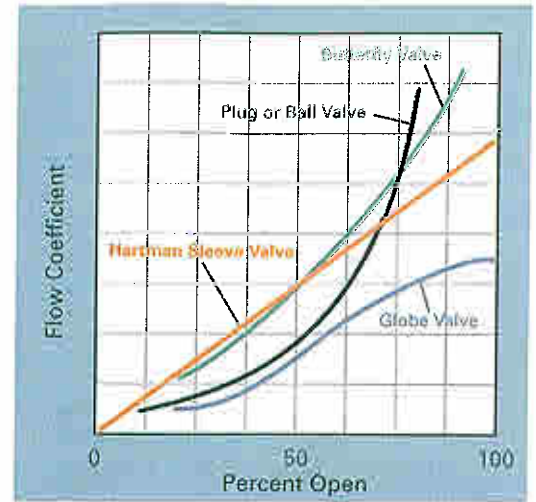
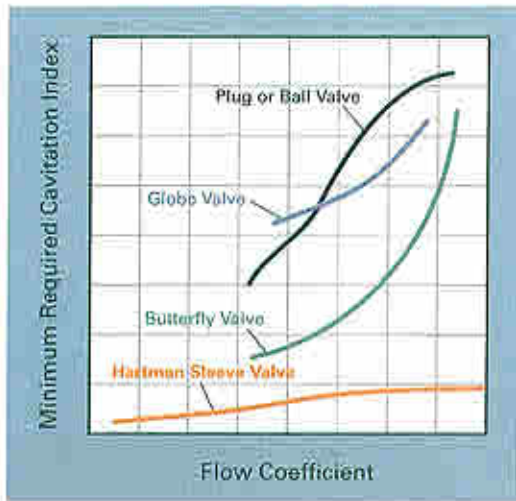


When do you need to use the Hartman Sleeve Valve?

For superior control – Hartman Sleeve Valves provide a flow coefficient with a nearly constant rate of change, allowing precise control over the entire stroke, including the lower 10%. The chart to the right illustrates the consistency of control provided by Hartman Sleeve Valves compared to the control characteristics provided by other valve types.

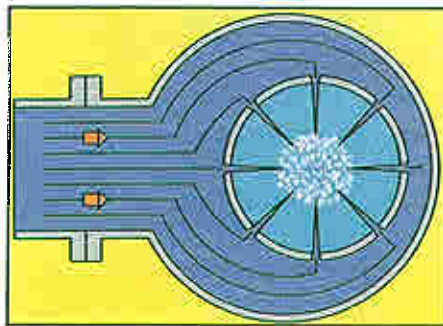


Typical Valve Flow Curves Showing the Superior Control of Hartman Sleeve Valves

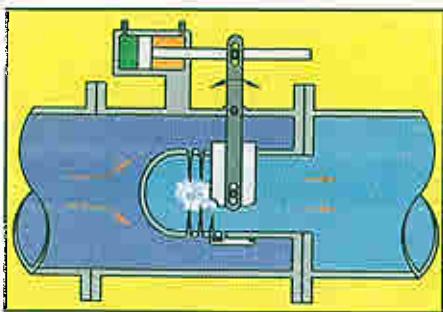


Typical Valve Cavitation Index Curve Showing How Hartman Sleeve Valves Operate With Lower Cavitation Indices

To eliminate cavitation – Hartman Sleeve Valves are specifically designed to operate in energy dissipating situations with a lower cavitation index than other valves. The chart on the left shows a typical Hartman Sleeve Valve will operate without damaging cavitation, even with a very low cavitation index, throughout the entire flow range of the valve. Since Hartman Sleeve Valves are designed to dissipate energy they can be opened against high differential head without damaging the seals and can be operated near the closed position without causing erosion.



Cross-section of Model 410 with off-set sleeve



Cross-section of Model 711

Hartman Sleeve Valves

achieve superior control while dissipating pressure energy by accelerating fluid through specially tapered radial nozzles arranged in a proprietary pattern. This advanced design causes the fluid to collide in a turbulent zone along the centerline of the valve surrounded by lower velocity fluid, minimizing erosion and noise. The cross-section of the Model 410, left, shows how the turbulent zone is centered in the Hartman Angle Pattern Sleeve Valve by offsetting the sleeve within the valve body to ensure a constant inlet nozzle pressure. In the Hartman Axial Flow Sleeve Valves, such as the model 711, left, the sleeve gate moves over the nozzles providing superior control in a relatively short stroke.



The water jets strike each other, not the interior of the sleeve.