Superior Injection Molding Dies
Over 30 Years of Diffusion Bonding Expertise

VPE’s Transient Liquid Phase (TLP) DiffusionBond™
Using a thin activation layer in conjunction with heat and pressure, TLP Diffusion Bonding reliably bonds split-layer injection molding dies without compromising the intricate internal channels. Additionally, high-integrity diffusion bonding of cavity and hot runner plates results in reliable joints, hermetic sealing of the manifold, and eliminates any hole plugging problems which can occur using brazing alone. VPE’s diffusion bonded assemblies exhibit parent or near-parent material strength.

Key Features
- Efficient production time and quick turnaround
- Direct access to engineering staff
- Prototype work welcomed
- Large range of furnace sizes
- Minimum Hot Zone: 10 in x 14 in x 16 in
- Maximum Hot Zone: 60 in x 120 in x 120 in

NEW CAPABILITIES WITH
THE WORLD’S LARGEST
HOT PRESS FURNACE

The Greatest Capacity For Production Quantities
VPE owns the world’s largest hot press furnace, enabling higher throughput manufacturing.

- Loads to 2,400 tons of applied force
- High accuracy load cells for precision force and control
- Assembly weights in excess of 60,000 pounds
- Assembly sizes greater than 60 in x 60 in