

The background of the entire page is a dense, repeating pattern of three-dimensional, brown, ring-like structures. These rings are scattered across a light yellow-green gradient background. The rings have a metallic or glossy appearance with highlights and shadows, giving them a sense of depth and volume. They are oriented in various directions, creating a complex, textured visual field.

INKOS®

Sedimentation

Sedimentation tanks UN, DN

Sedimentation tanks are intended for the separation of solid substances (sediment) by means of sedimentation.

Usually it is machine fitting of concrete tanks of various diameters given by the required rate of flow and the character of contamination.

INKOS produces and delivers machinery equipment based on the standardised key elements, adapted to the specific requirement of the customer. The individual solutions can thus differ in the way of trough attachment, concrete or steel central column, rail travel or rubberised wheels and other modifications and supplements. However, the key elements are solved in detail and proved by many installations.

The tank with a travel bridge consist of the travel bridge, the drive, the central column, central bearing and collecting trough. Spiral shaped sludge raking and floating impurities wiping is attached to the bridge.

The tank with traction drive consist of the rotor, central column, central bearing, traction drive and collecting trough. Parts of the rotor are arms with arched segments buckled with a rope. The rope is drawn by the drive unit placed outside the tank. Spiral shaped sludge raking and floating impurities wiping is attached to the rotor and its arms.

The machinery equipment material can be combined variously in a standard way (stainless - carbon steel) including surface treatment according to the customer's requirements.



Secondary sedimentation tank DN-M

Thickening tanks ZN

The main difference of ZN is that compared to UN and DN, the main product is not purified water, but on the contrary, sludge suspension. Thus requirements for different solution of the rotor and drive dimensioning are formed. Much more frequent is the version in steel tank including the heat insulation of the casing. During long-term practice, two types of the rotor drive worked well with the thickening tanks ZN: central drive located on a fixed bridge and traction drive. Like the tanks UN and DN, the thickening tanks are equipped with all standard accessories and can be produced and delivered including the casing in accordance with the specific requirements of the customer.



Thickening tank ZN 18/6

Equipment advantages:

- Proved solution for the tanks with the diameter up to 42 m
- High quality standard central bearing
- Highly efficient bottom raking in the shape of the spiral of Archimedes
- Simple bridge construction - low weight
- Optimum solution of the traction drive proved by many installations
- Special solution of the rotor ZN of low weight
- Performed ZN with the diameter up to 25 m and depth up to 12 m
- Drive of ZN placed outside the tank with low power



Secondary sedimentation tank in detail

Sedimentation is a basic natural method of solid substances and liquids separation.

The principle of sedimentation is spontaneous falling of solid particles due to their bigger specific weight.

Despite the entry of new technologies, sedimentation tanks remain an indispensable part of water treatment plants as well as many technological lines.

INKOS machinery equipment brings the sedimentation tanks to perfection with respect to the specific use.

INKOS supplies complex solution of sedimentation tanks

Deliveries

- Circular sedimentation tanks with travel bridge UN-M, DN-M
- Circular sedimentation tanks with traction drive UN-L, DN-L
- Circular thickening tanks with central drive ZN S
- Thickening tanks with traction drive ZN L
- All accessories (distributors, inlet and outlet pipes, weir edge cleaning, ...)
- Longitudinal and square sedimentation tanks
- Machinery fitting of the atypical sedimentation tanks



Thickening tank for kaolin ZN 24/8

Services

- Optimal technical set design
- Realisation project
- Erection
- Possibility of turnkey delivery
- Warranty and after-warranty service



Secondary sedimentation tank

Areas of using the sedimentation tanks

WATER TREATMENT PLANT

Both municipal and industrial water treatment plants usually use the sedimentation tanks in two stages. The primary sedimentation tanks UN are used after mechanical pretreatment and the secondary sedimentation tanks DN are used after main treatment. In the modified version, UN can also be used as storm water tanks.

TREATMENT PLANTS FOR DRINKING WATER

The sedimentation tanks for the removal of the water works sludge and sedimentation of the flakes appearing during the treatment are used here.



Secondary sedimentation tank at WWTP, Cyprus



Erection of ZN 12/12 for kaolin



Sedimentation and thickening tanks at WWTP, CR



Secondary sedimentation tank at WWTP, CR

SLUDGE THICKENING

Thickening of the sludge from water treatment plants in the thickening tanks ZN is a necessary stage before their dewatering. Thickening tanks in various versions are located in many water treatment plants both in the Czech Republic and abroad.

INDUSTRIAL SUSPENSIONS THICKENING

For example during kaolin processing, it is an important element of the technological line. Especially large ZN with traction drive and a special rotor construction are used here.



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