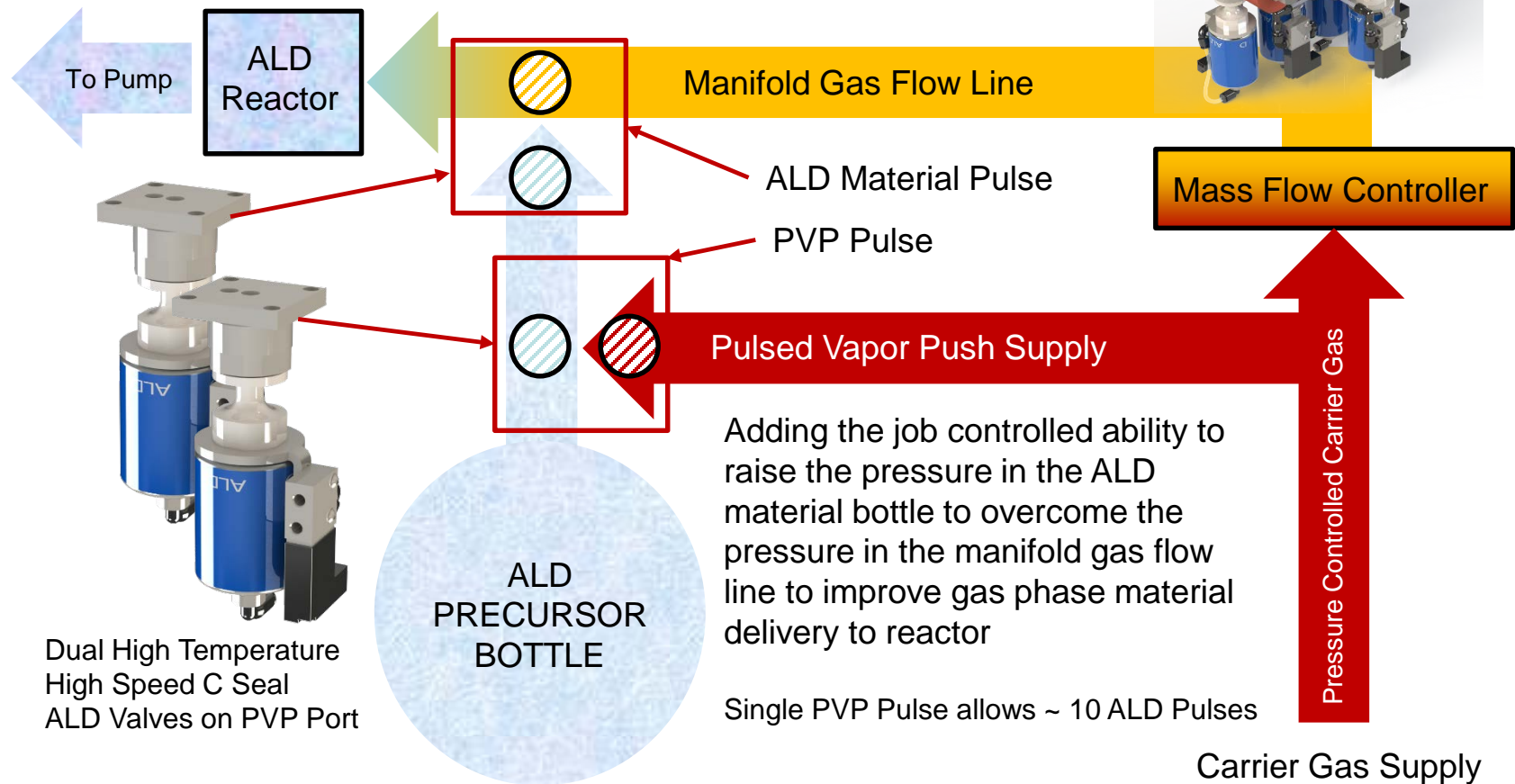
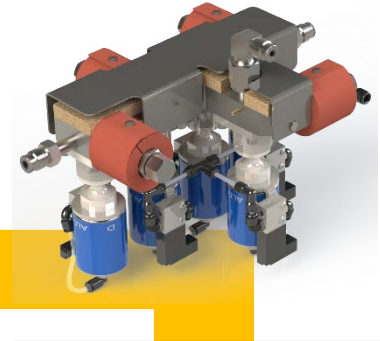




# GEMStar-XT Pulsed Vapor Push PVP™ Technology

*Designed to minimize thermal gradients and material condensation in a small package*

If the thermal ALD precursor material vapor pressure is low, a PVP port is standard on the four port primary metal/organic manifold. Optional on the secondary Oxidizer/Reducer manifold



Dual High Temperature  
High Speed C Seal  
ALD Valves on PVP Port

Adding the job controlled ability to raise the pressure in the ALD material bottle to overcome the pressure in the manifold gas flow line to improve gas phase material delivery to reactor

Single PVP Pulse allows ~ 10 ALD Pulses