

RECENT DEVELOPMENTS FOR HEALTHCARE

MAIN ACTIVITIES OF ULAN-UDE INSTRUMENT-MAKING PLANT JSC



Radio-navigation equipment, elements and blocks of aviation automation, equipment of launch complexes components, components of missile control systems, electrical products (the company's customers are ODK JSC, Russian Helicopters JSC, OAK JSC et al)



ELECTRICAL ENGINEERING

The association's activities in the field of electrical products can be divided into two areas: the production of electric energy meters, "smart" meters; mastering vacuum switches and control cabinets



COVID-19 ROTECTION

In 2020, in the context of the pandemic, the company repaired ventilators for medical institutions of the Republic of Buryatia, mastered the production of face shields, recirculators-air decontaminators and ozonators.



MEDICAL PRODUCTS

A new direction, the production of medical products , pipette dispensers and polymer tips for pipette dispensers , is being developed

COMPANY PHILOSOPHY

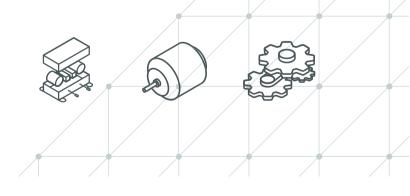
Accuracy Reliability Service

- development of projects in accordance with technical specifications
- individual approach
- high quality
- compliance with standards
- 100% Russian product
- all the products are designed in collaboration with leading research institutes of Russia
- specialists of State Corporations Skolkovo, Roskosmos and Rosatom take part in the products designing and putting into the operation
- project financing by Industry Development Fund
- supported by Rostekh Group and the Ministry of Industry and Trade of Russia





100% domestic products and working in cooperation with the world's leading manufacturers



HEALTHCARE PRODUCTS



PIPETTE DISPENSER

Dosing of liquids with high accuracy is a mandatory requirement for various methods of chemical and microbiological analyses.

The dispensers of Ulan-Ude Instrument-making Plant JSC are the best in their category.

Pipette dispenser is a dispenser for collecting and dispensing precise volumes of liquid. It operates on the principle of air displacement (i.e. there is a volume of air between the plunger and the liquid) in a disposable replaceable tip.



The dispensers are made of materials with high mechanical and chemical resistance.



STERILIZATION. The tip cone module can be autoclaved at 121°C (2 atm.) for 20 minutes. It is possible to use bags for sterilization, if necessary.



TYPES OF PIPETTE DISPENSERS

TYPE

- Mechanical
- ➢ Electronic



- One-channel
- Mulichannel (8-channel, 12-channel)



TIPS FOR PIPETTE DISPENSER (consumable material)



Plastic tips for dispensers 50-1000 pcs/set. Disposable and clean, sterile and non-sterile, usually used for laboratory analysis..

- Material: Polypropylene
- Color transparent, blue
- O Quantity: 50-1000 pcs / set
- O Size: 7.5 * 70mm
- Volume: 2,5, 10, 25, 50, 100, 200, 250, 500, 1000µl.

Production volume: 450 million units / year at maximum production load



TIP FOR PIPETTE DISPENSER (consumable material)

MAIN PRODUCT PARAMETERS

Advantages

- The tips are made of pure polypropylene without impurities. The walls of the product are thin, transparent, protect from the effect of a drop.
- .The tips have a built-in sealed connection ring, the diameter of which exactly matches the diameter of the holder in the pipette, so that the tip is suitable for a wide range of dispensers (the universal design of the product).
- Each package will have a quality certificate, color code for easy identification of each type of a tip.
- The tips can be autoclaved at a temperature of 121 C and a pressure of 1 at for usually 1020 min., which creates an effective protection against aerosol contamination.
- All tips are accompanied by a certificate of sterilization with the date of processing. Before sterilization, the tips are packed in a bag or tripod, which provides reliable protection against contamination.

| | Sterile | Non-sterile |
|---|---|--|
| 1 | Polymer tip for pipette dispenser 1-20 μl. 5-100 μl. 5-200 μl. 50-1000 μl. | Polymer tip for pipette dispenser 1-50 μl. 5-300 μl. 50-1000 μl. |
| | Sterile, filtered, colorless | Non-sterile, colorless |
| 2 | Polymer tip for pipette dispenser 1-50 μl 5-300, μl 50-1000 μl. Sterile, colorless | Polymer tip for pipette dispenser 50-1000 µl. Non-sterile, blue |
| 3 | Polymer tip for pipette dispenser 50-1000 μl Sterile, blue | |

