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## Technology



### **David Ashwill**

*Engineering Technology Manager*

A ball valve industry professional for 40 years, David has engineered API 6D, API 6A, and light industrial ball valves and actuators. Now with MOGAS for over a decade, he manages a collection of industry subject matter experts, application engineers and designers for direct technical support of MOGAS sales and service efforts worldwide. He provides guidance on codes and standards, sizing, materials and product recommendations for a wide variety of MOGAS applications. Prior to MOGAS, David held product management and chief engineering positions at Conbraco and TK Valve.

David serves as the vice-chair for MSS' (Manufacturer's Standardization Society for the Valves and Fittings Industry) Committee 410 Severe and Special Services Valves, as well as a member of the coordination committee for MSS.

He holds a Bachelor of Science degree in Mechanical Engineering from Rose-Hulman Institute of Technology.

Outside of work, David restores, shows and maintains his classic muscle car; a 1967 Fairlane 500 big-block convertible.



### **Jansen Scheepers**

*Autoclave Technology Manager*

Jansen leads MOGAS in evaluating and assisting the development of severe service solutions in the autoclave industry by using application specific knowledge and actual service history. By continuously mining data related to in-service exposure, Jansen continues MOGAS history of advancing their products, which ultimately affects autoclave performance and efficiency. Jansen also developed and implemented a valve monitoring system that quantifies in-service exposure over the life of the valve that is also used to pro-actively identify issues (including actuation malfunction) that can have a pronounced impact on the overall valve system. This system has contributed to significant savings in repairs and operational downtime.

Prior to MOGAS, Jansen's responsibilities included plant production superintendent at AngloGold ERGO Acid & Gold Plants in South Africa; technical metallurgist at Anglo Base Metals in Namibia; and other various technical roles at mining operations and design firms, such as Bateman Engineering & SNC-Lavalin, South Africa. This site experience enables him to understand the bigger picture of processing circuits to recommend product performance improvements.

A professional engineer since 2008, Jansen holds an MBA from University of Stellenbosch Business School, South Africa; and a Bachelor of Engineering (Extractive Metallurgy) from University of Pretoria, South Africa.

During his off-time Jansen enjoys camping with his family and attends monster truck shows with his two boys.

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### Technology (cont'd.)



**Russ McCarty**

*Application Engineer*

Russ supplies direct technical support of MOGAS Sales and Service efforts by providing guidance on codes and standards, sizing, materials, and product recommendations for specific applications. Part of this support includes creating and maintaining online valve sizing and selection validation tools used by sales and engineering teams that increase productivity and reduce potential issues.

Prior to MOGAS, Russ was an R&D engineer at Baker Hughes Pressure Pumping Division and a project engineer for SEC Energy Products & Services.

A unique accomplishment, Russ earned two bachelor's degrees in separate engineering disciplines: a BS in Industrial Technology from Oklahoma Panhandle State University, and a in Mechanical Engineering from Texas Tech University.

Outside of work, Russ enjoys restoring and modifying his classic Japanese sports car; a 1975 Datsun 280z Coupe.



**Mike Nguyen**

*Application Engineer*

Mike supports MOGAS sales and service teams with guidance on industry codes and standards, and valve recommendations for specific industrial applications.

Mike has had roles at MOGAS as project manager and resident engineer, where he provided technical oversight on large projects while a resident at the engineering contractor's or EPC's offices. This would involve residential stays of up to three months. Additionally, Mike has been directly involved in several multi-million projects from bid phase, through to order entry, project execution and shipment.

Mike holds a Bachelor of Science degree in Petroleum Engineering from the University of Texas.

Mike enjoys many sports, and is especially involved with his soccer team, Korner Pocket. He also enjoys travelling the world with his wife.

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### Subject Matter Expert



#### **David Swensen**

*Subject Matter Expert – Delayed Coking*

With more than 30 years of broad industrial engineering experience, David has spent over two decades specifying on/off and control valves for the refining and petrochemical market. He has vast machine shop experience, particularly in an R&D environment, which has led to David leading customer and manufacturer design reviews.

Previously an engineering department manager, David has led R&D projects in the aerospace industry—which several were awarded patents—and other projects associated with flow and flow control in mining, refining, oil & gas, chemical and pharmaceutical industries.

David has extensive experience in negotiating international contracts with companies, such as Reliance Industries, Essar, Hyundai, Samsung, Chyota, GS Engineering, SK Engineering and AGIP. He has fostered relationships with leading licensors and EPCs worldwide to include CB&I (Lummus), Bechtel, Foster Wheeler (Wood Group), UOP, LPEC and Sinopec. He is experienced in developing, administering and analyzing voice of customer surveys.

David's development and implementation of supplier qualification requirements includes ISO 9000.

His interests include restoring muscle cars of the 60's and 70's; he is a specialized finals inspector for National Hot Rod Association. But, most of all, he enjoys spending time with his three grandsons.



#### **Lloyd Bock**

*Subject Matter Expert – Actuation and Automation*

Lloyd has 20 years' experience in the valve and automation business across multiple industries, including oil & gas, water, power, chemical, refining, mining and minerals processing providing technical reviews and field support on all actuator and automation systems—pneumatic, hydraulic, electric and manual. At MOGAS, Lloyd partners with the sales and marketing teams to correctly specify actuation and automation products using best practices and the latest technologies.

