



GRASON



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ABOUT US



WHO ARE WE?

GRASON is a Polish company with years of experience in comprehensive design and manufacture of machines and equipment intended for pharmaceutical and cosmetic industry. High performance standards and detailed acceptances currently place us in the forefront of manufacturers this sort of industrial machinery.

Our team of designers and technologists work closely together with production departments and laboratories of leading pharmaceutical and cosmetics manufacturers. It makes possible to precisely determine the needs and parameters of designed mixers, and as a result to provide our Clients with only well-thought-through and practical solutions.

In addition to the offer of ready-made mixers, we also assist in selecting suitable methods of transport and transferring finished products to packaging and filling machines. Thanks to this the Client can enjoy a comprehensive service at every stage of cooperation.



MIXERS





The most technologically advanced mixers intended for industrial production and laboratory work to produce dense and viscous cosmetic and pharmaceutical products.





LABORATORY HOMOGENIZING MIXER

VOLUME:

5 l, 10 l, 20 l, 30 l, 50 l



Mixers in a compact sterile stainless steel housing with automatic lifting lid have been developed for small and short product batches in the laboratory, in order to implement and transfer the formula to the production scale after all required studies and tests have been carried out. The highest standard of production allows for using the device in the pharmaceutical and cosmetic industry, and its mobile design enables its free movement. The laboratory homogenizer is designed to elevate the process from the laboratory scale to the production scale.

PROCESS HOMOGENIZING MIXER



VOLUME:

100 l, 200 l, 300 l

This product range is designed for use in the production of creams and ointments in the cosmetic and pharmaceutical industry for small and short product batches.

The homogenizing mixer is equipped with a mechanically lifting lid with the possibility of operating in the atmosphere of negative and positive pressure, allowing to avoid the product aeration during the intensive homogenizing process and to speed up emptying of thick masses in case when positive pressure is generated. Aseptic manufacture and low surface roughness enable the production of the most demanding quality products under sterile conditions.

INDUSTRIAL HOMOGENIZING MIXER



VOLUME:

500 l, 1000 l, 2000 l, 4000 l, 5000 l

Industrial homogenizing mixer adapted to shift work for medium and large production. It is equipped with the most advanced high-performance mixing and homogenization system designed for operation under vacuum and positive pressure. The extensive control system allows to archive production stages, enter formulas and supervise the ongoing process via the plant network. User access and login levels provide full control over product quality. The mixer is supplied with a special integral operating platform designed to move heavy loads, depending on the requirements and room capacity.

APPLICATION:

ointments, creams, gels, conditioners, pastes, emulsions, suspensions, lubricants.



LIQUID MIXER

VOLUME:

100 l, 200 l, 300 l



Mixer with a wide range of applications, with the main purpose of mixing light liquids, such as shampoos, soaps, conditioners, household chemicals and car cosmetics. The specification of the liquid mixer is greatly expanded due to the cold mixing technologies, i.e. without heating jacket, and hot mixing technologies. The selection of mixers, pumps and equipment is adjusted to the Customer's needs and product specifications. Our solutions enable the introduction (suction) of raw materials directly under the mirror, avoiding aeration and minimizing foaming, thanks to a specially designed system of nozzles and venturis mounted directly on the by-pass circulation system. A very wide range of configurations allows you to choose an economical and efficient process solution.

LIQUID MIXER

VOLUME:

500 l, 1000 l, 2000 l, 4000 l, 5000 l



Industrial high-capacity universal liquid mixer intended for the production of liquids, shampoos, conditioners, gels, emulsions and suspensions. In addition to the traditional method of mixing with a frame mixer, a special by-pass system enables flow mixing without the use of a mechanical mixer. The mixing process takes place in a special chamber mounted directly on the by-pass circulation pipe. The strong flow created in this system and the generated negative pressure allows for introducing raw materials under the product mirror without the need to create a vacuum in the tank. A set of exchangeable sieves and filters accelerates the dissolution of raw materials that are difficult to dissolve or tend to agglomerate. This solution is very economical and allows you to purchase a fully functional mixer at an attractive price.

APPLICATION:

shampoos, liquid soaps, gels, conditioners, emulsions, car cosmetics, household chemistry.



MIXERS FOR THE OIL, FAT AND WATER PHASE

VOLUME:

from 100 l to 1000 l



The main application of melters is the preparation of fat and oil or water phase for further production and cooperation with homogenizing mixers or fluid mixers in cosmetic, pharmaceutical and food plants. The dissolved and prepared oil phase can be provided through the vacuum generated in the process mixers directly to the homogenizing stirrer or to a by-pass system for fast mixing with other raw materials.

These mixers are equipped with a heating jacket, stirrer and control system depending on Customer's needs. Heating can take place by means of electric heaters, resistance pipes, hot process water directly from the plant network or through a steam exchanger. The heating jacket medium can be water, oil or glycol.



APPLICATION:

oils, fats, lipids, chocolate, glycerine, paraffin, waxes.



CONICAL DRUM MIXERS



Conical drum mixer designed for mixing loose and dry raw materials. In most plants, the instability of raw material supply or supply from different manufacturers causes the problem of maintaining the repeatability of the final product. For the needs of pharmaceutical and cosmetic laboratories, we have created a compact, mobile conical drum mixer for loose substances and powders. The purpose of mixing is to combine and homogenize two or more components, often with different properties, particle size and weight density.

The conical drum mixer is used not only in pharmaceutical and cosmetic industry, but also in food and chemical industry. It also works well for mixing raw materials such as powders, fragrances, thickeners, colourants, spices, herbs, loose substances, dry forms or heterogeneous mixtures.

Drum mixer does not have any internal mechanical stirrers, mixing is done by rotation of the drum and gravitational pouring of combined raw materials. Product unloading is also gravitational.



