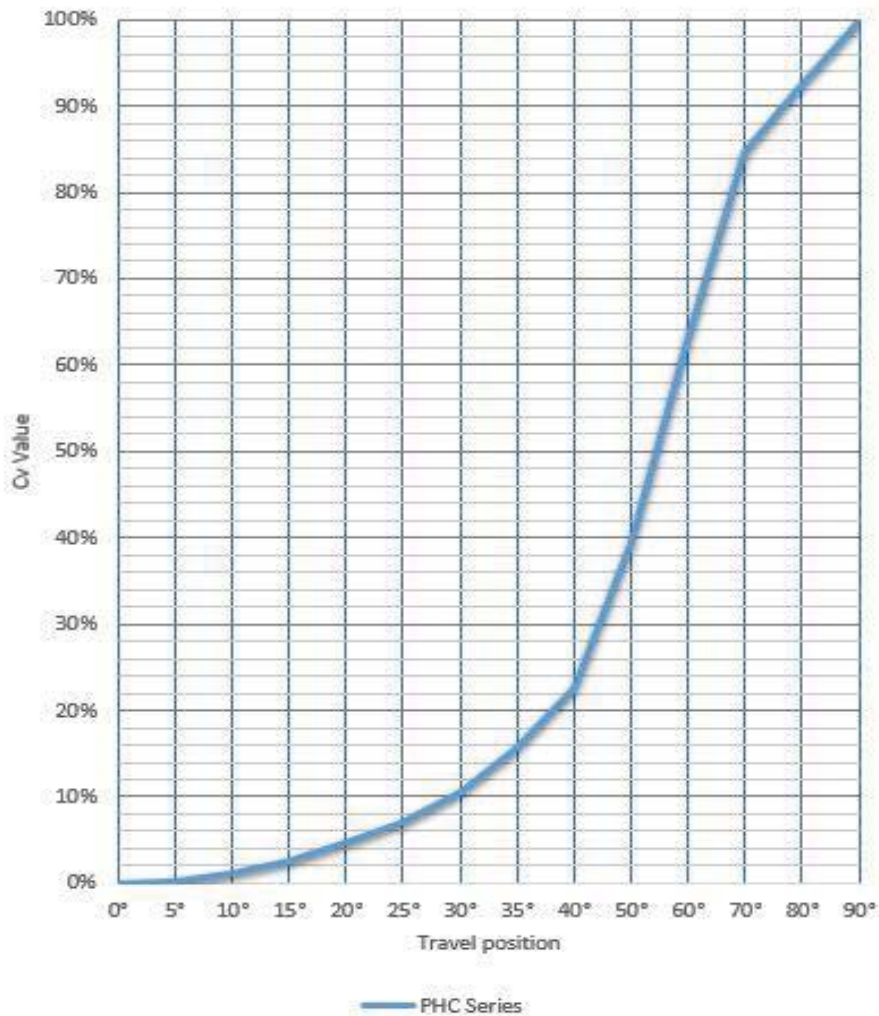


## Equal Percentage Flow Characteristic

**Cv value - travel position**  
**PHC SERIES(Control valve)**



**Cv (Flow Coefficients)**

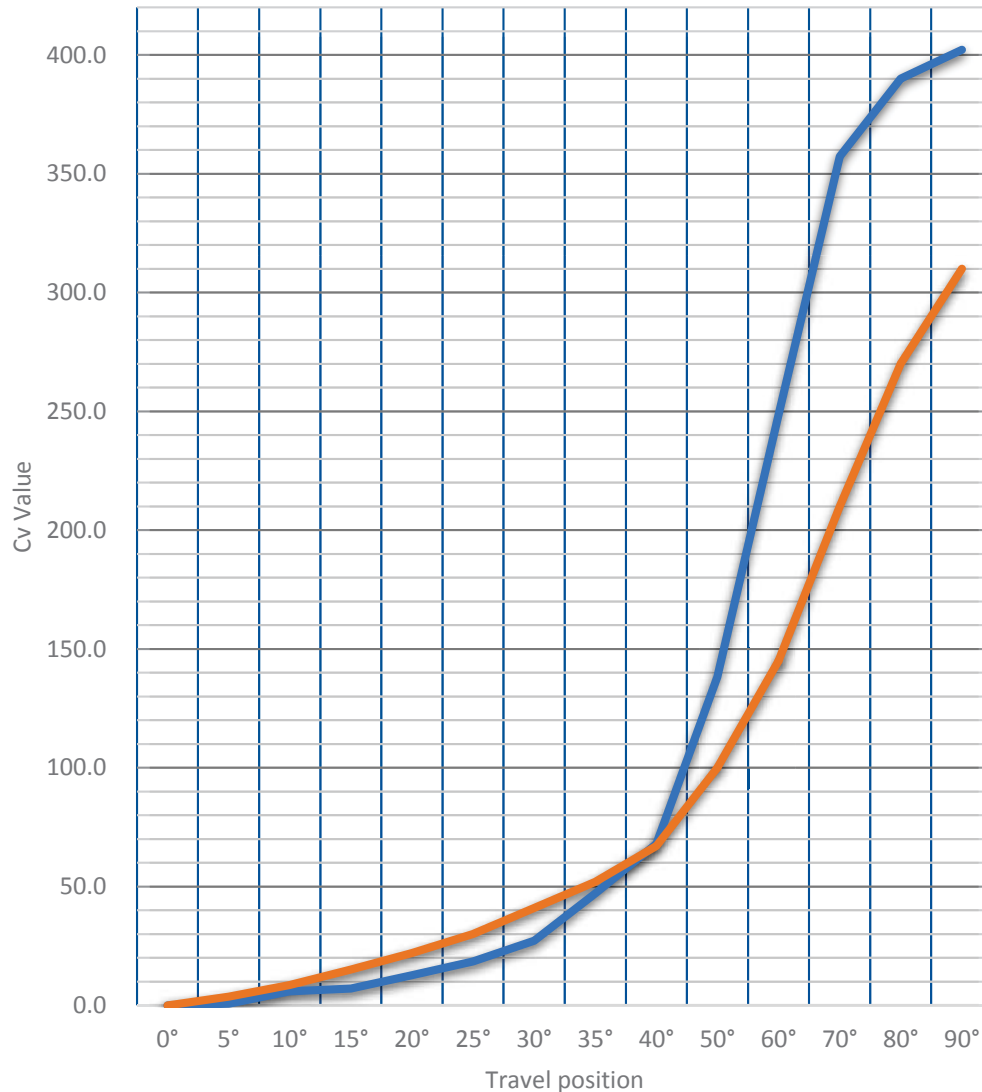
PHC Series (H-P Control Butterfly valve)

SIZE		Angle of opening														
DN	NPS	0°	5°	10°	15°	20°	25°	30°	35°	40°	50°	60°	70°	80°	90°	
80	3	0.0	0.1	0.2	2.2	5.0	8.5	12.0	16	23	39	63	93	115	121	
100	4	0.0	0.2	1.9	4.0	7.2	13.2	19.6	33	48	83	137	193	213	226	
125	5	0.0	0.7	5.8	7.0	12.6	18.4	27.2	47	68	138	249	357	396	402	
150	6	0.0	0.8	6.6	15.0	27.0	40.6	60.0	90	130	225	360	485	530	573	
200	8	0.0	1.8	15.2	28.9	52.1	72.2	107	150	217	394	666	985	1,090	1,215	
250	10	0.0	4.5	28.0	66.4	103.8	127	180	230	335	583	886	1,291	1,791	1,988	
300	12	0.0	6.6	54.7	81.1	146	172	255	380	549	1,042	1,814	2,926	3,533	3,646	
350	14	0.0	21.3	69.3	125.8	159	226	354	490	728	1,232	1,867	2,586	3,142	3,531	
400	16	0.0	30.0	75.0	145.0	195	275	420	620	950	1,600	2,455	3,723	4,782	5,556	
450	18	0.0	45.0	95.0	189.0	245	370	590	790	1,250	2,100	3,216	4,822	6,061	6,818	



