

Company Overview 2024



MEGCHEM

Address :

N : MegChem (Pty) Ltd.
A : 1 Louwrens Muller Street, Secunda
Mpumalanga, South Africa 2302

Contact :

P : +27 (0)17 620 2200
W : MegChem.com
M : info@megchem.com



Welcome to the home of Engineering Excellence



Engineering Excellence with Innovation In Mind

Innovation is intrinsic to our identity at MegChem. We do not only embrace emerging technologies but also leverage data-driven insights, fostering a culture of relentless improvement. Our pursuit

of innovation extends far beyond following industry trends; we lead the way, setting new standards and redefining possibilities. As architects of innovation, precision builders, and creators of solutions that transcend expectations, we are more than just engineers. With an unwavering commitment to excellence, we propel ideas from conception to realization, turning challenges into triumphs. At MegChem, innovation isn't just a goal; it's the very essence of who we are and how we approach every project, ensuring we deliver results that inspire and endure.



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MegChem

Who We Are

MegChem is an engineering company with a team of highly skilled engineers and technicians who are passionate about solving complex engineering challenges. We specialize in providing advanced engineering solutions and project management expertise, with a focus on executing Greenfields, Brownfields, and Integration projects.

Our multi-disciplinary teams are equipped to tackle even the most complex interface challenges, and we work closely with our clients to understand their unique needs and goals. We provide a wide range of engineering support for renewals, plant modifications, and process improvements. We are technology neutral, meaning that we can work with the technologies used by our clients. Our preferred approach is to partner with our clients for optimal mutual benefits. We believe that by working closely with our clients, we can deliver solutions that exceed their expectations and help them achieve their goals.

At MegChem, we're committed to delivering high-quality engineering solutions that meet the highest standards of safety, reliability, and efficiency. We're always looking for new and exciting challenges to tackle, and we're dedicated to providing exceptional value to our clients. If you're looking for an engineering partner that you can trust to deliver exceptional results, look no further than MegChem.

Our Mission

Our overarching mission is dedicated to adeptly resolving the intricate engineering, project, and consulting challenges faced by our esteemed clients. We achieve this by diligently applying internationally acclaimed best practices and staying at the forefront of technological advancements, ensuring innovative and tailored solutions that meet and exceed expectations.

Our Vision

We have the will to be recognized as the industry leader in providing technical solutions in a complex process environment through un-paralleled service. Our goal is to foster a quality-driven environment that contributes positively to society, becoming a sought-after employer and continuously advancing based on our distinctive engineering capabilities. Through this commitment, we aim to establish a globally renowned company recognized for its excellence.





Quality Assurance

“Quality is the cornerstone of our engineering philosophy. We adhere to rigorous standards and employ meticulous quality assurance processes to ensure that every project we undertake is testament to precision and reliability. Our dedication to delivering excellence is unwavering, and our clients trust us to surpass industry benchmarks.”



Our Values

- **Accountability:** taking responsibility for our actions
- **Commitment:** dedicated to exceptional service
- **Efficiency:** doing the right thing, the right way, in the right time
- **Innovation:** driving continuous development/improvement
- **Quality:** consistent on time service experience



About us

Who are we

Since its inception nearly 30 years ago on October 1st 1995, MegChem has provided engineering expertise that includes Process, Mechanical, Piping, Metallurgical, Forensic, CE&I and Infrastructure Engineering to the oil, gas, power generation, petrochemical and related industries.

With over 70 qualified engineers and 100 draftsmen, MegChem has one of the largest multi-disciplinary engineering teams in South Africa.

As a BEE Level 1 contributor certified with the following Management Systems ISO 9001 (Quality Management), ISO 45001 (Occupational Health & Safety management) and ISO 14001 (Environmental management), continuous improvement and innovation is ingrained in our culture. We're dedicated to enhancing the expertise of our team and engineering capabilities, ensuring our competitiveness in a technology-driven industry. Our primary focus is working safely to design, construct, maintain, and enhance our clients' assets, making us your ideal partner for any project.



Our Expertise

Within the dynamic and ever-evolving terrain of engineering, our exceptional team proudly positions itself as pioneers, wielding a versatile skill set and an extensive reservoir of experience. From harnessing cutting-edge technologies to championing the principles of sustainable design, we adeptly navigate the multifaceted complexities inherent in modern engineering with finesse and unparalleled expertise. Far beyond the conventional roles of mere problem solvers, our engineers are true visionaries, adept at transforming abstract dreams into tangible structures that stand as testaments to innovation. At MegChem, we embrace challenges as opportunities to showcase our collective prowess, continually pushing boundaries and setting new standards for excellence in the diverse landscape of engineering.



Sustainable Engineering

We are ISO 14001:2015 certified and as stewards of the environment, we steadfastly dedicate ourselves to infusing sustainable practices seamlessly into every facet of our projects. Beyond the scope of eco-friendly designs and energy-efficient solutions, our commitment to sustainability extends to pioneering innovative methodologies that leave an indelible mark on both the built environment and the planet at large. At MegChem, we recognize the profound responsibility inherent in engineering, and we take deliberate strides to foster a harmonious coexistence between human progress and ecological preservation, ensuring a legacy of responsible engineering for generations to come.