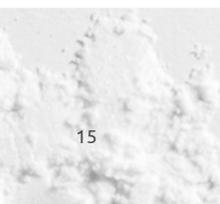


Laboratory conical drum mixer

VOLUME:
5 l, 10 l, 20 l

Industrial conical drum mixer

VOLUME:
100 l, 200 l, 500 l, 1000 l





MIXERS FOR EXPLOSIVE AREAS EX ATEX

Requirements and needs of our Customers have contributed to the development of the company towards production of mixers designed for work in explosion hazard zones Ex compliant with ATEX directive. They are distinguished by adaptation to work in areas classified as explosive, i.e. everywhere where there is a real danger of ignition of gas, mist and vapour mixtures, which are generated during the process occurring in mixers.

The design and manufacture of mixers is based on the ATEX Directive 2014/34/EU – equipment intended for use in potentially explosive atmospheres. All subteams and components have the appropriate attestations, certificates and approvals.





In order to properly design the device, it is important to select the appropriate protection category. To determine the appropriate category, the following aspects should be considered:

- working zone of the device: gas (0, 1, 2), dust (20, 21, 22),
- flash point of the medium T1-T6,
- explosion group IIA, IIB, IIC/IIIA, IIIB, IIIC.

Once the category is determined, subteams with the appropriate level of protection and the right materials should be selected.

The final acceptance of the documentation and the mixer is carried out by an external notified entity, which issues a certificate of conformity with the standard.

APPLICATION:

perfumes, alcohols, removers, disinfectants and antibacterial agents, car cosmetics, household chemistry.



CONTROL SYSTEM

Depending on their complexity and the level of sophistication, mixers are equipped with automation and control system adjusted to the Customer's needs. We design and make both simple control systems with manual buttons, as well as very complex systems with controllers and touch panels, all based on our own program dedicated to our devices.





OPERATING POWER

- Siemens 7" touch screen operating panel.
- Variable setpoint and readout of working time and speed of the frame stirrer and high-speed homogenizing stirrer.
- Setpoint and readout of the heating/cooling system temperature.
- Setpoint and readout of the product temperature.
- Setpoint of any hysteresis for heating or cooling.
- Automatic maintenance of negative pressure in the mixer.
- Live view of the ongoing process.
- Archiving and recording of selected process parameters.
- User logging, setting the access level (service, maintenance).
- Alarms indicating failures.
- Preview of the panel view and control from a computer via the plant network.
- Entering and creating formulas.
- Implementing program changes remotely via Internet.
- Electric power supply 400 V/50 Hz.



TEST BEFORE YOU BUY

We believe in well-thought-out decisions, which is why we offer all customers the opportunity to test selected devices free of charge. We invite you to the headquarters of our company, where you can check our products yourself and learn more about their construction and operation.



CONICAL DRUM MIXER 5 l, 20 l, 40 l

It is designed for mixing loose and dry raw materials, and used not only in pharmaceutical and cosmetic industry, but also in food and chemical industry. Conical drum mixers work well for mixing raw materials such as powders, fragrances, flavourings, thickeners, colourants, spices, herbs, loose substances, powdery forms.

Conical drum mixer designed for mixing loose and dry raw materials. In most plants, the instability of raw material supply or supply from different manufacturers causes the problem of maintaining the repeatability of the final product. For the purposes of pharmaceutical and cosmetic laboratories we have developed a compact, mobile conical drum mixer for loose substances and powders. The purpose of mixing is to combine and homogenize two or more components, often with different properties, particle size and weight density.

LABORATORY HOMOGENIZING MIXER 10 l



The most advanced laboratory homogenizing mixer on the market with a capacity of 10 litres. It is designed to conduct technological tests in laboratories and transfer all parameters of the device according to “scale-up” principles to mass production. The innovative equipment of the homogenising mixer will let you explore the possibilities of GRASON and the technical solutions available on the market. Subteams and equipment used for construction of the mixer have been selected in cooperation with suppliers meeting the most rigorous regulations required in modern production plants.

LIQUID MIXER 200 l



Universal liquid mixer intended for the production of liquids, shampoos, conditioners, gels, emulsions and suspensions. In addition to the traditional method of mixing with a frame stirrer, a special by-pass system enables flow mixing without the use of a mechanical stirrer. The mixing process takes place in a special chamber mounted directly on the by-pass circulation pipe. The strong flow created in this system and the generated negative pressure allow for introducing raw materials under the product mirror without the need to create a vacuum in the tank. A set of exchangeable sieves and filters accelerates the dissolution of raw materials that are difficult to dissolve or tend to agglomerate. This solution is very economical and allows you to purchase a fully functional mixer at an attractive price. The universal mixer has been designed to present hidden and inaccessible for the user design solutions. Both the design of the liquid mixer and the test homogenizing mixer are designed according to the scale-up principle.



QUALIFICATIONS AND STANDARDS

All devices and their equipment are designed according to individual Client's needs. They also meet the requirements of technological processes in accordance with the directives and standards of the manufacturer and are adapted to the GMP guidelines and FDA regulations.

- 2006/42/EC – Machinery Directive
- 2014/35/EU – Low Voltage Directive LVD
- 2014/30/EU – Electromagnetic Compatibility (EMC) Directive
- 2014/34/EU – ATEX Directive: devices for operation in explosion hazard zones
- 2014/68/EU – Pressure Equipment (PED) Directive
- 2000/14/EC – Noise Emission Directive



- EC/UE Declaration of Conformity of Machinery with CE Marking
- FAT and SAT acceptance and qualification tests with IQ, OQ and DQ validation documentation



We do visualization and design of our equipment in 3D CAD technology using CAD Inventor®.





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