

GEAR PUMPS - CAVITY VS SUCTION SHOE STYLE SELECTION GUIDE

PUMP ATTRIBUTE	 CAVITY GD, GJ, GJR, GL, GM, GN	 SUCTION SHOE GA, GAF, GB, GC	REMARKS
▶ Flow vs Differential Pressure		✓	▶ Pressure Loading in the Suction Shoe Pump creates the ability to maintain more consistent flow at high differential pressures. ▶ SUCTION SHOE OFFERS BEST IN CLASS PERFORMANCE
▶ Temperature Performance		✓	▶ Suction Shoes provide thermal expansion space for gears and shoes, thus increasing temperature operational range. Gears/shoes of similar materials perform optimally over a large temperature range. ▶ SUCTION SHOE OFFERS BEST IN CLASS PERFORMANCE
▶ Flow Rate	✓	✓	▶ Both pump styles are positive displacement pumps and generate similar flow rates for a given gear size and geometry.
▶ Chemical Compatibility	✓	✓	▶ Both pump styles are manufactured with materials that are chemically compatible with a wide range of fluids.
▶ Reversibility	✓		▶ The Suction Shoe is not well suited for bi-directional flow.
▶ Dry Lift	✓		▶ The Suction Shoe does not dry lift well due to lack of pressure loading.
▶ Wet Lift	✓	✓	▶ Both pump styles can generate lift in a primed system.
▶ Torque Required	✓		▶ The high hydraulic efficiency of the Suction Shoe does require a small amount of additional torque over the Cavity style.