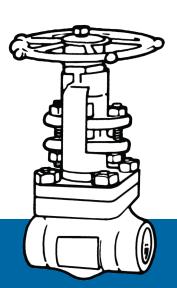






THE LEADER IN HF ALKYLATION VALVE PERFORMANCE



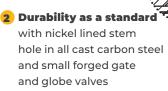
YOU'VE TRIED THE REST, NOW IT'S TIME TO BUY THE BEST.

Today more than ever, with longer run cycles between turnarounds, the HF alkylation process demands the most reliable and the highest safety measures factored into their equipment. Velan meets the demands of Phillips heritage and UOP licensed process units as well as the significant specification variances of individual refiners such as Exxon, Marathon, Valero and others. Our commitment is providing you with the highest quality severe service valve products with the lowest total cost of ownership in the market.

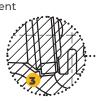
OUR COMPETITIVE ADVANTAGE IN HF ACID

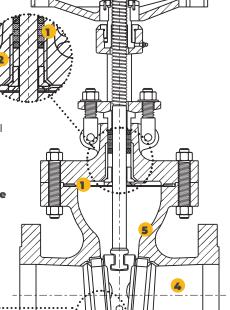
Best in class for engineering, manufacturing and reliability, Velan HF acid valves are setting new standards by offering:

1 Optimal sealing with superior control over body/bonnet gasket and packing rings compression



3 High corrosion resistance with a unique single weld Monel® seat design and extensive metallurgical development





ALL VALVES COMPLY TO:

- API 624 and ISO-15848-1 (3rd party approved)
- API 598 and ISO 15848-2 (cast)
- ASME B16.34: radiographic examination of critical areas of castings
- **★ Top quality** due to extensive experience in Monel® castings fully qualified to Niyama Criterion–weld repair is not permitted

All Monel components are 100% PMI and Nitric Acid identified

5 Increased valve life due to heavy duty wall thickness (as per API 602 and API 600) and exclusive material composition. (ASTM A216 S16 and ASTM A105 S62 compliant)

OUR ONE-STOP HF ACID SOLUTIONS:

Velan's extensive product portfolio includes the following valves specifically servicing HF Alkylation processes and hydrofluoric acid applications:

FORGED VALVES

API 602 gate, globe and check valves

CAST VALVES

API 600 gate valves, API 623 globe valves and API 594 swing check valves

BELLOWS SEALED VALVES

Cast API 600 gate and API 623 globe bellows sealed valves

All valves available in: carbon steel (WCB and A105), low temperature carbon steel (LCC/LCB and LF2), and Monel® (400 and M35-1)

VELAN'S COMMITMENT TO FUTURE SOLUTIONS

Improve the HF alkylation process by developing valve designs including:

- Torqseal triple offset butterfly valves
- Top-entry resilient and metalseated ball valves
- Engineered solutions for specific process requirements

