



CUSTOM CASE SOLVES TRANSPORTATION CHALLENGES FOR MEASUREMENT WHILE DRILLING (MWD) TOOLS IN THE OIL AND GAS INDUSTRY

OVERVIEW

Americase was approached by an oil and gas company facing challenges with the transportation of their measurement while drilling (MWD) tools. These tools, critical for real-time data measurement during drilling, often arrived at their destinations permanently damaged or out of calibration due to inadequate packaging. Americase created a custom case to solve these issues, significantly improving the reliability and safety of MWD tool transportation in the process.



THE PROBLEM

Oil and gas companies historically have used wooden or plastic cases to transport MWD tools. However, these cases regularly failed to protect the sensitive and expensive equipment held inside, resulting in serious damage to the tools and dramatically mis-calibrating them. Therefore, Americase's challenge was to build a solution that considered:

- **Instrument sensitivity and cost:** MWD tools cost tens of thousands of dollars. Frequent damage means costly repairs or replacements.
- **Mishandling:** Forklift drivers punctured the flimsy wooden or plastic cases, damaging the MWD instruments inside.
- **Logistical complexity:** Companies had to ship multiple items that belong together in the field (tools, repair kits, and other equipment) separately, leading to logistical inefficiencies and increased chances of boxes going missing.
- **Customization needs:** Standardized boxes did not fit the diverse range of MWD tools properly, leading to further damage and inefficiencies.

THE SOLUTION

Americase developed a durable aluminum case specifically designed to protect MWD tools during transport, featuring:

- **Triple framework design:** Custom design eliminated the need for "fragile" or "handle with care" stickers – as well as for multiple boxes – with construction that ensured tools remained in calibration from site to site after transport.
- **Customization:** Cases were tailored to fit various sizes of MWD tools, ensuring fit and protection that added much greater security than non-custom containers. ►

CASE STUDY

- **Shock-proofing:** Extensive testing (vibrational and drop) ensured tools stayed in calibration even if the case was mishandled or dropped.
- **Innovative welding:** Created a single-piece envelope-like fold with an external weld, enhancing durability.
- **Client education:** We demonstrated how to use the cases through hands-on instruction with the client, ensuring that they fully understood and made the best use of their new containers.

RESULTS

Outside of bringing peace of mind to the client with an ideal solution that didn't exist beforehand, Americase also helped in other business-critical ways:

- **Cost savings:** Clients experienced substantial cost savings by reducing the need for frequent repairs or replacements of MWD tools. For example, a client making 100 trips with MWD tools would save approximately \$18,500 per 100 round trips by using Americase's durable solutions instead of traditional wooden boxes.
- **Efficiency:** The all-in-one job box design streamlined logistics, reducing the number of boxes needed and minimizing the risk of missing equipment.
- **Durability:** The aluminum cases protected against punctures and other forms of damage, ensuring MWD tools remained in perfect condition.
- **Customer satisfaction:** Clients were highly satisfied with the performance of Americase's solutions and word about our durable cases spread throughout the industry, with many new and existing customers reaching out about our solutions.

Continuous improvement and innovation

As in every engagement we take on, Americase paid close attention to details, innovating to create solutions that solve our client's specific requirements and needs:

- **Spreader plates:** Added to evenly distribute energy during transport, preventing damage to welded caps.
- **Ergonomics:** Added wheels for easier handling and mobility.
- **Personalization:** Provided personalized logos on case lids.
- **Customer care:** Conducts yearly site visits to ensure customer satisfaction and address any issues.

CONCLUSION

Americase's commitment to quality, customization, and customer service has revolutionized the transportation of MWD tools in the oil and gas industry. Our robust, aluminum cases provide unparalleled protection and efficiency, significantly reducing costs and enhancing operational reliability. Through continuous innovation and a customer-centric approach, Americase remains a leader in the industry, providing solutions that meet and exceed client expectations.