

## Grit separator - SP

The grit separator is one of the devices designed for coarse pre-treatment in waste water treatment plants, where it separates grit from sediment caught in grit chambers. The sediment is a hydro-mixture of inorganic and organic substances with grit, textiles, sludge and small screenings pumped from grit chamber into the separator.



The separator is usually installed near the grit chamber while an access place for grit disposal shall be provided; at the same time its vertical position must ensure that the separated water with a small quantity of organic particles is guided

behind the grit chamber to prevent the circulation of organic particles. The dimensions of the respective separator shall not be too large since the speed of flow through the separator is decisive for the separation process.

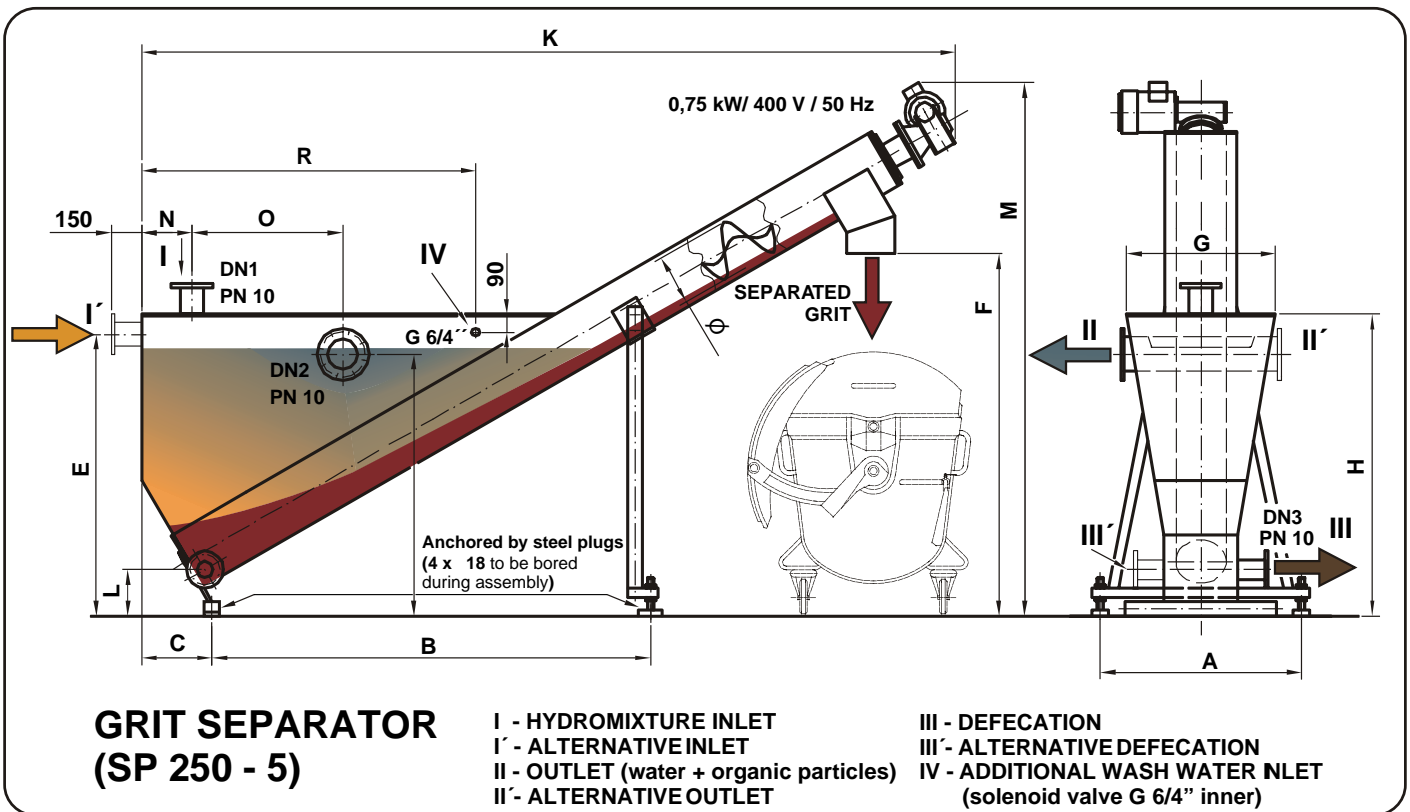
Specification	
<b>Capacity: Q</b>	5, 10, 15 ls <sup>-1</sup> of hydro-mixture
<b>Efficiency of grit separation from organic material: (grit grains &gt; 0.2mm)</b>	up to 95%*
<b>Consumption of wash water: (optional)</b>	0÷3 ls <sup>-1</sup> at 0,3 Mpa
<b>Diameter of conveyor screw: D</b>	250 mm
<b>Power input of conveyor screw:</b>	0,55 kW / 400 V / 50 Hz
<b>Power input of electromagnetic valve (only for demand):</b>	60 VA, 230 V
<b>Operating conditions:</b>	a) indoor b) outdoor for temperatures ranging from -20 to +50°C with heating unit 1.54 kW / 220 V / 50 Hz
* Depends on local conditions and the line of mechanical pre-treatment.	
Other parameter ranges need to be consulted with the manufacturer.	

Product identification: **SP D - Q**



ISO 9001

The grit separator consists of a collecting tank into which a shaftless conveyor screw is installed sidelong. The walls of the tank are shaped so that they tie with the trough of the conveyor screw. The shaftless screw is laid on gliding rails and driven by an electric gearbox. The mixture inlet, water outlet and defecation is performed through flanged fittings. In the SP tank the heavier particles (mainly grit) are separated from the incoming mixture and due to gravitation they sink to the bottom. They are then lifted upwards by the conveyor screw to the outlet while being washed and separated. The water that is now free of sediment together with small organic particles goes out through the overflow trough, flanged fitting and connected pipeline (vertical if possible) to another stage of the treatment process. For better grit separation and removing of greater organic portion from hydro-mixture the separator can be equipped with wash water supply.



**Dimensional series:**

Type (D)	Q (l.s <sup>-1</sup> )	DN1/PN	DN2/PN	DN3/PN	A	B	C	E	F	
SP 250	5	100/10	150/10	80/10	1000	2180	370	1400	1800	
SP 250	10	100/10	150/10	80/10	1300	2180	370	1400	1800	
SP 250	15	150/10	200/10	80/10	1300	2580	420	1550	2150	
G	H	I	K	L	M	N	O	R	P (kW)	kg
740	1500	1300	4100	230	2700	250	750	1630	0,75	650
1525	1500	1300	4100	230	2700	250	750	1630	0,75	720
1780	1700	1400	4700	230	3100	350	850	2020	0,75	800

The SP is made of stainless steel, the shaftless screw and gliding rails are made of carbon steel of greater strength. The equipment is designed for both indoor and outdoor use. For outdoor use the separator is fitted with double covering with electric heating unit. FONTANA R also offers a control switchboard necessary in particular for the heating unit. The switchboard includes an outdoor thermostat controlling the electric heating unit during winter.

To achieve an optimum incorporation of the equipment in the technological section of waste water treatment plants, FONTANA R offers consultations and technical support as a free customer service.



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