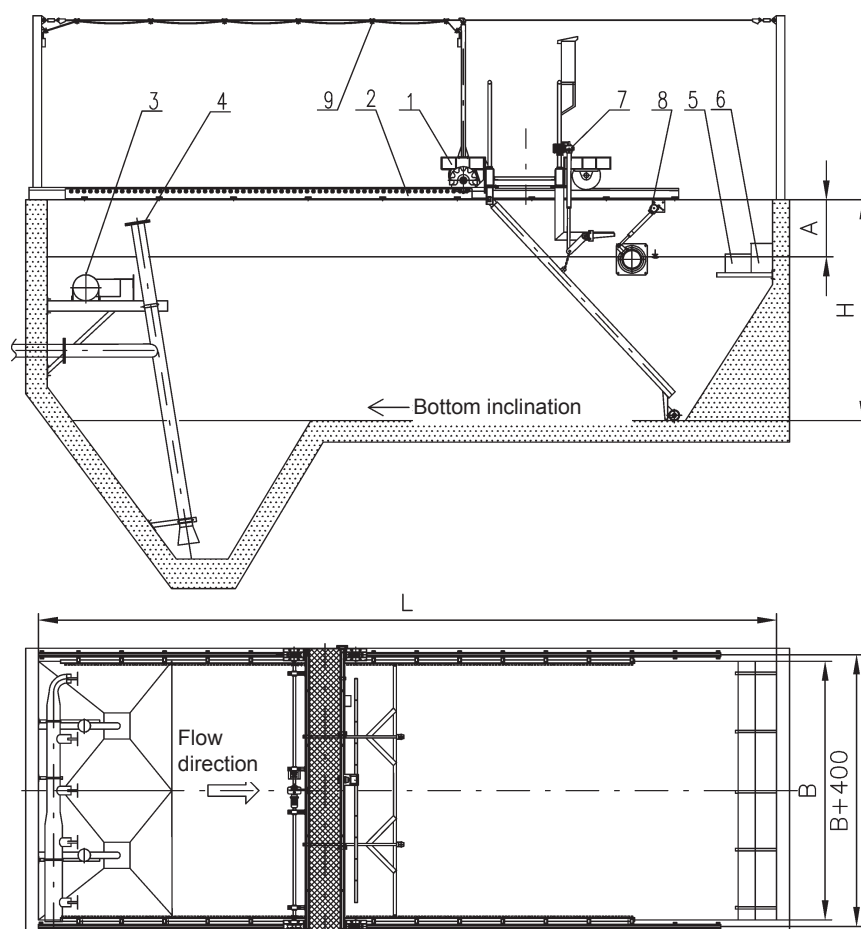


## Lengthwise sedimentation tank with rolling bridge

### KUNST UNP-4-K to UNP-12-K



#### Legend:

- 1 Rolling bridge
- 2 Forced drive
- 3 Inlet part
- 4 Sludge withdrawal
- 5 Draining chute with adjustable spillway edge
- 6 Rain gutter
- 7 Racks control
- 8 Control of floating impurities gutter
- 9 Power supply

TABLE OF MAIN DIMENSIONS

Parameter	Variable	Unit	Size	Size change increments
Tank width	B	m	4 / 6 / 9 / 12	-
Tank length	L	m	12 to 60	1 m
Tank depth	H	m	2,4 to 4,5	0,3 m
Level distance	A	m	0,6 to 1,2	0,2 m
Bridge travel speed	v	cm/sec	3 to 5	according to gear
Installed input power	P	kW	0,55 to 1,5	according to size and accessories



## Longitudinal sedimentation tanks with rolling bridge

### KUNST UNP-4-K až UNP-12-K

#### APPLICATION

The lengthwise sedimentation tank (hereinafter referred to as "UNP") is designed for gravitational separation of primary raw sludge contained in the inflow water, as well as its subsequent removal. It is used as a clarifying unit installed behind coarse separation equipment such as grit chamber, racks, sand trap etc.

#### FUNCTIONAL PRINCIPLE

Waste water with a content of suspended solids with grain size under 0,2 mm flows through the inlet part with a deflector. Here, velocity of the mixture goes down with subsequent settling of solids on the tank bottom. Waste water, being deflected to the tank outer perimeter, ascends and overflows the adjustable spillway edge into a draining chute. This chute can be installed longitudinally or crosswise or in combination of both possibilities. Alternatively, the effluent water can be stopped by means of a baffle wall before the chute in order to reduce escape of floating impurities. The draining chute can be combined also with a rain gutter. Sludge settled on the tank bottom is steadily removed into the sludge trap on the UNP inlet side by means of the rolling bridge equipped with folding doctors and racks. When the bridge goes back in its initial position the doctor holders are lifted and the racks start conveying floating impurities to the draining chute outside the tank to its further disposal. Sludge can be removed from the trap by gravity through a blow-down manifold or alternatively by a pump. The centrally powered bridge with a gangway rolls on guide rails. For adverse weather conditions it is possible to complete the application with a forced driving unit and a lantern gear, respectively lifting pin-rods and rack mechanisms on both bridge sides. Electric power supply is standardly solved by movable lead cables, alternatively by a cable drum. It includes also a combined switchboard box. This electric installation can be optionally completed also with a stepping electric motor and a speed regulator for stepless variation in dependence on actual tank load. Tank accessories (inlet and outlet part, sludge and floating debris removal) can be specified individually upon customer's requirements.

#### MATERIAL DESIGN

The rolling bridge structure is made of structural steel with metal coating or hot-dip galvanizing and seal coating. Chutes, edges, baffle walls, deflectors, doctors, racks, as well as other parts partially or fully dipped in water, are made of stainless steel (1.4301 or upon customer's requirements). The guide rails and the force drive track including anchoring elements are made of structural steel with seal coating.

#### OPERATION AND MAINTENANCE

Operation of this equipment does not require permanent attendance and its routine maintenance should be done in compliance with instructions as stated in the operating manual.

#### DELIVERY FORM

Standard delivery includes on-site installation of the entire equipment with accessories according to a contract. Accessories (as well as particular dimensions, see chart) can be optionally changed upon agreement and technical clarification. The supplier reserves the right of changes in its deliveries contrary to graphical figures, however, in compliance with the agreed parameters.

#### Note:

We can offer also overhaul and modernisation of your existing equipment. Scope of this delivery, i.e. replacement of worn and rusted parts, change of drive, recoating, new electric installation etc., shall be specified upon inspection on site and on the customer's request.

#### DELIVERY DATE

According to contract.

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