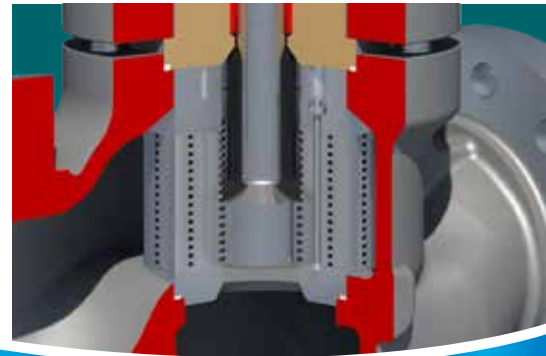




DiamondBack™ Cavitation Elimination Technology



Experience In Motion

DiamondBack: A Revolution in Cavitation Elimination

DiamondBack is a revolution in control valve cavitation elimination with unequalled performance, efficiency and versatility. DiamondBack's unique design succeeds where other cavitation elimination technologies have failed.

When installed in Valtek® Mark Series control valves, DiamondBack's simple, yet bold cartridge design:

- Effectively eliminates high-pressure drop cavitation and associated noise
- Passes solids up to 0.5 in (13 mm) without plugging
- Delivers up to 30% higher flow over the same pressure drop in a smaller and lighter package

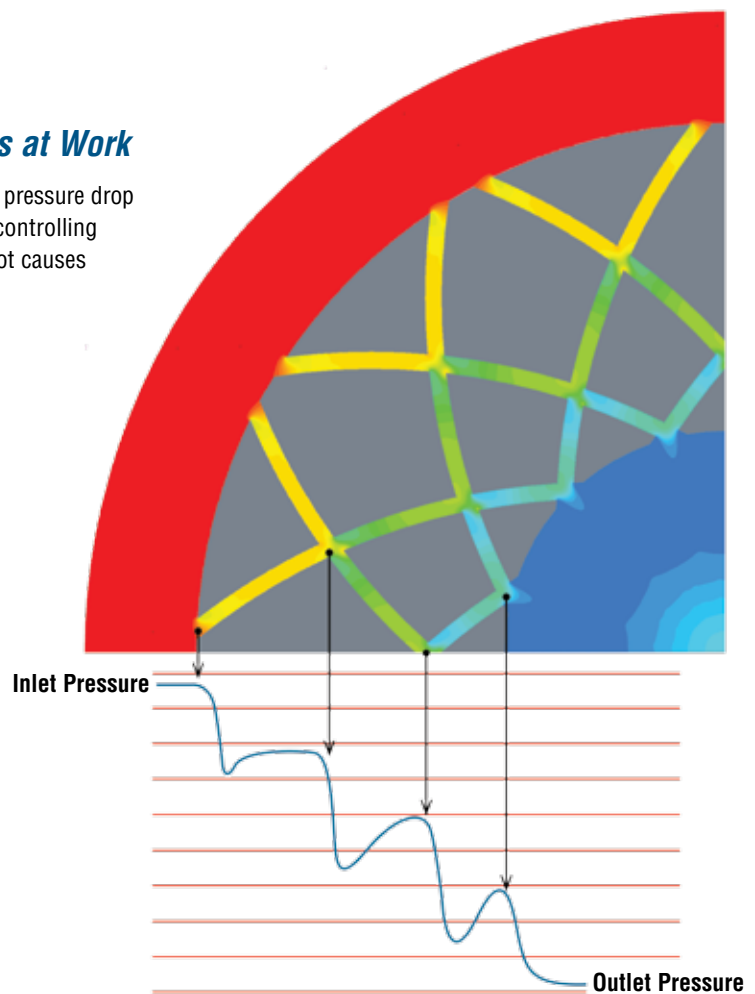
- Is customizable for the most rigorous application requirements
- Is available in all commonly specified materials (e.g., 300 and 400 series stainless steels and high-nickel alloys) as well as exotic alloys and tungsten carbide

With DiamondBack, control valve users can now simultaneously solve two age-old problems — cavitation and erosion — with one product.

