

Application: Cleaning Marine Engine Parts		Date: 4/01/22
Serial number: 1077-1222	Machine model: Aquamaster CB-1200E	
Machine type: Conveyorized Belt		Industry: Marine

Customer summary:	Manufacturer of marine engines
Item to clean:	Straight Driveshaft sections of different diameters and lengths.
Contamination:	Cutting oils and minor chips.
Cleanliness requirement:	Visually clean.
Dryness requirement:	Dry as possible.
Production rate:	Low volume, estimated conveyor speed of 1 ft. / min.
Process parameters:	Wash and blowoff

Customer background: The customer is a world-class leader in the manufacturing of outboard and sterndrive marine engines and components.

Challenge: The customer needed a cleaning system for different sized straight driveshaft sections. Outer areas of the parts needed to be free of chips, while internal cavities and passages needed to be clean within reason. Residual moisture was acceptable, as long as gross amounts of moisture were removed upon exit.

Solution: Alliance designed a CB-1200E conveyorized belt washer for the automated cleaning of marine engine parts. This design utilizes a 12" wide, flat wire, 1/2" x 1/2" galvanized belt is supported by galvanized rollers. A stainless-steel lane divider divides the conveyor into two (2) equal width product lanes. In addition, UHMW product guides are provided on both sides of conveyor belt. The wash module has a tank capacity of 100 gallons with a 3'0" spray zone length. Spray zone length is 1'6". Multiple Bex/K-ball spray nozzles are positioned above, below and sides of the conveyor. Nozzles clip-on and adjustable for easy maintenance. The patented Full-Access fiberglass canopy is removable for easy cleaning and maintenance of internal machine components. Stainless steel shed sheets affixed under the conveyor direct solution toward a removable chip basket. One (1) stainless steel strainer basket with 1/16" holes located prior to the pump suction strains particles from solution and provides pump protection. Overall dimensions of this design are 10'3" long x 4'8" wide x 5'5" high.

Alliance Manufacturing's belt washers are customized for the requirements of each customer, and can be designed in varying sizes and configurations.



