IBC Advanced Alloys (V.IB): Building an alloy empire

INDUSTRIALS – METAL FABRICATION

Advances in technology and the need for better fuel efficiency with reduced air emissions are driving efforts to find new metal alloys that are lighter, more rigid, and more exact in order to keep up with the increasing demands of the aerospace, automotive, and electronics industries. In particular, alloys like beryllium-aluminum offer designers superior strength, rigidity, and reduced weight. Until recently, beryllium-aluminum came as a powder metallurgical alloy that could only be machined from a large block of alloy into the final shape of the product – a tremendously costly and wasteful process. As such, using beryllium-aluminum became cost-prohibitive except in a few specialized applications.

This landscape changed when **IBC Advanced Alloys** (TSX: V.IB OTC-QB: IAALF) came to market with a revolutionary technology called Beralcast®. Beralcast® is IBC's proprietary beryllium-aluminum alloy that can be precision cast from molten alloy to near-net-shape. Such a radical production advancement dramatically reduces the cost and improves the procurement schedules for such users as the military, giving them the freedom to explore more component designs where lightness and rigidity is a major need. IBC's innovative process also delivers significant reduction in aircraft weight, which leads to considerable fuel savings and reduced emissions.

In short, IBC's revolutionary alloy and production process provides cost savings to customers, delivers greater strength and durability, and helps to keep the environment cleaner.

Needless to say, aerospace / defense contractors and other high-tech companies are taking increasing notice of IBC and its technological breakthroughs. On December 3, 2013, the company announced that its wholly-owned subsidiary, IBC Engineered Materials, had been engaged by the U.S.-based defense industry giant Lockheed Martin to demonstrate the technical and commercial viability of the company's proprietary Beralcast® alloys components for use in the F-35 Joint Strike Fighter EOTS (Electro-Optical Targeting System) system.

Now, after more than four years of close collaboration with Lockheed, IBC Advanced Alloys is now producing Beralcast® parts for the F-35. The challenge for IBC now turns to scaling its business and production capacity in order to meet a growing volume of orders for this and other systems.

The defense sector is not the only industry that is recognizing the potential of Beralcast®. IBC's material is now being sold into the semiconductor industry, as evidenced by a four-year ~US$4.8 million contract providing Beralcast® 363 cast components to a leading global semiconductor and electronics assembly manufacturer. Company officials say that efforts to expand sales to other sectors are underway.

To expand upon these successes and bring the Company to the next level of performance and shareholder value, IBC launched a major capital and corporate restructuring in 2016. U.S. Major

General David Heinz (USMC, ret.) was elevated from Chief Operating Officer to CEO and President. The Company completed a 10-1 share consolidation to increase its financing flexibility, and raised gross proceeds of C$7.46 million in new financing aimed at expanding its production capacity and to better capitalize on sales opportunities.

Major General Heinz, a highly decorated military test pilot and the former Program Executive Officer in the Pentagon for the F-35 program, was tasked with implementing a new strategic focus for the Company aimed at capturing more sales and business synergies in the U.S., where all of IBC's production facilities and most of its customers are located.

In addition to his distinguished military career, the General is the former Vice President and General Manager of Maritime Systems for iRobot, which developed and built autonomous underwater robots, and is a former portfolio manager for Middlebury Asset Advisors, Inc. He said this about his new assignment: "IBC Advanced Alloys is a vibrant company with absolutely top-shelf talent, exceptional products, and virtually unlimited potential to expand its capabilities and markets. I am extraordinarily enthusiastic about working with this team and leading IBC to the next level of operational excellence, to expand sales and revenue, and to further strengthen shareholder value."

As part of the Company's restructuring, two new Directors also joined the IBC team: Mark A. Smith and Geoff Hampson. Mr. Smith, a 36-year veteran of the strategic materials industry, serves as Executive Chairman and CEO of NioCorp Developments (**TSX: NB** OTCQX: NIOBF; FSE: BR3), as well as President and CEO of Largo Resources, Inc. (**TSX: LGO**; OTCQB: LGORF). He is a well-known leader in the mining and strategic materials industry.

A serial entrepreneur with 34 years' experience in special materials, technology and mining, Mr. Hampson serves as CEO of Para Resources, Inc. (**TSX-V: PBR**), as Chairman of Infracon Energy Services, Inc., and as CEO and Board Chair of Fibrox Technology LP; CEO of Hampson Equities Ltd. He also serves on the Boards of several other companies.

What we're doing could make a measurable difference for the planet while delivering long-term ROI for our shareholders.

When the company released its Q3 2016 results at the end of May, investors saw the company had managed to increase total revenues 43% sequentially and 6% over the comparable 2015 period. The company also managed to slice its quarterly loss by 49% to $295,000, compared to the Q3 2015 period. The Engineered Materials division reported record quarterly sales of $1.85 million. Even the Copper Alloys division saw improvement.

Then IBC dropped another bit of good news in the middle of June when it announced it had signed a joint development agreement with NioCorp Developments Ltd. to investigate and develop applications for scandium-containing alloys for multiple downstream markets. General Heinz explained the importance of the deal: "NioCorp expects to come online as one of the world's leading producers of scandium from its Elk Creek, Nebraska Superalloy Materials Project. IBC is a leading developer of advanced alloys. The creation of a secure supply chain of scandium from NioCorp in the U.S. combined with our company's world-class experience with scandium-containing and other advanced alloys is an accretive relationship for both companies, not to mention U.S. industries as a whole."

"This is just the start," General Heinz added. "We intend to create a whole new class of advanced products manufactured in the U.S. using our superalloys. This isn't just about market dominance, our research and products are helping the world deal with some its greatest problems including climate change and energy dependence on fossil fuels. Our products could increase fuel efficiencies and decrease greenhouse gases. What we're doing could make a measurable difference for the planet while delivering long-term ROI for our shareholders."

Not long after the NioCorp deal, IBC announced that it had expanded its Beralcast® aerospace business with a joint development contract with BAE Systems for production of prototype articles for

the defense sector. This was another important step for IBC as it grew its book with another leading global defense and aerospace leader. According to the agreement, IBC will develop initial prototype components in order to demonstrate the form-fit-function of Beralcast® casted products for BAE Systems' specific applications.

Over the next 12 months, IBC will continue to update equipment, expand production capacity, and work with all its partners including BAE Systems and NioCorp for the development of new Beralcast® applications and scandium-containing alloys. The Copper Alloys Division, which has generated a significant portion of their revenues to date will continue to play an important role in future growth providing materials processing for new alloys as well as fabrication and machining of semi-finished and finished parts as they do today with Copper alloys.

When you pop the hood, IBC has a strong investment core with 9% insider involvement. Retail investors would also be happy to know that the remaining share base is extremely liquid with approximately 100,000 trades per day. The books are getting stronger with every quarter and the company itself could see positive cash flow in its fiscal year 2017, which began on July 1, 2016. It would also be good to know that IBC currently trades at a 1-1 P/E ratio, making stock in the company a relative bargain.

Let's talk market size. Alloy metals play an integral part in in a wide variety of industry verticals including defense/ aerospace, automotive, oil & gas, electronics, manufacturing, and others. That makes it virtually impossible to calculate the size of the markets IBC could address in its entirety. However, to provide perspective, the global automotive alloy market alone is expected to be worth US$177.47 billion by 2021.

Currently, IBC is in the contracting phase with three other aerospace companies for beryllium-aluminum precision cast parts. If IBC is able to continue to grow its Beralcast® customer base, and develop new alloy applications, the company could very well emerge as one of the world's leading high-performance alloy producers.

Of course, do your due diligence before making any investment decision.

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