

Why Buy MOGAS Valves for Power?

The simple qualitative answer is that MOGAS offers the following:

- Best product
- Best service
- Lowest risk
- Best total installed cost
- Best total cost of ownership

MOGAS is considered the highest quality, best product, high pressure ball valve in the industry. Most utilities in the United States have had experience with a number of ball valves and would agree that MOGAS is the most superior offering in its class. Additionally, MOGAS has the best service network, the most experience in the power industry, and as noted above, the best total cost of ownership.

These statements can be backed with quantitative monetary benefits. The figures presented below have been verified directly from a customer and their engineering firm. Two examples of the MOGAS direct value using qualitative results are as follows:

Maintenance Cost Reductions

Attribute: Best Severe Service Drain, Vent and Isolation Valve
Assumption: The MOGAS valve service life is twice as long as other high performance metal-seated ball valves.

Sample Calculation

Basis: MOGAS service life = two years after start-up
(in many cases more)

Company "X" service life = one year after start-up
Stress relieving required

Cost to Replace 2-inch Valve

Valve removal / reinstallation labor welders	\$800
Reinsulation (labor & materials)	\$500
Indirect Administration Cost	\$1000
Stress Relieving	\$2500
Total	\$4800

Conclusion

Based on the cost of installation, the best product pays for itself the first time a lower performance valve is removed from the pipe line.



Wall of MOGAS RSVP valves for a main steam drain application have outperformed the originally installed globe valves. Exposed to 950°F at 1875 psi (510°C at 129 bar) while online, it is critical that these valves operate dependably.

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Operation Cost Reductions

Attribute: Best Severe Service Drain, Vent and Isolation Valve
 Assumption: The MOGAS valve will provide tighter shutoff and therefore better overall plant thermal performance.

Sample Calculation

Basis: 2-inch valve in cold reheat steam service with 1/8-inch steam leak due to inferior valve design.

Calculated lbs/hr of steam loss = 1707 lbs/hr
 Cost of one pound mass = \$3 / 1000 lb steam
 Number of days operation per year = 300

Steam Loss Per Year

300 days x 24 hours x 1707 lbs/hr of loss = 12,290,400 lbs steam loss per year

Total Cost = 12,290,400 lbs steam loss x \$0.003 per lb of steam = **\$36,871 / year**

Conclusion

A better ball valve can pay for itself in the first month of operation

Figures used were from a specific US plant, numbers will vary per plant.

Technical Summary

Technical Factor	MOGAS	Other	Comments
Vented Body Design	Yes	No	The Integral Vented Body Design protects the internals from post weld heat treat damage in two key ways. Providing a defined area for heating coils & reducing heat transfer to the ball and seating area.
Press Fit Seat	Yes	No	Welded in seats will draw / shift to initial welding point causing seat to be off center of valve bore therefore creating a leak path and lessening the seat to ball contact area. This scenario gets worse under higher temperatures.
Packing Replacement In-line	Yes	No	Other designs are practically impossible to re-pack in-line and require taking the entire valve out of the pipe line.
Resolves Seat Erosion	Yes	No	The MOGAS seat is designed out of the flow path to completely protect the seat face while in the open position. Other seat rings often overlap the ball resulting in damage to the seat face while the valve is in the open position.
Heavy Duty Design	Yes	No	The MOGAS design is heavier duty. Our field experience has proven that the heavier ball / seat design leads to considerably longer service life. Comparing valve weight gives an indication of this factor.
Spray & Fused Chromium Carbide Coating	Yes	No	The spray & fused coating (bond strength 70,000 psi) is far superior in demanding service than the HVOF coating (bond strength 10,000 psi)
Mechanical Precision Stop	Yes	No	The most frequent field problem encountered is misalignment of actuated valves. This easily occurs during field repair without a mechanical stop.
Live Loaded Packing	Yes	Yes	Both use live loaded packing which extends packing life. The benefit of the MOGAS design is that the packing is much more accessible for maintenance when required.
One Piece Forged Body Design	Yes	Varies	Forged one piece design are inherently stronger.