Director's Statement

Mr. Pieter Neethling

Managing Director

Dear Valued Stakeholders

It is with great pleasure and pride that I extend a warm welcome to you to explore MegChem's Service offerings. As the Managing Director, I am delighted to showcase the essence of who we are, what we stand for, and the remarkable journey we have embarked upon.

MegChem has always been committed to excellence, innovation, and sustainability. Our unwavering dedication to delivering exceptional quality in every project, coupled with our forward-thinking approach, has enabled us to carve a niche for ourselves in the industry.

Within this company overview, you will discover not only our comprehensive range of services but also our core values, which serve as the foundation for everything we do. Integrity, collaboration, and customer satisfaction are not just words to us; they are the pillars upon which MegChem stands tall.

As you navigate through our company overview, I hope you gain insight into the essence of MegChem – a dynamic organization driven by innovation, fuelled by passion, and guided by a vision of a better tomorrow.

Thank you for your interest in MegChem. We look forward to the opportunity to collaborate with you and exceed your expectations.



“ Success is not merely achieved through individual brilliance but through the collaborative efforts of a dedicated team, driven by a shared vision and unwavering commitment to excellence.



The History



1995

On October 1st, 1995, MegChem was established through a SASOL Management Buyout.

MegChem acquires several companies, enhancing our expertise and services. SIS (Pty) Ltd. brought quality control and assurance expertise, SecMet (Pty) Ltd. added metallurgical and welding engineering capabilities, and PVSS (Pty) Ltd. expanded our service reach to Sasolburg and the Vaal Triangle.

- 1995 MegChem is Born
- 1996 SIS is Acquired
- 1997 SecMet is Acquired
- 1998 PVSS is Acquired



2000

MegChem secured a contract for the Mozal Pitch Storage Facility in Matola, Mozambique, one of its first international projects.

The facility, required by Mozal to store high-quality pitch from Japan for anode fabrication, includes four 3000-ton capacity tanks, ship offloading, fume recirculation, heating, circulation, blending, process control, road tanker loading, fire protection, and scrubbing systems.

- 2001 Mozal Storage facility
- 2003 Total Project
- 2004 Sasol Feed Prep Plant
- 2004 MITTAL COREX Furnace



2005

MegChem celebrated its 10th anniversary in 2005.

In 2006 LINC Energy in Australia required a GTL demonstration plant to clean raw gas from a UCG field for use in a Fischer-Tropsch Reactor and to separate hydrocarbon fractions. In 2008, MegChem also undertook a significant project for Shell, involving the development of oil wells and storage facilities in Gabon.

- MegChem Turns 10 Years
- LE-GTL demonstration plant
- 2008 Gabon Storage facilities
- 2009 Helium Test facility



2010

Gola Institute of Engineering is Established to become the premier Academy for the training of draughts people in South Africa. Accredited by Seta and QCTO for various industry related NQF 4 and NQF 5 qualifications.

MegChem is awarded the Designing and construction project of a Helium Test facility for Pebble Bed Modular Reactor (SOC) (PBMRTM) in Pelindaba

- 2011 Gola is Established
- 2014 Head Office Move
- 2008 Project in Gabon



2015

MegChem Western Cape Division is established with offices in Cape Town to facilitate our service offering to clients in the Western Cape.

MegChem underwent a significant BBBEE transaction to achieve 51% Black Ownership. This milestone included incorporating some of its employees into the ownership structure for the first time, empowering them and promoting greater equity and inclusion within the company.

- 2015 Cape Town offices
- 2017 BBBEE transition
- 2018 Clean Fuels Project
- 2019 Achieving BBBEE Level 1



2020

MegChem is selected as SASOL's Local Engineering Partner. Partnering in developing scoping, pricing and execution of capital projects

MegChem was awarded its largest project to date as an Engineering, Procurement, and Construction (EPC) provider for the "Rebuild of Plant 4" for Astron Energies. This prestigious project underscored MegChem's capabilities and expertise in handling large-scale, complex projects, solidifying its reputation as a leading EPC provider in the industry.

- 2021 SASOL Partnership
- 2022 Rebuild of Plant 4
- 2023 SASOL Team of the Year



Our Group

MegChem is an integral member of a dynamic consortium consisting of partner companies, each fulfilling a crucial role within our diverse portfolio. Operating under the auspices of MegChem Holdings, MegChem (Pty) Ltd stands as the primary engine driving our engineering initiatives, supported by a network of strategic alliances.

SecMet, a metallurgical engineering company committed to innovative solutions, and **Ferrotherm**, a specialized heat treatment company that combines materials and welding engineering with specialized heat treatment services.

Adding to the synergy within the group, **Gola Institute of Engineering** takes charge of training services, ensuring that our workforce is equipped with the latest skills and knowledge. Simultaneously, **Meta and More** contribute their expertise by providing essential IT services, ensuring the seamless integration and efficiency of our operations across the entire MegChem family. This collaborative structure underscores our commitment to excellence, innovation, and holistic growth within the diverse realms of engineering and related services.

**SecMet**

SecMet (Pty) Ltd

Quality engineering and metallurgical laboratory services specialist.

