




Enter Virta

It's not often there is a new player in the materials handling & IPCC space in mining. Paul Moore spoke to Grant Graber, President of newly formed Virta Inc. to better understand its background, scope and market

Fluor Corporation, a major player in the mining and metals EPC and EPCM market, recently announced the launch of a new fully-owned subsidiary called Virta Inc., a material handling design-supply company that capitalises on Fluor's existing material handling technical capabilities, project execution experience and global reach, "combined with a lean, agile and capital efficient DNA."



Grant Graber, President of Virta Inc.

Q: What does Virta bring to the material handling market that is new or innovative in approach or strategy versus what is already out there?

A Not a single material handling system solution can be copied from one project to another. The bulk material handling market continues to show an increasing demand for single-source, innovative, lean, agile and responsive vendors that can design and supply complete system solutions, tailored for the application and with a team-oriented approach from concept to commissioning. Early engagement for problem solving and post-project responsiveness are critical elements in demand. Owners and operators demand technical excellence, right-sized solutions, and maximum system reliability for systems that truly form the backbone of virtually any bulk material processing operation. They also want easy access to and communication with the company's senior management and decision makers. Virta's specialty is solutions and systems integration with best-in-class offering. We don't manufacture crushers, screens or other specialised equipment. We can work with such speciality suppliers and incorporate our client's preferred machinery into an overall system solution. Virta brings all of these facets to the industry, combined with the

The Virta team has specialised expertise for bulk material handling systems in mechanical and conveyor engineering, structural engineering, electrical engineering, plus control and instrumentation engineering

backing and depth of one of the world's most reputable leaders in project execution.

Q: You emphasise the team depth of experience, can you outline key mining experience in the team?

A When we began developing the Virta business plan, we canvassed some of our key clients as to what would help drive our success. The resounding answers were technical depth and responsiveness. Our team has a core competency of mining experience spanning the globe and industry, with project experience in some 20 countries and with commodities such as copper, gold, iron, lithium, nickel, coal and others. We offer exceptional technical expertise for all facets of mining material handling projects – surface, underground, waste handling, dry tailings handling, reagent handling. Virta is again supported by Fluor's exceptional depth of talent worldwide in key regional offices, such as Vancouver, Santiago, Johannesburg and Perth, combined with our Subject Matter Experts, who are recognised worldwide in material handling system design.

Q: How important is mining as a focus for Virta versus other industries you cite as focus areas like power plants, ports and chemicals?



A Mining constitutes a major focus for us as we have truly built an international network of satisfied mining clients with incredible project diversity. Material handling talent does not come from text books; it truly is a knowledge-based specialty. Our mining clients demand our service and recognise our personnel by name. Our team also carries decades of experience in other industries, as bulk material handling projects all have key common elements. We apply the same principles of safety-in-design, efficiency, right-sized solutions, reliability and constructability to all our projects. Many mining operations eventually ship their products via ports and terminals. Coal mines will send their product to steel mills or power plants. Bulk chemicals also need to be conveyed, stored and handled. It only makes sense to offer our expertise across this range of applications.

Q: Why offer material handling as a specialised company outside of Fluor rather than within Fluor?

A We actually supplement each other. With Virta, our companies can offer our clients their choice of material handling system execution model. Fluor is a global leader in the execution of EPCM type projects in mining, mineral processing, chemicals and fertilisers. Virta is an OEM and therefore offers the complete supply of material handling systems as an alternative approach. Together we are uniquely positioned to offer the industry either option, since these execution trends tend to vary from region to region, client to client. But we also work independently, since Virta is a stand-alone company, and relatively speaking is smaller in size. It gives Virta the flexibility to pursue smaller projects where Fluor may not be participating, and vice versa. We are also a very hands-on solutions provider, unafraid of getting our hands dirty in retrofits and upgrades to maximise our clients' asset efficiency.

Q: What historical experience in material handling

In mining does Fluor bring to Virta?

A Fluor's exceptional reputation in the mining and material handling industry goes without saying. As I mentioned, many of Fluor's clients demand its material handling experts and SME's by name, residing in its key mining offices in Vancouver, Perth, Santiago, Johannesburg. They are brought into projects for engineering, peer review, critical analyses. They have overseen material handling system execution worldwide, including some of the most complex overland conveyors, crushing plants, plant conveyors and processing plants for the world's largest mining companies. Over the past 20 years, even working for other companies, Virta's team has worked alongside these experts on projects worldwide and we have developed great relationships and mutual respect for our collective technical expertise in industry. While Virta's team offers industry-renowned expertise on its own, our combined depth with Fluor's experts is a unique market value proposition.

Q: Are there synergies with Fluor being a leading EPCM group in terms of Virta being able to take on IPCC elements of mining EPCM projects?

A Of course. Virta is a lean, agile, flexible company and can offer virtually any IPCC system "carve-out" component, such as relocatable conveyors, portable or semi-mobile structures, etc. or we can partner with major component suppliers (eg sizers, crushers, spreaders) to integrate a complete system under an overall EPCM project umbrella.

Q: Is there any particular initial geographical or commodity focus in mining for Virta?

A Virta's team experience covers some 20 countries and a range of commodities. We are diversified enough to ensure that we are not exposed to cyclical pressures from specific regions or commodities. It's also why we extend our expertise to ports and terminals, chemicals, fertilisers, etc. While we do tend to participate heavily in North and South America, Australia,

A BHP WAIO stockyard conveyor system under construction. Fluor has overseen material handling system execution worldwide, including some of the most complex overland conveyors, crushing plants, plant conveyors and processing plants for the world's largest mining companies

South Africa and the Middle East, we are truly global and diversified, and capable of executing projects in virtually any region.

Q: What potential do you see in new technologies in material handling like primary bulk sorting, use of gearless drives, more use of high angle conveyors?

A There is always high interest in technology advancement that offers improvements in safety, operating costs, efficiency, reliability, availability and other factors. Clearly, bulk sorting is attractive to reduce unnecessary sizing and screening, which can reduce operating cost as well as the capital cost associated with primary sizing and screening plants. As new mines require higher throughputs with declining ore grades, belt conveyors of capacities well over 10,000 t/h will be more and more common. Such systems will make gearless drive technology more attractive, which has the long term benefit of becoming less costly as the technology is developed and competition increases. In fact, Virta is currently exploring new developments with a global electric motor manufacturer as a means of offering this capability to our clients. Other technologies are certainly of keen interest, such as automated idler replacement on long overland conveyors, advanced instrumentation for conveyor component condition monitoring, return belt transport, etc. In addition, not only do advances in system and component technology offer attractive benefits, but the technology in design tools such as dynamic conveyor analysis, discrete-element-modelling, 3D intelligent design software etc allows engineers and designers to further optimise system design, equipment selection and maintenance practices. 