

SUMMARY

With a direct touch type metal diaphragm valve, the durability of the valve, that is to say, the ensured number of continuous open/close operations of a valve, is substantially increased under conditions that an appropriate flow rate coefficient C_v is maintained, and changes of the afore-mentioned C_v value over time become less by means of the deformation of a valve seat being restricted.

With a direct touch type metal diaphragm valve, the afore-mentioned metal diaphragm is formed in a round, reverse-dish shape by laminating a plural number of thin stainless steel plate and thin Nickel - Cobalt alloy plate, and its center part is bulged upward, and the maximum valve stroke of the valve is regulated to be 55 to 70% the distance of the maximum bulge height Δh of the afore-mentioned metal diaphragm.