

**KONTROL** 

# **HIDRO-H PUMPING STATION FAMILY**

## **General overview**



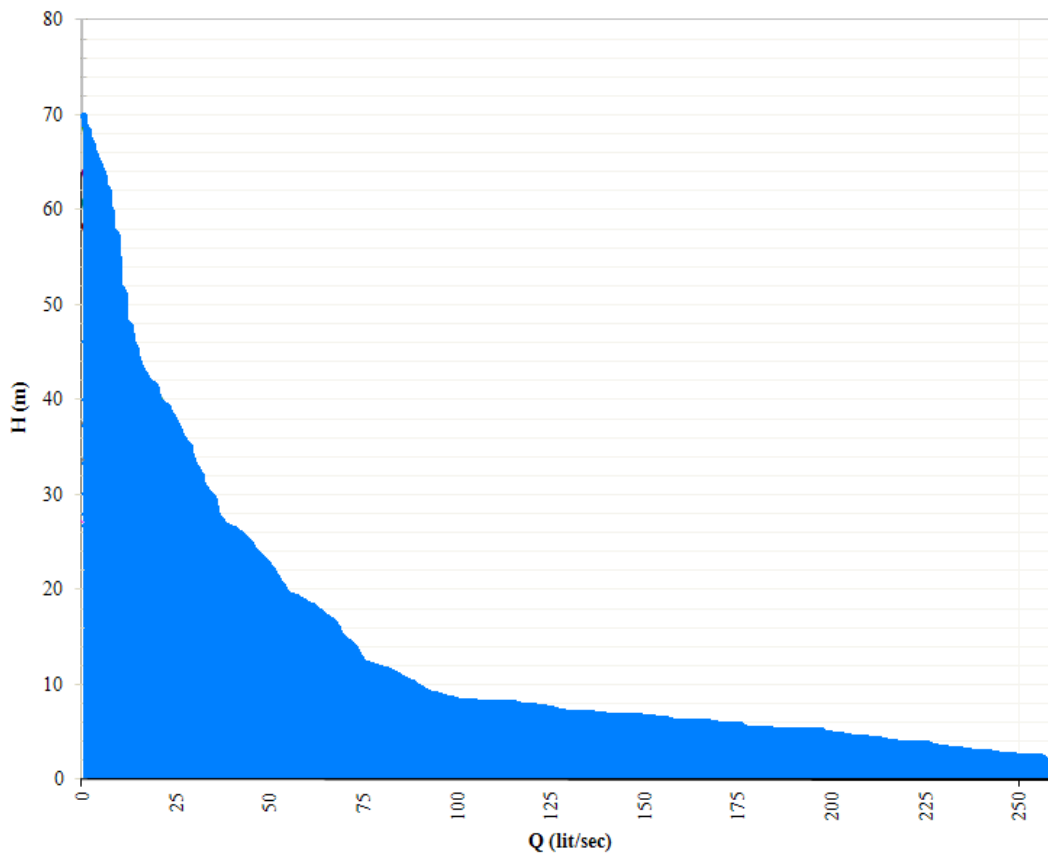
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## Application

The pumping stations of type HIDRO H meet the requirements of the different liquid pumpings and installations widely. They can be designed and installed in compact, plastic or concrete prefabricated construction. They are suitable for collecting temporary and conveying irrigation water, rainwater, waste water, sewage and excrement. They can be applied individually or in system.



## Structure of the pumping stations

**Shaft:** made of cast polypropylene or of welded rigid polyethylene. All the pipe passages (gravitational inlet, electric cable protecting pipe, discharge pipe) are water- and chemical-resistant, pH5-10. This solution is environmentally friendly, perfectly watertight, installable easily.

**Technologic unit:** It can be a portable, automatic coupling or fast-coupling unit assembled of corrosion-resisting metal and/or plastic parts. Its task is to fix the pump, to make the sewage flow in one direction and to make the system washable.

**Pump:** it can be selected with numerous hydraulic and power depending on the application circumstances. Regarding their system, they can be: free flow, - restricted free flow, - shredder, - standard, and multifunctional constructions.

