

CAPABILITY STATEMENT

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ABOUT KMS

KITSON MANUFACTURING SOLUTIONS

CAPABILITY STATEMENT

Kitson Manufacturing Solutions is an engineering and maintenance service provider based in Parkes, New South Wales, Australia.

Kitson Manufacturing Solutions (KMS), since its inception in 2014, has grown from a dedicated shutdown and plant maintenance specialist to a one-stop engineering service provider from concept design to fabrication and installation. KMS services a wide array of industries and sectors throughout NSW including mining, agriculture, government, construction and manufacturing. KMS is also a registered supplier for NSW Government SCM0256 – General Construction Works up to \$1 Million Scheme – Categories Construction Works - C5 Civil Works and Trades – T7 Metal work and structural steelwork.

Summer of the

COMPANY STRUCTURE

TERTIARY GRINDING

SUB

C-1



SAFETY CULTURE

KMS is committed to delivery of projects while upholding highest of safety standards for all our employees, sub-contracts and surrounding we operate. KMS have always carried out our operation with contribution and preservation of safety culture as core of our values, this is driven and lead from the top down through strong leadership.

KMS operate under an internal Work Health Safety & Environmental Management System (WHSEMS) and Manual which applies to all our employees, sub-contractors, and visitors. While working for a client, KMS adhere and operate under any specific site policies, procedures and systems in which are specified when completing any work. On award of any specific project or contract KMS devise project specific safety management plan, detailed Job Hazard Assessments, Safe Work Method Statements (SWMS) and Inspection Test Plans (ITP).

KMS focus is on zero-incident workplace which we have been successfully maintained over last 3 years.

The below table represents KMS Total Recordable Injury (TRI) for the past 3 years, up until the 1st of October 2021.

Calendar Year	No. of TRIs	Hours Worked	TRIFR
2021	0	38,019	0.00
2020	0	36,611	0.00
2019	1	32,217	0.32217

Table1: KMS 3-year TRI performance

OUR CAPABILITIES



Project Management

KMS have extensive experience in handling projects from start-to-finish and pride ourselves on impressive portfolio of successfully delivered projects. KMS understands complexions involved with each project and devises management plans and resource allocations to ensure on-schedule cost-effective delivery of project with the highest quality.

Engineering and Drafting

KMS have got a professional team to manage your requirements from scoping to delivery of the project. We have got an experienced team for Design development and analysis as well as drafting, following required standards to ensure delivery of safe and fit for purpose product.



In-House Fabrication

KMS have a well-equipped in-house workshop staffed by qualified and experience personnel. Our workshop and engineering team working in coalition, ensure high quality execution of fabrication and fittings of all scales. Our team is capable of fabricating products of wide range of material including Galvanised Steel, Stainless Steel, Bis-alloy, and Carbon Steel using various machining and forming processes.

Mobile Welding

KMS provides a fully equipped mobile welding service with the capability to handle jobs of any size or complexity.

With over 13 years of experience working onsite in the copper and gold mining industries. This includes cast steel welding, excavator bucket repairs and welding, bulldozer bucket repairs & hard facing. We also have experience with fabrication and welding in the transport industry.

KMS have the capabilities and experience in wide range of welding techniques, including Air-Arc Welding, MIG Welding, TIG Welding, Stick Welding, Lancing and Torch cutting



Pipework and Poly Welding

We have got a team of highly experienced personnel who are fully accredited with Polymer Industries Australia and skilled in a variety of poly welding techniques.

KMS have got capability of carrying poly welding projects with polyethylene pipe sizes ranging from 40mm to 1000mm in diameter. In addition to welding of HDPE pipes, our team can provide required addon services such as civil works including earthworks, plumbing and drainage.

Shutdown and Fixed Plant Maintenance

We have a high standard undertaking and executing fixed plant maintenance. With over 16yrs experience in this area working in mining, agriculture, and the abattoirs industry, completing scheduled routine maintenance to break down maintenance. With a strong focus on safety, our team is highly trained with all the current safe work competencies, working at heights, confined space, Cert III in Engineering, dogging, EWP, forklift, 3E pressure welding.



Civil Works

Our team has the experience required to provide required construction services such as earthworks, concrete, plumbing and drainage. KMS offer a one stop service for our clients having the capability and experience to execute under an EPC agreement.

Labour and Equipment Hire

KMS also supply labour and equipment to different mines and companies to assist with maintenance and project works. Offering a diverse range of services including shutdown coordination, supervision, and shutdown general labour. Offering a wide range of fit for purpose, mine certified equipment for hire, KMS have all your equipment hire needs covered.

Some of our available equipment includes;

- 20t Franna Crane
- IT loader with Man Basket, Mud Bucket, Jib & Forks.
- Scissor Lift
- EWP.



CASE STUDIES



CASE STUDY 1 SHAFT 1 & 2 SMP COOLING UPGRADE

KMS was contracted to provide comprehensive fabrication and installation services for the construction of a permanent bulk air cooling (BAC) facility for Shaft 1 & Shaft 2. The facility was designed to be supplied with chilled water through the Ammonia Refrigeration Plant via Shaft 2. Our scope of work included the fabrication and installation of all structural steel elements, such as the Air Shed Structure, Platforms, and pipe supports.

