



Parts Washing Unit that Will Wash and Dry to Stringent Cleanliness Requirements



Background

Every ten(10) minutes, this automotive manufacturer pulls an engine block off the machining line to check tolerances. The blocks are cleaned and then put into a CMM (coordinate measuring machine) . If there are any dimensional problems, the line is shut down and the appropriate tooling is replaced.

Problem

The current cleaning method could not get the blocks clean and dry enough for CMM. The CMM units were being adversely affected by moisture and remaining chips were causing inaccurate measurements. The new cleanliness requirements were stringent... there must be less than 100 mg of solids and less than 10 ml of water left in/on the entire block prior to CMM. This spec had never before been achieved. And the last challenge...the blocks had to exit the washer at 70-80° F to avoid part expansion.



Solution

Load the block into a rotor and spin it around a horizontal axis. This orientation and movement allows all the chips to be flushed out of the passageways during the spray stage and all the water to spill out of the oil galleries and water jackets during the dry stage.

System

The model is "BE's T-5000-P" fitted with the patented auto-latch rotor. This powerful unit hit the blocks with 150 GPM of solution and 2000 CFM of air. The results exceeded all expectations.

