

## Integrated coarse pre-treatment economy - IHPE, IHPEL

The economy version of integrated coarse pre-treatment is an assembly of two or three products, mutually interconnected to form a single functional unit. These products perform separation of screenings and grit from water. The wastewater inlet is routed into the neck of a rake bar screen mounted on the separator. Inside the separator, screenings collect on the screen, and filtered water with grit flows to the separator surface by means of gravity.

Revolving brushes and a rake bar move the collected screenings up and onto a slide (model IHPE), or a screw press (model IHPEL). The water passing through the filter screen contains grit and undissolved fractions. Once it enters the separator, sedimentation occurs and the grit and heavier undissolved fractions sediment to the bottom of the tank. The tank connects to a screw conveyor, which removes the sediment at regular intervals. The now sediment-free water flows towards the drain neck of the separator; it may contain fine grains of grit.

Technical data	
Flow rate $Q$ :	5 ÷ 20 l/s
Screen mesh size:	3 ÷ 6 mm
Total input power:	IHPE 0,73 kW/400 V/50 Hz IHPEL 1,10 kW/400 V/50 Hz
Solenoid valve:	60 VA/ 230 V/ 50 Hz
Heating:	3 kW/230 V/50 Hz
Washing water - intermittently:	1 ÷ 3 (5) l/s; 0,3 ÷ 0,6 MPa
Operation conditions:	Indoor: building interior Outdoor: down to -20°C with heating
For alternate parameter value ranges, please consult the manufacturer.	

Product designation: **IHPE / IHPEL  $Q$  [l/s<sup>1</sup>]**



**ISO 9001**

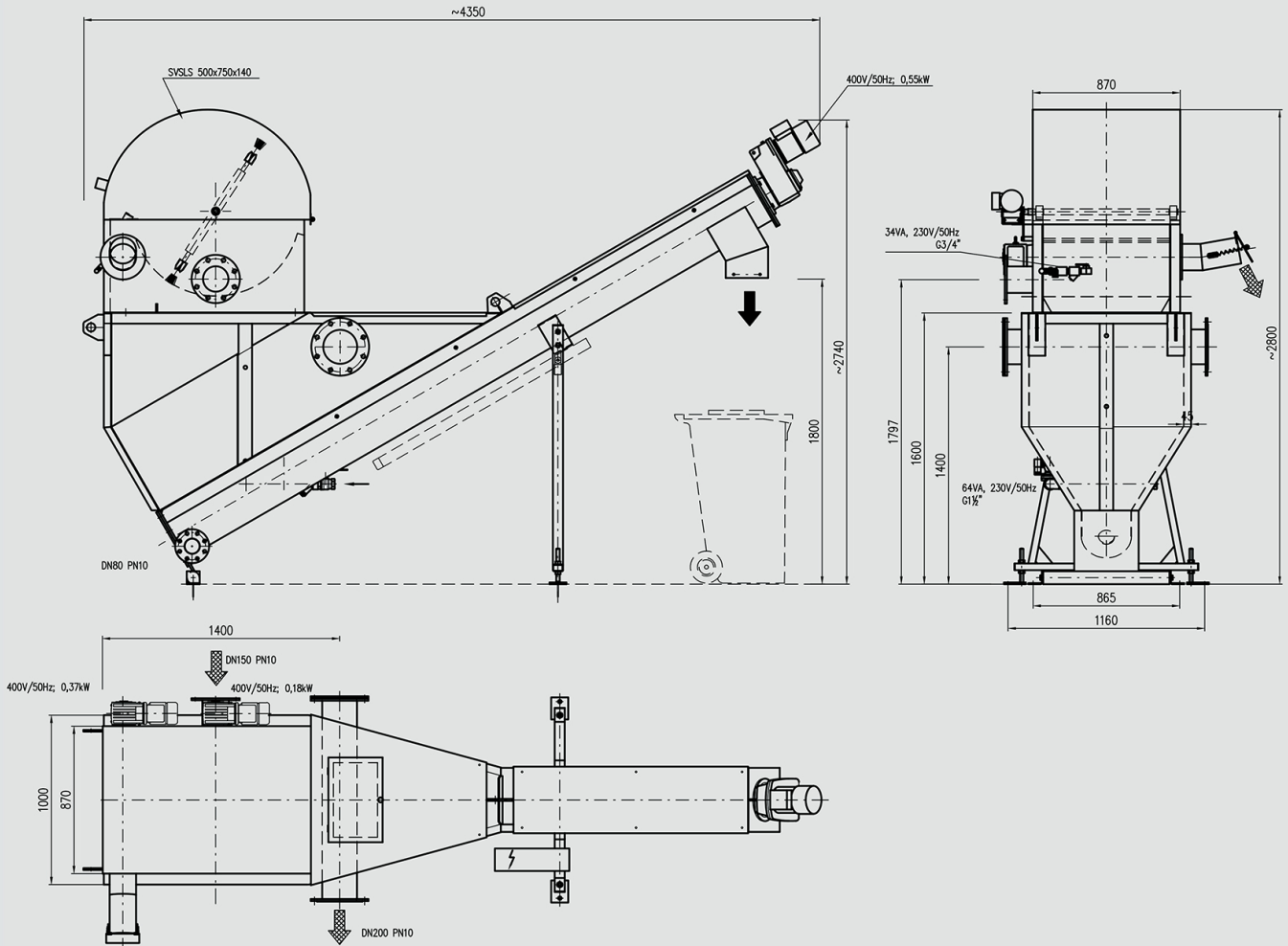
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For increased purity of the removed grit, the tank is provided with a source of washing water. The amount of water supplied is proportional to the achieved purity of the resulting ballast-free grit. As the screw conveyor transports the grit above the water level and towards the discharge, it is simultaneously being dehydrated, which means that the grit at the separator output is devoid of water.

The difference between the two designs lies in the comfort-level of the equipment. The IHPeL models allow drainage and compaction of screenings, reducing its volume by a half. Another advantage is the possibility of directing the outlet of the dehydrated screenings through the discharge pipe to a specified location in the tank.

### IHPeL - 10 - example



For outdoor applications, the manufacturer can supply equipment with heated outer casing. The entire technological process is controlled by a switchboard operating in automatic mode, with optional manual operation of individual functions. The control algorithm is reconfigurable to meet specific needs of the customer. The start signal is usually provided by the inlet water pump.

**Material:** Stainless steel design, screw conveyors made of high-strength carbon steel, bearings and brush bristles made of plastic. Equipment is partially protected by exterior paint.

Beyond basic delivery, the manufacturer Fontana R, s.r.o. also provides installation of machinery and electrical components.

The manufacturer Fontana R, s.r.o. offers its customers free consultations and technical assistance to help ensure optimal integration of equipment into the technological part of given WWTP.