

The process for dry cleaning of grain includes the primary cleaning from impurities in the first latticed separator, the secondary cleaning, which includes processing of the whole grains into the hulling machine, air separator, grain separator, rock separator, polishing machine and the final cleaning with separation into fractions in the second latticed separator. Before the primary and final cleaning, as well as before the polishing the grain is processed in magnetic separators. All grain cleaning stages are carried out in regulable air flows, created by a single aspiration system. In the first and second latticed separators, as well as in the hulling and polishing machines the quantity of grains is metered.

The production line for realization of the process includes a loading system, a system of cleaning-sorting machines placed in series, a polishing machine, commutators of grain flows, and an aspiration system with grain pneumatic transport pipe-line. The grain loading system includes a receiving bin, installed on vibrating supports; the system of cleaning-sorting machines includes latticed separators, a centrifugal grain unloading device, a hulling machine, air and grain separators, a rock separator. In front of the latticed separators, onto the lattices of which are placed mobile rubber balls with a diameter of 35 mm, and in front of the polishing machine there are placed in series centrifugal grain unloading devices and magnetic separators. The aspiration system contains high-pressure fans, cyclones, final-control valves, air ducts, and air-cleaning filters. The hulling machine contains a rotary shaft with bars and brushes. The polishing machine contains a hollow cylinder with perforated surface, inside which there is coaxially mounted a hollow shaft, onto which there are placed abrasive wheels.

Claims: 8

Fig.: 1