## Comparison of Flow between C-HPBV and Globe Valves

Cv Value - Travel Position  
Sesto C-HPBV / Globe



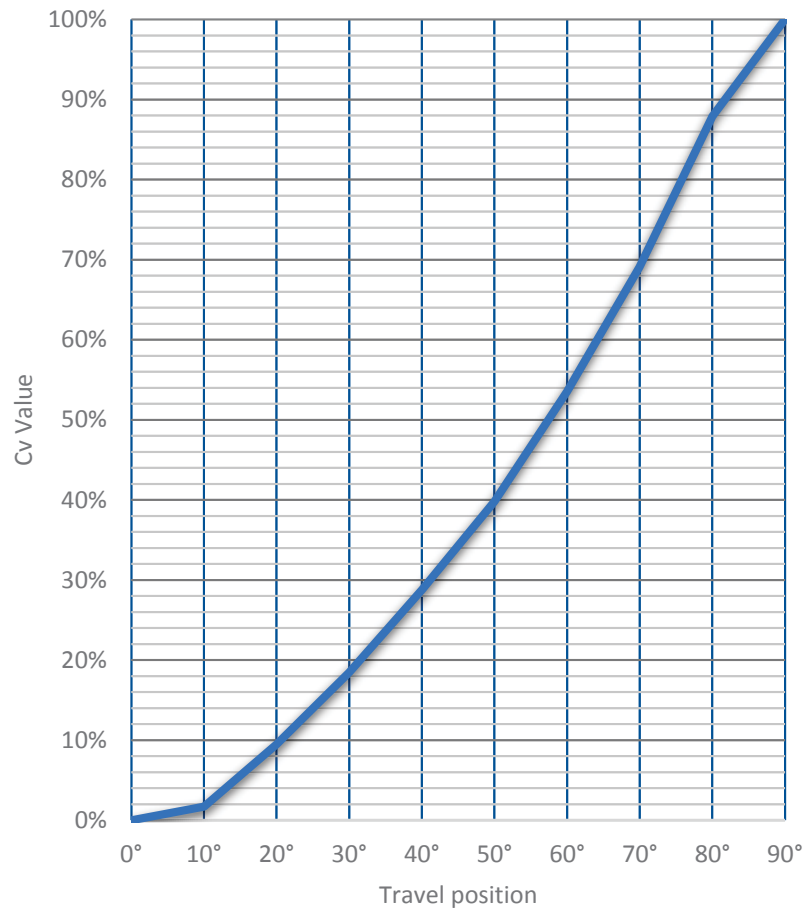
**Sesto control butterfly valve has improved control of valve opening in addition to reduced noise and low vibration compared to a globe valve.**

