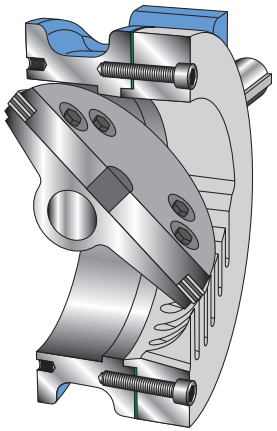
Performance Benefits

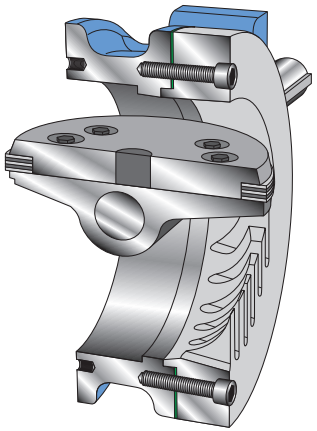
- 3" thru 24"*
- Class: 150 thru 600
- Carbon Steel, Stainless Steel, & Exotic Alloys
- Metal-to-Metal Seating
- Cryogenic to 850° F.
- Bidirectional Class IV, V, VI Shut-off
- Firesafe to API 607
- Low Running Torques
- Stable Control
- Light Weight
- Compactness
- Low Cost of Ownership
- Field Replaceable Trim Cartridges
- Severe Service Capability

* = Larger Sizes Available

Medium Flow



Maximum Flow



Low to High Flow Capability

The Sharktooth® Throttling Trim Cartridge eliminates the low angle instability inherent in most quarter-turn control valves. For instance, ordinary butterfly valves exhibit poor control at angles of opening that are less than 30°.

Sharktooth® technology greatly extends the control rangeability of our quarter-turn valves to as low as 3° of valve opening while also providing noise attenuation and anti-cavitation benefits.

Sharktooth® Valve Rated Cv Factors

Valve Size		Minimum Cv	ANSI 150	ANSI 300	ANSI 600
(in)	(mm)		Max Cv	Max Cv	Max Cv
3	75	1.5	141	141	-
4	100	2.6	258	258	220
6	150	7.7	765	765	575
8	200	15.3	1535	1535	934
10	250	22.7	2268	2268	1355
12	300	35.7	3585	3585	2042
14	350	47.3	4725	4338	-
16	400	74.8	7475	6390	-
18	450	90.3	9030	8425	-
20	500	111.6	11160	10413	-
24	600	163.0	16300	15045	-

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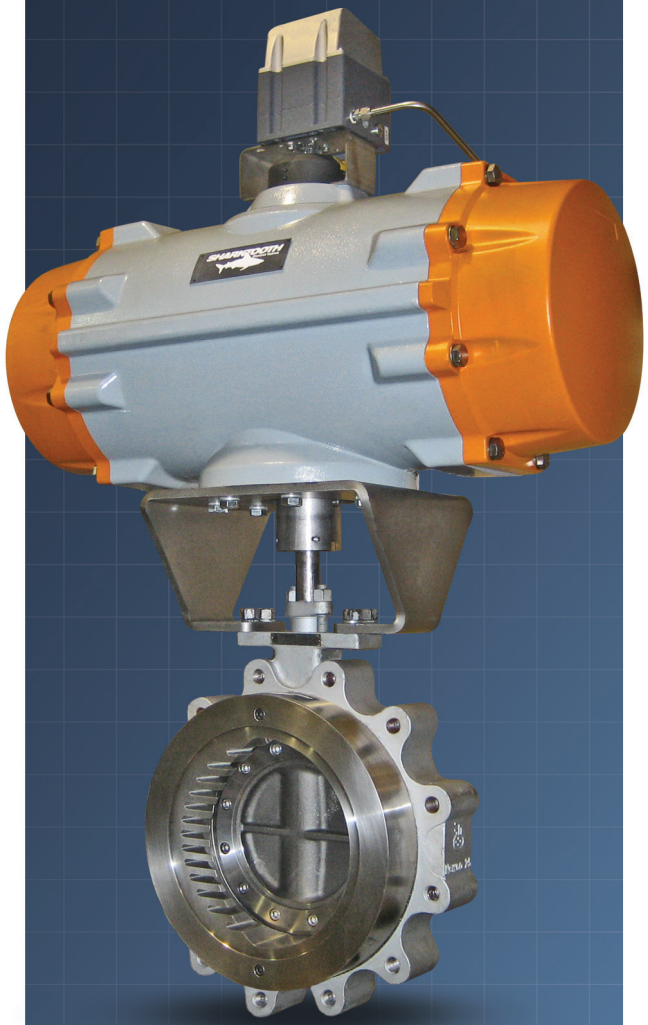
YearyControls
Innovative Valve Technolgies

SHARKTOOTH Control Valves

Everything you need in a control valve!