In addition, we were responsible for the installation of Schedule 10 stainless steel piping, which was fully insulated with PIR injected 50mm insulation. All of our work was executed with strict adherence to Safe Work Method Statements, Job Safety Analysis, and full fabrication and installation Inspection Test Plans.

Our team's expertise and experience in fabrication and installation allowed us to execute this project in a safe and efficient manner, ensuring the successful completion of the BAC facility.

Shaft 1 & 2 SMP Cooling Upgrade Project: A Case Study in Efficient Bulk Air Cooling Solutions

The rapidly growing demand for efficient cooling solutions in industrial plants has led to an increased focus on the development of permanent bulk air cooling (BAC) facilities. This case study highlights the successful implementation of a state-of-the-art BAC facility at Shaft 1 in a mining project, which is fed from chilled water via the Ammonia Refrigeration Plant through Shaft 2.





Challenge

The client was facing the complex problem of establishing a permanent bulk air cooling facility for Shaft 1, which required the integration of cuttingedge technology and engineering solutions. This BAC facility needed to be connected seamlessly to the Ammonia Refrigeration Plant via Shaft 2, ensuring efficient and uninterrupted cooling.

Solution

KMS, a company with a proven track record in the industry, was engaged to complete the fabrication and installation of all structural steel including the Air Shed Structure, Platforms, and pipe supports. Furthermore, KMS used Schedule 10 stainless steel piping, insulated with PIR-injected 50mm insulation, to ensure maximum efficiency and durability in the BAC facility.

Execution

KMS carried out the entire fabrication and installation process as per the strict guidelines laid down by the Safe Work Method Statements, Job Safety Analysis, and full fabrication and installation Inspection Test Plans. This adherence to safety and quality protocols resulted in a seamless execution of the project with minimal manufacturing and installation errors.



As a result of the rigorous processes followed during the fabrication and installation of the BAC facility, KMS managed to deliver a best-in-class cooling solution for the client. The success of the project was due to KMS's dedicated effort to maintain the highest level of safety, quality, and efficiency

The Shaft 1 & 2 SMP Cooling Upgrade project exemplifies how the right combination of innovative engineering solutions and strict adherence to safety, quality, and efficiency standards can result in a successful, cost-efficient BAC facility. This case study serves as a testament to KMS's commitment to providing cooling solutions catering to the evolving needs of the industry.



CASE STUDY 2 SECONDARY CRUSHER UPGRADE

KMS were engaged by local client to complete civil & earthworks, fabrication, paint, and installation of a new Belt Magnet structure. The magnet installation is required to remove steel materials from the circuit, reducing risks to equipment and infrastructure.

Innovative Magnet Solution Boosts Local Civil and Earthworks Company's Performance

In an increasingly competitive industry, this mining Company recognised the importance of ensuring the optimal functioning of their machinery and infrastructure. To address the challenge of removing steel materials from the circuit, the company required the installation of a new Belt Magnet structure. Tasked with this project, KMS came in to provide a turnkey solution that minimised risks and enhanced the company's operational efficiency.





Challenge

The presence of steel materials in the circuit posed a considerable threat to the efficiency and durability of this mining Company's infrastructure and equipment. With the potential for costly damage and disruption to operations, an innovative solution was required to mitigate these risks efficiently.

Solution

KMS, a leading provider of civil and earthworks services, was engaged to develop a comprehensive solution focused on the fabrication, painting, and installation of a new Belt Magnet structure. A magnet installation would be essential to remove the steel materials from the circuit, thus reducing the potential risk to equipment and infrastructure.

Execution

KMS approached the project with a clear plan and meticulous execution strategy. The process began with a thorough analysis of the client's infrastructure and the challenges posed by the steel materials. Leveraging their expertise in fabrication and construction fields, KMS successfully completed the fabrication, painting, and installation of the Belt Magnet structure.



As a result of the KMS intervention, Local Mining Company saw a marked improvement in their overall performance. The installation of the Belt Magnet structure had a significant impact on reducing risk to equipment and infrastructure, leading to increased efficiency and an overall improvement in the operating environment. By collaborating with KMS, the company has enjoyed a long-lasting solution that supports their ongoing success in the civil and earthworks industry.

Conclusion

The innovative Belt Magnet solution provided by KMS has demonstrated the power of partnerships and forward-thinking to address complex business challenges. Local Civil and Earthworks Company's experience with KMS not only showcases the benefits of a Belt Magnet installation but also exemplifies the role of customisation in driving success for businesses in a competitive market. This case study serves as a strong testament to KMS's expertise and dedication to helping its clients succeed.



CASE STUDY 3 **CY02 RE-ASSIGNMENT**

Due to the ongoing operational and maintenance challenges with the existing ML002 feed configuration, and CY002 structure being at the end of its operational life, a new cyclone design and location was recommended. As part of this project KMS were engaged to complete;

- Removal of redundant flash floats
- Removal of redundant cyclone clusters
- Fabricate, supply, and install new cyclone structure and associated pipework.
- Blast paint, rubber lining, supply of ceramic liner package.