FerroTherm (Pty) Ltd

Heat treatment procedures and PWHT compliance verification.

Gola Engineering

Oil & Gas, Mining and Petrochemical Engineering training service provider

Meta & More (Pty) Ltd

Software Development, Enterprise systems and IT services provider



Executive Team

With our systems and procedures, we can support a client from A to Z and beyond. We pride ourselves in providing long-term maintenance and support beyond the scope of installation and implementation.



Mr. Pieter Neethling

Managing Director

B.Eng (Mech Eng), 1988, UP
M.Eng (Mech Eng), 1991, UP
MBL, 1998, UNISA

Managing Director and founding member of MegChem. A registered Professional Engineer with over 30 years of experience that serves him well in his role in growing the MegChem portfolio.



Mr. Wessel Van Zyl

Project Management

B.Eng (Meta Eng), 1995, NWU
B.Eng Hons (Meta), 2000, UP
M.Eng (Eng Mgt), 2012, UP

Responsible for the MegChem Project Management Division with multi-discipline engineering experience in metallurgical and corrosion engineering and project management.



Mr. Louis Odendaal

Western Cape Division

B.Eng (Mech Eng), 1994, SUN
MBA, 2007, SUN

Responsible for growing the Western Cape division, with multi-discipline engineering experience in design, fabrication and construction, engineering management and business development.



Mr. Tertius Bosman

Mechanical, P&I Engineering

B.Eng (Meta Eng), 1986, SUN

Responsible for Mechanical, Process & Instrumentation Engineering and Design services, with 30 years experience in mechanical design and construction support. SAIMechE Highveld committee Member



Mr. Linda Magqabi

Corporate Affairs, Marketing and Training

B.Sc (Mech Eng), 1992, UCT
Business Leadership (UNISA)

Responsible for Corporate Affairs, Marketing and Training, with over 20 years of experience in Project Management in the petrochemical and mining industries.



Mr. Willem De Klerk

Piping, Project Safety, Commercial, Procurement and Stores

B.Eng (Mech Eng), 1998, NWU
Professional Engineer with ECSA

Responsible for Piping Eng., Project Safety, Commercial, Procurement & Stores, with extensive knowledge in piping design and engineering in the petrochemical field.



Mrs. Engela Meyer

Human Resources, Finance and Administrative Services

B.Comm (Accounting) 1985,
M.Comm (Tax) 2015

Responsible for all administrative services which include Financial, Human Resource, Information Systems, ERP system development and Document Control services.



Mr. Mohamed Kajee

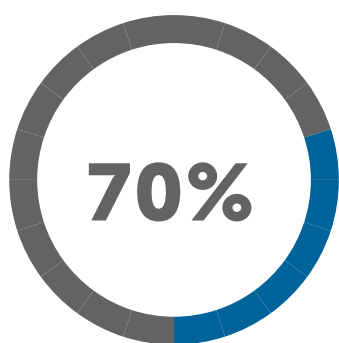
Cost Engineering and Project Accounting

N.Dip (Cost Mgt Accounting)
(M.L. Sultan Technikon) 1980

Responsible for cost engineering, project accounting and management accounting support. He has over 37 years of experience in cost and management accounting.

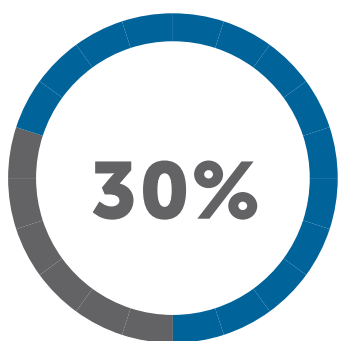


Global Highlight



Projects in Southern Africa

A significant majority, around 70%, of our diverse portfolio is strategically concentrated in the vibrant landscapes of Southern Africa. Our impactful presence extends to countries including South Africa, Mozambique, and Zambia, where we actively engage in and contribute to a wide array of projects. This regional focus allows us to deeply understand and cater to the unique challenges and opportunities presented in these dynamic environments, reinforcing our commitment to delivering tailored and successful engineering solutions.



The 70% | 30% Balance

Project Outside Africa

The remaining 30% of our diverse project portfolio extends its reach to dynamic landscapes beyond Southern Africa, with a notable presence in regions such as Saudi Arabia and Australia. This global expansion reflects our commitment to delivering engineering excellence on an international scale, allowing us to leverage our expertise in diverse environments and contribute to impactful projects in these distinct regions.

MegChem's Global Expansion

MegChem is committed to expanding our global presence through strategic initiatives. We will focus on market expansion, forging strategic partnerships, investing in research and development, and integrating sustainability into our operations. These efforts aim to increase our global footprint, better serve our customers, and contribute to sustainable development worldwide.

