



EPOXY COATING PROCESS BUTTERFLY VALVE SERIES 700

Scope of Application

This specification gives general requirements of fusion bounded epoxy coating for cast iron and ductile iron rubber lined butterfly valves. This coating process is applied to the valve bodies after machining, but before assembly.

Epoxy Coating Process

Surface Preparation

All sharp edges and corners, grease, oil and other surface debris shall be removed before the shot blasting is applied.

Preheating

The bodies are inserted in the oven and heated up to the temperature of 410°F. The heating up time depends on the quantities and wall thickness of bodies put into the oven.

During the heating operation, the workers shall keep monitoring the temperature and record the changes to temperature. The temperature-controlling instrument, if necessary, shall be adjusted to ensure the suitable temperature all the time.

Coating

After the preheating temperature above achieves, the bodies shall be taken out of the oven and hanged up on the painting system, then the epoxy powder shall be blown immediately through a suitable spray gun onto the bodies that have been preheated. The epoxy powder hits the hot parts and sticks to it, where it gradually fuses to form a homogenous coating.

During the coating operation, the bodies shall be kept turning around to ensure the symmetrical coating thickness. The standard coating thickness shall be around 200 micron.

Solidification

The coated parts shall be put back into the oven, where the temperature shall be reduced to 338°F ~374°F for solidification. The solidification duration shall be 40 minutes before the parts are taken out of the oven when the solidification temperature is reduced to 140°F.

Final Inspection

Check the coating thickness, surface quality of epoxy coating and adhesion performance, and then complete quality inspection record.