



**GIDROFLOU**  
Limited Liability Company

# WS ACTIVE ELECTRONIC WATER CONDITIONER

**Gidroflou LLC presents** for global business, industry and consumers WS – New generation of ferrite electronic water conditioners.

**We provide proven solutions in the sphere** of hard water treatment, protection and removal of organic and inorganic deposits inside the pipes and various equipment.

**We do this** by applying contemporary technologies and materials, using our experience and tailoring it to our customers.

***“LED-display is a comfy feature! I am calm when I see the signal level is the same as a year ago.” – one of our customers***



**High-efficiency patented technology** is based on an **innovative physicochemical solution**, and deep **practical knowledge (15+ years)** of use of water conditioners for number of applications in various regions and water quality.

Action of the water conditioner is aimed to **reduce operating costs**, **ensure industrial safety** and to **prevent accidents** due to descaling (decalcification).

WS is a modern digital device. It's "brain", microcontroller, controls operation with several sensors, by a feedback principle.

**Work of electromagnetic impulses** with variable frequency, transferred to the water inside the pipe with the **top efficiency (97-98%)** ferrite ring, made from the special ferroalloy, is used to prevent hard limescale deposits and bio-fouling.

Customer can get **significant savings** from the use of WS water conditioner. **It helps** to:

- minimize energy (fuel) overruns;
- reduce non-production downtime;
- reduce maintenance costs;
- get rid of premature wear and tear of equipment.

**Due to:**

- slower growing of limescale / deposits;
- gradual softening and significant removal of existing limescale;
- changing of deposit's structure to more porous and soft.

*The source of these losses are formation of limescale and other deposits on the walls of the pipes and equipment.*

*Practice shows, preventing of limescale and deposits formation is cheaper that to provide high-quality water purification.*

# FLOCCULATION DEVICES ("F" TYPE)



**Device improves efficiency** of water filtration, inhibits limescale formation and biofouling during operation in chillers, condensers, cooling towers, heat-exchangers, inhibits internal corrosion.

**Can be used** as a part of the water treatment system for the swimming pools, water parks, fish pools.

Up to d.150 mm

- Improve filtration.
- Biofouling control
- Suitable for commercial pools and cooling systems (chillers, heat-exchangers, cooling towers).
- Models for the pipes with diameter 40 mm, 50 mm, 100 mm, 125 mm, 150 mm

# INDUSTRIAL

**Water conditioner** **inhibits** limescale formation during operation in pipelines, boilers, water heaters, heat-exchangers and protects them from internal corrosion.

Device can work together with traditional water softener and without.



Up to d.150 mm

- Inhibit new lime-scale.
- Dissolve existing deposits.
- Suitable for commercial boilers, heat-exchangers and cooling systems.
- Models for the pipes with diameter 40 mm, 50 mm, 100 mm, 125 mm, 150 mm.



# DOMESTIC

## WS-25 (MUNICIPAL WATER SOURCE)

**WS-25 is suitable for use** in apartments, in the houses with one bathroom.

**Device is designed to protect** from hard limescale deposits in pipelines, on heating elements, on heating surfaces; **to protect appliances** such as dishwashers and washing machines, and to make limescale-stained taps, sinks and bathtubs easier to clean.



Up to d.40 mm

- Inhibit new lime-scale.
- Dissolve existing deposits.
- Suitable for apartments, for the houses with one bathroom.
- Fits on the pipes with outside diameter up to 40 mm.
- For the flow up to 4 m<sup>3</sup>/hour.

# WELL-WATER

## WS-30 (BIG HOUSES, SMALL BUSINESS)

**WS-30 is suitable for use** in the houses with up to three bathrooms.

**Device is designed to protect** from hard limescale deposits steam ovens, humidifiers, low-pressure steam boiler, professional dishwashers and washing machines.



Up to d.46 mm

- Inhibit new lime-scale.
- Dissolve existing deposits.
- Suitable for the houses with up to three bathrooms.
- Fits on the pipes with outside diameter up to 46 mm.
- For the flow up to 6 m<sup>3</sup>/hour.

# BIGGER APPLICATIONS

## WS-35 (SMALL HOTELS)

**WS-35** is suitable for use in the small hotels, in the small multi-apartment houses.

**Device is designed to protect** from hard limescale deposits pipelines, house heat-points, appliances in the apartments - boilers, dishwashers and washing machines; helps to clean limescale stains at ceramic tiles and sanitary ware.



Up to d.60 mm

- Inhibit new lime-scale.
- Dissolve existing deposits.
- Suitable for small hotels, small multi-apartment houses.
- Fits on the pipes with outside diameter up to 60 mm.
- For the flow up to 9 m<sup>3</sup>/hour



# INDUSTRIAL. DEVICES D.200+ (AND “CUSTOMIZED”)

**For industrial applications** we suggest range of devices for the pipes up to d.500 mm.

For special customer's needs **Custom device can be made.** It can be for bigger pipes, devices with extra power (for waste water treatment and mining industry), devices with special signal parameters.



Up to d.200 – d.500 mm

- Inhibit new lime-scale.
- Dissolve existing deposits.
- Models for the pipes with diameter 200, 250, 300, 350, 400, 450, 500 mm.
- Custom for d.500+ mm.

A photograph of industrial machinery, likely a water treatment system. A large, vertical, cylindrical component is the central focus, with a smaller, black, rectangular component attached to its side. This smaller component is circled in white, and a white line points from it to the text 'WS-435. D.400'. In the background, there are several vertical pipes with green and yellow bands, and a stainless steel cabinet on the left. The overall scene is brightly lit, suggesting an indoor industrial setting.

24/7,  
FULL  
AUTOMATIC

WS-435. D.400

**24/7 protection of pipes and equipment.**

Suitable for non-constant flow and variable chemical composition of the water.

**Fully automatic**, with self-control and with simple maintenance, which is clear even for low level personnel.



## FEEDBACK EXAMPLES

“With WS-62 water conditioner after 3 months no new limescale was found in heat-exchanger. Residual deposits are softened and can be easily removed. Before some pipes inside it were blocked with limescale even after a month after complete cleaning.” - **Car parts manufacturer, Russia.**

“After two months of WS-62 operation, temperature at the gates heating heat-exchangers output changed from 38-40°C to 57-64°C. Deposits amount on the plates of the hot water heat-exchanger significantly decreased in compare with the previous year.” - **Boiler house, Russian Railways.**

“Device WS-62 was installed on a “dirty” heat-exchanger, which should be cleaned in one month. The flow was already 54% of the nominal. After 3 months of operation, the flow become 74% of the nominal. Return water temperature become less for 10°C. We see positive dynamics. We keep heat-exchanger working.”  
- **Boiler house, Belarus.**

“In 6.35 times more reagent was pumped through the line with flocculating device WS-168F than through the control line. With device noticeably less deposits appeared, and they have a different structure — they are not rigid, loose and porous.”  
- **Deicing reagents factory, Russia.**



# INSTALLATIONS



BUSINESS CENTERS: HEAT-EXCHANGERS (LEFT), CHILLER (RIGHT) PROTECTION.



MILK FACTORY



METALLURGICAL FACTORY



Inlet pipe of the pump before



Inlet pipe of the pump with device  
(6.35 times more pumped)

Chemicals factory. Protection pipes from calcium deposits.

# CONTACTS

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