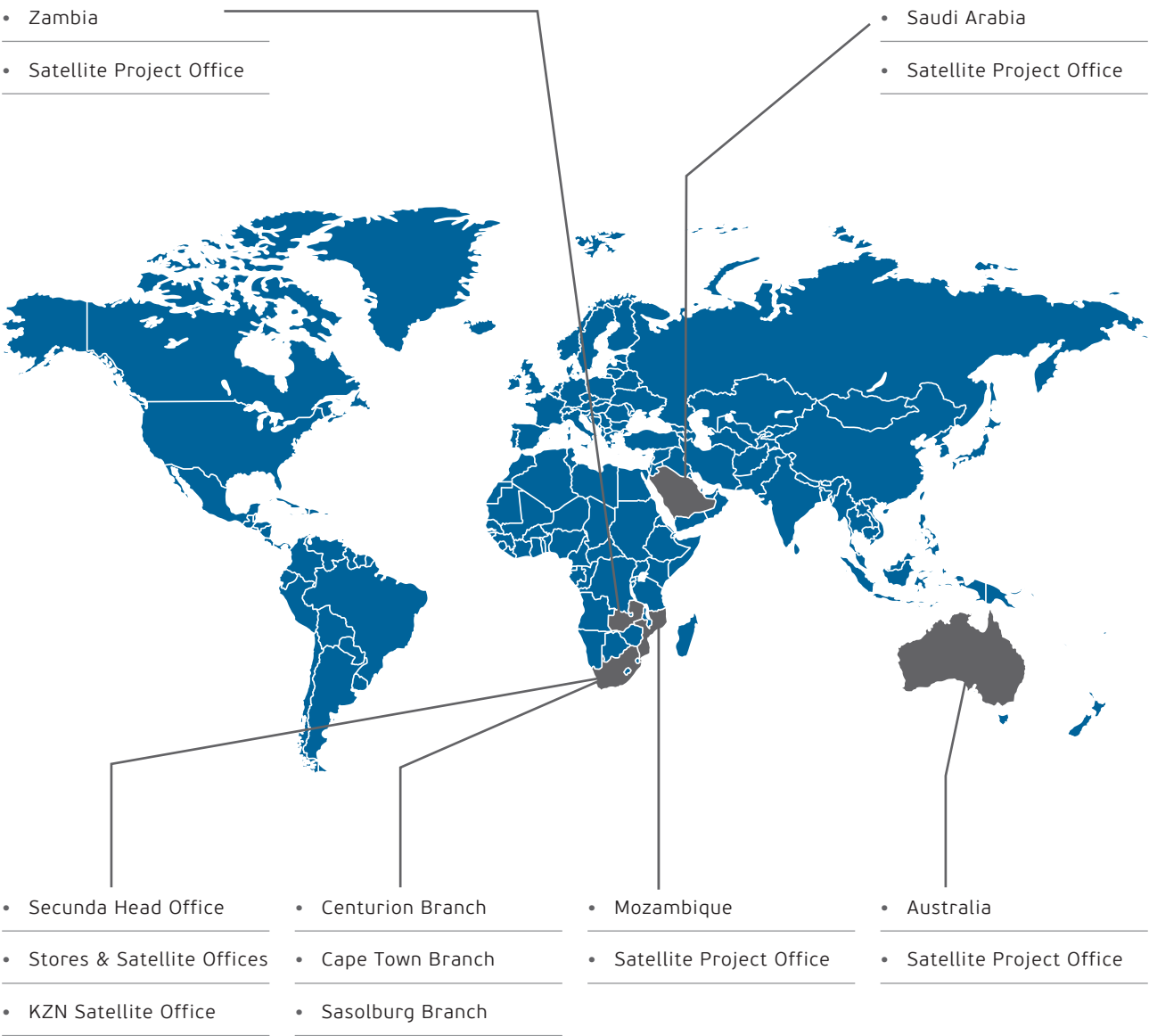
Market Expansion: We will actively explore new markets and regions where there is a demand for our products and services. By identifying emerging opportunities and understanding local dynamics, we aim to establish a stronger presence in key geographical areas.

Strategic Partnerships: Collaboration is at the heart of our growth strategy. We will seek to forge strategic partnerships with local businesses, organizations, and government bodies to leverage their expertise, resources, and networks. These partnerships will enable us to navigate regulatory landscapes more effectively and foster mutual growth.



Global Footprint

Our global footprint is anchored by our headquarters in Secunda, South Africa, serving as the nucleus of our operations. Complementing this central hub, we have strategically established four key locations in Pretoria, Sasolburg, Cape Town, and Durban, ensuring a robust network to meet the diverse needs of our clients. Additionally, our reach extends beyond borders with site offices strategically positioned in Saudi Arabia, Australia, Zambia, and Mozambique. This extensive network enables us to seamlessly blend local expertise with international perspectives, reinforcing our commitment to delivering excellence across the spectrum of engineering solutions on a global scale.





Our Services

Engineering Solutions

At our core, we pride ourselves on being your go-to partner for a spectrum of engineering solutions. Our Consulting Engineering services are tailored to provide you with strategic insights and a comprehensive roadmap for your projects. When it comes to EPC Project Management, we take charge of orchestrating every aspect—from engineering to procurement to construction—ensuring a seamless and successful project journey. Additionally, our Engineering Procurement services are designed to optimize your sourcing processes, ensuring a reliable supply chain and cost-effective solutions. Trust us to navigate the complexities and deliver excellence at every phase of your project.



