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The invention relates to the food industry, namely to a process for grain dry cleaning and to a production line for realization thereof.

The process for grain dry cleaning includes the primary cleaning from impurities in the first grid separator, the additional cleaning, including treatment of the whole grains into the hulling machine, air separator, grain separator, rock separator, polishing machine and the final cleaning with the separation into fraction in the second grid separator. Prior to the first and final cleaning, as well as prior to the polishing the grain is treated in magnetic separators. All the stages of grain cleaning are carried out in controllable airflows, created by a single aspiration system. In the first and second grid separators, as well as in the hulling and polishing machines the amount of grain is dosed.

The production line for realization of the process includes a loading system, a system of cleaning-sorting machines connected in series, a polishing machine, grain flow switches and an aspiration system with pipe-line for grain pneumatic transport. The grain loading system includes a receiving bin, installed onto vibratory supports; the system of cleaning-sorting machines includes grid separators, a centrifugal grain loading device, a hulling machine, air and grain separators, a rock separator, a polishing machine. In front of the grid separators, onto the grids of which there are placed rubber balls of a diameter of 35 mm with the possibility of free displacement and in front of the polishing machine there are consecutively placed centrifugal grain unloading devices and magnetic separators. The aspiration system contains high-pressure fans, cyclones actuator valves, air ducts, air cleaning filters. The hulling machine contains a rotary shaft with bars and brushes. The polishing machine contains a hollow cylinder with perforated inner surface, inside of which it is coaxially mounted a hollow shaft, onto which there are placed abrasive wheels.

The result of the invention consists in increasing the grain cleaning degree.

Claims: 9
Fig.: 1