

Circular final sedimentation tank – rigid bridge

KUNST DNKP-8-K through DNKP-11-K

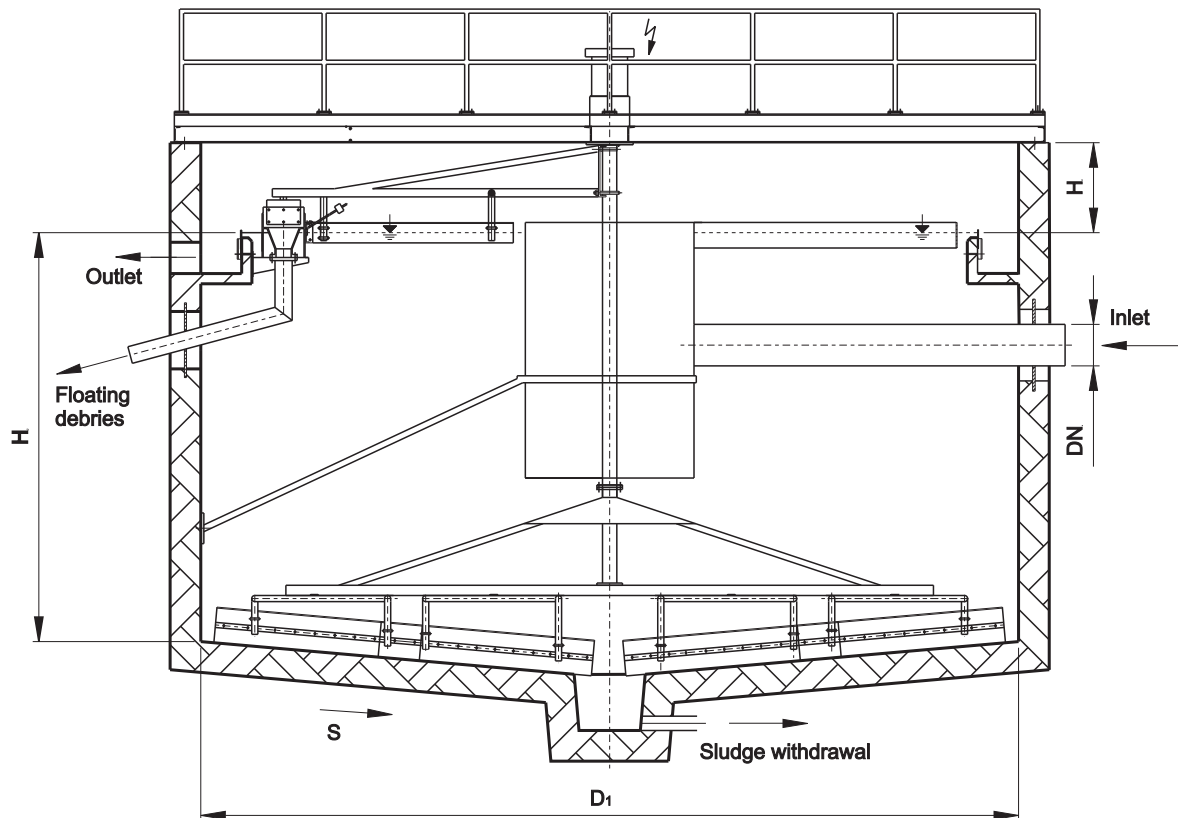


TABLE OF MAIN DIMENSIONS:

Parameter	Designation		Size and designation of the final settling tank DNKP						
			8-K	8,5-K	9-K	9,5-K	10-K	10,5-K	11-K
Tank diameter	D_1	mm	8 000	8 500	9 000	9 500	10 000	10 500	11 000
Diameter of inlet pipe	DN_1	mm	200	200	250	250	250	250	300
Side water depth	H_1	mm	4 100	4 100	4 100	4 100	4 100	4 100	4 100
Distance of water level	H_2	mm	900	900	900	900	900	900	900
Down-grade	S	%	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. DNKP-K 02/08-A-en

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APPLICATION

The circular final settling tank with rigid bridge is used for gravitational separation of activated sludge as well as subsequent clarification of waste water after its biological treatment. This type covers the size range of 6 000 to 12 000 PE while simplified construction compared to final settling tanks with movable bridges.

FUNCTIONAL PRINCIPLE

Waste water which contains a residual content of activated sludge flows into the central degasification and flocculation cylinder. Here, the velocity of the mixture becomes reduced. The effluent water from the flocculation cylinder becomes deflected outside the sump. The central cylinder, are firmly connected to the tank wall using a rod. If floating sludge scrapers are not required, the cylinder can be hang from the bridge. The 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. 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. Floating sludge becomes conveyed to the brink of the tank using floating sludge scrapers and stripped off by collapsible scraper into the floating debris pit. Withdrawal of floating debris is solved using a flushed gutter and flap lock. Floating sludge is removed by dint of gravitation into the reservoir of floating debris. Another possibility is to use flushed rustfree reservoir in the DNKP and their withdrawing using a submerged sludge pump. The floating sludge scraper device is connected with the hollow shaft, which is the main drive of the bottom and floating sludge scraper. The gearbox and electric motor are attached at the pier of the bridge, to protect against overload the equipment is protected against overload using a overload clutch which is situated at the drive shaft.

The final settling tank's accessories are protected by utility pattern of the company KUNST, spol.

MATERIAL DESIGN

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