Counterflow Cooler

Process
The Van Aarsen counterflow cooling system is designed for cooling pellets after pelleting back to ± 5°C above ambient air temperature. This is to achieve a good PDI, flow ability, protect against decay and minimize chemical and biochemical reactions.

The counterflow cooling principle was invented by Van Aarsen and has become a standard blueprint, copied all over the world within the compound feed industry.

Benefits
▶ Small foot print
▶ Low energy consumption because of low air volume
▶ Minimum service down time
▶ Continuous pellet discharge for optimal cooling process
▶ Limited damaging of the product due to discharge mechanism
▶ Complete emptying of the cooler, to minimize cross contamination and maximize hygienic operation
▶ Optimal pellet moisture content
▶ Optimal process control
▶ Available and upgradable as double deck cooler, for quick product change-over
▶ Robust design of discharge mechanism

Features
▶ Inlet valve for continuous product flow and air lock
▶ Ultrasonic continuous layer thickness measurement to ensure and/or control retention time in cooler
▶ Automatic air flow control by motor-operated air valve to regulate air speed in cooler
▶ Cooler bin walls and hood in stainless steel to avoid corrosion
▶ Hydraulically operated discharge mechanism
▶ Frequency controller for adjusting speed discharge mechanism
▶ Octagonal construction for optimal filling of the cooler
▶ Bin height configured for optimal (build in) height
▶ Designed and constructed according to CE and ATEX safety regulations.

Options
▶ Double deck cooler for quick product change-over
▶ Rotating pellet distributor for even product layer in cooler
▶ Clam shell valve at the cooler inlet, to improve fat absorption
▶ Outlet hopper with connecting flange on crumbler or discharging transport
▶ Outdoor air intake for taking cooling air from outside the building
▶ Filter for inlet air to ensure clean cooling air
▶ Heater for inlet air in case of cold air (<5°C)
▶ Fire protection valve to prevent fire inside the cooler
▶ Dust explosion membrane to prevent dust explosions inside cooler

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Datasheet

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