**It also has a higher Cv at fully open position.**

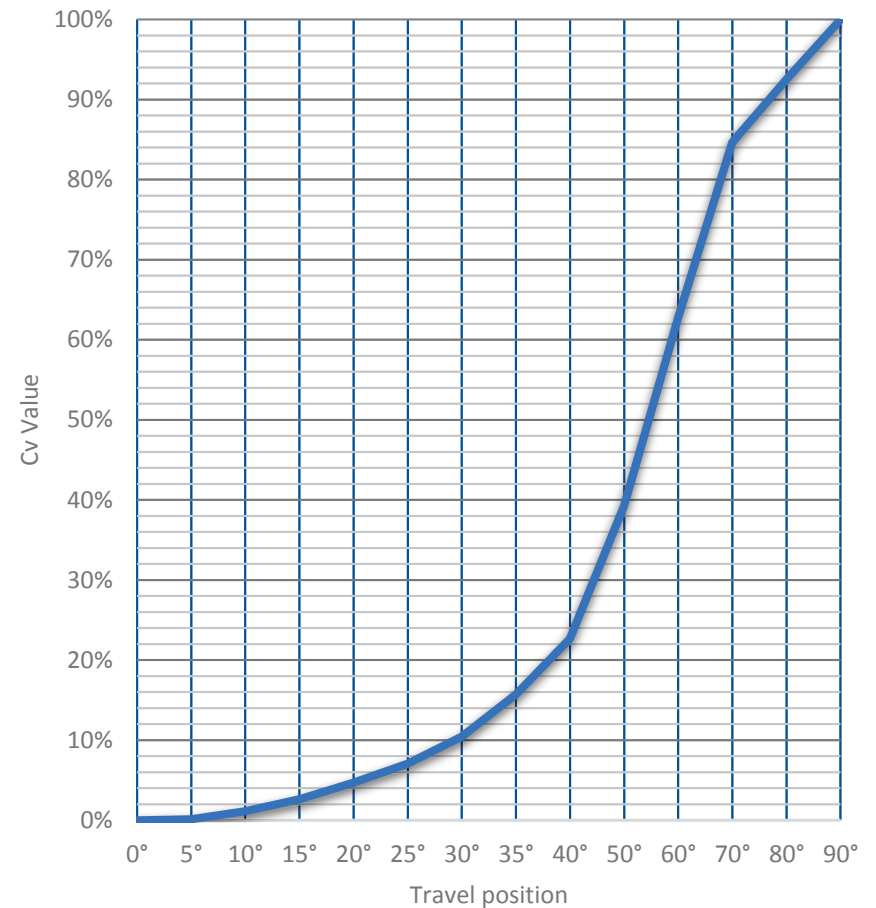


## Comparison of Flow between C-HPBV and Standard HPBV

Cv Value - Travel Position  
Standard HPBV

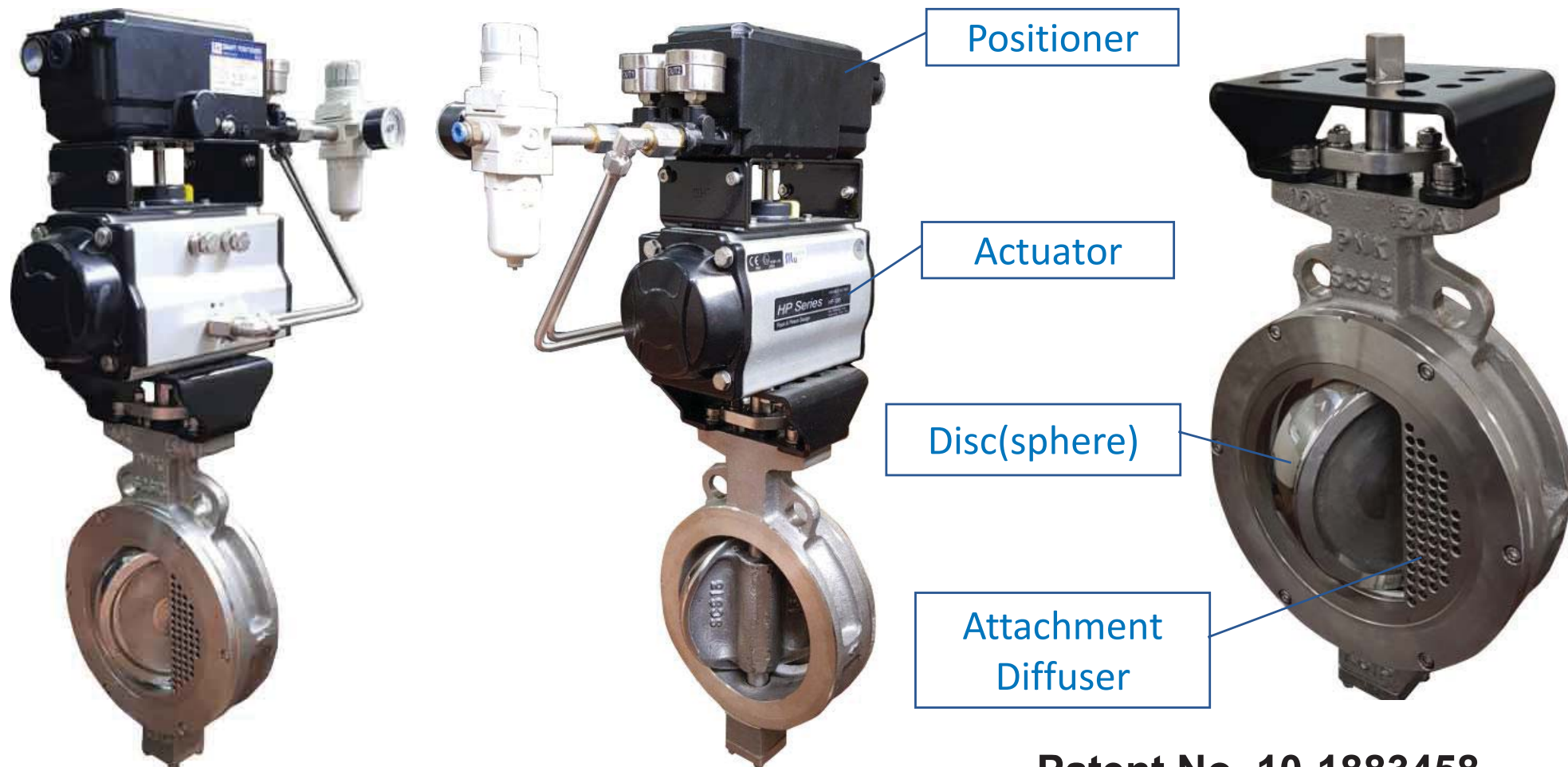


