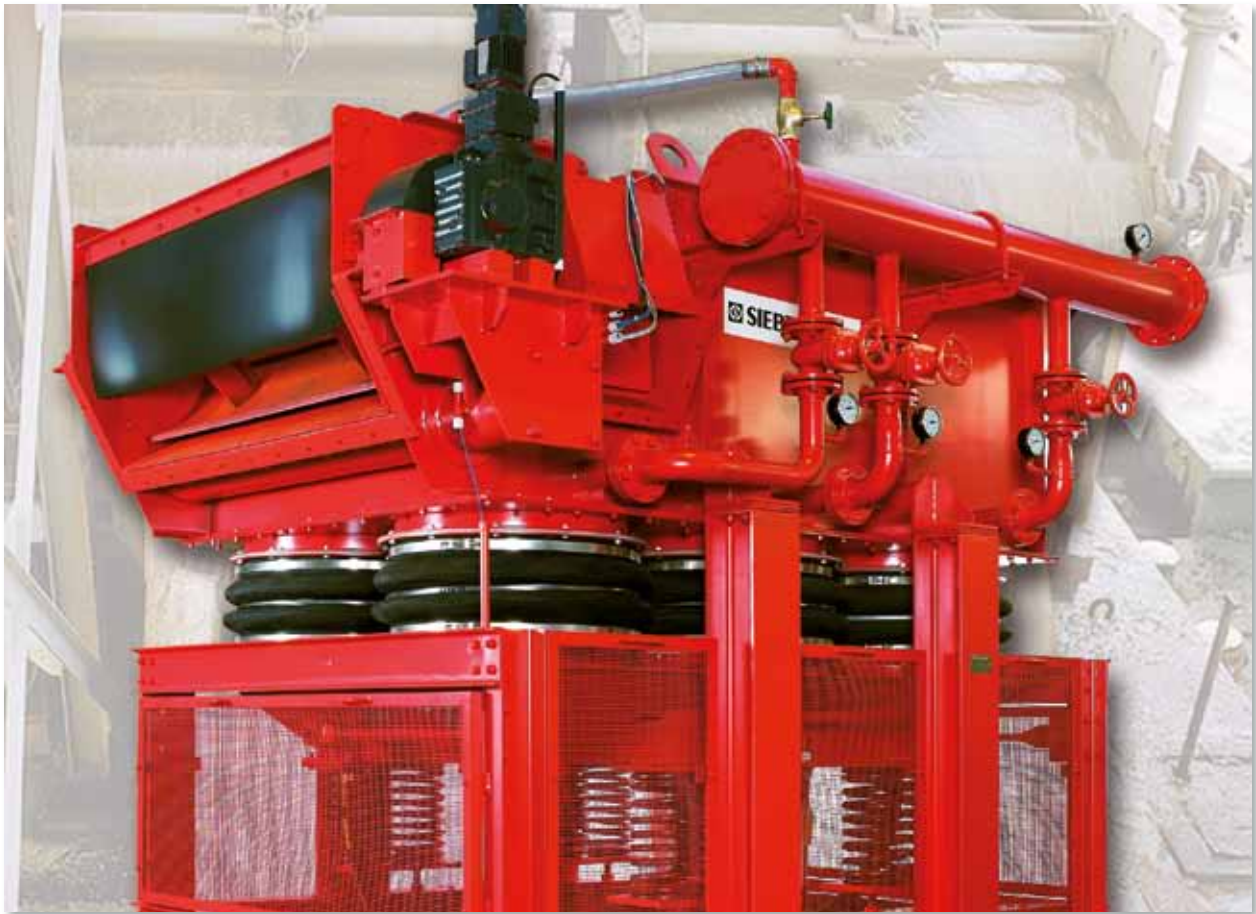


Pulsator jigs



Type SK

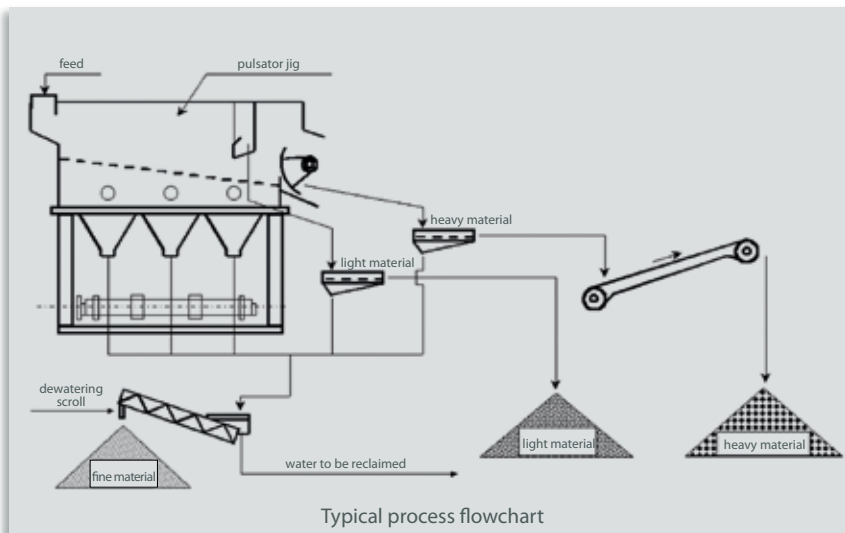


Eccentric drive and connecting rods

Application

For a successful separation according to density, especially if there is only a slight difference in density, it is often not sufficient simply to whirl the material around in a counterflow. It is necessary to provide a vertically pulsating flow through the material bed that allows the material to stratify.

