Chapter 2

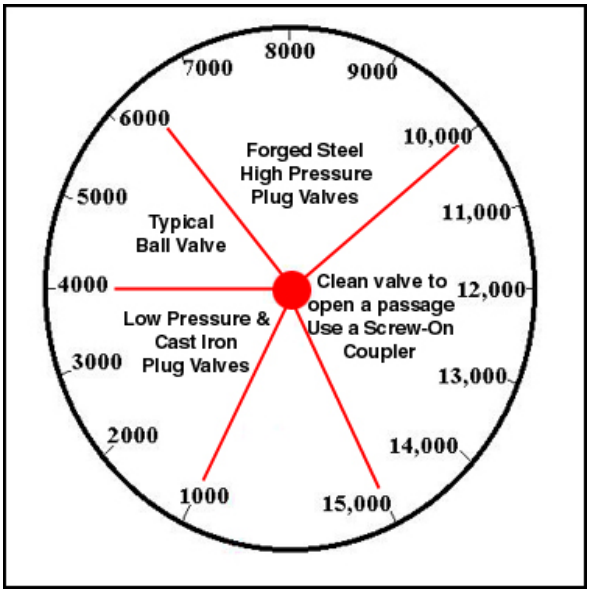
Injection Gauge Reading Techniques

In order to determine what is happening inside the valve, every gun or pump should be equipped with a working high-pressure gauge. Watch the gauge climb as sealant is injected; if the valve seat sealant system is empty, the gauge will build pressure with each stroke and drop off very quickly. As the seat sealant system fills, the gauge will drop off more slowly. The slower the gauge drops off, the tighter the fit between the seal faces. This is usually a good indication that the valve will seal when required. Cold weather will effect the viscosity of the sealing compounds and can give confusing signals. Practice pumping in all climates and conditions so you better understand by watching the movement of the gauge when the lubricant / sealant is moving into the valve passages.

High-Pressure Gauge

NOTICE how slowly the needle drops when pumping stops. This indicates how quickly sealant is moving into the valve. When the needle stops dropping or begins to fall more slowly, this usually indicates the seat sealant system is full.

Gauge readings while injecting valve cleaner are often considerably lower than when injecting the lubricant / sealants because of its lighter viscosity. If the injection gauge climbs and does not drop off, this may indicate a plugged or restricted passage. Watch the gauge closely to see if the needle is moving at all. In cases where the sealant system is plugged, it is usually as a result of the drying and hardening of old sealant. Inject valve cleaner and leave it to soak from a few hours, to overnight in severe cases. Leave the gun attached to the valve and note the gauge pressure. Check the gauge periodically; a passage is cleared when the gauge begins to drop off. Cycle the valve to ensure complete coverage of the cleaner; continued injection will wash the residue downstream.



Sealant Injection Gauge

Air bubbles trapped inside the sealant hose or seat sealant system can cause the gauge to fluctuate wildly. When the gauge jumps from 2,000 PSI to 4,000 PSI and back again, this is usually an indication of trapped air. Remove pressure from the hose assembly by opening the release valve or by-pass valve and make sure the gauge reads (0 PSI) zero before disassembling the hose assembly. Compressed air bubbles in long hose assemblies may cause grease to spray with considerable force, disassembly of hoses or fittings to correct this problem should be performed with CAUTION.

ALWAYS wear eye protection when working around high-pressure equipment. A spray of grease which could not pierce skin can do severe damage to soft eye tissue.