

# WATER TREATMENT PLANTS



As part of any city or country's water legislation, water coming from construction sites must meet certain requirements before being discharged into the sewer system or returned to the natural environment. To meet these requirements, Herrenknecht has developed modular, containerized and pre-assembled Water Treatment Plants (HK WTP) that enable construction sites to comply with these applicable regulations. These systems are easy to transport, install, operate and expand (if required).

## Importance of water treatment

- › Increasing requirements and limitations for environmental protection and sustainability
- › Increasing disposal costs
- › Avoiding jobsite limitations
- › Limited space on construction sites
- › All-in-one solutions

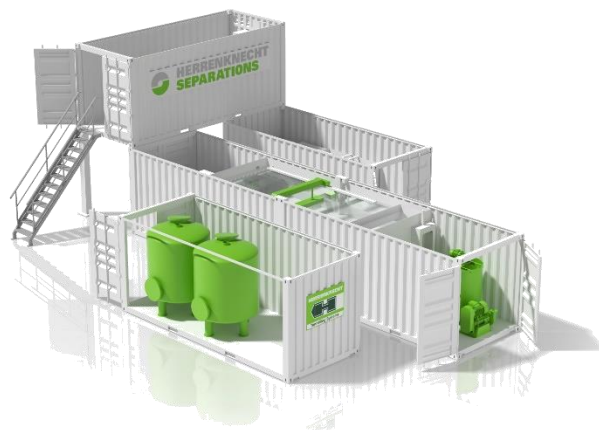
## Advantages of HK WTP

- › Modular design, individually expandable
- › Flexible flow rate for all sizes of water circuits
- › Several options to meet specific compliances
- › Fast and easy assembly and commissioning
- › Integration into TBM and STP controls
- › Data management and remote access via Herrenknecht.Connected
- › High-quality and reliable components

# Herrenknecht Water Treatment Plants

## Technical specifications

- › Containerized (20/40 ft.)
- › Expandable according to flow requirements
- › Adaptable to requirements / worldwide varying limits
- › PLC controlled and fully automatic
- › Data management module WTP.ON for Herrenknecht.Connected



### Basic items

- › Incoming and outgoing buffer tank
- › Thickener, flocculant system, chemical dosing
- › Filter press

### Optional items

- › Quartzite sand filter for TSS > 100 mg/l
- › Activated carbon filter for gas, odor and color absorption
- › WTP.ON data management module
- › Chemical dosage pumps for different purposes

### Adaptable to all requirements

Type	Flow rate (in m <sup>3</sup> /h)	Footprint (in m <sup>2</sup> )	Container sizes (approx.)
HK WTP 10	≤ 10 m <sup>3</sup> /h	35 - 45 m <sup>2</sup>	<ul style="list-style-type: none"> <li>› Container 1 (buffer tank &amp; thickener): 40 ft</li> <li>› Container 2 (filter press): 20 ft</li> </ul>
HK WTP 20	≤ 20 m <sup>3</sup> /h	45 - 85 m <sup>2</sup>	<ul style="list-style-type: none"> <li>› Container 1 (buffer tank): 20 ft</li> <li>› Container 2 (thickener): 20 ft</li> <li>› Container 3 (filter press): 20 ft</li> </ul>
HK WTP 40	≤ 40 m <sup>3</sup> /h	60 - 100 m <sup>2</sup>	<ul style="list-style-type: none"> <li>› Container 1 (buffer tank): 20 ft</li> <li>› Container 2 (thickener): 40 ft</li> <li>› Container 3 (filter press): 20 ft</li> </ul>
HK WTP 60	≤ 60 m <sup>3</sup> /h	70 - 135 m <sup>2</sup>	<ul style="list-style-type: none"> <li>› Container 1 (buffer tank): 20 ft</li> <li>› Container 2 (thickener): 40 ft</li> <li>› Container 3 (filter press): 40 ft</li> </ul>
HK WTP 80	≤ 80 m <sup>3</sup> /h	100 - 165 m <sup>2</sup>	<ul style="list-style-type: none"> <li>› Container 1 (buffer tank): 40 ft</li> <li>› Container 2 (thickener): 40 ft</li> <li>› Container 3 (filter press): 40 ft</li> </ul>

### Ingoing parameters to know

- › TSS (solid content) in g/l
- › pH value
- › Surfactants
- › Capacity peaks expected
- › Mineral oil or hydrocarbons
- › Chrome and other heavy metals
- › Bentonite content in inlet
- › Pollutants or organics

### Outgoing parameters to know

- › Specific limitations
- › TSS (solid content) in mg/l
- › Target pH value
- › Reuse of the water
- › etc.