

Actuator selection

Even if a valve has an intrinsically equal percentage characteristic this can be negated through a poor choice of actuator. For example, if the stroke of the actuator does not match the stroke of the valve then the characteristic may be deformed. This is particularly important when the stroke of the valve is being changed in order to regulate the maximum flow rate of the valve. Figure 6 shows how choosing the wrong actuator can affect the intrinsic characteristic of the valve. If the valve has an inherently linear or on/off characteristic then this can be improved in some cases by using a characterizing actuator to change the intrinsic curve to a more acceptable one. However, it is important to match the characterizing action of the actuator to the valve to which it is fitted.

Author: Amir R. Mahmoudi – BSc Mechanical Eng.