Cv Value - Travel Position  
Sesto Control HPBV



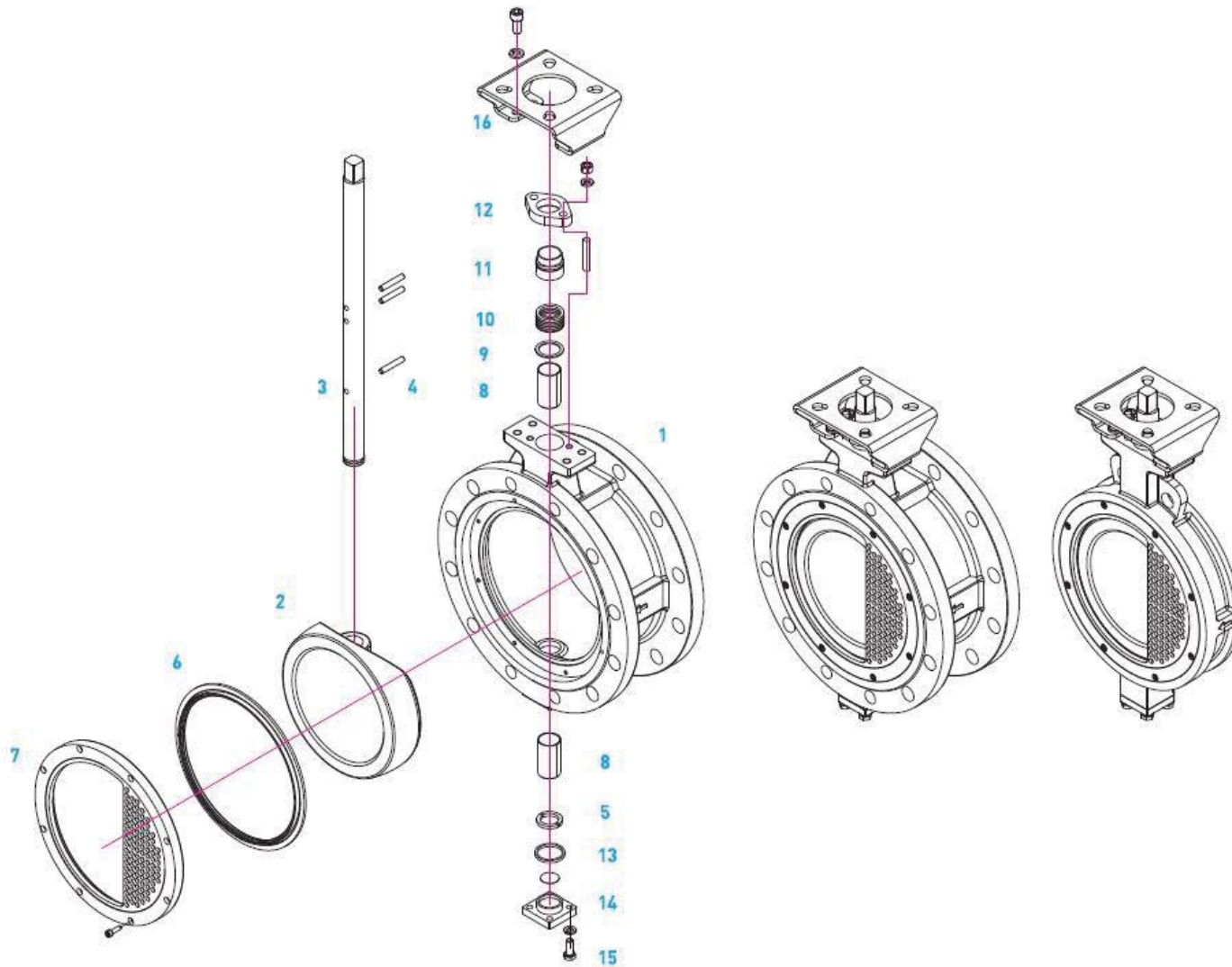
**Control Butterfly Valve has a linear curve of level control with equal percentage flow characteristics that increases rangeability which allows for precise control.**