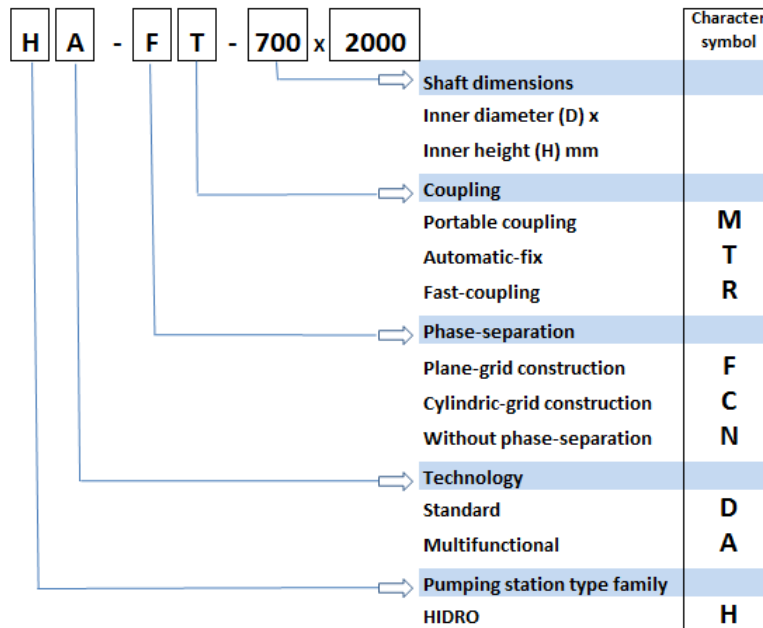
**Electric control unit:** It is for operating, controlling and protecting the pump, and for signing the eventual failures. In the pumping stations of system „HIDRO H”, due to the coupling construction of the technologic unit, the pump can be installed time-independently from the pumping station, and replaced later in case of need or demand. Due to the simple, fast, automatic coupling, its installation and maintenance can be done easily, without touching the sewage.

By applying multistage pump protection, floating level switch independent from the electric power cable and timing control, the probability of pump failure and the maintenance costs reduce significantly.

The main advantages of the „HIDRO H” pumping stations are the following: - high-level operational safety, - long lifetime, wide-range assortment, favourable price level.

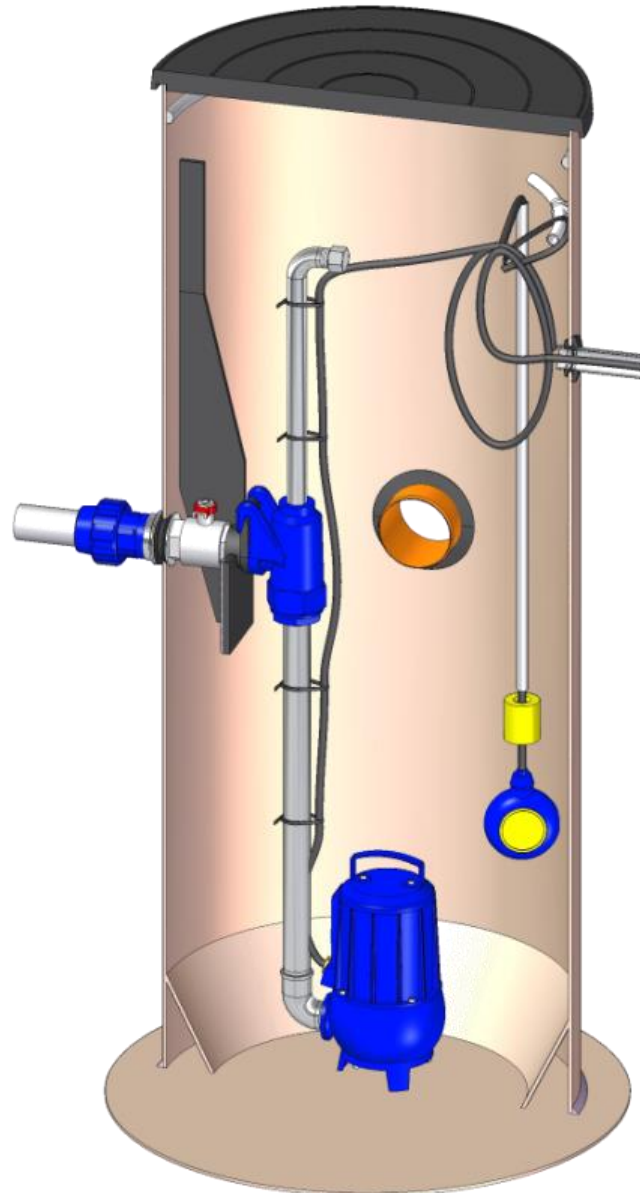
We mention the **multifunctional, phase-separating sewage pumping stations** particularly which are operated **UNATTENDED**.

