The Genius Inspiration for a Better Way to Blow Hot Air

AN INDUSTRY LEADER LEADS ENGINEERING PROGRESS

As one of the most trusted manufacturing partners in Automotive and electromechanical Aerospace today, Capsonic is a company that is constantly elevating the engineering possibilities of what can be done in these industries to make things run better, faster, and more efficiently as well as cost effectively.

It's little surprise to learn then that the creative minds at the company are often envisioning ways to do things better and create innovation in new markets too. Markets that impact our daily lives. Markets like the one for residential gas water heaters which hasn't seen any type of disruptive technology in decades.

THE GENIUS INSPIRATION FOR A BETTER WAY TO BLOW HOT AIR

If there was ever a piece of residential infrastructure that gets taken for granted, it's the standard hot water heater. Most never think about it – unless of course it goes out and a cold shower ensues. For the majority of homeowners though this hard working piece of equipment is an afterthought at best.

And in the hot water heater industry itself, complacency with the current age-old inefficient design using induction motors has ruled. The common consensus being that you cannot use brushless motors efficiently in doing exhaust venting outside the home for gas water heaters.

Because of innovations in the lab at Capsonic taking place in both the worlds of Automotive and Aerospace, the engineering team at the company had an incredible a-ha moment that has led to a re-engineering which turns the age-old belief that induction motors are the only way to go on

its head. Suddenly, the realization was made that a more efficient, and cost- effective blower motor module for residential water heaters could be done with a brushless motor. This revolutionary design also enables a number of desirable other features and upgrades to be put into an assembly that were never before options.

UPGRADES THAT UP-END THE STATUS QUO

Capsonic's brilliant blower module design for residential gas water heaters now makes the previously never thought possible enhancements – possible.

- Improved noise level of blower across output exhaust flow ranges
- More efficient power performance across exhaust flow ranges
- Broader exhaust flow range capability within integral design
- Smaller geometry, change in aspect orientation (Axial vs transverse)
- Lighter weight
- Elimination of one, and possibly two sensors/wiring based on integral digital control feedback from BLDC Motor
- Control system to achieve safety cut offs
- Cost avoidance
- Reliability improvement
- Design can be programmed to automatically establish calibration settings during install
- Projected savings of up to 1 hour in installation time

Additionally, in today's global steel supply market which includes tariff volatilities, the broad use of molded plastic components in this new design comes with significant weight and cost reductions.

Using the same innovative spirit that has made it an industry leading manufacturer in automotive and aerospace for decades, Capsonic has truly brought the dawn of a new day to an old industry that has been set in some outdated ways of making sure we all have hot water to enjoy in our homes.