

TEADIT: From the sealing industry... A story of an influential mind

In 1978, TEADIT Group made one of the most important hires in its history; a young Jose Carlos Veiga was invited by Marcello Cattaneo to work as an industrial manager of a manufacturing plant in Campinas, Brazil. 40 years, 22 patents, and countless products later, the merging of Veiga's innovative thinking with Teadit's dedication to pioneering technologies, led the pair to be globally recognized as leaders in critical fluid sealing processes.



▲ Pictured from left to right, Marco Calzini, Jose Carlos Veiga, Marcello Cattaneo Adorno and Chris Day.

By Angelica Pajkovic, Heat Exchanger World

Heat Exchanger World recently had the pleasure of speaking Teadit North America's President, Chris Day; Vice President of Sales & Marketing, Robbie Riggs; and Teadit Group Technical Director, Carlos Girão, about the unique role Veiga had in the company's evolution, its current offerings for the heat exchanger industry, and how the legacy Veiga is leaving behind will continue to drive TEADIT to develop progressive sealing and gasketing solutions.

Symbiotic Growth

The brilliant and tireless mind of José Carlos Veiga is recognized and respected internationally. His inventions and technical contributions throughout his carrier have yielded numerous advancements in the industry.

After completing a Mechanical Engineering degree at PUC University in Rio de Janeiro, Veiga accepted an invitation to move to Campinas and work for the MCA company, where he assumed the position of

Industrial Manager at the then ASA Sealing (which later became the TEADIT Group). He remained with ASA for 23 years, immersing himself in the universe of gaskets and quickly became a reference on the subject.

It was during this period that Veiga developed a wide range of groundbreaking solutions and patents centered around gasket and sealing technology. Following the establishment of his first patent in 1994, see Figure 1, Veiga devoted his time to working in tandem with the TEADIT engineering team to address prevalent market needs and create a significant environmental impact. In this manor both he, and the company, were able to evolve and create solutions that outmatched the pace of the ever-progressive industry.

"When I started, Veiga challenged our team to educate the client, to show how TEADIT products had the quality and technical background to deliver better sealing solutions. The order was to understand the clients' application and propose the best technical solution, no matter how that would make us look in comparison with other companies. His focus was on being right, not being accepted. And if we were right, we would eventually be recognized as leaders."

— Carlos Girão

Patent for Exhaust Bellows for Vehicles

The invention of exhaust bellows for vehicles. The development and patent of exhaust bellows for vehicles had a significant impact on the industry. It was Veiga's first Patent with the company and allowed the access into the Automotive Exhaust Market.



1994

1978

Jose Carlos Veiga is hired by ASA Sealing, later renamed TEADIT Group.

Created Machine to Produce Gaskets

1999

2002

Revolutionized Gasket flanges of pipes and equipment, and the manufacturing process of the gasket. This patent streamlined a process to allow efficiency gains and maintain performance standards allowing Teadit to position itself in the Global Market as a Global leader.

Patent for use in Gasket Manufacture Gasket Seal for Flanges of Piping and Equipment, a Method for Manufacturing Gasket Seals, and a Sealing Ring for a Gasket Seal

2004

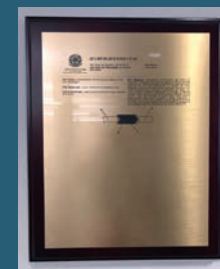
Patent for Faced Double Rail Serrated Metal Gasket for Piping Cathodic Protection

2007

2006

Patent for Serrated Metal Gasket for High Pressure and Temperature Ring Joint Flanges

Patent for Spiral Wound Gasket Taking a Commodity type product widely used in the industry and improving it to be a Low Emission Product further shows the focus of Veiga to improve what was already considered acceptable but needing to improve to address growing concerns towards the environment.



2012

2013

Spiral Wound Gasket Compressible Packing

Patent for ptfе gasket and methods of manufacture

2017

2016

Compressible packing live loading apparatus Double rail serrated metal gasket

Compression Packing: 2848 with Teadit TAGS®

2021

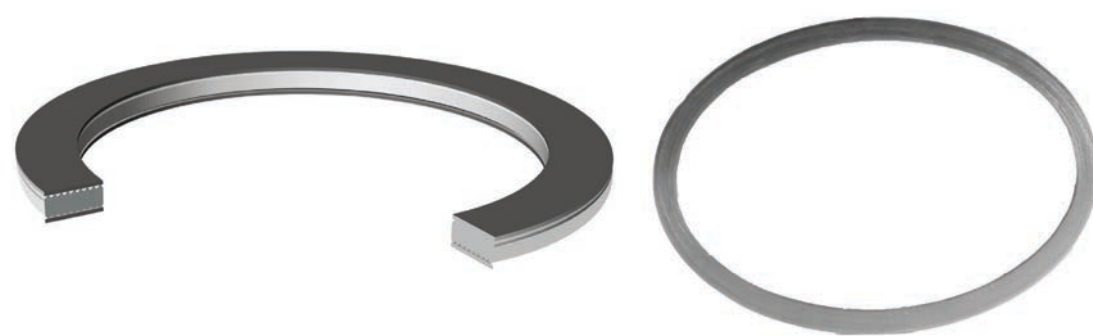
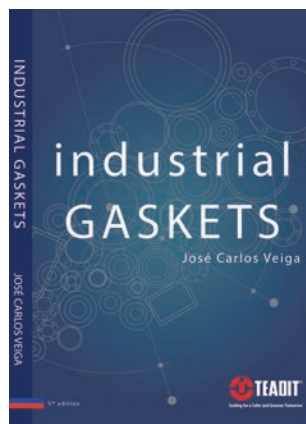
2018

Patent for double-rail serrated metal gasket

2022

After 40 significant years in the industry, Veiga retires from TEADIT

▲ Figure 1: Significant TEADIT patents and milestones invented and co-invented by Jose Carlos Veiga.



