

Deep Well Pump Control Valve

The valve shall be a SINGER VALVE model 106-DW, Deep Well Control Valve, 4” flanges, ANSI Class 150 pressure rating, angle style with pilot solenoid suitable for 120volt/60Hz (DC). Assembled according to Schematic A-7514B and built with the standard STAINLESS STEEL SEAT and EPOXY coated wetted parts (NSF Approved). As supplied by Syntec Process Equipment Ltd.

The valve shall open and close smoothly with separate and independently adjustable speed controls, c/w Arion Strainer.

The valve shall be covered by a three (3) year limited warranty against defective materials and workmanship.

Prior to shipment, the standard test shall include a pressure test and a full function, operational test.

Summary

The Singer model DW deep well pump control valve is sized to ensure that the pump discharge pressure is less than the system static pressure when the pump starts; that the main check valve will remain closed and no surges will be generated.

From the pump performance curve, determine the pump flow when the pressure at the pump discharge is 80% of the static pressure against the check valve. (Consider the depth of the water). When the pump is discharging at full start-up flow, the combined losses of the DW control valve, the piping and the discharge losses must be less than 80% of the static pressure.

For pump control other than deep well applications – by-pass control – the discharge from the DW control valve can be returned to the wet well, tank or even the pump suction header.

Providing there is sufficient static differential pressure (e.g. 70% to 80% of the pumping differential pressure) the DW control valve should be considered preferable to a BPC, in-line booster pump control valve because of the capital and operating benefits.

Refer to the 106 and 206 performance curves (straight lines) and select the smallest size with the pressure drop that is acceptable. Bulletins 106-PT(C) and 206-PT(C) provide specifications and details of construction of the main valves.

Standard configuration provides for NEMA 4 watertight enclosures for the Honeywell model OP-AR, SPDT limit switch and the ASCO solenoid with 120VAC/60Hz (or 220VAC/50Hz or 240VAC/60Hz) coil. The standard ASCO solenoid has a maximum operating pressure rating of 250psi. For other electrical service or higher pressure ratings consult with the factory.