## Type symbols of the pumping stations



## HIDRO H Standard pumping stations

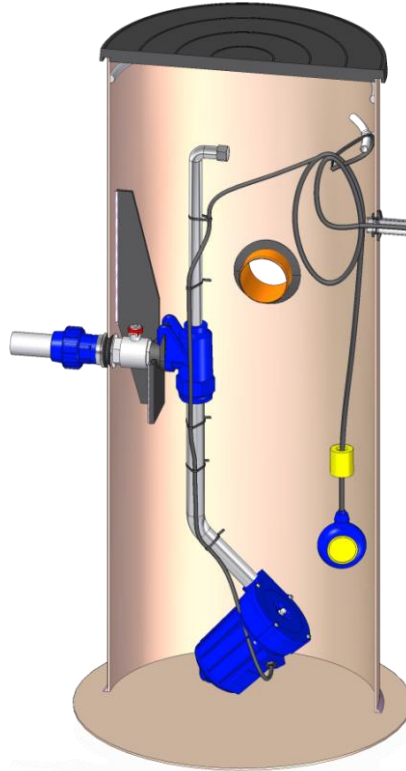
HD-NR-700x1700



The shaft is prefabricated tank, made of polypropylene sheet with welding, or of welded polyethylene. This solution is environment protecting, perfectly watertight, installable easily.  
The technologic unit is assembled of metal and/or plastic parts. Its task is to make the sewage flow, to fix the pump and to make the fast coupling possible in the pumping station. The pump is turbine pump of different hydraulic constructions. The level control can be fixed separately and free adjustable. The start and stop of the pump is made by a floating level switch.

## HIDRO-H Multifunctional pumping stations

HA-NR-700x1700



### **The multifunctional system and the pump provides a more advanced technology in the sewage conveying**

The blender-shredder unit looks to the bottom of the sewage room. The hydraulic unit is placed at the top. The sewage is blended at the lower part, and it is pumped at the upper part, so the floating-up materials (greases, oils,...) in the shaft are conveyed continuously, they can not accumulate. The sewage can be kept fresh during the conveying. The sediment is blended, homogenized. The floating-up materials are skimmed, the sedimentation and clogging of the greases and other materials can be avoided. The frequency of blending and aeration can be assured in regular periods, independently from the sewage-inflow. The shredding of the lumpy, fibrous materials is made by deterioration in an indirect way, that is why:

- the shredding power requirement is smaller,
- the processes are softer,
- it is not sensible for the abrasive materials,
- a significant lifetime increase can be achieved.

Because of the sewage convey from above:

- the risk of clogging or getting stuck is reduced,
- the dry run of the pump is excluded.

