



VIBRATION DRYING SYSTEM

WEAR RESISTANT DRYING FOR HIGHLY FILLED COMPOUNDS

EVS - the alternative drying system for "low-wear" processing of highly filled compounds (e.g. glass fibre reinforced or with mineralic fillers). Negligible wear and fewer fines during the drying procedure result in low maintenance costs and higher material output. Depending on material properties a surface moisture content of up to 0.05% can be delivered. Easy cleaning ensures that material and colour changes can be achieved in a very short time guaranteeing the system's flexibility, particularly for the Compound and Masterbatch Industries.

FUTURE SYSTEMS

OPERATIONAL SEQUENCE (EVS)

The drying system essentially employed in conjunction with an underwater pelletizer, consists of two (or three) vibrating screens (drying modules) arranged in series. The first drying module involves the preliminary dehydration of the pellets. The process water is separated from the pellets in a pre-dewatering unit prior to being delivered to the vibrating screen; the water is then filtered and diverted into a water tank from which it is pumped to the underwater pelletizer, completing the process water recycling loop.

The actual drying of the pellets takes place in the second drying module which immediately follows. This drying screen is executed with axial blowers and air-water heat exchangers beneath the screen generating an upward air current. This design ensures the air only flows in through the heat exchangers, which are exposed to the thermal energy of the process water which is transported by a recirculation pump. The energy input of the hot process water warms the incoming air sufficiently to dry the pellets. For the drying of hygroscopic materials with a high degree of dehydration the system can include controllable heater coils together with a third vibration module.

In order to utilise the energy gained from the pellets most effectively and efficiently the speed of the axial blowers can be regulated, contributing further to the highly economic efficiency of the drying system.

ECON-Model	Throughput rate	Dimensions (L x W x H)
EVS 200	up to 500 kg/h	5.700 x 1.250 x 2.000 mm
EVS 600	up to 1.000 kg/h	5.700 x 1.250 x 2.000 mm
EVS 1500	up to 2.000 kg/h	5.700 x 1.500 x 2.000 mm
EVS 3000	up to 3.000 kg/h	7.100 x 1.700 x 2.250 mm

Special sizes on request. The specified output rates depend on the processed materials, the technical layout at the supplier and a test run at ECON's technical centre.

Lower maintenance costs - due to negligible wear

Higher material output - due to reduced fines

Better pellet quality – due to smooth drying

Easy cleaning - for quick material and colour changes

High degree of dehydration – low surface moisture content less than 0.05 % (dependant on material properties)

Individual customization - modular concept allows flexibility

Low noise level

