

Energy Industry Expertise Leads Direct Drive Systems to Notable Exit with FMC Technologies

Industry foresight, understanding of the moving boundaries of oilfield technology and best IP practices create an industry leader in under two years.

BACKGROUND

Cerritos, California-based Direct Drive Systems (DDS) is a leading manufacturer of high-speed, synchronous motors that utilize permanent magnet (PM) technology originally developed by Calnetix. Spun off in 2004 by Calnetix, the company provides cost-effective, high-power compression, pumping and generation solutions for various applications in the oil and gas and processing industries.

The PM technology was originally used in the power generation, semiconductor manufacturing and medical equipment industries. Through the scaling and optimization of Calnetix technology, DDS' machines are significantly lighter and more efficient than conventional motors. High-speed operation allows its machines to be directly connected to other turbomachinery without the need for a gearbox – a significant advantage to customers. In addition, the company's high powered motors and generators rotate up to 12 times faster than conventional motors, providing a power-to-weight improvement by up to a factor of ten.

This marked improvement in efficiency and power density made DDS' motors particularly valuable and attractive to the offshore oil and gas industry. Demanding applications such as subsea boosting and gas compression require high reliability and low operating costs, both of which can be achieved with DDS' technology.

EXPANDING INTO THE ENERGY MARKET

After realizing a substantial opportunity for growth within the energy sector, DDS contacted Energy Ventures looking for a source of private venture capital that would not only help the company commercialize its technology, but also give it the resources required to expand into the oil and gas market.

As a smaller, newly minted company, DDS needed the help of a proven leader within the space to increase its visibility. With unmatched experience and expertise in the oil and gas arena, the decision to choose Energy Ventures as a source of funding was a natural and complementary fit.

Before DDS could achieve a significant presence within the energy sector, the company would need to uncover the niche where its high-powered motors would be the most beneficial and successful. After officially becoming an investor in DDS, Energy Ventures opened a number of doors for the company, including providing the funds necessary to complete the commercialization of various technologies, building strategic relationships within the industry and gaining credibility as an important asset to offshore companies.

Strategic foresight and understanding were the driving forces behind the decision to transition DDS into the energy arena. Not only did Energy Ventures successfully recognize the ever-changing boundaries of the industry, but they also understood that positioning DDS within oil and gas, and more specifically in the subsea sector, would have a remarkable outcome for its technology as a whole.

With its diverse background in oil and gas, Energy Ventures was able to see that subsea was emerging as a key sector within the industry, thus enhancing the need for vital processes such as boosting and compression. In this context, DDS could in fact become the only source of technology with the required horsepower needed to support such applications. Leaning on Energy Ventures' knowledge and market prowess, DDS was able to position its products in front of the most promising players in the oil and gas industry, creating momentum for the transition to a new frontier.

IMPROVING VISIBILITY AND INFRASTRUCTURE

The shift in focus to the subsea market promised to be a profitable move for DDS, but it would take more than that to be truly successful in the space. To effectively position itself as a leading technology resource, the company also needed to develop a stable infrastructure – one that would support its rapid growth in an efficient and effective manner.

Through its professional relationship with Energy Ventures, DDS was able to benefit from the company's best operating practices and procedures. By offering its proven expertise and taking a hands-on approach in developing DDS' internal decision making process, Energy Ventures was able to play a key role in transitioning the company from a small start up to a well-established leader in the oil and gas industry. This included taking a seat on the company's board of directors, introducing DDS to prominent business development leaders and creating efficient reporting and financial methods. Energy Ventures also applied theoretical models and studies to enhance DDS' development plans, a unique tactic that brings numerous benefits to small companies like DDS.

Another key factor of Energy Ventures' role in strengthening DDS' processes was their ability to create and maintain an intellectual property basis that was independently owned by the company. Despite partnering with several major industry players, DDS was able to keep the issues of intellectual property ownership separate from other business ventures and therefore maintain the rights to their technology while successfully pursuing other opportunities.

Energy Ventures went above simply providing DDS with venture capital and took a genuine interest in the company's success. All of these aspects allowed DDS to develop a solid infrastructure, giving the company the skills to operate its business more successfully than ever anticipated.

EVOLVING INTO AN INDUSTRY EXPERT

Armed with a well-marketed and highly-desired product and lean internal operations, DDS is now poised for future expansion and success in the oil and gas industry. Capitalizing on Energy Ventures' diverse expertise, invaluable market insight and strategic vision allowed DDS to not only commercialize its technology, but enhance company operations tenfold. As a result of the relationship between the two companies, DDS introduced its technologies to key players within the energy sector, while simultaneously developing efficient internal processes.

Almost immediately, the company's heightened brand awareness and strategic niche marketing in the offshore space piqued the interest of some of the industry's biggest players like StatoilHydro, Total, ExxonMobil and others. In fact FMC Technologies, a leading provider of technology solutions for the energy and industrial markets, soon became one of DDS' key clients.

After developing a relationship with FMC, DDS executed a transaction valued at \$120 million – marking Energy Ventures' seventh successful exit since its inception in 2002. The exit to FMC was not only a major milestone for DDS and a significant achievement for Energy Ventures, but also signifies a very positive outcome for the technology and its future industrial potential.