



Compounding Lines

Your Global Compounder of Custom Engineered Thermoplastics

Vol. 27, No.2, November 2014



Hard Easy to Handle

Unique product made from innovative compound keeps workers safer

Dale Gregg has been developing creative solutions to challenging business and industry problems for decades. When a friend explained how his son had crushed his hand while moving sections of heavy hose in the oil fields of Canada, Gregg grabbed a napkin and made a quick sketch of a device that could potentially help avoid this type of injury in the future.

"In many industries, like fracking, for example, there might be dozens of guys dragging pipe and hose around the fields all day long," he explained. "The hoses are usually too wide to get your hands around. They may be under high pressure, or even filled with hazardous gas or chemicals. The only way to move them is to bend down, hug them to your body and walk while dragging them—often over muddy, wet, slippery or icy terrain. It's very awkward and unwieldy. You hear about a lot of hand injuries, back injuries, falls, hoses decoupling and hitting people, and other accidents."

Gregg's solution was an independent, removable handle that could be locked on to any hose or pipe, enabling the worker to move the hose while standing in a more natural position, almost as easily as carrying a suitcase. After hearing of yet another friend's son injuring himself in a similar manner, he launched his CAD software program, fired up his 3D printer, and started making a prototype.

According to Gregg, the first prototype promptly failed. But six months and seven prototypes later, aided by user feedback, he thought that he had developed something very useful. After filing for a patent, he took it to an international oil and gas show to see what potential customers thought.

"There was enormous interest," he said. "No one had ever seen anything like it before."

The next step for Gregg was moving from prototype to manufacturing. He knew that the actual product had to be lightweight, yet a lot more durable than the unreinforced plastic that came out of his 3D printer. He also knew that a metal like aluminum would not be suitable due to the threat of sparks, as well as potential uncomfortable handling in extreme hot and cold temperatures. Fortunately, after investigating potential partners in China and India, he found a materials and molding expert right in his own backyard... Tom Vermeeren of **Gemma Plastic Products** in Edmonton, Canada.

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"Tom told me, 'You need to use long glass fiber reinforced nylon from **RTP Company**. You will never regret it,' and he was right," said Gregg. "I still can't believe how well this material fits my vision. It's extremely strong, has great electrical insulation characteristics and is practically impervious to heat and cold. The finished product is so strong it was tested to lift over 1100 pounds, and the durability is just extraordinary."

As to the latter point, Gregg relates the story of a customer who told him about accidentally running over the handle with his pumper truck, and then putting

the tool right back to work. "I really couldn't believe it, so I tried it myself," said Gregg. "I ran one over. Not a scratch."

Gregg and his company, **Handle-Tech Ltd.**, are now receiving a flood of orders and are signing on new partners for worldwide distribution. They are also investigating applications in other industries. Meanwhile, customers are demanding new sizes of handles, and he is expanding the line, with a range of products all made from the same compound: RTP 200 Series Nylon 66 with Very Long Glass Fiber from

RTP Company. "I was surprised that customers were asking for handles with relatively small outer diameters, even ones to fit hoses that are easier to move by hand," he explained. "But as one customer told me, the handles make it so much easier and so much safer, he never wants to see his people move any hoses or pipes by hand ever again."

**Handle-Tech Ltd.®
Pipe Grip**

Market: Industrial
Compound: RTP 200 Series Nylon 6/6 with Very Long Glass Fiber.



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