

Nordic Auto Plow

Innovative * Patent Pending* Industry Changing Design

Describe the innovation and define its benefits and value to the end-user.

The innovative Nordic Auto Plow is a snow plow blade designed to be attached to the front or back of virtually any type of passenger vehicle, including cars, trucks and SUVs. It is intended for non-commercial use to help users quickly clear their driveways during snow events, providing a more effective alternative to using a shovel or snow blower. It is sold direct-to-consumer online, as well as in several retail outlets.

The Nordic Auto Plow can be attached to almost any passenger vehicle in seconds. The user can just drive out of their garage and down the driveway. The user stays in the comfort of their heated vehicle and can clear snow in a fraction of the time of conventional methods. The product is ideal for people who are unable to shovel due to physical limitations, people who have a higher risk of heart attack, or for those who simply want to save time and remain comfortable during snow removal. It literally turns an ordinary car into a snow plow.

Once assembled and the straps are fitted for the vehicle, the plow can be attached to the vehicle in less than a minute using just two straps and two bungee cords. The front braces of the plow are padded and designed to help prevent damage to the vehicle. The blade is made of durable ABS plastic, is reversible, and weighs less than 50 pounds for easy positioning.

This USA-made plow is less expensive than most snow blowers and will allow for even the heaviest of snow to be moved by anyone able to drive a vehicle.

What is the need, problem, or opportunity this nomination addresses?

Richard Behan, CEO and Founder of Nordic Auto Plow LLC, had the idea for a snow plow that would attach to an ordinary passenger vehicle when he was in college. After seeing people struggle with shovels and snow blowers and doing so himself, he realized there was a need for a product that could help people easily clear snow from driveways and help save lives. But 30 years after he conceived of the product, nobody had invented it yet. That's when he decided to make it happen.

As a new entrepreneur, Richard worked with industrial designers and engineers to perfect the product before bringing it to market. The Nordic Auto Plow was truly an "American Dream" product that was developed based on an unfilled need in the marketplace. It provides a new alternative to snow removal that helps people who cannot physically shovel snow, who have a higher risk of heart attack or who simply want an easier and faster way to clear their driveways.

How is this nomination different from competitive products/services? Why is it unique?

The Nordic Auto Plow factors in convenience, comfort and safety like no other snow removal product on the market. Snow shovels require physical exertion and exposure to the elements. Snow blowers require users to push machinery and do not protect users from the dangers of cold weather. The Nordic Auto Plow requires minimal exertion only to attach and detach the blade, which can be done from the comfort of one's garage. And users attaching and detaching the plow in a garage are protected from wintry weather all together.

Snow removal service providers can charge \$20 to \$30 or more each time they come and may take a while to arrive. Plus, there can be concerns with reliability and liability when employing someone else to remove snow on your property. With Nordic Auto Plow, users pay a one-time cost for the product and are able to clear their driveways in a matter of minutes.

Nordic Auto Plow is also different from its competition because it can be modified for use as a helpful tool all year round. Using a different attachment mechanism the plow blade can be attached to riding mowers, all-terrain vehicles (ATVs) and Utility Vehicles (UTVs) to push mulch, topsoil, leaves, sand and more. While tractor and mower companies like John Deere offer similar plows for this type of use, the competitor plows are made of metal which can damage grass and concrete surfaces. Nordic Auto Plow is the only plow made of durable ABS plastic with a rounded edge that will not damage landscaping.

Please provide quantifiable evidence of success

While revenue and quantity sold offer highly quantifiable evidence of product success, there are other factors that while difficult to pinpoint quantifiably should be considered. The main factor is Nordic Auto Plow's potential to save lives. It is difficult to know if someone would or would not have had a heart attack and died while shoveling snow if they did not engage in the activity. But, what we do know is that there is a significant amount of evidence linking snow shoveling to heart attacks.

For example, the "Well" blog of the *New York Times* (12/13, O'Connor, Subscription Publication) reports, "The exertion involved in shoveling can rupture plaque and cause heart attacks, particularly in those with a family history." The article cites a study in the journal *Clinical Research in Cardiology* that found "roughly 7 percent of the patients were shoveling snow when symptoms began." Another study in *The New England Journal of Medicine* "found that most heart attacks from shoveling snow result from heavy physical exertion causing trauma to coronary arteries, which ruptures plaques that cut off blood flow.

On a more local note, you may recall that a couple years ago four DuPage County men, all in their 60s, had heart attacks and died shortly after shoveling snow – clearly a tragedy. Could Nordic Auto Plow have prevented such tragedy from occurring? Several doctors say, most likely yes. As a matter of fact, seven Chicago-area doctors are so convinced that Nordic Auto Plow can help save lives as an alternative to snow shoveling that they have become investors in the company.

Provide any other indicators of impact (i.e. major clients, grants, recognition, etc.)

This past winter was the first selling season for Nordic Auto Plow. While it was a mild winter across most of the country Nordic Auto Plow still managed to garner the attention of several major retail buyers. Nordic Auto Plow retail partners include: ACE Hardware, The Army Air Force Exchange (AAFES), Home Depot, Menards, Northern Tool, Power Equipment Direct, True Value, and United Hardware.

Nordic Auto Plow also caught the attention of Agri-Fab, a Sullivan, Illinois manufacturer that makes and distributes lawn and garden attachments. The two companies are currently finalizing contract details that will establish Agri-Fab as the exclusive licensee and manufacturing partner for Nordic Auto Plow products. This is expected to be win-win partnership since it allows Agri-Fab to complement its existing product line and provides Nordic Auto Plow with significant growth opportunity through access to Agri-Fab's more than 130 retail partners across four continents.

Additionally, Nordic Auto Plow has been reported on by several major media outlets that were interested in showcasing the innovative nature of this snow removal product. Those media outlets include Crain's Chicago Business, The Chicago Sun-Times, and the national FOX Business News television network.

What are the top 3 biggest challenges that your company currently faces?

Nordic Auto Plow's biggest challenges are mainly centered on marketing issues that need to be resolved with an extremely limited budget.

- 1.) Getting more product exposure with the vast consumer market
- 2.) Getting potential customers to understand that even though the product is made of lightweight composite materials versus heavy gauge steel, it works just as well
- 3.) Overcoming the misconception by some that the Nordic Auto Plow is too good to be true or that it will damage the car or its transmission. The fact is that the product works very well and does not harm the vehicle

Who leads innovation in your organization and what metrics and motivators are used to support innovation activities and culture?

Rich Behan, Founder and CEO, has spent a good portion of his time developing new products to complement the Nordic Auto Plow. The company now has multiple, unique and universal products derived from the original auto plow, including a plow for riding mowers, ATVs, Quads, and Zero-turn mowers. Mr. Behan continuously focuses on ways to improve the company's product designs and looks for unique applications of the products. For example, Nordic Auto Plow has tested its plow on golf courses to clear plugs off of the greens and fairways with great success. The company has also begun testing the plow on dairy and cattle farms as a means to push feed to the animals more efficiently and economically than current methods.