Prior to joining MOGAS, Lloyd held several roles within Rotork in South Africa and the US, including national sales manager, service manager, and national service sales manager. Under his leadership, his Rotork US team received a global supplier of the year award from a major EPC recognizing their significant contribution to a Corpus Christi LNG project.

Lloyd graduated from University of Stellenbosch, Cape Town, South Africa, with a degree in business management.

Outside of work, Lloyd's interests include golf, superbike racing, ice hockey (representing South Africa at multiple International Ice Hockey Federation world championships as referee, coach and player), working around the house and spending time with the family.

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### Subject Matter Expert (cont'd.)



**Michael Lemeshev**

*Subject Matter Expert – Refining and Petrochemicals*

Michael is a 25-year industry professional. While his industry experience includes product and project engineering and the design of flow control and isolation systems, he is most active in technical training and project execution by partnering with end users / refiners, licensors and engineering companies to bring lasting solutions.

Previously at MOGAS he was a business development manager for the refining industry. Prior to that, Michael worked at Zimmermann & Jansen as vice president of sales and marketing.

A graduate from Texas A&M University with a Bachelor of Science in mechanical engineering, Michael has been a contributing author for several industry publications.

His hobbies and interests include classic cars, off-roading and outdoor activities.

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### Research & Development



**Asmaa Kassab, Ph.D.**

*R&D Engineer Supervisor*

Dr. Asmaa Kassab (aka Dr. Asmaa) leads the MOGAS engineering design team in new and enhanced severe service products, including: overhead vapor and switching valves for delayed coking applications; trunnion valves (T-Series), steam and vent valves (G-Series) for general service; and low pressure valves (ISOLATOR 2.0). These new products brought with them significant innovations and several US and international patents.

She is a highly technical mechanical engineer with solid knowledge of thermal fluid science. She serves as MOGAS' subject matter expert in flow analysis, advanced testing and control valve product line.

A recognized industry leader, Dr. Asmaa has delivered presentations and scholarly articles at events such as Valve World Conference and Expo; Refining Community (RefComm); and Proceedings of the ASME, International Mechanical Engineering Congress & Exposition.

Dr. Asmaa graduated from Alexandria University with a degree in mechanical engineering. Her passion for learning led her to Texas A&M University, where she obtained her master's and doctorate degrees in thermal fluid science.

In her free time, she enjoys fishing with her two boys, and considers the decision becoming a mechanical engineer as one of her proudest moments.

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### Research & Development (cont'd.)



#### **George (Yunfei) Qiao, Ph.D.**

*Sr. Materials and Coating Specialist*

Dr. George Qiao (aka Dr. George) provides technical support for MOGAS engineering, manufacturing, technology, R&D, service and sales departments regarding materials and coatings. His forty-year career in metallurgy and tribology includes hard facing, heat treatment, testing and failure analysis for metallic materials, such as carbon, alloy and stainless steels, titanium and superalloys.

Previously as MOGAS' senior research scientist, Dr. Georges was responsible for the development of patented surface technologies 'M7' and 'ML-381'. His R&D experience involved thermal sprayed nano and conventional-structured hard coatings, vacuum vapor-deposited thin coatings, electro and electroless metallic coatings, solution-deposited oxide coatings, metal surface treatments by nitriding, carburizing and electropolishing.

Prior to joining MOGAS, Dr. George was Senior Materials Scientist at Royal Philips, developing 2nd generation high-temperature superconductors, supported by US Department of Energy and US Air Force Title III programs.

He is the author and co-author of 40 journal and conference publications, and he has been cited more than 300 times in thermal spray publications. He severed on Journal of Thermal Spray Technology review panel. Dr. George holds five US and international patents.

Dr. George has a Ph.D., Materials Engineering from Stevens Institute of Technology for research on Thermal Sprayed Nanostructured Carbide and Ceramic Coatings, supported by the Office of US Naval Research (ONR) ACTD and DUST program from 1997 to 2001. His Bachelor of Science was obtained at Beijing University for Aeronautics and Astronautics.

Outside of work, Dr. George enjoys gardening, swimming and staying close to family.



#### **Phillip Inman**

*Senior R&D Engineer*

Phillip is a seasoned engineer at MOGAS who designs, develops and tests new valves, product enhancements and technology to determine the feasibility for severe service valve applications. He is essentially MOGAS' severe service ball valve design subject matter expert in supporting production engineering activities, and the go-to guy for design methods and code applications.

Phillip played a significant role in the development of the C-Series valve design calculator software, which reduces engineering time customizing the C-Series product line.

A graduate from the University of Houston, Phillip holds a Bachelor of Science degree in Mechanical Engineering Technology.

During his off time, Phillip enjoys reading and spending time with his family.

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### Research & Development (cont'd.)



**Anthony Hodge**

*R&D Engineer*

Anthony develops, designs and tests new and existing MOGAS valve products, and has been a major designer of the MOGAS severe service trunnion (T-Series) isolation valve and Flexstream™ control valve. He was also critically involved in the development of patented valve purging technology.

Previously at MOGAS, Anthony was Flexstream's design engineer. Prior to that, he was an engineering designer for Wild Well Control and a product engineer for Cameron Flow Control.

Anthony holds a Bachelor of Science in Mechanical Engineering Technology from University of Houston.

Anthony's hobby is learning to fix anything that breaks, saying he would rather fix it himself whenever possible than pay someone else. "I look at everything as an opportunity to learn."