

Thoroughly Wash and Dry the Interior and Exterior Surfaces of Steel Tubes

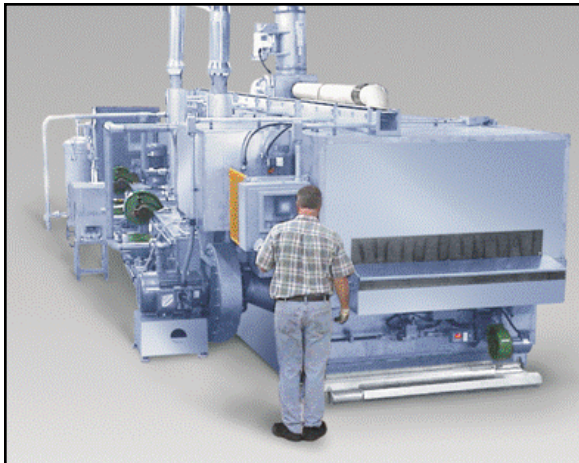


BACKGROUND

This customer is a major appliance manufacturer. Some of their products use steel tubing which is 3", 4", and 5" in diameter and 36-56" long. The steel tubing is extremely dirty and has to be cleaned prior to use.

PROBLEM

The tubes need to be cleaned prior to coating with a ceramic material. In the past, the tubes only got coated on the outside, hence only the outside of the tubes needed to be cleaned. In the newest designs; however, the inside of the tubes must also be coated. Now ID cleaning is just as important. They needed a cleaning system that could accomplish this.



SOLUTION

Design a unique conveyor washer that literally rolls the tubes through the system - this ensures that the ID walls are thoroughly and evenly washed. Secondly, there are spray and immersion stages: the tubes are completely immersed in the wash and rinse sections. Lastly, the tubes are tilted after each process to minimize cross contamination and to speed up drying.

SYSTEM

A C-60 Cyber-Jet that can handle tubes up to 60" in length and can output 300 clean/dry tubes per hour. The system accepts tubes from an automatic magazine loader, an overhead pusher system rolls the tubes through the system, then there is whirlpool action in the immersion baths, special water and air nozzles then blow into the ID's. All wetted part are grade 304 stainless steel. Included are individual gas heaters for the wash, rinse, and dry stages.