CY02 Re-Assignment: A Case Study in Improving Operational Efficiency and **Extending Equipment Lifespan**

The growth and development in the mining and processing industries call for the continuous enhancement of equipment and methods. As a result, operational efficiency and longevity of critical components play significant roles in these sectors. This case study examines how CMOC Mining efficiently tackled the operational and maintenance challenges posed by the ML002 feed configuration and the CY002 structure. With an innovative cyclone design and location reassignment, KMS provided a comprehensive solution to extend the equipment's lifespan and improve overall efficiency.



The existing ML002 feed configuration and the end-of-life CY002 structure were presenting severe operational and maintenance challenges. Such difficulties included frequent downtime, heightened risks of accidents, and operating inefficiencies, all of which were negatively impacting the company's productivity. Identifying a reliable and cost-effective solution was crucial to ensure continued performance and optimise overall plant operations.

Challenge

Solution

To address the challenges, CMOC Mining opted to engage KMS to provide a comprehensive solution to boost operational efficiency and ensure maximum equipment lifespan. KMS's expertise offered an end-to-end approach that included:

1. Removal of redundant flash floats: The elimination of unnecessary components not only improved equipment utilisation but also reduced the maintenance efforts required to keep the system running smoothly.

2. Removal of redundant cyclone clusters: Streamlining the cyclone configuration minimised any potential complications that might arise from having an overly complex system, allowing the company to focus on the most efficient cyclone structure for their operations.

3. Fabrication, supply, and installation of a new cyclone structure and associated **pipework**: Designed with enhanced efficiency and resilience in mind, the new cyclone structure offered a reliable and practical solution to the company's ongoing challenges.

4. Blast paint, rubber lining, and supply of ceramic liner package: To ensure the longevity of the new cyclone structure and associated pipework, KMS also provided a complete surface treatment system. This protection against wear and corrosion contributed to extending the equipment's effective lifespan.



With KMS's CY02 Re-Assignment project, CMOC Mining successfully addressed its challenges and revitalised its operations. The new cyclone structure not only increased operational efficiency, but it also reduced maintenance costs and extended the equipment's effective lifespan. By streamlining and upgrading the system, the company has gained a competitive edge in the marketplace and laid a strong foundation for future success.

Conclusion

The CY02 Re-Assignment project demonstrates the value of innovative thinking and collaboration in solving operational challenges. By employing a comprehensive approach, KMS helped CMOC Mining achieve significant improvements in efficiency and cost savings while ensuring the continued performance and longer lifespan of its cyclone structure. This case study illustrates how embracing innovative solutions can drive success in highly competitive industries.



CASE STUDY 4 4TH TAILS

As part of Ore Processing Department upgrade to accommodate higher production rates, a fourth tails line was required to compensate greater flow rates and to allow for maintenance works to be carried out without impacting production. KMS completed the fabrication and supply of both poly lines (DN350 SDR11) and DN250 Rubber lined steel, along with the installation as per issued compliance requirements.

Enhancing Production Capacity for a Mining Company through Tails Line Upgrade

The Ore Processing Department of a leading mining company faced the challenge of increasing production rates while maintaining effective maintenance and operations. The company needed to add a fourth tails line to compensate for higher flow rates and allow maintenance tasks without impacting production. KMS was tasked with providing the required upgrade and ensuring that the new system aligned with issued compliance requirements.



The mining company sought to upgrade its Ore Processing Department to handle higher production rates while maintaining compliance with industry regulations. It required a solution that enhanced the existing system with minimal disruption to ongoing operations, enabling service reliability and the capacity to carry out maintenance without hindering production levels. KMS successfully completed the fabrication and supply of the necessary components for the new tails line, including poly lines (DN350 SDR11) and DN250 rubber-lined steel. By collaborating closely with the mining company, KMS ensured that the installation process adhered to the issued compliance requirements and minimized any potential production disruptions.



Challenge

Solution

After implementing the new tails line, the mining company experienced several key benefits, including:

1. Increased Production Capacity: With the fourth tails line installed, the Ore Processing Department can now handle higher production rates without compromising service reliability.

2. **Streamlined Maintenance**: The added tails line allows for easier maintenance processes with minimal interruption to production, enabling the mining company to keep up with demanding schedules.

3. **Regulatory Compliance**: KMS adhered to the issued compliance requirements, ensuring that the mining company stays within industry regulations and avoids potential fines.

4. **Collaboration and Support**: Through close cooperation with the mining company, the KMS team navigated any challenges faced during the installation process, resulting in a seamless delivery of the upgraded system.

KMS's tailings line solution allowed the mining company to achieve its goals of increasing production capacity and streamlining maintenance. With the fourth tails line now in place and full adherence to compliance requirements, the mining company is well-positioned for continued growth and uninterrupted production. This case study demonstrates KMS's commitment to providing its clients with tailored solutions that deliver exceptional results.

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