## Sesto Control HPBV Design Structure

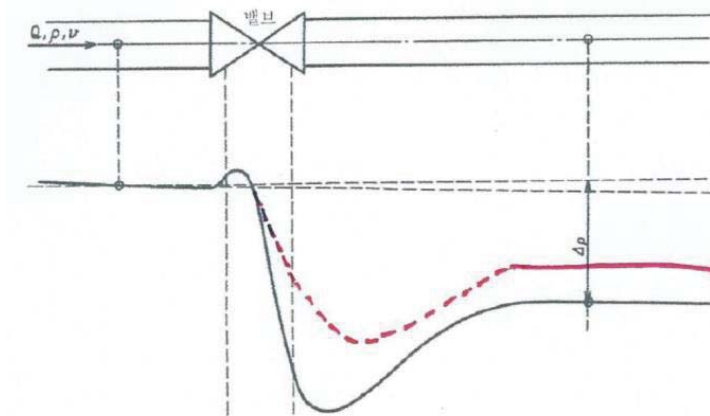
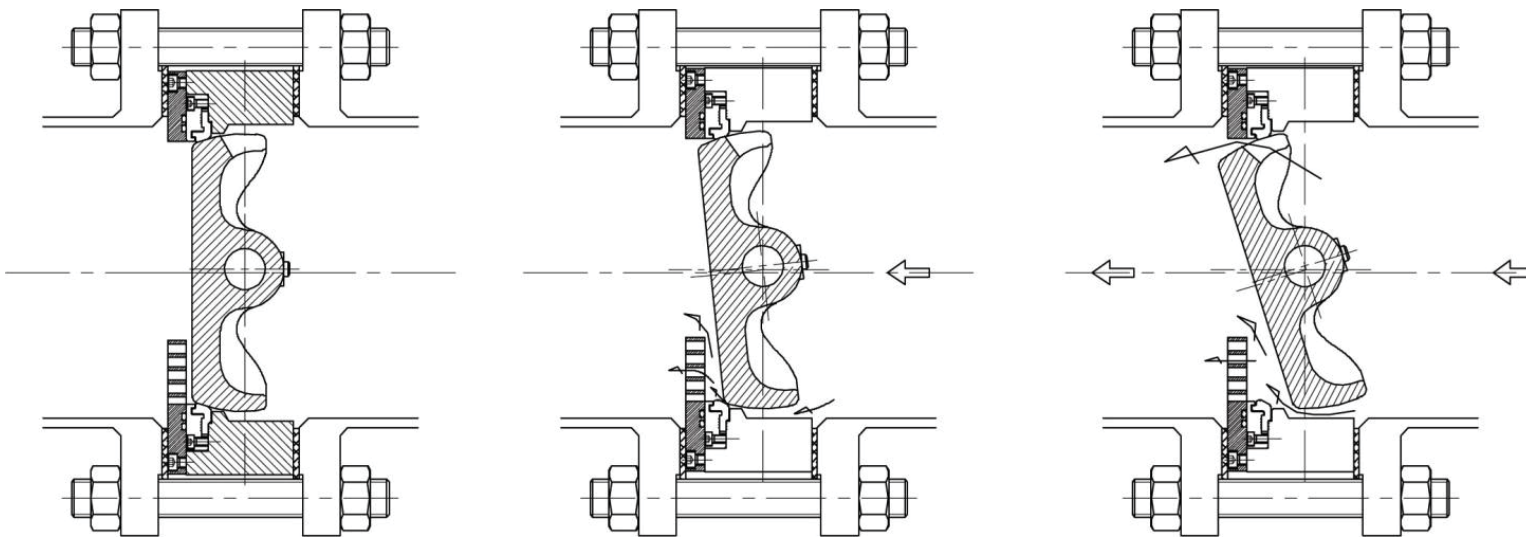


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## Sesto Control HPBV Design Drawing



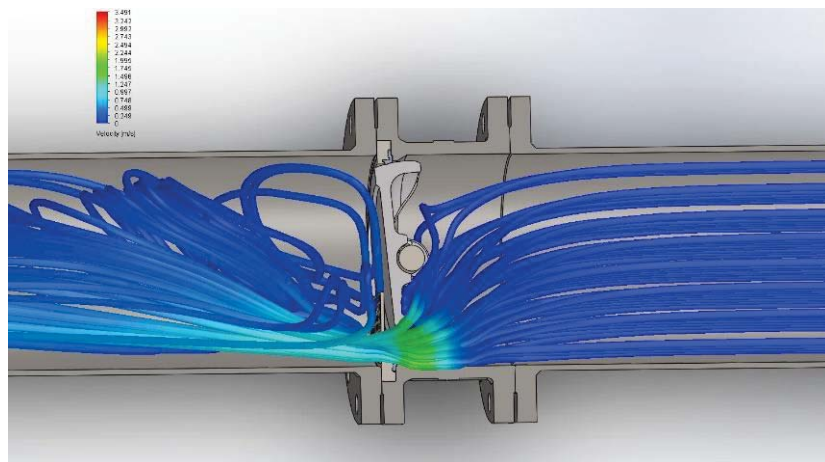
## Sesto Control HPBV Noise Reduction for Low Percent Valve Opening



