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TECH TIPS
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Bendix® AD-9™ Air Dryer Purge Valve Identification & Kits

The Bendix® AD-9™ air dryers are available with various purge valve configurations; hard seat, soft seat and DLU discharge line unloader types. The difference between these types relates to the type of sealing surface for the turbo cut-off valve. All AD-9™ air dryers contain two valve sections and have a rubber (soft) seat for the actual purge valve, but the turbo cut-off valve section can be one of three types:

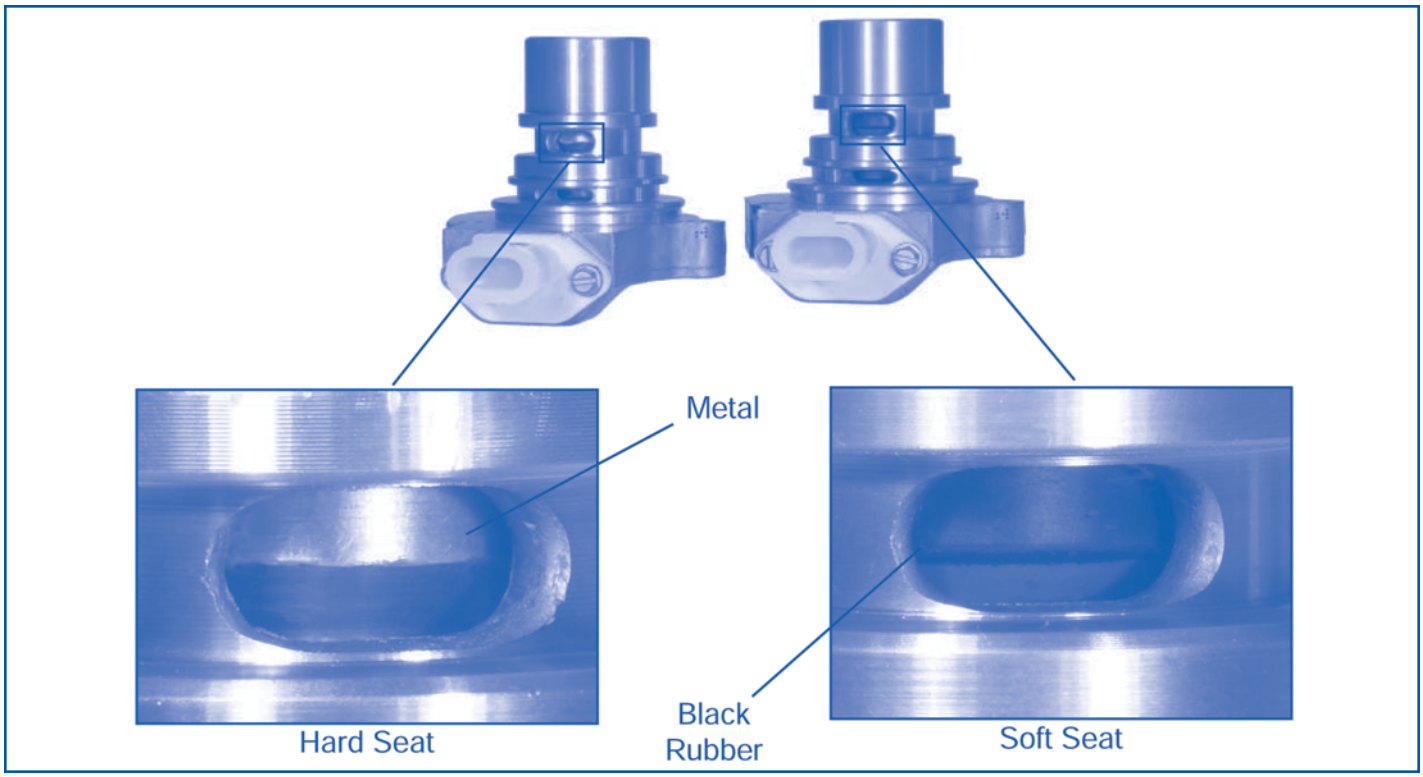

Figure 1 - Identification of Hard and Soft Seat Purge Valves

1. **Hard seat purge valve** has a metal to metal turbo cut-off valve sealing surface. Most AD-9™ air dryers come standard with the hard seat purge valve.
2. **Soft seat purge valve** has a bonded rubber ring on the piston that contacts a metal seat on the housing to make the turbo cut-off valve seal. This seal is extremely air tight for applications that require zero leakage, such as the Bendix® EverFlow™ system and drop-in style air dryers which use older Holset type E compressors.
3. **Discharge line unloading (DLU)** purge valve has the turbo cut-off valve bypassed by removing the middle o-ring sealing surface from the body. This valve is used to positively vent the compressor discharge line, such as when the vehicle has a non-unloading compressor.

