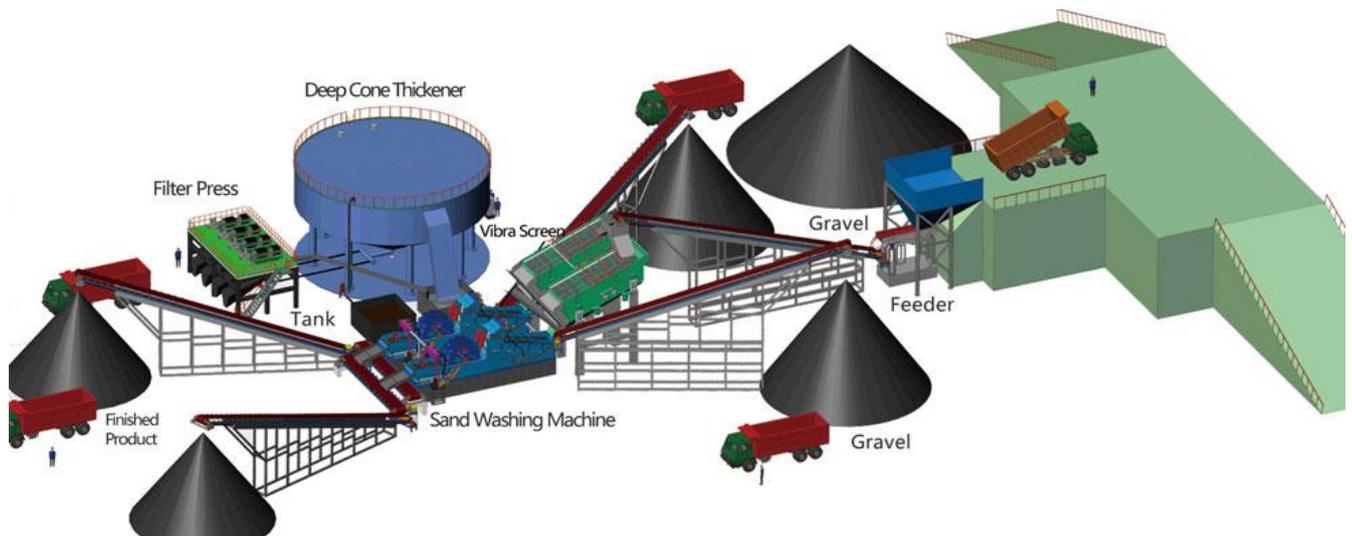


LZZG Washing Plant Design

LZZG Sand washing plant is a set of system for washing sand, recycling fines and reusing the most part of water used during the process. Can be widely used in mineral, coal, ore, tailing washing and recycling, river and lakes purifying, especially in sand washing. The use of hydrocyclones in sand washing plant is the most efficiency method that recovery the fraction more than 200mesh without losing fines.

Usually, products need to be washed when adopting wet processing, which aims to improve the sand quality. LZZG as a professional sand washing plant manufacturer is continuously creat process solutions and manufacture sand washing equipment to meet different requirements of customer's application. Through our continuous experiment, innovation, and decades of experience, you can get a plant a plant specifically designed for your working site to meet your requirements. Whatever natural sand, crushed sand, coarse particles, fine particles, large mud content, many impurities, ores, tailings, coals, special used, we can offer a plant to meet your requirement.



Washing plant process

(1) Sand and gravels enters washing tank of sand washing and recycling machine. When impeller rotates, sand and gravels in washing tank is stirred to cleaning to remove the impurities covering the surface of sand and gravels. After washing, the coarse sand is sent to dewatering screen to dehydration by impeller.

(2) The overflow of washing machine enters tail water collecting tank through pipeline, then is driven into separator by slurry pump to be separated by desander cyclone. After recovering, 0.074-3mm fine sand is discharged to dewatering sieve and mixed into coarse sand uniformly to dehydrate. The discharge port is

connected to belt conveyor to transport finished sand to designated position.

(3) At the same time, the sediment suspended content is under 5% processed by separator, discharged into the tailing water tank, then tail water is pumped into thickener for mud-water separation operation. The thickener treats about 80% of tail water into clean water, then directly enters clear water pool through overflow port.

(4) The concentrated mud is pumped into chamber filter press through the bottom of thickener. Then filter press presses the concentrated mud into mud cake to realize dry pile, landfill or develop other uses. After the filter press, clean water enters the clear water tank to realize the recycling of clean water and zero discharge of entire process.

(5) Stones and sand are effectively screened, washed and dewatered in this plant, and muddy water can be recycled use. Lots of advantages of this entire production line has: excellent continuous working performance, convenient maintenance, long service life, easy movement and excellent results. At the same time, it save resources, reduce water consumption, and ensures no pollution and meets environmental protection requirements.

Related products

LZZG sand washing machine

LZZG sand washing machine is designed based on sand washer and sand recycling system and adopted foreign advanced technology. This machine main parts include: XSD wheel sand washer, high frequency dewatering screen, high pressure cyclone, cleaning tank, return box, high pressure wearable slurry pump, motors, etc. The machine has simple structure and multiple function, and is widely used for crushed sand, river sand, lake sand or sea sand washing, screening, recycling and dewatering.



LZZG deep cone thickener

LZZG **deep cone thickener** promoted the structure of internal feed tube on the basis of traditional vertical flow sedimentation tank, optimized flocculation and deep solids compression provide paste consistency underflow and higher process rates, which greatly increase settling efficiency.

The deep cone thickener is circular, suspended solids settle down into bottom conical sludge tank by gravity, clear water flow away from overflow port around the upper tank, which is also called **paste thickener**. The port of the overflow is equipped with filter and baffle, which improve the water quality that poured out.



LZZG filter press

Filter press is supplied for a wide application in municipal & industrial industries. After processed by the filter press, the mud will be mud cake and the humidity is around 20%.

The mixture flows through the filter medium (filter cloth), the solid stays on the filter cloth, and gradually piles up on the filter cloth to form the filter cake. The filtrate part penetrate the cloth, become clear water.



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