

The steel thickener tank

KUNST ZNO-20-K through ZNO-60-K

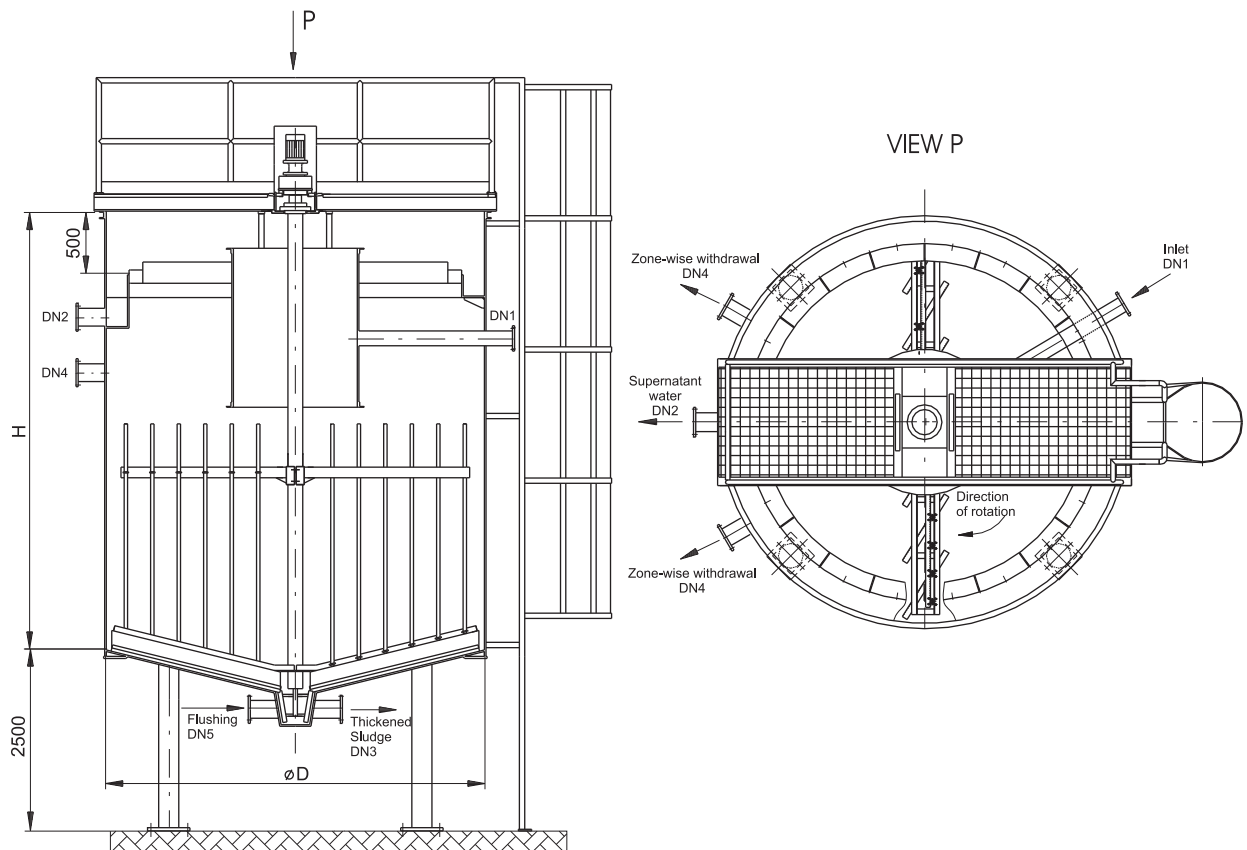


TABLE OF MAIN DIMENSIONS:

Parameter	Designation	Size and designations of the thickening tank ZNO				
		ZNO-20-K	ZNO-30-K	ZNO-40-K	ZNO-50-K	ZNO-60-K
Effective volume	V m ³	20	30	40	50	60
Tank diameter	D mm	2800	3200	3500	3800	4000
Tank height	H mm	3500	4000	4375	4750	5000
Nozzle size	DN1 PN6	DN100	DN125	DN125	DN150	DN150
Nozzle size	DN2 PN6	DN150	DN150	DN150	DN200	DN200
Tare weight of the tank	c. kg	2700	4000	5200	6700	8200

The nozzle size DN3, DN4 and DN5 is always DN150 PN6

REMARK:

The position, internal and external diameter of nozzles can be customized.

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APPLICATION

Thickening tanks are used to thicken liquid sludge from municipal and industrial waste water treatment plants. By slow stirring of the sludge water, sludge is separated and sinks down to the bottom of the tank. The water can be removed continuously or discontinuously from the tank and subsequently discharged into additional treatment stages. The operational mode is chosen according to the customer's needs.

DESCRIPTION

The thickener is an upright, cylindrical steel tank at zero pressure. The conical bottom has an outlet connection on one side and a flange that can be used for flushing or connection of a pressure gauge on the other side. The pressure gauge can be used for level indication. The ZNO can be located on supporting stands or anchored on a concrete ring. The tank is top open. The mixer drive is located in the end-to-end walkable catwalk. Accessing the catwalk is enabled by a ladder. The mixer is located in the lower part of the tank. The mixer is equipped with raking blades which convey the thickened sludge into the outlet hopper, and a vertical rake to mix the sludge lengthwise. The Mixer can be equipped with a revolution control. At the liquid level the tank is equipped with a discharge trough which has an adjustable overflow edge and scum board. In case of continuous water withdrawal, the discharge trough ends in the discharge nozzle. Discontinuous withdrawal of water is achieved by zone-wise outlets. The inflow pipe is tangentially connected to the rectification cylinder. If the tank is located in an unheated property, heat insulation can be attached including length compensation of the connection tubes.

MATERIAL DESIGN

Sludge thickeners can be offered in two different material options:

- All-steel construction made of construction steel having a protective coating. The discharge trough and scum board is made of stainless steel.
- The tank is made of construction steel having a protective coating. The parts of the mixer unit which are in direct contact with sludge, the handrail, ladder, overflow edge as well as the scum board are made of stainless steel.

The kind and extensiveness of the protection coating is adapted to the customer's needs.

OPERATION AND MAINTENANCE

The operation of the facility does not require constant care. The maintenance needs to be done in accordance with the instructions.

DELIVERY FORM

ZNO-Tanks are delivered completely including installation or according to contract. With respect to the tank dimensions, the Tanks are delivered as the whole tank or in pieces suitable for transportation. The installation of the mixer will be done at the final place of the tank. The position and diameters of the nozzles are chosen individually, depending on the technical feasibility.

The supplier reserves in compliance with the parameters of the equipment, the right for a change of deliveries contrary graphical illustrations

DELIVERY DATE

According to contract

R.č. ZNO - K 04/08-A-en