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MFG.com Offers a Global Arsenal of Parts On-Call

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February 14, 2008—What do inventor Darby Crow and the rock band U2 have in common? They source parts on MFG.com, an online parts marketplace for manufacturers. Technically, the designers and engineers of the tour stage, not the U2 band members, use the site. Still MFG.com is well on its way to starting the next Six Degrees game, bringing together those with specific needs and those who can fulfill them.

A Cocktail Napkin Idea

When asked for the story of the portal's genesis, Mitch Free, CEO and Founder, mentions Lending Tree in his answer. Though saying the online marketplace for mortgages is the sole inspiration is simplifying the story behind his manufacturing marketplace. Free's professional life began as an automotive machinist. In the late 1980s he joined Northwest Airlines setting up quick manufacturing practices, aircraft acquisition, and fleet management. A decade later a recruiter contacted him, hoping to pique his interest with a CAD/CAM dealership opportunity. It worked.

Free became a reseller and inherited 2,000 customers, split 70% design/engineering and 30% CAD, spread from Georgia to Texas. He quickly learned they were looking for more than software updates. "I would visit the design engineers who had a cache of plans but were having a hard time finding people to make them," Free explains. "Meanwhile, some of my manufacturing customers were having a hard time filling up their schedules." These people needed a community and Free saw this as an opportunity to add value for his customers by getting them in touch with each other.

Not long after getting into the reseller business, during a ride home from a customer visit, it all came together for Free when he heard a Lending Tree radio ad. He rushed to put together a web site, the precursor of present-day MFG.com, and began to build a community to fill the need.

By 2004, MFG.com was profitable and Free sold the reseller business. In 2005 they went global and now employ 200 in Atlanta, Geneva, and Shanghai.

The Secret Weapon

MFG.com prides itself on being the portal to reliable sources for quality parts, competitively priced and delivered on short deadlines. And it seems to be exactly that for a reported 100,000 users, ranging from inventors looking for a limited production run to multinational corporations sourcing manufacturing services.

Free claims MFG.com is an software-agnostic portal. The company publishes its service oriented architecture (SOA) so users can build an interface with anything, including PLM, EDM, and PDM systems. The site also features an internal PLM-lite system, which includes syncing and revision history.

Accepting bids online sounds eBay-esque, but the MFG.com bidding process is more detailed, ensuring a more intelligent match, and the team works with both sides if necessary to provide a finer point on the process.

Buyers pay no fee to use the service. Procurement managers or engineers submit drawings, the MFG.com team reviews the drawings to make sure everything is complete and easily understood; the drawings are posted to the site. The quote(s) come in and from there buyer and bidder negotiate, follow due diligence using the MFG.com rating system, and when they agree move on to collaborate on the project.

Suppliers pay yearly fees varying from \$4,000 to \$10,000, but there are no commissions and no transaction fees.

An Inventor/Engineer/Entrepreneur

Darby Crow uses MFG.com regularly. He is currently working on two major projects; a long-term project to develop a proprietary engine technology that relates to solar power generation, and a next-generation motorized bicycle.

When he started the solar project four years ago, sourcing his unique parts was problematic; too expensive, long lead times. He turned to MFG.com and received quotes that were 50% to 70% less and thinks the quality and service he received from MFG.com suppliers' rates as excellent.

The outstanding first experience brought Crow back for other projects, most recently to build a new and improved motorized bike. His idea is to add a multi-gear transmission to a motorized bike, thus upping the gear ration of the motor, allowing the bike to climb any hill and cruise up to 30 miles per hour. After solving the engineering and design problems of his invention, Crow used MFG.com to source 100% of his custom parts—the gears, housings, wheels, etc. The initial production run of 50 bicycles was affordable and Crow now offers a stylish motorized bike boasting 150 to 200 miles per gallon.

"I appreciate the ability to talk with the suppliers and discuss the designs during the R&D process," Crow says. "And I know the suppliers work hard to ensure a positive rating on the site. I can count on the ratings when picking the supplier and know other buyers will see my ratings, helping them make a decision."

No Super Bowl Ad

Similar to the rating system on his company's site, Mitch Free is willing to let word-of-mouth bring new people in. Letting the buyers and suppliers adopt at a natural rate is MFG.com's saving grace. At one time there were as many as 40 competitors. Each blasted into the space, prejudiced the market and each was built on an infrastructure greater than what the market could bear. Meanwhile, MFG.com was steadily working on scaling up their portal to support other languages and acknowledge other cultures—all to support the emerging worldwide manufacturing ecosystem.

Now, with hard-charging competitors gone, Free believes his biggest competition is traditional ways of doing business. Despite the technology that surrounds us, or perhaps because of it, businesses are hesitant to say goodbye to the manufacturing reps who get face time. Free is adamant about complementing—not circumventing—these relationships. "I think they're very important. I want to help them become more efficient by using good technology and collaborating to strengthen them."

RFQ Globally, Think Locally

Using MFG.com there is immediate transparency. A buyer creates a RFQ, uploads the design and within hours can consider bids from around the corner and around the globe. Lately, Free notices a slight trend in the US buyers beginning to more often consider North America bidders. The factors feeding this include a weak US Dollar and appreciating Chinese Yen, and higher oil prices which push up shipping costs. China specifically is becoming a more expensive source. It is about to join the World Trade Organization, which requires its members to carefully consider environmental impact and eliminate unfair practices. Also, in July China was forced to repeal the value-added tax rebate; now everything shipped from China automatically and immediately costs

15% more. "It's a perfect storm," says Free. "And importing from China doesn't necessarily make the most sense. North American companies are definitely winning work here."

Three Million Parts and Counting

According to Free, 3 million parts have been sourced through the MFG.com marketplace. He believes the engineers of the world can use this library of parts that others needed. So the next step is to add 3D search technology. Now under development. The plan is to be able to upload a 3D model to MFG.com and have the search engine find comparable items from past part lists, along with providing idea of what it will cost to manufacture with a list of market pricing for suppliers in North America, Mexico, China, etc. All done anonymously—no specific drawings or RFQ's are shared.

Also ahead for MFG.com is building that search technology into a CAD system. As features are added to a design, each is bouncing off of the MFG.com database, providing real-time, on-screen pricing. So when an engineer adds a design feature that causes the price to jump, the change is known immediately. The feedback helps reduce the cost of production early in the process.

Free and his team are currently experimenting with various options in R&D and expect to have 3D search up and running by the end of 2008.

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