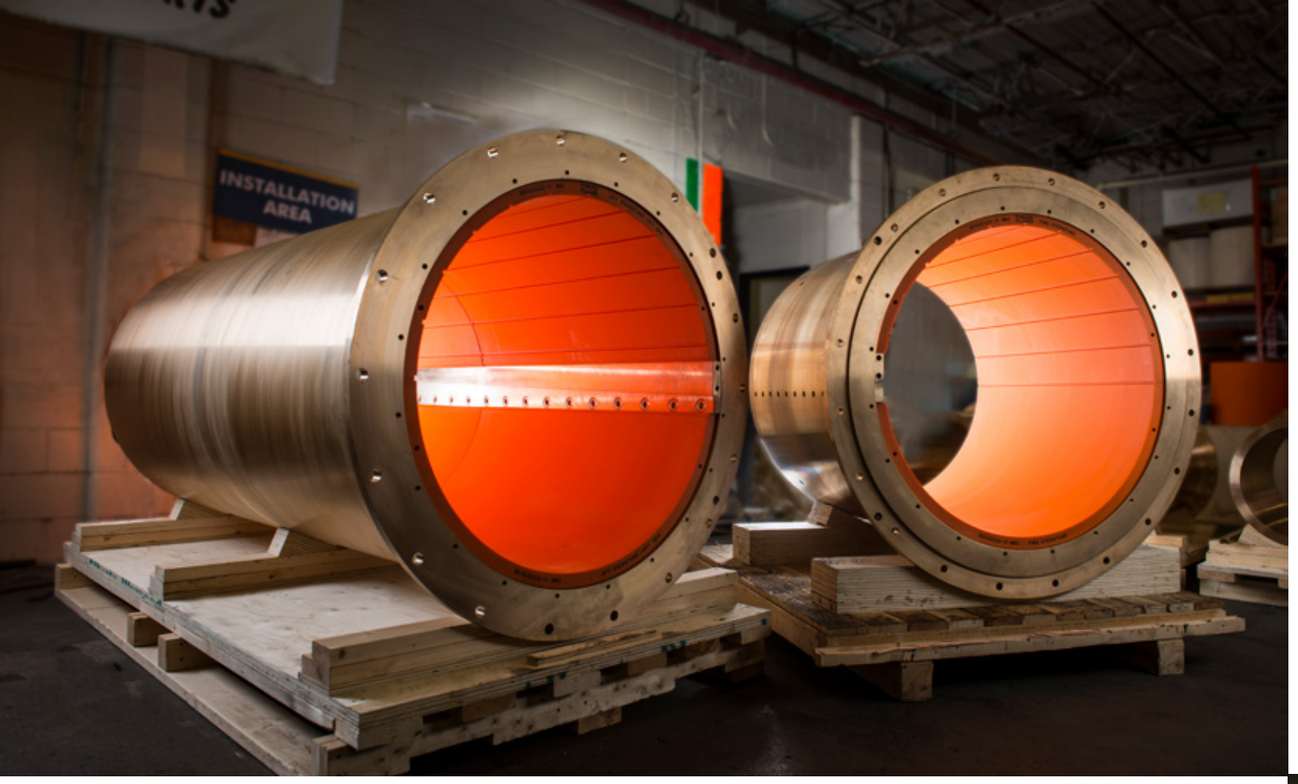
THORDON

A PORTRAIT OF THE ARTIST *AS A YOUNG MAN*

Although George 'Sandy' Thomson has, as is tradition, handed the company reins down to a younger family member (step-daughter Anna Galoni), he will still have an important role to play in the family-owned Thomson-Gordon Group, the Canada-based parent of Thordon Bearings. His business card reads simply "Innovator".

George 'Sandy' Thomson
"Innovator" at Thordon Bearings



Indeed, if there is just one verb that defines Sandy's adult life it would be the verb "to create". Whether it be creating music on the vibraphone with a Cuban jazz band, making acclaimed documentary films or pioneering the development of a unique polymer bearing, creation has been at the forefront of most things Sandy has been involved with.

"I am an engineer but in my heart, I am an artist" he says, suggesting that for engineers to succeed in business they need to merge the mathematical, rational, logical left side of the brain, with the intuitive, thoughtful, and subjective right. "Ultimately, you have to be crazy" he says, with a smile.

After graduating in mechanical engineering from Northrop University and a subsequent stint as a mechanical seals engineer, Sandy entered the family business in the 1960s, where he began his pioneering work reacting synthetic elastomer chemicals.