REUSABLE PROTECTIVE FACE SHIELD



Protects the mucous membrane of the eyes and respiratory organs from

- foreign bodies
- o moisture particles
- o spray
- o viruses and pathogens



For greater protection, it is recommended to use it together with medical masks and gloves. It is used when visiting places of possible contact with people: shops, medical centers, parks, when communicating with customers at workplaces

Production volume: 100 million units / year





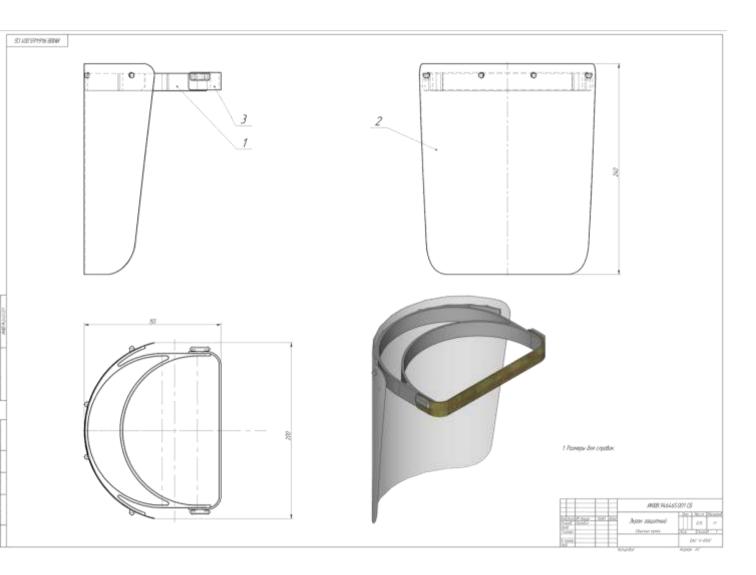


Each product can be equipped with replaceable screens

DESIGN FEATURES

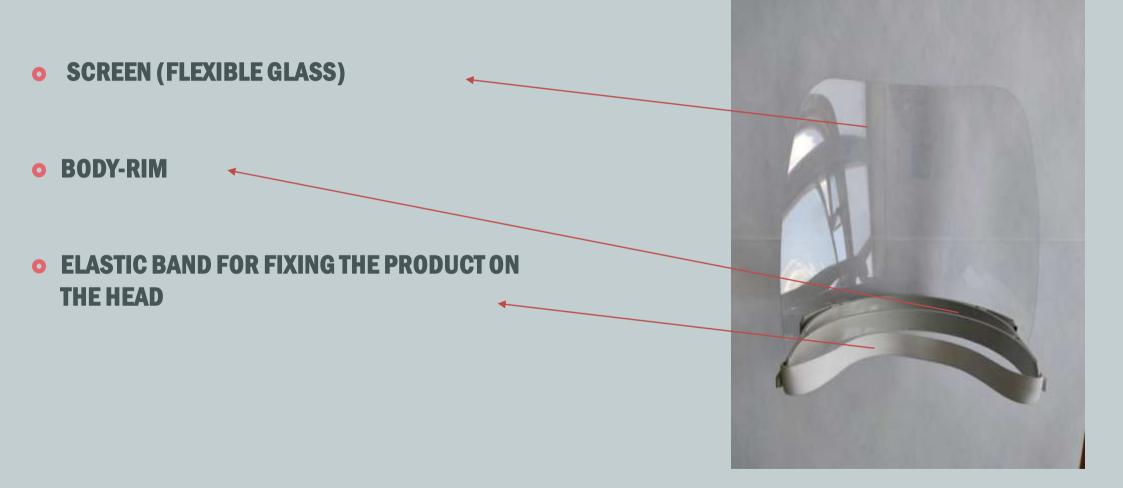


- Specialists of the State Corporation Roscosmos took part in the development of the product.
- A clearly verified 3D model fully takes into account the anatomical features of a person. As a result, the rim of the screen perfectly matches the head of a person. The specialist does not feel discomfort even when wearing a protective screen for a long time.
- Specialists of the State
 Corporation Rosatom have developed an ideal nanotechnological fully hypoallergenic composition of the material the protective screens are made of.