Consulting Engineering

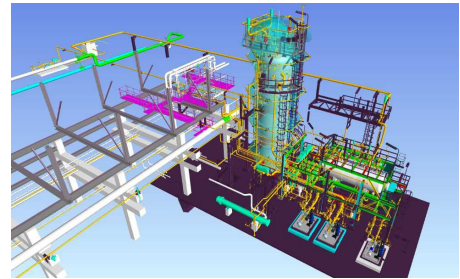
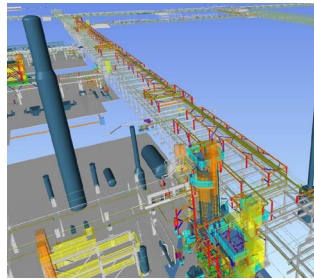
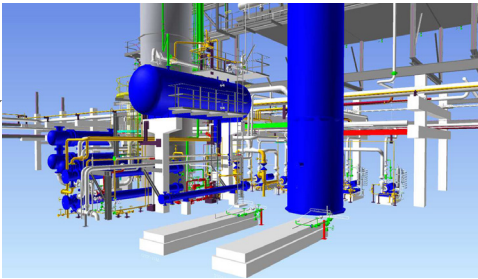
Our Consulting Engineering services go beyond traditional consultation, offering a holistic approach to project management. We collaborate closely with clients, understanding their unique challenges and objectives. Drawing on our diverse expertise, we provide strategic insights, feasibility studies, and comprehensive project roadmaps. Our aim is to not only solve immediate engineering issues but to guide our clients towards sustainable and future-proof solutions.

EPC Project Management

As specialists in EPC (Engineering, Procurement, and Construction) Project Management, we orchestrate seamless project execution from inception to completion. Our dedicated team ensures efficient coordination of engineering, procurement, and construction phases, employing robust project management methodologies. With a focus on timelines, cost-effectiveness and quality, we navigate complexities to deliver successful outcomes.

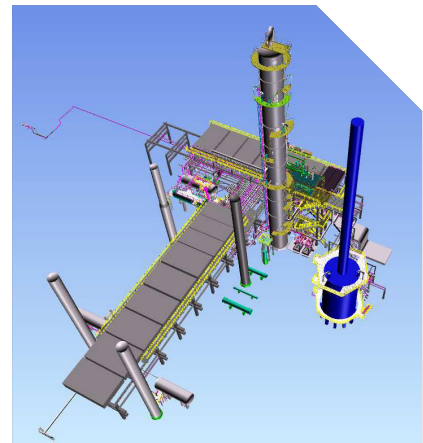
Procurement

Our Engineering Procurement services redefine the sourcing landscape. Leveraging a global network of suppliers and industry expertise, we optimize procurement strategies. From material selection to supplier negotiations, our approach is geared towards ensuring a reliable supply chain, minimizing risks, and maximizing cost efficiencies throughout the project lifecycle.



Engineering Solutions

In addition to our core services, we extend our expertise to encompass Engineering Forensic Studies, offering in-depth investigations to uncover and address the root causes of material failure mechanisms. Furthermore, our commitment to cutting-edge solutions includes Engineering 3D Scanning & Modeling services, where we leverage state-of-the-art technology to provide accurate and detailed representations for enhanced project visualization. Our Engineering Design services reflect our dedication to innovation, blending creativity with technical precision to deliver designs that seamlessly align with your project objectives. Our comprehensive suite of services are geared to ensure your projects thrive at every stage of development.



Forensic Studies

We Dive deep into the heart of engineering challenges with our Engineering Forensic Studies. Our skilled investigators employ rigorous analytical techniques to uncover the root causes of issues. Through detailed investigations and expert analysis, we provide comprehensive insights, enabling clients to make informed decisions for immediate issue resolution and future project preventions and enhancements.

3D Scanning & Modeling

Our advanced Engineering 3D Scanning & Modeling services enable our clients to transform their project visualization and planning. Leveraging state-of-the-art technology, we meticulously capture intricate details to craft precise 3D models of structures. Enhancing design accuracy and fostering seamless communication, our models facilitate collaboration among project teams, ensuring comprehensive understanding. Employed for clash detection, they guarantee precise fitment on-site during construction endeavors.

Engineering Design

Unleash innovation in every detail of your project with our Engineering Design services. Our creative and technically adept team transforms concepts into reality, prioritizing precision, functionality, and aesthetic appeal. From initial sketches to detailed plans, we meticulously craft designs that seamlessly align with project objectives and industry standards, ensuring a foundation for success from inception to completion.



Case Study

SASOL AND MEGCHEM PEI&T ENGINEERING PARTNERSHIP AGREEMENT

MegChem values its partnership with Sasol Projects & Engineering (P&E) and sees it as a strategic move to enhance engineering and project innovation. The emphasis on delivering unparalleled solutions from the plant to the boardroom suggests a comprehensive approach to supporting Sasol's business.

The mention of a 26-year continuous collaboration with Sasol underscores MegChem's deep understanding of Sasol's operational processes and engineering requirements. This historical partnership provides MegChem with unique insights and positions us well to meet the demands of the new venture.

The commitment to expanding the local upstream footprint aligns with a broader strategy, indicating a proactive stance in meeting industry needs. By leveraging each other's strengths and capabilities, MegChem and Sasol aim to embark on successful initiatives, delivering high-quality solutions and services.

