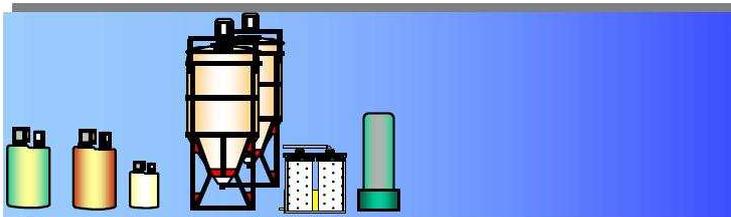


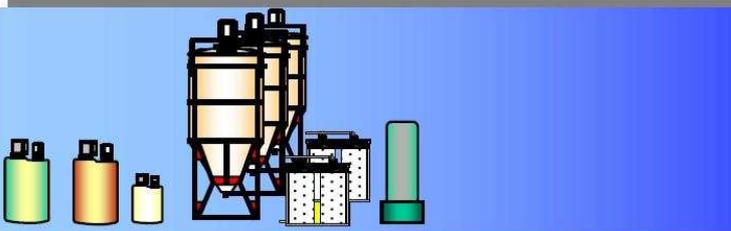
HEAVY METALS REMOVAL FROM WASTEWATER

MODULAR WASTEWATER TREATMENT PLANTS FOR WASTEWATER CONTAINING HEAVY METALS

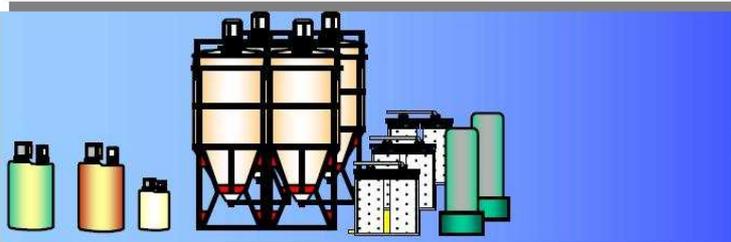
Modular electroplating wastewater treatment plants have been developed into maximize the efficiency of removal of heavy metals from wastewater with minimum consumption of chemicals. Wastewater treatment plant consists of a closed sequential reactors wherein sequentially extend cleaning operations starting with a filling of the reactor end ending with the discharge of treated wastewater and settled sludge after neutralization.



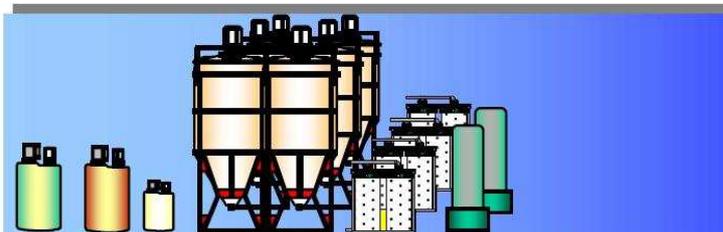
Capacity 5 ÷ 50 m³/d



Capacity 50 ÷ 100 m³/d



Capacity 100 ÷ 150 m³/d



Capacity 150 ÷ 200 m³/d

The components of a complete wastewater treatment module:

1. modular reactors with stirrer,
2. chemical dosing stations,
3. settling tank,
4. filter bag for dewatering sludge or presses,
5. water recovery module (optional)
6. power supply and control panel.

All components of the modular wastewater treatment can be completed, connected and arbitrarily deployed depending on individual circumstances. Wastewater treatment can work in manual mode and fully automatic with visualization of all technology processes on LCD. In each reactor are carried out subsequent operations stages of technological process for optimal use of all unit devices included in the installation.

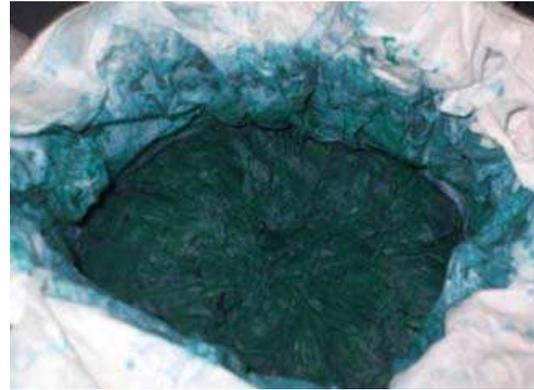
Inwatec company offers technology of neutralization and precipitation of metals for different wastewaters:

1. **wastewater containing chromium Cr⁺⁶,**
2. **alkaline zinc plating wastewater,**
3. **acid and alkaline wastewater,**
4. **cyanide wastewater.**

Procedure for treatment of waste water containing heavy metals is individually designed to the composition of the wastewater. All, subsequent operations, chemical dosing and wastewater treatment are automatically performed in a closed reactor, without any contact with employees. The product of treated wastewater containing heavy metals are wastewater without heavy metals and sludge which is given for further thickening in settlers and dewatering in filtration device. In this option treated wastewater have quality requirements for discharge into municipal sewage network.



Treated wastewater



Dewatered sludge

Modular wastewater treatment can be equipped with a deionized water recovery unit from wastewater which can be reused in technological process - systems "Zero discharge".

CHARACTERISTICS OF MODULAR WASTEWATER TREATMENT PLANT:

- chemical resistance, HDPE, PP, PVC, stainless steel 304 and 316,
- modular design of plant,
- automatic control,
- electric and pneumatic actuators,
- PLC controls, larger plants with visualization and control from a PC,
- gravity filtration in hydrophobic bags,
- low energy consumption,
- low investment costs,
- simple operation,
- EU standards regarding wastewater treatment.