

Topic: Screening plant for gravel and chippings

Task:

Two screening throughs, loaded on steering arms, 10m length each, driven by eccentric shaft, installed above boxes for the different fractions, had fulfilled their lifetime. Also feed had to be increased drastically.

Screen material: Marble, 2x crushed, required feed rate 120 t/h.

The fractions 11/16, 8/11, 4/8, 0/4 respective 0/1(!) had to be separated from the original 0/50. Also the cross-over transport above boxes had to be maintained.

Used machine(s):

Linear screen SCL 1600/5000/2-LE4
 Linear screens SCL 1600/5000-2UM1600/6
 Vibrating mass 17 t overall
 Screening area 40 m²
 Installed power 54 kW
... more see back

Special advantages for the customers:

No expensive adapting of the old building was required. This could be achieved by hopper-type fines discharge parts of the vibrating screen body. Rubber flaps are avoiding adhering materials on the vibrating hopper.

Compared to the excenter driven throughs, less noise.

... more see back



Chemical industry



Pharmacy



Food



Organic



Environment



Glass



Plastic



Minerals



Ores



Building mat.



Steel & Cast



Applied machine(s):

... Continuation

The deck cut 4 respective cut 1 is protected by a relief deck. On the first two metres of the lower deck of first machine harp screens found application. These mats have horizontally crimped wire, giving an opening size of about 1.5mm. The wire mat is connected by rubber binding, so very high quality equipment is installed. These mats can be stressed crosswise to feed by maintaining special rules only. No clogging and blinding was observed, although very small cut.

To achieve the required acceleration off screen body of $k_v = 4,5$, on machine 1 an unbalance gear drive was installed. At machines of this weight class (6 to) an enforced synchronisation of the unbalance weights is necessary. The machines for cut 4,8,11 are equipped with Unbalance motors. The given screen body size 1600x5500 and vibrating mass of 4,5 to are a maximum for this principle. Maschine 2 for cut 8 also was equipped with a knock-ball device below the steel screen mats.

Special advantages for our customers:

... Continuation

Due to rubber-hollow springs, less stroke, higher speed, less dynamic restoring forces on the surrounding construction, compared to the steering-arm-loaded throughs. In fact it is unexpected, although 3 times more vibrating mass has to be taken into account.

Screen clothes for cut 1 do not blind. Due to harp screen and knocking balls.

Machines are horizontally installed and a very steep angle of throw. So a very accurate screening can be achieved. The transport speed on the other hand is still at about 0,2 m/s at 4,5g acceleration.

Compared to the old design the number of collisions grain to screen cloth has multiplied, so even adhering grain could be minimized.