The language used in the statement reflects confidence and a commitment to excellence, suggesting a positive outlook for the collaboration between MegChem, P&E and Sasol.



Sasol selected MegChem (Pty) Ltd as one of the chosen local engineering suppliers to enter into a partnership agreement with Sasol Projects, Engineering, Improvement and Transformation (PEI&T). The official signing of the agreement took place on Tuesday, 15 March 2022 in Secunda. MegChem will be providing engineering, procurement and construction services for the PEI&T portfolio, from front-end engineering design to project closure.

Secunda, 22 March 2022 | Press Release



Case Study

SASOL CATALYTIC CRACKER CYCLONE AND RISER REPLACEMENT

Strategic Collaboration with Group Technology - In the competitive petrochemical industry, MegChem stands out as a reliable and efficient engineering partner, as exemplified by our successful completion of the Sasol Catalytic Cracker (SCC) Cyclone and Riser replacement project at the Sasol Synfuels Operations facility in Secunda.

Efficient Project Management - Collaborating closely with Group Technology, a division of Sasol South Africa (Pty) Ltd, we navigated the intricate landscape of this project with foresight and meticulous planning. Despite facing a tight schedule, MegChem exceeded intermediate milestones ahead of time, alleviating pressure on the overall project timeline.



ENGINEERING EXCELLENCE DOWN UNDER

MegChem's Australia office, stationed in Brisbane, plays a crucial role in servicing clients within the energy industry. With a primary focus on sustaining operations for major clients like CS Energy, the office navigates challenges unique to the Australian market while delivering high-quality engineering solutions on projects like; Callide B HEP, Callide C, Kogan Creek Power Station, Tarong North Power Station

Future Prospects: MegChem's Gerrie Visser emphasizes the importance of delivering fast, cost-effective, and value-added services to gain trust in the Australian market. The unwavering support from MegChem's South African offices proves invaluable in achieving success.



500 000 HOURS WORKED SAFELY

Sasol acknowledged the Safe Progress made on the Rebuild Project and congratulated us on achieving 500,000 hours worked safely. To contextualize this accomplishment, it equated to 200 Man Years.

Their recognition extended beyond project hours, acknowledging the time spent commuting and the sacrifices made by those away from their families. The leadership team remained committed to ensuring the safe return of every individual to their loved ones.





The Client

SASOL SHUTDOWN PROJECTS WITH A PERFECT SAFETY RECORD

MegChem, a leading engineering firm, recently accomplished a remarkable feat by successfully completing 17 projects during the Sasol Shutdown, one of the largest events of its kind in the Southern Hemisphere. This accomplishment is particularly notable considering the extensive planned activities within a tight timeframe.

Safety Excellence - Ensuring the safety of all involved is paramount, and MegChem proudly achieved a 100% safety record. This commendable achievement is especially noteworthy given the scale and complexity of the completed projects. Notably, all projects were finished either on schedule or ahead of time.

Preparation and Execution - MegChem's project and construction teams were on-site from mid-June, diligently preparing for the shutdown. The scope of work included the effective management and integration of 32 direct sub-contractors, reaching a peak of 1500 resources across 8 individual sites. A total of 150 MegChem resources, including engineering and services support, contributed to the success of these shutdown projects, with a cumulative 25,000 man-hours spent on-site. The fabrication and construction involved welding more than 15,500 diameter inches of carbon steel, low alloy steel, and stainless steel. Furthermore, heavy lifting and rigging encompassing 300 tons of equipment and piping were flawlessly executed.



Client feedback further attests to MegChem's excellence in project management and construction:

"I would like to say thank you to MegChem Projects and more especially to the construction manager for the outstanding work done. Ever since he started with the projects on site, on a daily basis, he has kept me informed with all the work to be executed and any concerns which could have impacted the projects. He did this timeously while showing dedication to his profession and the clients interest. So again, I say thank you to the Project team and MegChem for performing above the standards. I look forward to working with you in all our upcoming projects."

"I like to give recognition to the Megchem project manager. The manner in which he addressed the work and also made plans to temporarily remove dangers really supported the shutdown's bottom line. He is an excellent leader."

"Thank you for your effort on this project, all the long hours are really appreciated. Was a pleasure working with you guys."

Coordinated Construction Philosophy – "The MegChem Way"

The successful delivery of projects on or ahead of schedule once again demonstrated MegChem's commitment to its coordinated and engineered construction philosophy, known as "The MegChem Way." This approach emphasizes meticulous planning and seamless execution, ensuring optimal outcomes for clients.



Client Statement



EXCELLENCE AWARDS

MegChem was one of the few recipients for the 2023 SASOL Project Team and Innovation Team of the year and part for the Clean Fuels 2 Refinery Column Revamp and TAME projects



2023 PROJECT TEAM OF THE YEAR

At the end of November 2022, the Clean Fuels 2 Refinery Column Revamp projects reached a target plan of 1 million injury free hours. This was achieved through dedication and commitment, under challenging schedule pressures, and whilst interfacing with running plant activities spread across multiple units.

The first ever Clean Fuels 2 "Cold commissioning shutdown" was also completed successfully in November & December last year which increased CF2 petrol blending capability from 35% to 80%. The quality of construction, punching and handover during these projects were exemplary and resulted in 0 leaks when stand tests were performed. These units were commissioned safely and within agreed operating parameters. Well done to the team for remaining strong and steadfast on delivering this excellent outcome.