Anti-Cavitation Mechanisms at Work

DiamondBack simultaneously employs all pressure drop mechanisms, efficiently absorbing and controlling pressure drop energy to eliminate the root causes of cavitation.

- Mutual impingement
- Sudden direction change
- Sudden contraction
- Sudden expansion
- Small passage friction
- Turbulent mixing





DiamondBack Product Data

Base Valve:	Mark Series
Size Range:	1.5 to 16 NPS (40 to 400 DN)
Capacity Range:	3 to 2050 C_v (2.6 to 1773 K_v)
Flow Direction:	Over the plug
Characteristic:	Linear (with bi-linear optional)
Pressure Stages:	3 to 6
Pressure Drop:	500 to 5000+ psi (34.5 to 349+ bar)
Sigma:	As low as 1.014

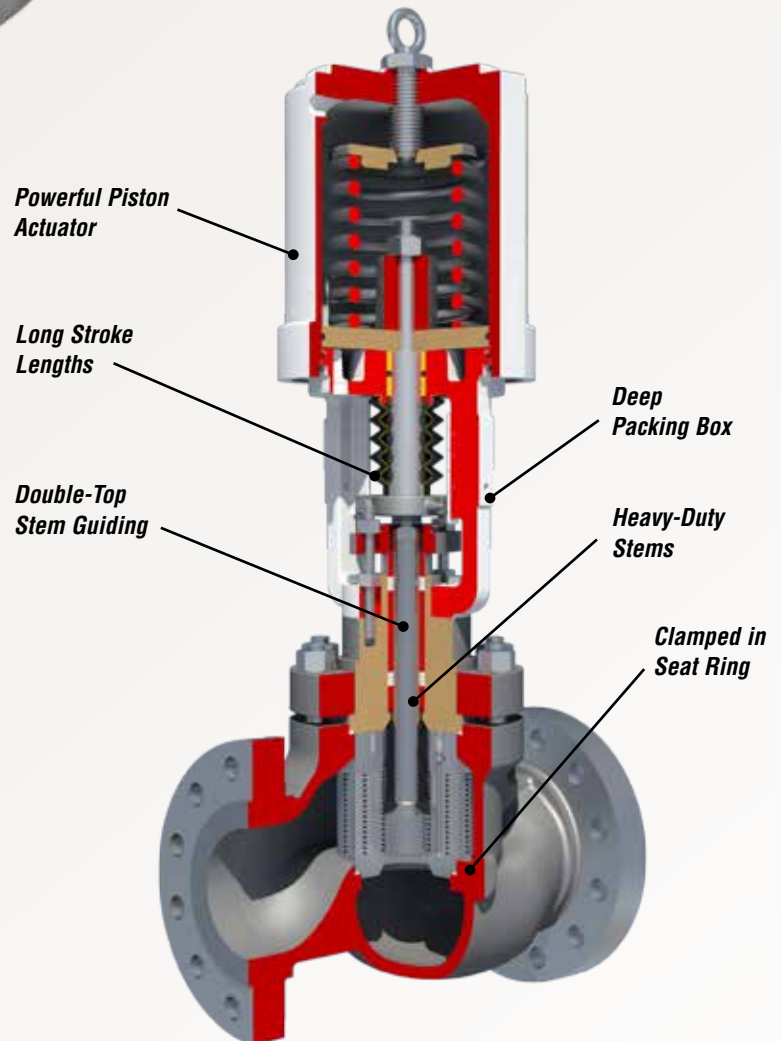
DiamondBack Plus Mark Series Valves:

- Maximum cavitation protection
- Maximum flow efficiency
- Maximum erosion protection
- Maximum total value

Mark Series Control Valves

The Valtek Mark Series control valves are proven and preferred for:

- Extremely reliable, tight shutoff
- Fine control positioning accuracy and reliability
- High flow efficiency
- Robust and durable long-life design
- Quick and easy maintenance
- Proven reliable packing and gasket sealing





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