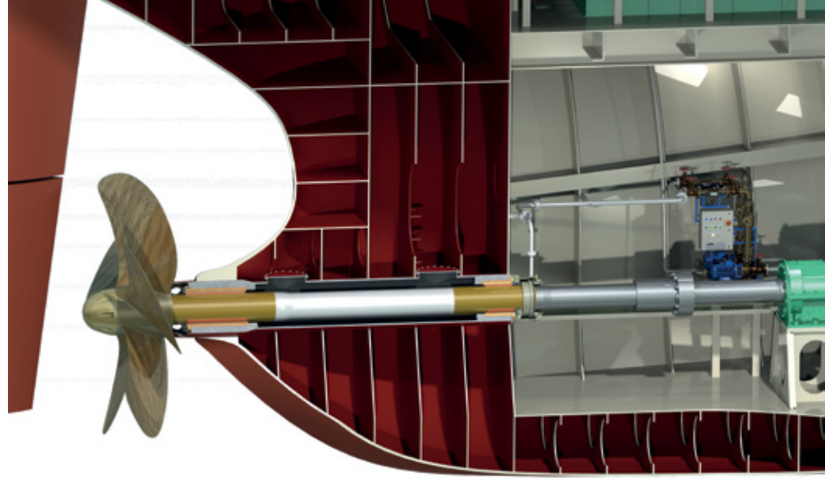
"I'd met this Indian rubber chemist, Dr Pandi, and we'd spend days blending these newly discovered polymers to see if we could find different uses for them. Eventually, we came up with the right formula and manufactured the world's first polymer alloy pump bearing."

After the market success with the new bearing technology in industrial applications, Sandy and Pandi set about developing polymer bearings for seawater-lubricated propeller shafts, which, at that time, where either lignum vita bearings or phenolic laminate (resin). A polymer material, he thought, would make the bearing more abrasion resistant and less susceptible to damage in high temperature, high pressure applications. "Traditional phenolic laminate-based seawater-lubricated bearings just don't have the longevity of a polymer system."

One thing that differentiates Thordon Bearings from its competitors is a business model devoted to innovation. "We don't look to see what our competitors are doing and say, 'hey let's make one of those'. We invent the solutions that our competitors want to copy. Our material scientists, technologists and engineers, some of the best in the world, just work on new ideas, new concepts. They're creative people. It's like a Google environment which, for a company our size, is quite an achievement. If we can't better something that's already out there, why do it? Our philosophy is to make systems and technologies that last a life-time."

Combined with a commitment to safeguarding the environment, this philosophy has provided the fulcrum on which the company pivots since 1967, when Sandy's father, George J.V. Thomson, an architect graduate from Pratt Institute of New York, passed the running of the company to his eldest son.

This rite of passage has been a family tradition dating back to 1911, when



Major George J. Thomson along with brother William started an industrial distribution business in Hamilton, Canada. Earl Gordon later joined them in partnership and following incorporation of the company in 1916, the name Thomson-Gordon Ltd. was adopted.

George and Earl steered their company towards manufacturing in a variety of applications before passing the running if the business to George's son, George J.V. Thomson, who later gave his son, Sandy, the chance to change the company's direction and implement changes that would result in the Thordon Bearings we know today. Distributed products were dropped and focus shifted to supplying its own in-house designed and manufactured polymer bearings and seals for marine and industry.

Thordon Bearings Inc. was incorporated in 1990, the same year Sandy purchased Rudokop, a Russian deep sea salvage tug, which he converted into a "floating showcase" of Thordon's marine bearing and seal products. For 14 years, Sandy captained the vessel, visiting more than 200 international ports promoting polymer bearings to the industry leaders and the shipping community.

"To some business gurus, striving for quality doesn't necessarily make the best business model, since it limits the potential for tapping in to a lucrative after sales market," Sandy says. "This type of business model is favoured by manufacturers of phenolic-laminate bearings because their products are not known for longevity and have to rely on the after sale of spare parts and maintenance services.

"When we tested our polymer bearings against bearings made from phenolic laminate-based materials the difference was dramatic. We found that these types of bearings have life spans of between three to five years before they need replacing. Although, a phenolic laminate system may be the cheaper

solution, when you factor in replacement parts, mechanical breakdowns and maintenance, our bearing systems pay for themselves," Thomson claims.

Thordon's polymer technologies are now used in myriad industrial applications, such as marine, oil and gas, and power generation systems, with the company's bearing and seal products achieving particular success as grease-free, maintenance free, environmentally safe alternatives to traditional bearings. The aviation business also uses Thordon materials and has adapted them for bearings for aircraft landing gear positions.

"There is no limit to the possibilities of what we can achieve with our polymer technology. The challenge is coming up with new, fresh ideas but that will be my main role now that I have essentially retired from the day-to-day running of the company."

His step-daughter Anna Galoni, a Polish-born epidemiologist, is now fully ensconced in the family-owned business and beginning to implement a plan that will see the company expanded its diverse portfolio to new markets.

Sandy's devotion to innovative engineering was rewarded last year when he was elected a Fellow of the Society of Naval Architects and Marine Engineers (SNAME).

"I was humbled to be elected," he says. "It was great honour."

According to the Society, the grade of Fellow is accorded exclusively to "individuals who have made outstanding personal contributions to naval architecture, marine or ocean engineering, or allied disciplines through significant achievements in design, research, production, operation, education or associated management."

Sandy's creative passions, strong leadership and innovation transformed the company into a successful marine and industrial bearing and seal manufacturer, which today is widely considered the world leader in non-polluting oil and grease free bearings and seals.