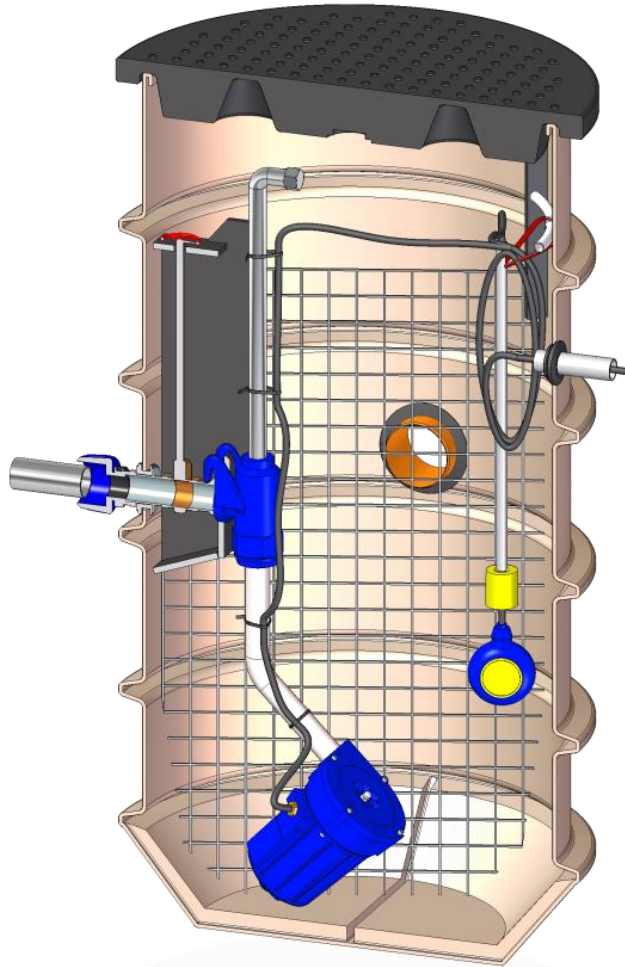
The need of human attendance is reduced on a minimum level. (The pump should be protected from channel-foreign materials.)

## HIDRO-H

### Unattended pumping stations

*Phase-separating, plane-grid, fast-coupling, multifunctional sewage pumping stations*

**HA-FR-700x1400**



### Unattended operation is provided

The built-in plane-grid phase-separator protects against the channel-foreign materials.

The channel-foreign organic matters are discharged through the grid because of the strong blending effect of the multifunctional pump. The multifunctional pump is controlled by a timing program adjustable optionally. The frequency of starts and the operation time can be adjusted optimally depending on the ratio of the communal sewage solid matter and liquid. The pump units work with extremely high operation safety and long lifetime by applying trouble-free control and by excluding the channel-foreign materials.

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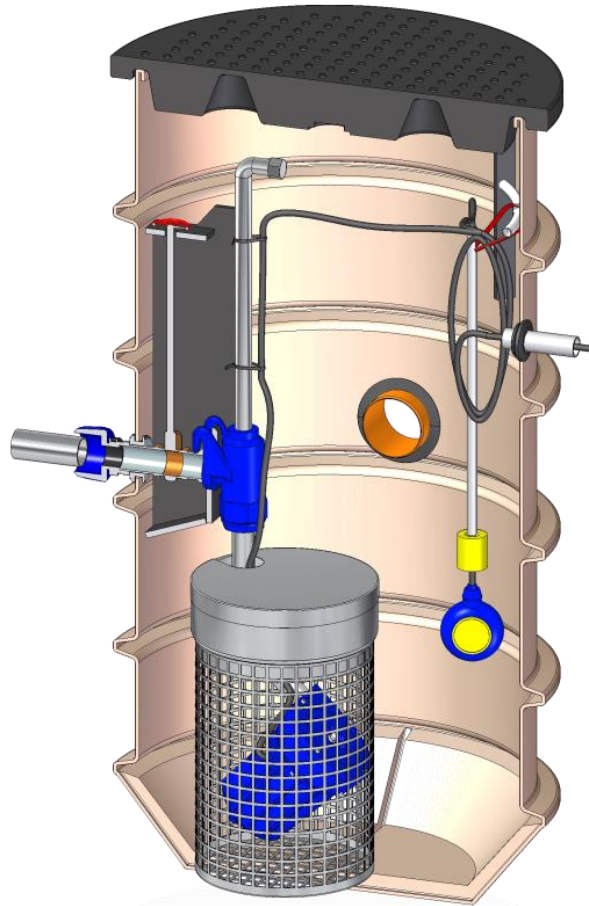


## HIDRO-H

### Unattended pumping stations

*Phase-separating, cylindric-grid, fast-coupling, multifunctional sewage pumping stations*

HA-CR-700x1400



**Unattended operation is provided.**

The applied cylindric-grid phase-separator protects against the channel-foreign materials. The strong blending effect of the multifunctional pump makes an intensive liquid flow through the grid, so the channel-foreign organic matters between the shaft inner surface and the grid outer surface get loose, soak and discharged.