Campro Cutaway.

942 gasket.

Progressive Strides

Although he has many notable accomplishments, one of the most influential contributions to TEADIT, and by extension the gasket industry, was his book 'Industrial Gaskets.' Now on its 7th edition, Veiga's book is globally recognized as the one-stop-shop when it comes to gaskets and sealing technology. Early on in his career, Veiga realized that there was a lack of resources for training salespeople. He therefore started typewriting a collection of articles about gaskets: selection, applications, limitations, etc. His employer Aloisio liked the initiative and asked Veiga to expand the work, transforming the material into a book. Veiga contacted the Publisher José Olympio, who became interested in publishing the material. The internationally acclaimed publication is now an essential read for technicians and engineers working with industrial sealing. It presents, in a clear and didactic manner, the types of gaskets used in piping and equipment, presenting its main features, applications and limitations. The book also explores how to install them and possible failure causes. Since the initial release of the book 'Industrial Gaskets', in the 80s, the Veiga name and gaskets have become indissociable.

"In addition to his book, Veiga has published numerous articles and technical works, has an active participation in some of the most important regulatory committees, and gives lectures at major conferences around the world. It is no surprise that he is considered a global authority in industrial sealing," added Day.

Current Capabilities

With a manufacturing and distribution network spanning more than 50 countries, TEADIT Group is a truly global player. Its comprehensive range of sealing products can be found in a wide variety of applications, including in industries governed by stringent environmental and safety regulations. "If you look at our product lines, it becomes immediately apparent that all we are trying to do is to reduce emissions and create a safe environment," said Girão. "We have come a long way over the years and the company's green credentials are further strengthened by its continuous growing presence in our target markets which of course includes heat exchangers." The energy transition and a renewed focus on environmental awareness presents many other opportunities for growth and innovation, which TEADIT is determined to capture. In addition to continuously advancing its sealing solutions, the company is using its know-how to innovate beyond its core products, thereby diversifying TEADIT's product portfolio, introducing more options and competition to the market, as well as capitalising on its expertise. Some of the products currently in development are intended specifically for heat exchangers.

A Look at Heat Exchanger Gaskets

"As it takes good technology to make a good gasket, our technical experts are continually advancing their skills and working on new R&D projects," explained Riggs. "While our focus for the heat exchanger industry began

with simple double jacketed gaskets, like everyone else, we have progressed with the industry, first with graphite faced double jacketed, then moving to corrugated graphite and then continuing the technical advancement with Camprofile Gaskets." Teadit is also uniquely positioned with the facing technologies based on the fact that they manufacture ePTFE (Expanded PTFE) materials so their understanding of the technical differences and advantages of ePTFE provide more advantages to their ability to derive the proper technical recommendations for High Temp or chemical applications. With highly devoted engineers, whose expertise are supplemented with know-how from experienced mentors, the TEADIT Group can offer solutions that extend beyond just the products themselves. Beginning with an assessment and report of a heat exchanger's sealing requirements, the company provides custom gaskets that will satisfy the unique needs of both new units as well as units undergoing turnaround maintenance.

"It was this focus on quality rather than appearances that has made TEADIT recognized as an industry leader in sealing."

— Chris Day

"The gasket itself, is only one part of the solution that we can offer," stated Girão. "Our engineering team can perform a full bolted joint evaluation that includes calculating torque values while checking the design parameters and the specific conditions that the heat exchanger and gasket will be subject to. I think this brings a lot to the table when it comes to providing solutions. Offering tailored services and top-class products is the minimal you expect from a brand like ours. This is what differentiates us from the rest."

Carrying on the Legacy

Looking to the future, TEADIT intends to remain dedicated to combining technical innovation with its products to further advance sealing capabilities for the industry. By carrying on the legacy left by Veiga, the TEADIT Group team will not only be able to deliver groundbreaking technologies but will continue to be inspired by the opportunities that present themselves.



TEADIT is often sought out for its ability to be able to handle heat exchanger projects requiring over sized Camprofile Gaskets.

"It is all about foreseeing and taking opportunities that are presented to you," stated Girão. Veiga always said, 'a saddled horse will not cross in front of you twice,' and I think following this advice has helped lead both myself and TEADIT to where we are now.

Upon the retirement of José Veiga on February 15, 2022, Carlos Girão took over the role as Technical Director of the Teadit group. In this position Carlos will coordinate the development of new products and technologies, participate in technical and engineering organizations, and work closely with the commercial team and application engineering of the group companies to develop customer training programs and gather insights into future market needs. Carlos brings with him extensive experience in both production and R&D roles and has previously led Teadit India through several years of growth and increased profitability.

"When I started, Veiga challenged our team to educate the client, to show how Teadit products had the quality and technical background to deliver better sealing solutions. The order was to understand the clients' application and propose the best technical solution, no matter how that would make us look in comparison with other companies. His focus was on being right, not being accepted. And if we were right, we would eventually be recognized as leaders." "While we still have not gotten where we want to go, or where Veiga wants us to go, the legacy and inspiration he leaves behind provides clear path to follow," concluded Riggs.



Jose Carlos Veiga presenting a seminar on sealing gaskets.



Jose Carlos Veiga and Carlos Girão.