COMPLETE SET INCLUDES





PRODUCT ADVANTAGES

- Additional replacement screens (glass) can be purchased for each product.
 - At the request of the Customer, the standard set can be supplemented with protective screens (glass) without a rim and an elastic band holder. Thus, during the working day, the replacement screens can be changed every 1.5 hours.
 - The product case material is made of medical plastic (ABS-2020 TU6-05-1587-74). It does not cause skin irritation, allergies.
 - The screen does not fog up when you breathe!
 - The product can be worn with glasses.
 - The product has long-lasting resistance to active use and repeated treatment with antiseptics
 - The total weight of the screen is not more than 150 g.



Each product can be supplied with five replaceable screens

AIR OZONATOR series OB-O

OZONE is a gas with pronounced disinfectant properties.

It is 300 times more powerful than chlorine and is suitable for both air treatment and any surface treatment. It causes damage to the shell of many bacteria, viruses and fungi up to its destruction. The human body contains many antioxidants that prevent oxidative processes. Ozone differs from ultraviolet radiation in its ability to penetrate into any cracks, hidden cavities, filling the entire room.



AIR OZONATOR OB-O

The device is a modular flow-through ozonator of a closed type. The main advantage of the recirculator is its modularity. It can be equipped with one or two "ozonator" cartridges even during operation.

The product is intended for air disinfection in domestic and public premises. Air treatment is carried out indoors in the absence of people.



Disinfection of the air flow occurs during its circulation through the housing inside which the ozone generator cartridge is placed. Ozone has a pronounced antimicrobial effect on the entire spectrum of pathogenic microflora and is a universal, environmentally friendly, effective and cheap disinfectant.

THE MAIN ELEMENTS OF THE PRODUCT:

- composite housing (or aluminum + plastic)
- O axial supply air blower designed for pumping air
- o power supply
- special replaceable chambers (cartridges) that provide air ozonation
- LED instrument control unit (programmable time relay and operating mode indicators)



Production volume: 10 thousands units / year

OZONE CARTRIDGE (OZONATOR)



OPERATING PRINCIPLE

Special plates are installed in the cartridge, which are supplied with high-frequency currents (voltage up to 127 kV) that cause a barrier discharge generating ozone. The ozonator is capable of producing up to 10 g of ozone per hour that guarantees the sterilization of a room with a volume of up to 225 m3.

Technical characteristics of the ozonator

Overall dimensions:Ø127mm, length 499 mm, weight: 2.8 kg Power: 100W Voltage: 220V 50Hz Lining material: AMCM aluminum Fan capacity: 150 m3 / h Ozone capacity: up to 10 g / h Ion capacity: up to 100,000 ions / cm3 Treatment time: depends on the volume of the room and the mode of operation Bactericidal effect: complete sterilization of pathogenic microorganisms in the room up to 225 m3 Ozone generator operating time guarantee: up to 9,000 h Categories of premises in which use is recommended: I, II, III, IV and V

categories (except for dusty ones and food production (additional filters are required in these cases)



- Homes, offices, hotels, shops, gyms, hairdresser's
- Car washes, car interior dry
- cleaning(cleaning of unpleasant odors);
- Cleaning companies (indoor air cleaning)
- Medical institutions, operating rooms(disinfection)
- C atering enterprises (elimination of unpleasant kitchen odors, disinfection of toilets, freezers)
- Kindergartens, schools (preventive air purification from viruses and bacteria, in particular Staphylococcus aureus, influenza, SARS, Covid)
- Storage facilities
- Air conditioners maintenance and repair services (cleaning of car air conditioning systems)
- Transport companies with a fleet of refrigerator trucks (disinfection of cold storage rooms)
- Disinfection enterprises
- Greenhouses, vegetable stores
- Premises intended for keeping birds and animals
- Paint and varnish production;
- It can be installed in a ventilation system or indoors.

TABLE OF OZONATION PARAMETERS

| Ozonation object | Ozone concentration, mg / m3 | Operating time not less than, hour | Effect |
|---|------------------------------------|---------------------------------------|---|
| Microbes in the air and on surfaces | 2 | 0,5 | 100% death |
| Bacteria and viruses in the air and on surfaces | 15 | 0,5 | 100% death |
| Flying insects, including moths | | 2 | Die in 13 days |
| Cockroaches, ants, fleas, ticks | 12 | once a week per 4 hours | Die after a while |
| Mice, rats | 12 | 4 | Die after a while |
| | 30 | 1 | Inhibits reproduction and growth |
| Mold fungi | 1 500 | 1 | Destroys vegetative forms |
| | 20 000 | 1 | Destroys spores |
| Chilled meat, fish | 15 | 2 hours a day | Increases shelf life by 23times |
| Vegetables and fruits | 10 | 1 | Increases shelf life |
| Unpleasant odors | 10 | 2 | Changes the formula of the molecules and the smell disappears |