The multifunctional pump is controlled by a timing program adjustable optionally. The frequency of starts and the operation time can be adjusted optimally depending on the ratio of the communal sewage solid matter and liquid. The pump units work with extremely high operation safety and long lifetime by applying trouble-free control and by excluding the channel-foreign materials.

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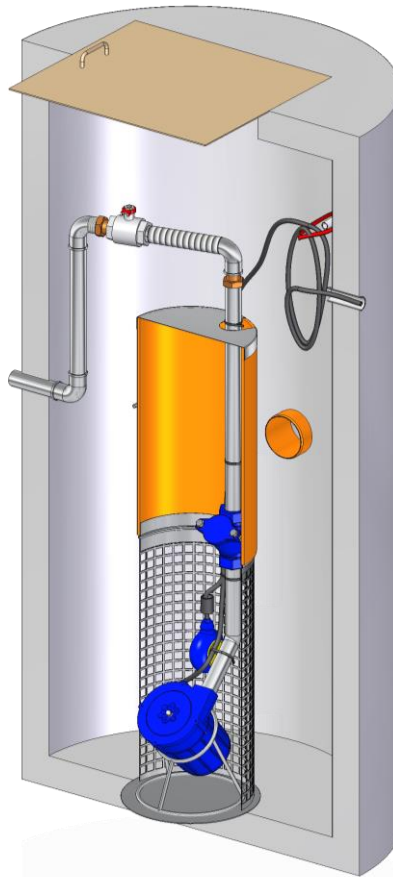


## HIDRO-H

### Unattended shaft renewal technologies

*Phase-separating, cylindric-grid, portable construction,  
multifunctional sewage pumping stations.*

#### HA-CM technology



**Unattended operation is provided.**

The system is for modernization, renewal of existing sewage shafts, which can be installed and put in operation very simply. The applied cylindric-grid phase-separator protects against the channel-foreign materials

The strong blending effect of the multifunctional pump makes an intensive liquid flow through the grid, so the channel-foreign organic matters between the shaft inner surface and the grid outer surface get loose, soak and discharged. The multifunctional pump is controlled by a timing program adjustable optionally. The frequency of starts and the operation time can be adjusted optimally depending on the ratio of the communal sewage solid matter and liquid. The pump units work with extremely high operation safety and long lifetime by applying trouble-free control and by excluding the channel-foreign materials.

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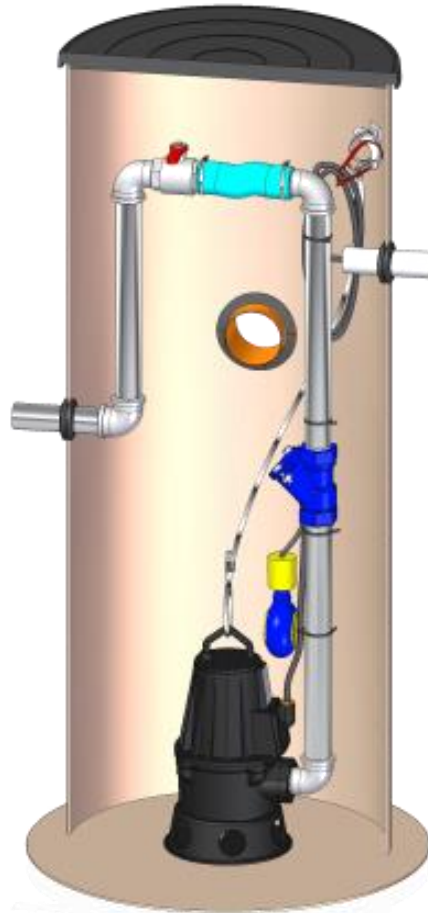