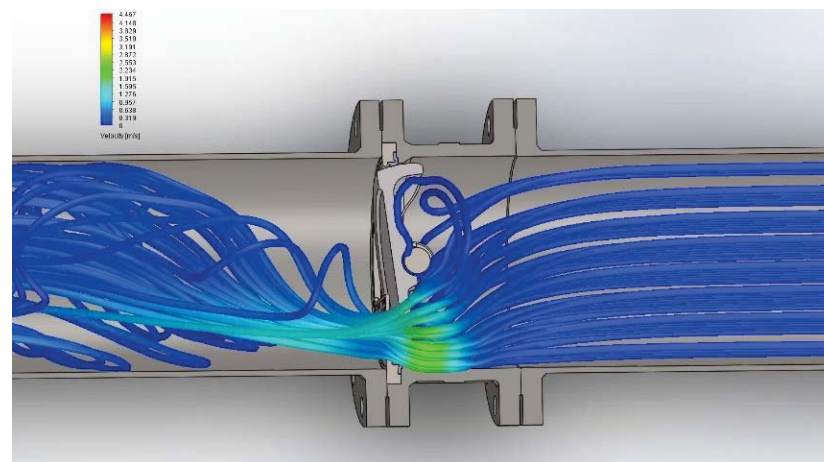
Most noise is made by control valves when the percent open is very low. During this low percentage opening, the gas and vapor flow through the “trim” can create noise, vibration, and even erosion, which is called “cavitation noise”.

As seen on the figure to the left, the cavitation noise appears when the pressure decreases dramatically as it passes through the valve. By installing the diffuser plate, flow velocity and noise can be reduced.

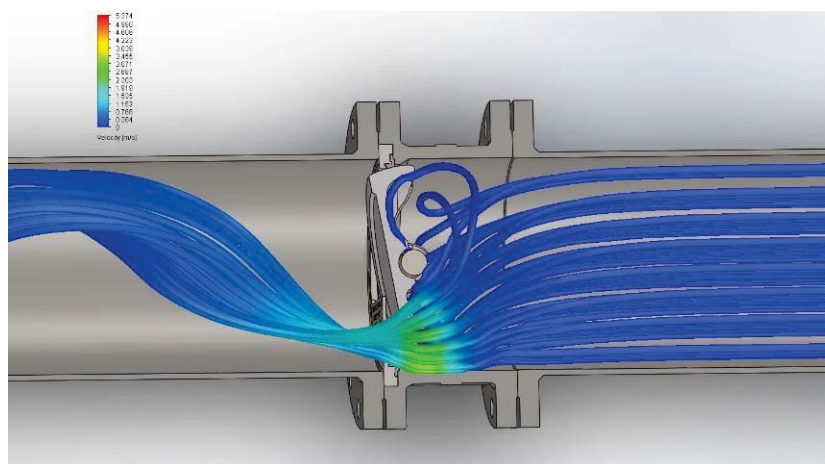
## Flow Simulation for Control Butterfly Valve Opening Angles



