



***BECAUSE IT WORKS***

## **How we lifted over 3 tons with one drop of Flex Super Glue.**

**WARNING - this is an extremely dangerous demonstration. DO NOT ATTEMPT. May result in serious injury or death. It was performed in a controlled environment by a team of professionals and is for demonstration purposes only. Specific, detailed preparation was required using industrial-level tooling in a professional machine shop.**

**We began with custom pistons made from two and a half inch solid 4140 alloy steel rod. Then, we machined the bonding surfaces perfectly flat using a metal lathe without the use of any cutting fluid. Cutting fluid could add oils or contaminants to the bonding surfaces which could negatively affect adhesion.**

**After machining, we removed any residual oils and contaminants by soaking the pistons overnight in acetone.**

**Then we wiped the pistons clean. Following that, we placed the pistons in a blasting cabinet where the bonding surfaces were media blasted with 120-grit silicon carbide abrasive blasting media that had a particle mesh size of 80-230.**

**After media blasting, we thoroughly cleaned the pistons again by wiping them down with acetone. Then, we placed one of the pistons (with the bonding surface facing up) in a fixture that kept it perfectly vertical.**

**We placed one single drop of Flex Super Glue Liquid, (approximately 30 milligrams), directly on the center of the piston. Then, we immediately set the opposing piston into the fixture, keeping both pistons perfectly aligned when making contact between both bonding surfaces. At that point, we applied firm but steady pressure to the pistons for about 20-30 seconds, so the Flex Super Glue could set.**

**We then let it cure for a full 24 hours.**

**Finally, we used a gantry that has a 3-phase industrial motor that's rated at 5 tons, which enabled a smooth lift.**

**And that's how we lifted over 3 tons with one drop of Flex Super Glue Liquid!**