## **HIDRO-H**

### **Standard pumping stations**

*Restricted free flow, portable construction  
sewage pumping stations*

**HD-CM technology**



In the pumping stations of system HD-CM, the lumpy sewage is discharged without shredding in the way that the raw sewage is passed through a pump of appropriate free passage. All the materials possible by the given free passage are discharged from the pumping station by the pump.

The lumpy sewage is conveyed without shredding, with free flow. You do not have to buy a machine shredder, and the shredding work does not consume any electric power, and the shredder unit does not break down, does not have to be repaired. In such a way the sewage can be conveyed in a reliable and long-life way.

The main advantages of the HD-CM sytem are the following:

- high operation safety,
- long lifetime

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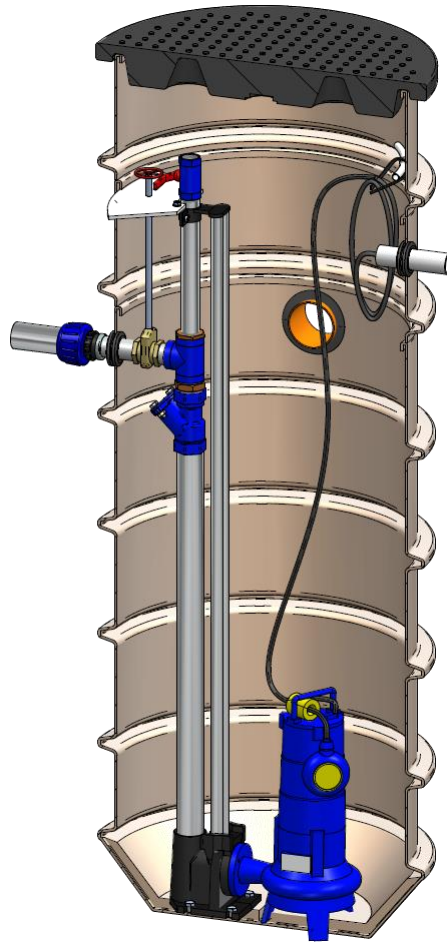


## HIDRO-H

### Standard pumping stations

*Machine shredder, automatic-fix construction  
sewage pumping stations*

#### HD-NT technology



In the pumping stations of automatic-fix construction system HD-NT , the lumpy sewage is conveyed with shredding in the way that the raw sewage is passed between the standing and rotating blade placed in front of the pump suction opening. The blades shred the bigger lumpy materials, so a bigger lifting height can be achieved with hydraulics of smaller free passage without increasing the power considerably.

During the operation of the pumping station, you should hinder the inlet of the materials damaging the shredder unit (e.g.: razor blade, stocking, sand, etc ...), which could make the pump break down.

The main advantages of the system HG are the following: bigger lifting height can be achieved, so bigger geodetic level differences and bigger distances can be canalized with the given power draw.