CERVICES

We provide ozonation of

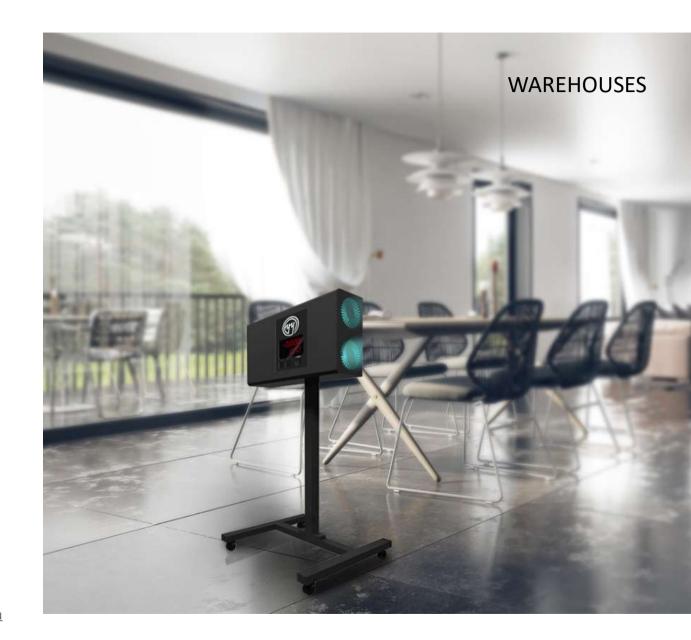
O WAREHOUSES

- **O** PRODUCTION FACILITIES, WORKSHOPS
- **O** TRANSPORT/GARAGES
- **O** VEGETABLE STORES
- OFFICES , SHOPPING CENTERS, etc.

Commercial Service

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<u>c-service@uuppo.ru</u>



INDUSTRIAL AIR RECIRCULATOR



The device is a modular closed-type flow recirculator. The main advantage of the recirculator is its versatility. It can be equipped with an ozonizer cartridge, a UV radiation cartridge and an electrofilter cartridge



These cartridges perform the function of air disinfection from pathogenic microorganisms, mold, fungi, viruses and bacteria, but with different methods of exposure and operating conditions. At the same time, the operator can adjust the number and type of cartridges by himself, depending on the operating conditions. The operator can also enhance a particular disinfection effect by installing several modules of the same type.

THE MAIN ELEMENTS OF THE DEVICE

- axial supply air blower
- o power supply that regulates the power supply parameters
- special replaceable decontamination chambers (cartridges) where air is decontaminated by a well-controlled plasma source

Production volume: 10 thousands units / year





SPECIAL REPLACEABLE DECONTAMINATION CHAMBERS (CARTRIDGES)

PRODUCT ADVANTAGES

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It is a unique development of Russian engineers



All materials and components for the product were developed in cooperation with the leading research institutes of Russia, the Skolkovo innovation center, thanks to which it was possible to create a compact, but productive and powerful air decontaminator.



Decontaminators of the Ulan-Ude Instrument-Making plant are installed in major Russian medical centers and other social facilities They help prevent the spread of COVID-19 in Russia.

PRODUCTS PRICE LIST *

| PRODUCT | WHOLESALE PRICE IN RUBLES (Including VAT) | RETAIL PRICE IN RUBLES (Including VAT) |
|---|--|---|
| Face protection screen | 300* Batch of 100 pcs | 360 Batch from 1 to 99 pcs |
| One-cartridge ozonator OBO-0-1 | 26 000* Batch of 20 pcs | 28 000 |
| Two-cartridge ozonator OBO-0-2 | 34 000* Batch of 20 pcs | 36 000 |
| UV one-cartridge recirculator-air sanitizer OB-Y-1 | 18 000* Batch of 20 pcs | 20 000 |
| UV two-cartridge recirculator-air sanitizer OB-Y-2 | 26 000* Batch of 20 pcs | 28 000 |

* With a large wholesale, customers are provided with special conditions and an additional discount. The selling price is from the warehouse in Ulan-Ude without delivery to the Buyer's address.



This presentation provides products that have been put into production or are at the stage of pilot batches production

The company is ready



to master new products according to Customers ' Technical Specifications



to get funding under state programs to adapt products to Customers ' Technical Specifications and produce them



to get all the necessary permits

CONTACTS