The SIEBTECHNIK pulsator jigs were designed for separating light and heavy components from primary and secondary feed materials according to density, e.g. contaminants from sand and gravel, slag, demolition debris, contaminated soils or for ore pre-dressing.



Technique

The main component of the SIEBTECHNIK pulsator jig is a base frame of steel with the assembled jig-box on top of it. The jig-box is equipped a screen panel made of polyurethane with steel reinforcements. This panel is easily exchangeable.

The jig-box is flexibly connected to the oscillating water box via rubber compensators.

Via connecting rods, the water box is connected to the eccentric drive, situated beneath it.

The eccentric drive optionally allows an adjustment of stroke height and stroke frequency.

The fine shale material is removed through a collecting flute situated underneath the water box.

At the end of the screen panel there is a vertically adjustable discharge chute for the light material and a weir operating as a discharge device for the heavy material. This passive discharge system is advantageous with respect to wear and tear as there is no need for its permanent movement in the abrasive material. The controlling of the weir is based on an automatic float switch.



View of the water box and the automatic float switch

Function

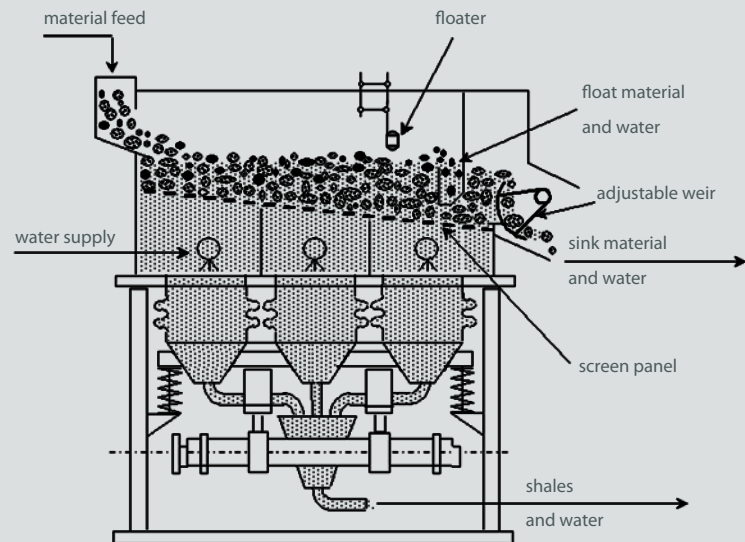
The filled water box is put into harmonical oscillations by the eccentric drive. The water pulsates according to the rhythm of these oscillations, thereby providing the stroke necessary for stratification.

The feed material moves towards the overflow outlet, forced forward by the inclination of the screen panel, the stroke and the flow of water. The main effect of the stroke is the stratification of the feed material according to density.

At the end of the screen panel the light material (e.g. carbonized wood, shells), which is stratified near the water surface, is directed to the discharge chute crossing the direction of the water flow.

The heavy material (e.g. quartz, gravel, etc.) is discharged through the automatically controlled adjustable weir.

The separated materials are dewatered on suitable machinery, for example vibration troughs.



Operating principle of a pulsating jig

Technical Data		SK 8	SK 16	SK 24
width of jigging bed	mm	800	1600	2400
length of jigging bed	mm	2500	2500	2500
surface of jigging bed	m²	2	4	6
other length available on request				
capacity* (gravel)	t/h	max. 50	max. 120	max. 180
feed grain	mm	2 to 32, max. 63		
water needed	m³/h	approx. 135	approx. 265	approx. 400
motor power	kW	11	15	22
stroke height	mm	for all machine sizes adjustable to 120		
stroke frequency	min-1	for all machine sizes adjustable to 100		
weight without material	kg	approx. 5000	approx. 8000	approx. 12000
* The capacity depends on grain structure, grain size, difference in density between light material and heavy material, light material content and even spreading of the material along the whole width of the jigging bed. The use of an adjustable conveyor trough is recommended.				

Delivery Program

Screening Machines Process Equipment

circular and elliptical motion screens
double counterweight screens
multideck horizontal screen
round screens
jigs

Sampling Systems, Airtube Systems, Size Reduction Machines, Laboratory Equipment, Control Screening Machines and Automation

individual units and complete installations
for sample taking and preparation
airtube systems
jaw crushers
roller mills
hammer and hammer impact mills
eccentric-vibrating mills and ball mills
control screening machines
analytical screening machines
splitter
testing drums
automation

Centrifuges

scroll-screen centrifuges
pusher centrifuges
sliding discharge centrifuges
vibratory centrifuges
decanter centrifuges