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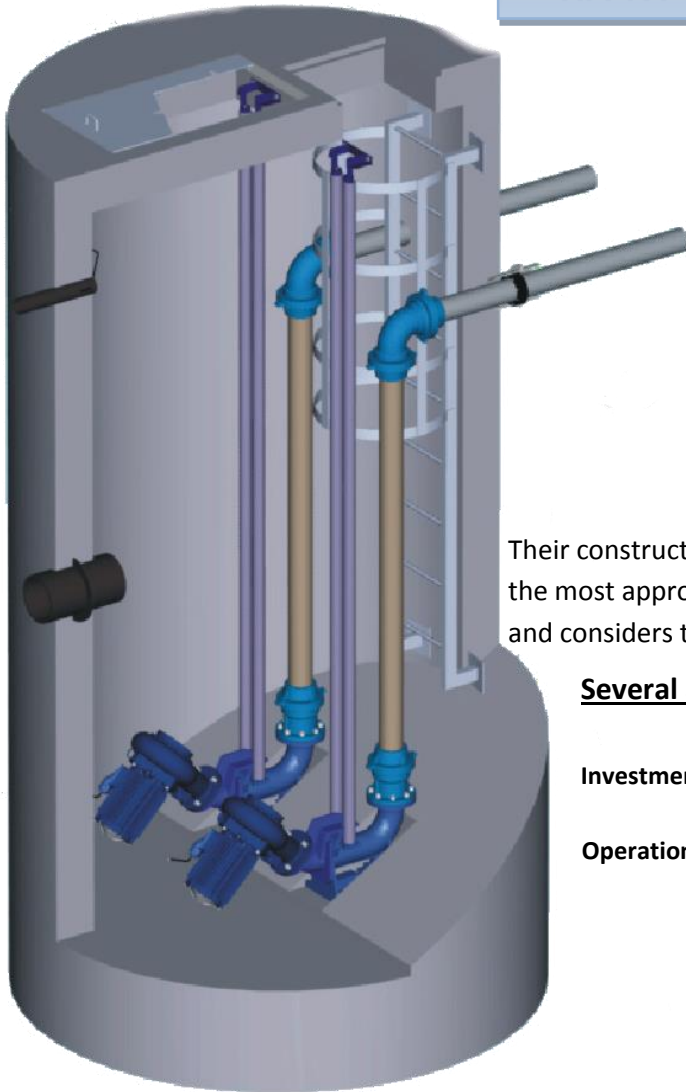


## HIDRO-H

### Unattended public utility pumping stations

*Multifunctional, automatic-fix coupling  
sewage pumping stations*

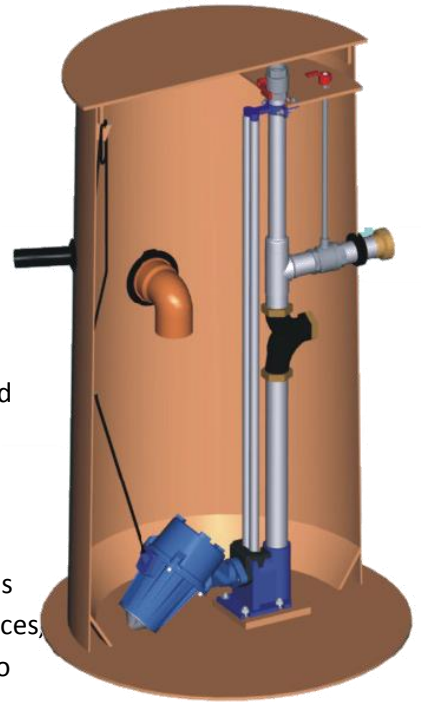
#### HA-NT technology



#### Typical applications:

- at sewage and rainwater pumping stations,
- at different technologic processes,
- at industrial water inlets,
- at agricultural drainages,
- at building industrial liquid conveying,
- at environmental damage arrangements.

Their construction in material and structure is the most appropriate to the given circumstances, and considers the environmental aspects, too



#### Several advantages

- |                    |   |
|--------------------|---|
| <b>Investment</b>  | - An only compact machine provides 4 functions.<br>- Compatibility with the previous systems.   |
| <b>Operation</b>   | - Skimming the floating-up materials. The sedimentation and clogging of the greases and other materials can be avoided.<br>- Blending the sediment. Homogenization.<br>- Reliable, unique unattended.<br>- Quality improvement at sewage. Reduced odour effect. |
| <b>Maintenance</b> | - Dry run is excluded because of the allocation.<br>- The risk of clogging or getting stuck is reduced to a minimum level because of sucking from above.<br>- No need to maintain regularly. Built-in sensors sign the eventual break-down, failure.            |
| <b>Service</b>     | - Qualified services, expertation.<br>- Favourable spare part prices, fast service.   |

Pumping of sewage and other water of public and individual buildings, Industrial plants, agricultural plants.

Safety and control units with wide range services.

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