2023 INNOVATION TEAM OF THE YEAR

TAME is a high value and high octane blending component in the Secunda Operations fuel pool. By improving TAME production at Unit 79, it allowed flexibility improvements within the Secunda fuel blending strategy. Debottlenecking work included complex engineering and a fourth reaction bed installation.

During the TAME statutory shutdown, a decision was made to keep 78VL-101 online which enabled the supply of valuable co-monomers to the market during the shutdown period. Congratulations to the team for executing the shutdown safely whilst a part of the unit was online – the focus and hours of preparation is indicative of this team truly living up to the Sasol aspirational culture!



Clients & Partners





Memberships & Affiliations





Project Experience



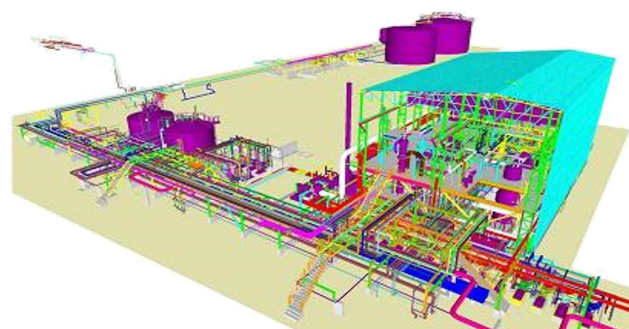
- 2003 - Mozal Liquid Pitch Storage facility
- Matola Harbour, Maputo, Mozambique
- Design, Project management and Construction

Project Description: Mozal required a Liquid Pitch Storage facility to receive and stock high quality pitch imported from Japan for the fabrication of anodes. MegChem's Scope of work included; Project management, process design, detail engineering and design, procurement, construction and commissioning on a lump sum turnkey basis. The client provided all the civil works and main electrical supply.



- 2004 - Sasol Feed preparation plant
- Sasol Synfuels, Secunda - South Africa
- Design, Project management and Construction

Project Description: MegChem was tasked with swiftly designing and constructing a waste stream recycling plant within tight space and time constraints. Our responsibilities included detailed piping design for the entire plant. Notable features of the project included 1580 isometric drawings, 116 layout drawings, 14 kilometers of piping, and 22 kilometers of steam tracing.



- 2006 - PBMR Helium Test Facility
- Pelindaba - South Africa
- Design and Construction

Project Description: MegChem undertook the design and construction of a Helium Test Facility for PBMR in Pelindaba. This project involved creating a specialized facility tailored to PBMR's needs, emphasizing safety, efficiency, and precision in handling helium. MegChem ensured seamless integration of design and construction processes to meet project specifications effectively.





- **2006 - MITTAL COREX Furnace Reduction Shaft**

- **Cape Town - South Africa**

- **(EPC) Services**

Project Description: MegChem successfully implemented the Dynamic Oxide Distribution System at MITTAL Saldanha Steel's COREX Furnace Reduction Shaft. This involved replacing spider legs with new equipment to ensure even distribution of oxides, optimizing processes and reducing coke and pellet usage. The project included complex modifications, such as cutting and modifying furnace top sections at heights of 75m, with rigging weights up to 40 tons.



- **2008 - Shell Oil Wells and Storage facilities**

- **City - Gabon**

- **Design and Upgrading**

Project Description: We undertook a project involving Shell oil wells and storage facilities in Gabon. The project likely encompassed various aspects of oil well development, including equipment installation, and storage infrastructure setup, in alignment with Shell's operational needs and industry standards in Gabon's oil sector.



- **2008 - LINC Energy GTL demonstration plant**

- **Chinchilla, Queensland, Australia**

- **Design and Construction**

Project Description: LINC Energy required a GTL demonstration plant which would clean up the raw gas generated from an UCG field for use in a Fischer-Tropsch Reactor and then separate the hydrocarbon fractions from the output stream. The plant was engineered and designed by MegChem in-house and was designed to be fabricated on skids in South Africa and then shipped to Australia.



- **2017 - SCC Cyclone & Riser Replacement**

- **Secunda - South Africa**

- **Maintenance and Replacement**

Project Description: Collaborating closely with Group Technology, a division of Sasol South Africa (Pty) Ltd, we navigated the intricate landscape of this project with foresight and meticulous planning. Despite facing a tight schedule, MegChem exceeded intermediate milestones ahead of time, alleviating pressure on the overall project timeline.





- **2019 - Clean Fuels Refinery Western Integration**

- **Secunda - South Africa**

- **Re-Design and Upgrade Construction**

Project Description: MegChem successfully completed the Clean Fuels Refinery Western Integration project, which involved replacing a column section of 28m height and 36t weight. Welding included 1061 shop and 398 field welds with a low 0.15% failure rate. The project spanned 6 months, with 36 days for pre-shut construction and 25 days for the shutdown window.