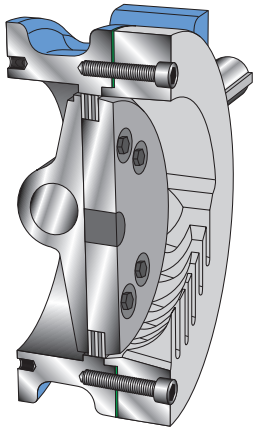
Sharktooth® Control Valve

Sharktooth® Control Valves meet all the requirements of most applications.

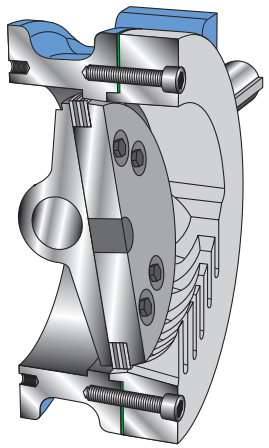
From Standard Butterfly Valves to Control Valves

By adding our patented "Throttling Trim Cartridges" to off-the-shelf butterfly valves, control valves can be created that exhibit significant improvements in performance, simplicity, and economy. They have excellent throttling characteristics and provide aerodynamic noise attenuation, and liquid cavitation reductions in a wide range of services from cryogenic temperatures, up to 850° F, including liquids, gasses, and steam.

Tight Shut-off



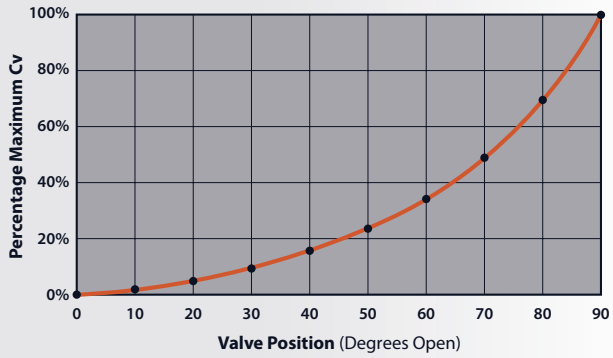
Low Flow



Equal Percentage Flow Characteristic

The Sharktooth's equal percentage flow characteristic fits the majority of control loop requirements.

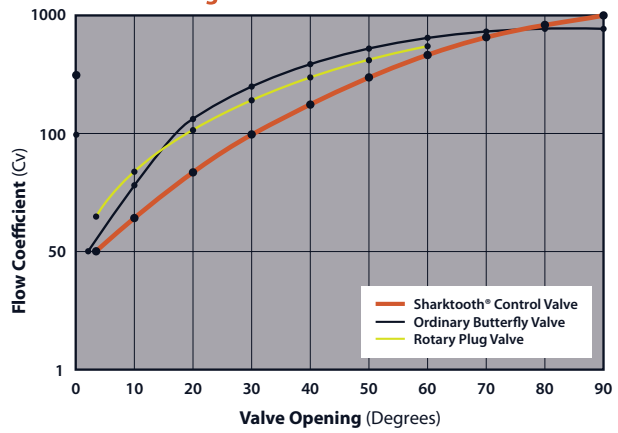
Flow Characteristic



Excellent Control Range

The effective control range of Sharktooth® control valves extends from 1% at 5° of travel, to 100% at 90° of travel, and they produce a flow curve that is far superior to conventional butterfly valves and to many other types of rotary control valves.

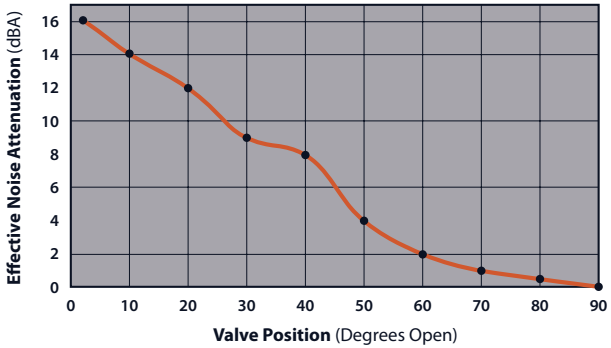
Control Range



Reduces Aerodynamic Noise Up to 15 dBA

As the vane turns within the Sharktooth® Throttling Trim Cartridge, multiple, optimized, throttling slots are gradually exposed to flow. Then, at higher flows, when the vane has cleared the contoured slotted portion of the control cartridge, the resultant lower pressure drop will alleviate any further noise problems.

Noise Attenuation



Anti-Cavitation Properties

Sharktooth's® twenty-five percent higher incipient cavitation index allows for higher pressure drops than ordinary butterfly valves, while exhibiting much less noise, cavitation, and damage.

Even if cavitation does occur in higher pressure drop situations, the shorter vapor jets produced by the slots will avoid the damaging effects caused by large vapor jets, referred to as "super cavitation".

Cavitation Reduction