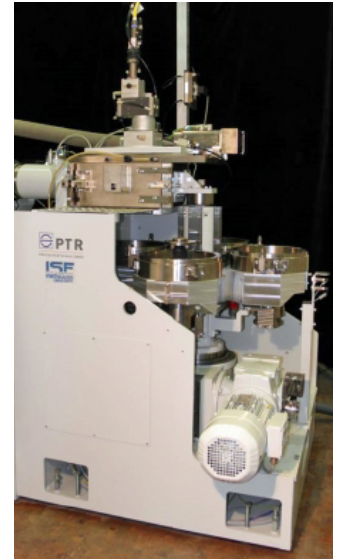
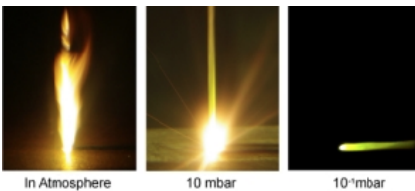


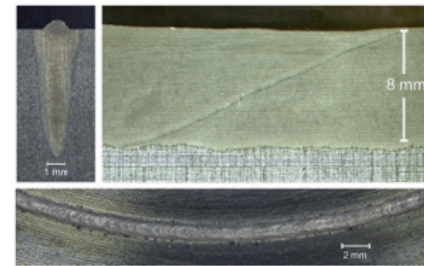
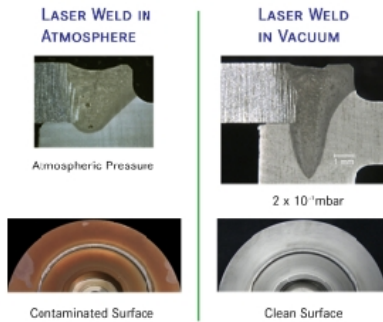
## LASVAC: Vacuum Laser Welding Technology

PTR-Precision Technologies, a leader in electron beam welding, has combined recent advantages in fiber and disc lasers with our extensive knowledge of vacuum processing to create LASVAC: Laser welding in vacuum. Compared with conventional laser welding, laser welding in vacuum offers:

- Higher Aspect Ratio Welds
- Deeper Penetration (~2X)
- Less Heat Input
- Less Weld Spatter
- More Consistent Results
- Cleaner Parts After Welding



See above for a comparison of a laser beam plume at varying pressures. A reduced pressure laser welding environment has significant positive influences on process parameters and weld characteristics. At a given power level, increased weld depths (in the magnitude of ~2X) are achieved.



Vacuum Laser Weld Cross Section (Upper Left), Longitudinal Cut of Slope Out (Upper Right), Top Bead (Bottom)

LASVAC vacuum laser welding technology provides the cleanest laser welding environment possible, eliminates the need for virtually all gas consumables and can integrate directly with existing laser welding lines. Post weld part clean-up is either eliminated or greatly reduced due to lower vapor & soot deposits on the part surface and reduced weld splatter.