- **2020 - Astron Energies Crude Flexibility Project**

- **Cape Town - South Africa**

- **Engineering, Procurement and Construction (EPC)**

Project Description: MegChem played a pivotal role in Astron Energy's Crude Flexibility Project, encompassing crude and storage infrastructure upgrades, refinery process modifications, and final product storage enhancements. From concept development through engineering to executing the negotiated Engineering, Procurement, and Construction Contract (ECC), MegChem ensured seamless project progression and delivery.



- **2022 - Sasol 40 Bar project**

- **Secunda - South Africa**

- **Maintenance and Replacement**

Project Description: MegChem excelled in executing a challenging shutdown project, encompassing lighting and instrumentation upgrades alongside the installation of a new start-up bypass system on Secunda's 40 Bar Steam inter-factory transfer header. Innovative solutions, like custom-designed forgings, ensured smooth operations, with zero safety incidents, within budget, and ahead of schedule, earning recognition as SO's project of the year.



- **2022 - Sasol Plant 4 Revamp**

- **Sasolburg - South Africa**

- **Re-Design and Upgrade Construction**

Project Description: MegChem tackled the integration and modification of the water side of a forced circulation convection waste heat boiler, optimizing existing equipment and introducing new elements for functionality. Challenges included delayed deliveries and compatibility issues. Solutions involved reinstating original components, ordering replacements, and swiftly designing and fabricating new components, ensuring project success before final plant start-up.





- **2022 - Sasol WHB Replacement Project**

- **Cape Town - South Africa**

- **Re-Design and Upgrade Construction**

Project Description: MegChem efficiently replaced the WHB Cigar Unit at Sasol, encompassing various tasks such as replacing piping elbows, refractory linings, and installing supports for the Steam Drum. Despite challenges, including a last-minute scope alteration, MegChem adapted swiftly, mobilizing the engineering team to ensure seamless project execution and construction preparation adjustments.



- **2022 - Astron Energy's Plant 4 Rebuild Project**

- **Cape Town - South Africa**

- **Engineering, Procurement and Construction (EPC)**

Project Description: MegChem spearheaded the Platformer Unit Rebuild as part of Astron Energy's Plant 4 Rebuild Project, spanning from April 2021 to November 2022, with a value exceeding R550M. With over 1 million safe hours and 750 peak resources, MegChem managed the FEED and Project Execution Budget on NEC PSC, later converting it to NEC ECC for execution. Key contractors included Steff Stocks, Prommac, Mammoet, and Redec.



- **2023 - Sasol Waste Heat Boiler Repair**

- **Secunda - South Africa**

- **Maintenance and Replacement**

Project Description: MegChem successfully repaired Sasol's waste heat boiler, addressing critical issues swiftly and efficiently. This project involved meticulous repair work to ensure optimal performance and safety of the boiler system. MegChem's expertise in boiler repair and maintenance ensured minimal disruption to Sasol's operations and enhanced system reliability.

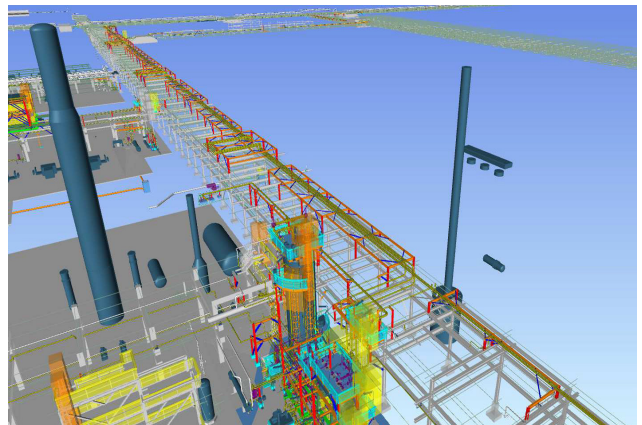


- **2023 - Sasol Superheated Steam Line Repair**

- **Secunda - South Africa**

- **Maintenance and Replacement**

Project Description: MegChem executed the repair of Sasol's superheated steam line with precision and efficiency. This project involved swift and effective restoration of critical infrastructure, ensuring uninterrupted steam supply to Sasol's operations. MegChem's expertise in repair and maintenance ensured minimal downtime and optimized operational reliability for Sasol.





MEGCHEM
ENGINEERING EXCELLENCE

OFFICE DETAILS

Head Office
Secunda
1 Louwrens Muller Street
Mpumalanga
2302
Tel: +27 (0) 17 620 2200
Fax: +27 (0) 17 620 2350
Email: doc.control@megchem.com

CUSTOMER CARE LINE:0860 634 2436

Centurion
55 Ireland Avenue
Eldoraigne
Gauteng
0157
Tel: +27 (0) 12 644 4680
Fax: +27 (0) 17 620 2350
Email: doc.control.pta@megchem.com

Sasolburg - Vaalpark
C/o Xenon & Hydrogen Street
Eco Industrial Park
Free State
1947
Tel: +27 (0) 16 981 4806
Fax: +27 (0) 17 620 2350
Email: doc.control.vdb@megchem.com

Belville - Cape Town
1st Floor South Gate Building Tyger
Waterfront Carl Cronje Drive
Western Cape
7530
Tel: +27 (21) 001 0237
Fax: +27 (0) 17 620 2350
Email: wcdoc.control@megchem.com