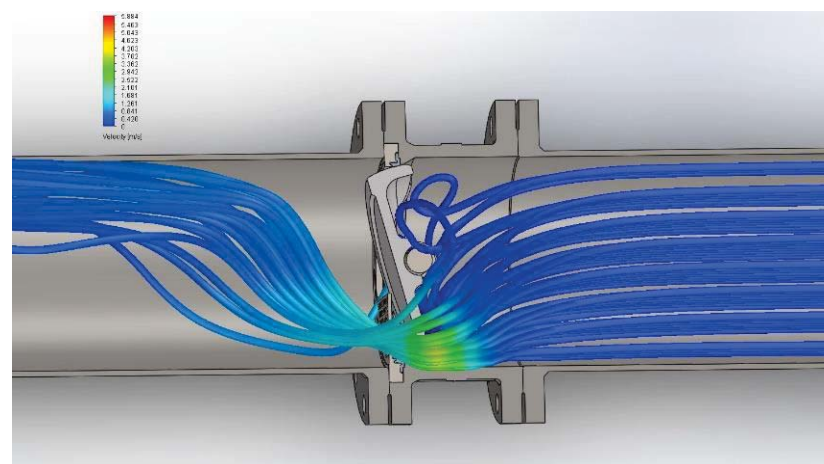
5° open



7° open

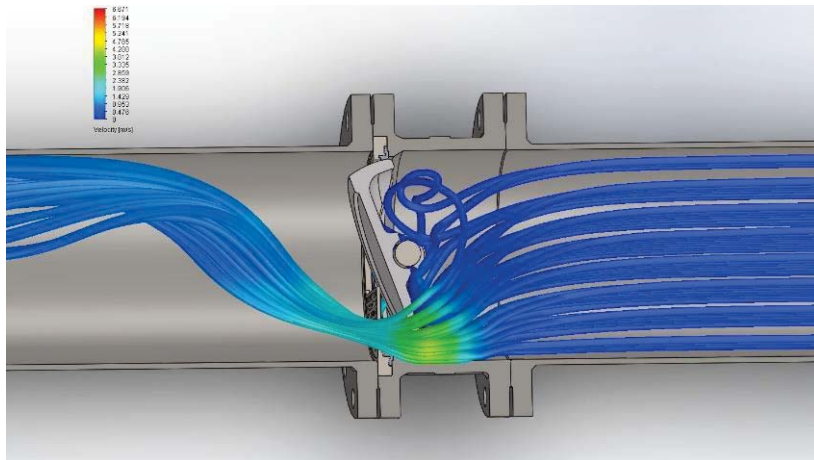


10° open

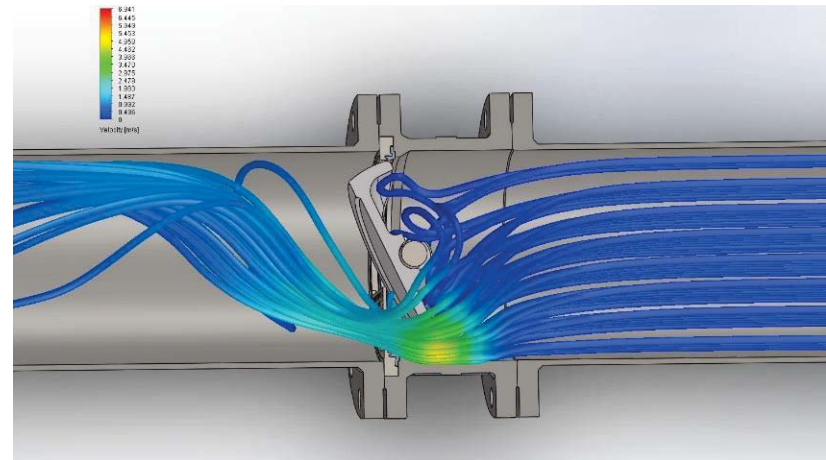


15° open

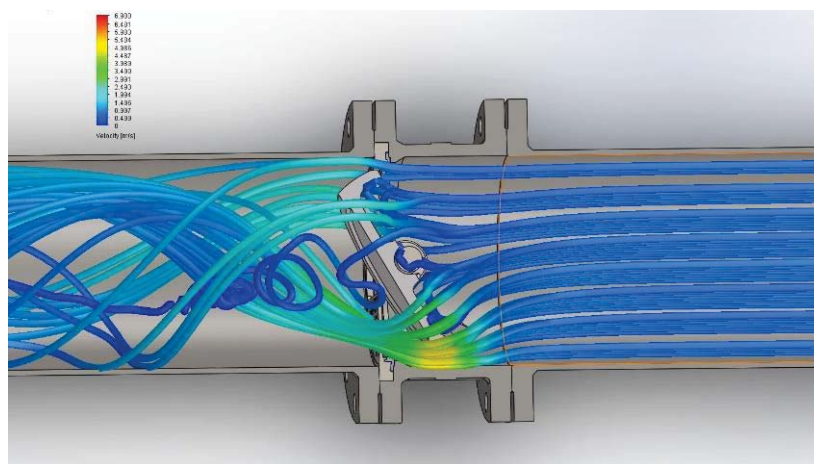
## Flow Simulation for Control Butterfly Valve Opening Angles



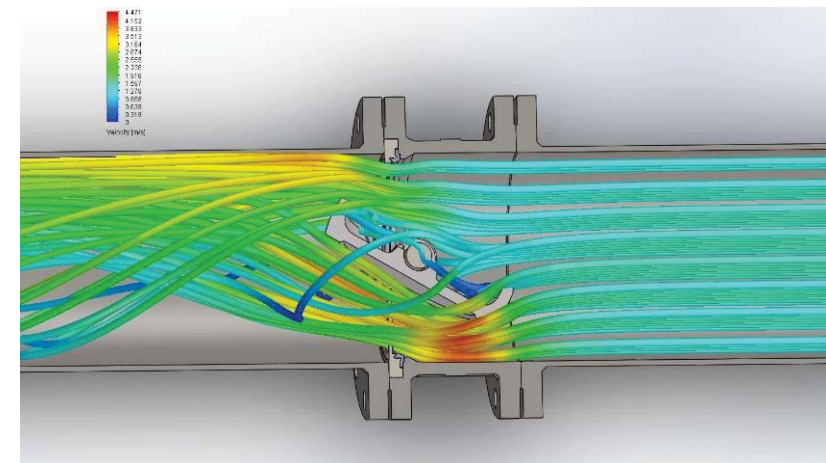
20° open



25° open



30° open



60° open