

# Circular settling tank

## KUNST UNK-10.5-K through UNK-30-K

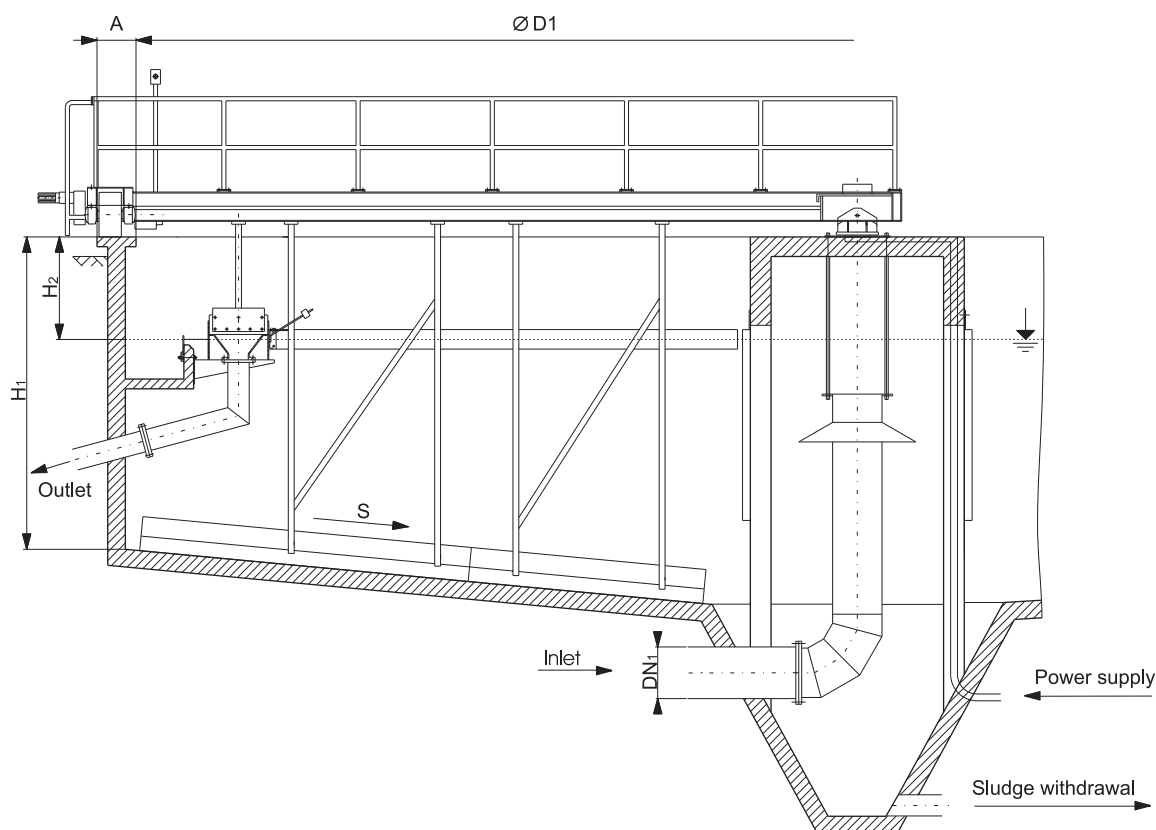


TABLE OF MAIN DIMENSIONS:

Parameter	Designation		Size and designation of the final settling tank							
			UNK-10.5-K	UNK-12-K	UNK-15-K	UNK-18-K	UNK-21-K	UNK-24-K	UNK-27-K	UNK-30-K
Tank diameter	$D_1$	mm	10 500	12 000	15 000	18 000	21 000	24 000	27 000	30 000
Lane width	A	mm	400	400	400	400	500	500	500	500
Side tank depth	$H_1$	mm	3000	3000	3000	3000	3000	3000	3000	3000
Distance of water level	$H_2$	mm	800	800	800	800	800	700	700	700
Diameter of inlet pipe	$DN_1$	mm	400	400	500	500	600	700	800	800
Down-grade	S	%	6	6	6	6	6	6	6	6

**REMARK:**

Alternative method of specification of the tank equipment is chosen according to customer's requirement.

R.č. UNK-K 02/08-A-en

## Circular settling tank

### **KUNST UNK-10.5-K through UNK-30-K**

#### **APPLICATION**

The circular final settling tank is used for gravitational separation of primary sludge contained in the inflow water, as well as its subsequent removal. The settling tank serves after the crude treatment units such as screens, gravel trap, sand trap, etc. as upstream clarification unit.

#### **FUNCTIONAL PRINCIPLE**

Waste water which contains undissolved substances of grain sizes smaller than 0.2 mm flows in the calming area, where the velocity of water is reduced, so the sediment particles begin to sediment and sink to the bottom of the settling tank. The offset waste water becomes deflected to the outer brink of the tank where it ascends and after passing underneath the skimming wall, it flows over the saw-tooth overflow edge to the further treatment. Sludge which is separated in the final settling tank becomes steadily conveyed from the bottom of the tank into the sludge hopper by means of circular scrapers. Thus, it becomes partial thickened. Floating sludge becomes removed using floating sludge scraper or a combination using clarification by means of air and is skimmed into the pit of floating pollutants, from where it is taken to the further treatment stages. Alternatively, sludge can be conveyed by submerged pumps into the sludge pipe. The sludge scraper is firmly connected with the swing bridge which rolls on a guide rail. This is enabled by using of solid rubber wheels, or usual wheels rolling on the guide rail. Under aggravating climatic conditions, the application of a forced drive is possible. By default, the supply of the bridge drive is through the central leader.

#### **MATERIAL DESIGN**

The standard version of the material is construction steel with subsequent metallization or galvanizing and seal coat. The gutters, edges, skimming walls, scrapers, the outflow of effluent water and floating debris as well as other parts dipped in water – are from stainless steel. The guide rail and as necessary the force drive are made of construction steel.

#### **OPERATION AND MAINTENANCE**

The operation of the facility does not require constant care. Their maintenance is in accordance with the instructions.

#### **DELIVERY FORM**

The equipment is the total UNK including delivery and installation of additional equipment or according to contract. The disposition of equipment (equal to the dimensions, which are listed in the table of the main dimensions) can be individually reviewed and is the subject of the technical explanation. The supplier reserves in compliance with the parameters of the equipment right for a change of deliveries contrary graphical illustrations.

#### **DELIVERY DATE**

According to contract