NOTE: Although a soft seat purge valve can be substituted for a hard seat purge valve, a hard seat purge valve should not be substituted for a soft seat purge valve. DLU purge valves cannot be substituted for any other type.

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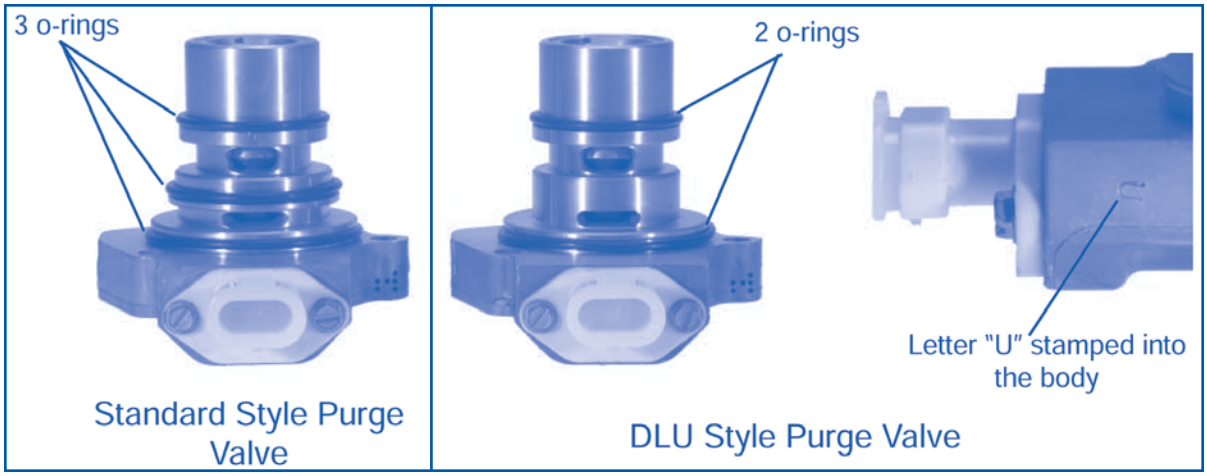

Figure 2 - Standard and DLU Purge Valves

Selecting the Purge Valve Replacement Kit for a Bendix® AD-9™ Air Dryer

When servicing your AD-9™ dryer with a purge valve replacement kit, you will need to identify the type of purge valve being replaced. Removal of the purge valve from the dryer body is necessary to identify the correct maintenance kit.

First, identify whether the purge valve is a DLU style. The DLU type can easily be distinguished from the others, because the DLU type have only two o-rings on the outside of the purge valve body, rather than the standard three o-rings. For DLU purge valves, the middle o-ring seat has been removed. Additionally, AD-9™ air dryers with a DLU purge valve have the letter "U" stamped on the side of the purge valve housing. Because the letter "U" is not always visible, it is best to use the number of o-ring grooves for identification. See figure 2.

If the purge valve is a standard style (not a DLU), look through the upper oval hole in the purge valve housing to view the piston. If a black band encircling the piston is visible, then the purge valve is a soft seat type. If the piston is all metal, then the purge valve is a hard seat. See figure 1 for hard and soft seat purge valves.

After the purge valve type has been identified, the next step is to identify the heater size; voltage and wattage. The electrical connector on the purge valve is color coded.

Once the correct maintenance kit is identified, service the purge valve following the instructions provided in the kit for proper replacement.

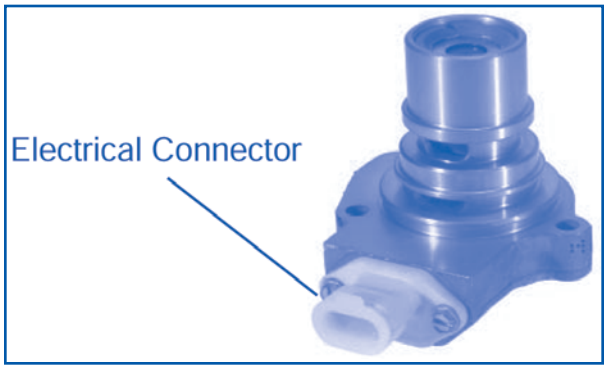

Figure 3 - Voltage and Wattage