

# Valves for Metals & Minerals

### Solutions for the Autoclave Industry



# **Autoclave Industry**

Valve Solutions

#### **Rock Solid Ingenuity**

The autoclave industry's demanding leaching processes, such as HPAL (High Pressure Acid Leach) and/or POX (Pressure Oxidation), call for dependable, time-tested severe service valves and coatings. Here is where MOGAS technology truly shows its strength. MOGAS meets the requirements of the most strenuous extraction methods by providing industry-leading valves with zero leakage to handle high pressures, high temperatures, acidic medias, and both corrosive as well as erosive environments.

#### **Service in Action**

When you select MOGAS products, service is a big part of what comes with them. The MOGAS commitment to service means more than basic repairs. It also means timely access to our knowledgeable and experienced team of experts, anytime, anywhere in the world. And when our service team and technology group becomes part of your team, you can trust that we will do everything we can to come through for you.

#### **Valve Management Partnership**

The more you know about the valves critical to your operations, the more you can avoid downtime situations. The MOGAS Valve Management Partnership (VMP) gives you unprecedented insight and control to ensure valves are never a critical path concern.

The MOGAS VMP is built upon a confidential, client-specific interactive database that offers you several levels of real-time visibility, access and analysis. The program gives you capabilities such as:

- Asset management
- Maintenance contracts
- Automatic notification
- Instant knowledge
- Standard reports

#### **R&D** Innovation

Our continued scientific research and development along with technical alliances have caused improvements that create new levels of valve performance. Through extensive worldwide investigations, testing, data collection and performance analysis, R&D provides the scientific strength needed to support the economics of hydrometallurgical processing. MOGAS' patented nano-coating for POX and HPAL applications is one practical example of these advancements.

*Our severe-service ball valves have continually and successfully performed in autoclave applications worldwide for decades. Continued R&D programs, solid proven designs and innovative coatings, along with superior service and valve management partnerships, have given MOGAS a distinct reputation as a leader in this field.* 



The highly corrosive atmosphere of autoclave vent valves is one of the industry's harshest and most punishing. This 6-inch 900 Class MOGAS valve has been in operation since 1999.



This 10-inch 300 Class discharge valve has been designed with purge ports per the customer's request.

# **C–Series PL-Ni** ASME 150 – 1500 Class

#### **Applications**

Oxygen injection Autoclave vent Autoclave vent isolation Autoclave discharge Autoclave feed Sparge valves (inlets) Pump isolation

#### **End Connections**

Raised-face Flange

#### Sizes

1/2 to 14 inch Larger sizes available upon request

#### **Features**

#### Straight-through Bore Path

- Sealing surfaces not exposed to torturous effects of acidic slurry
- Greatly minimizes any pressure drops
- Allows for higher Cv

#### **Bidirectional Sealing**

- Floating ball design
- Locked-in seat

#### Ball & Seats

- Mate-lapped for 100% sealing contact
- Wide seat seals ensure absolute shutoff
- Corrosion resistant
- Seats are protected from flow in open / closed position
- Seats are field replaceable

#### Forged Body

- Corrosion allowance
- Longer valve lifecycle
- Designed to withstand high temperatures up to 932°F / 500°C
- Pressures up to 25,000 kPa / 3626 psig

#### **Inner Stem Seals**

 Provides a reliable combination of bearing and pressurized stem seal

#### Seat Spring

 Assisted by line pressure, provides a constant mechanical force on ball against seat to maintain seal

#### Permanently Fixed Mounting Bracket

Heavy-duty mounting flange
supports actuators

Bill of Materials		
ltem No.	Description	Material
1	Ball	Titanium Grade 12 / Patented Coating
2	Seat	Titanium Grade 12 / Patented Coating
3	Seat Spring	Titanium Grade 5
4	Body	Titanium Grade 12
5	Body Gasket	Titanium Spiral Wound with Graphite filled
6	Stem	Titanium Grade 5
7	Stem Bushing	Stainless Steel
8	Inner Stem Seal	Titianium Grade 12 / Patented Coating
9	Gland Flange	316SS / Moly Coated
10	Stem Packing	Expanded Graphite
11	Anti-Extrusion Rings	Braided Graphite w/ Inconel Wires



## Severe Service The MOGAS Definition

- Extreme temperatures
- High pressures
- Abrasive particulates
- Acidic products
- Heavy solids build-up
- Critical plant safety
- Large pressure differentials
- Velocity control
- Noise control

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