

NLB Fuel Injector Deburring System Improves Product Quality for a Major Diesel Engine Manufacturer

NLB has designed and installed an automated system which cleans a precision component of the fuel injectors used in heavy-duty diesel engines. The system combines a high-pressure pump unit with a specially designed cleaning cabinet and parts handling system. A pick-and-place robot, a 5-position turntable and a programmable controller move the injector to a series of water-jets positioned to clean specific areas of the part.

A particularly critical area involves cleaning burrs from intersecting drilled passages. Since the injector sees very high pressures while in service, it is important that any minute burrs be removed under similar pressures so they don't break loose and become entrained in the fuel system to damage other components or clog the orifices.

The company project manager says, "We are very happy with our NLB system. Our products operate at very high pressures and we want all the burrs removed before operating rather than during operation."

Since installing the first system, this customer has added a second one and has assisted with a similar installation at a sister plant.



The NLB-designed-and-manufactured deburring system consists of parts conveyor, pick-and-place robot, 5-station water-jet cabinet, water recycling system, programmable controller, and high-pressure pumping unit.

Fuel injectors are moved from water-jet to water-jet inside the turntable cabinet to assure thorough deburring.



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