 0,05 – 1 bar  
Field of application: at sewage treatment plants and everywhere where continuous, oil-free, pressurized air flow is

required. They are reliable air-blowers of high quality with basic accessories required for their operation. They are primarily recommended in applications where low investment cost is the most important factor.



## FPZ SIDE-CHANNEL AIR BLOWERS

Air volume: 10 to 2150 m<sup>3</sup>/h  
Pressure range:  $\Delta p$ : 90 – 750 mbar  
Field of application: at sewage treatment plants, aqua parks and everywhere where continuous, oil-free pres-

surized air supply of lower amounts and slightly lower pressure is required. They are air-blowers of silent operation and good quality in one- or two-stage construction at a reasonable price level.



## BECKER ROTARY-BLADE AIR BLOWERS

Air volume: 10 to 500 m<sup>3</sup>/h  
Pressure range:  $\Delta p$ : 0 - 1000 mbar  
Field of application: at sewage treatment plants and everywhere

where oil-free air of lower flow rates but at higher pressure is required. Their operating principle (sliding blades moving along an elliptical orbit) guarantees a quiet, vibration-free operation.



## FANS

Low- and high-power fans of various design. (e.g. bio filter, air supply to blowers, exhaust, etc.)



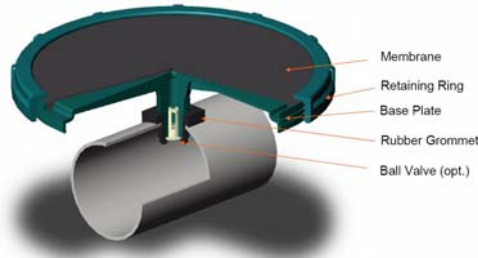
## JÄGER AERATION SYSTEM

Disc and tube membranes of excellent quality, available in several sizes. They are simply mountable and easily cleanable.

Advantages of JÄGER aerating diffusers:

- optimal to install since the spacing of the screen structure are manufactured in an individual arrangement
- simple structure that is easy to install
- easy to clean, easy to mount in case of membrane replacement

- in later overhauling activities or in case of breakdowns, it is possible to replace the diffuser only
- At possible changes in the technology of aeration (more diffusers, system extension), the aerating elements can be mounted between the heads located on the existing screen structure, and the extension can be connected to the existing screen structure.



Disc diffusers available in 270 mm (9") and 340 mm (12") diameters, with rubber membranes from EPDM or silicone.



Tube diffusers in 0,5 m, 0,75 m and 1 m lengths, with thread or clamp connections.



Variable-height, corrosion-resistant support pieces of various sizes and with clamps assure the fixation, leaving space for horizontal movements due to thermal expansion.

## STAINLESS STEEL PRODUCTS

Ladders (also with safety rails), dismantlable handrails, shaft covers of various design, stairs, anti-slip walking platforms,

grabbers, ventilation screen of stainless steel materials. (Handrails are available of galvanized material as well).



## LJM, GVA ACTUATORS

Submersible-motor or shaft-driven actuators for operation in any tank.



## PENSTOCKS, LARGE-SIZED CHECK-VALVES

Stainless steel penstocks with different fixing options up to 2200 mm, with multiple installation options, mountable even onto arched surfaces.

Various operating mechanisms for penstocks ranging from hand wheel-driven to pneumatic versions, with either me-

chanic or electronic status indicators.

Check-valves for the release of treated sewage into live waters.

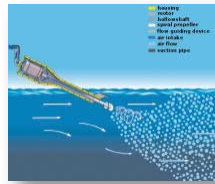
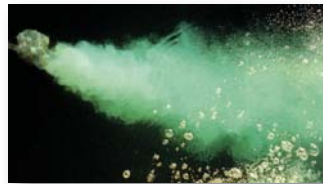
Mobile penstocks-drive apparatus. Penstocks operated by solar cells, no need for mains current.



## SURFACE AERATION

Field of application: it is recommended for all sewage treatment plants where a fine-bubble aeration system is not fea-

sible to be constructed. Equipment of various capacities and of both ponton - and wall - mounted design is available.



## TECOFI VALVES and FITTINGS

A wide range of shutter blades, butterfly valves, check valves, safety valves, compensators, conic valves and other shut-off valves is available, even for extreme operating

conditions. Large sizes are available from various material options, with multiple operation modes (manual, mechanized, pneumatic).



The diffusing disks ensure the regulation characteristics of the flowing media.

## PUMPS

We offer a wide range of pumps applicable in water and sewage treatment. Impellers of various design enable different liquids to be carried, from clean water to strongly contaminated sewage or to thick sludge, with high power and elevation. Some models are for grinding and continuously forwarding

fibrous media or those containing solid floating contaminations. Besides the pumps, there are several accessories and control options available with the range of ZENIT pumps having excellent references.



## EQUIPMENT FOR MECHANICAL PURIFICATION

Our company distributes the products of well-established manufacturers with great experience. Equipment of different capacity is available for small, medium and large sewage treatment plants – these can be applied in various stages of the purification process. All equipment is made of stainless-steel resisting cor-

rosion or of other materials also resistant to aggressive impacts. Energy efficient, electric drives provide for their economical operation. EBEPLAN Ltd. installs, commissions, maintains and, if needed, repairs this equipment.

## SCREENS, SCREENINGS TREATMENTS



Bivalve Electro-Hydraulic Grab



Hydraulic Automatic Screen



Step Screen



Automatic Cable Screen



Automatic Chain Screen



Self-cleaning Screen



Vertical Helicoidal Conveyor Screen



Screw Screen



Basket Conveyor Screen



Integrated Coarse Pre-treatment Economy

**GRIT SEPARATORS**



Integrated Coarse Pre-treatment



Grit Washing Plant



Helicoidal Grit Classifier

**CONVEYORS, COMPACTORS**



Helicoidal Endless Conveyor



Screens Screw Conveyor



Helicoidal Compactor

**BRIDGES, DECANTERS**



Circular Bridge



Swinging Decanter



Longitudinal Decanting Bridge



Central Circular Decanting Bridge

**SLUDGE THICKENERS, DEHYDRATORS**



Drum Sludge Thickener



Gravity Sludge Thickener



Gravity Sludge Thickener

#### **WE OFFER**

- hv-turbo centrifugal compressors
- kaeser rotary-piston air blowers
- lutos rotary-piston air blowers
- fpz side-channel air blowers
- becker rotary-blade air blowers
- jäger aeration system
- stainless steel products
- tecofi valves and fittings
- penstocks, check-valves
- actuators
- surface aerators
- fans
- sewage pumps
- installation of water, sewage and gas technologies
- installation of aeration systems
- mounting of pipeline networks
- other engineering installations
- Servicing and reparation of other rotating machines
- installation of pumping shafts
- cleaning of aeration systems
- engineering projects and advisory services
- fitting work on stainless steel structures
- penstocks and flap valves for flood prevention

#### **WE OFFER OUR PRODUCTS AND SERVICES TO**

- waterworks
- sewage treatment plants
- power stations
- biogas-utilizing plants
- chemical plants
- food-industrial plants
- processing industries
- pharmaceutical plants
- sugar boiling
- public baths, swimming pools, aqua parks



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