

Tudertecnica: Excellence & Innovation for the Most Demanding Markets



The Italian, family-owned Tudertecnica company designs and manufactures high-performance technical hoses for demanding applications such as the food, cosmetic, and pharmaceutical industries. Backed by the most important quality certifications, the company promotes constant innovation and customized solutions to meet the specific needs of its customers in the global marketplace. Hose + Coupling World spoke to Mr. Andrea Compostella, Global Sales & Marketing Manager, to learn more.

By Joanne McIntyre, Hose + Coupling World

From left to right: Daria Caburlotto (Quality Manager), Fabrizio Ceccato (Finance & Accounting Manager), Andrea Compostella (Sales & Marketing Manager), Andrea Deregibus (General Manager), Emanuela Consonni (HR Manager), Antonio Trentadue (Technical Manager), Daniele Corain (Production Manager).

Since taking over from his father as CEO in 1993, Andrea Deregibus focused on developing innovative products that meet the market's most challenging demands. Today, Tudertecnica is one of the most important players in the market for high-quality rubber hoses used in food & beverage, pharma, chemical, and special applications. Since adding an innovative ISO 14644 CLASS 8 certified Cleanroom in 2018, the company has also offered 40-meter long platinum cured silicone hose certified according to the most demanding international qualifications.

"Investments in technology, materials research, and the development of new structural solutions support our focus on high-level products," explained Mr. Compostella.

In 2022 the company invested over two million euros (USD \$2.2m) in a new warehouse for stock and raw materials, plus two new production lines for food & beverage industry hose. "The investment included upgrading our large diameter hose production capacity from 12 meters to 16 meters in length. We make a wide range of high-quality hoses with mandrel-wrap technology for the food & beverage, chemical, cosmetic, and pharmaceutical industries. We also produce a wide range of peristaltic pumps, material handling, and other industrial applications."

Strong Focus on People

While Tudertecnica manufactures highly technical products, the management team considers people

its greatest asset. "We place the human factor at the heart of our strategy," explained Mr. Compostella. "Close relationships with our raw materials producers assist us in manufacturing high-quality products suitable for every customer requirement and compliant with the highest demands for certifications in the global market."

"Our distributors also play a huge role; we consider many of them our partners. They are technically skilled reference figures with extensive knowledge of different market sectors. Over time, we have built close, mutually valuable relationships with them. Today, our consolidated distribution network covers more than 50 countries worldwide. Last but not least, the theme that has guided our evolution is continuous innovation. Our Research & Development department is largely comprised of chemical engineers who constantly evaluate new materials to provide solutions and meet different market needs. Every team member receives regular, proactive training to achieve positive and constructive collective thinking."

Delivering Safety

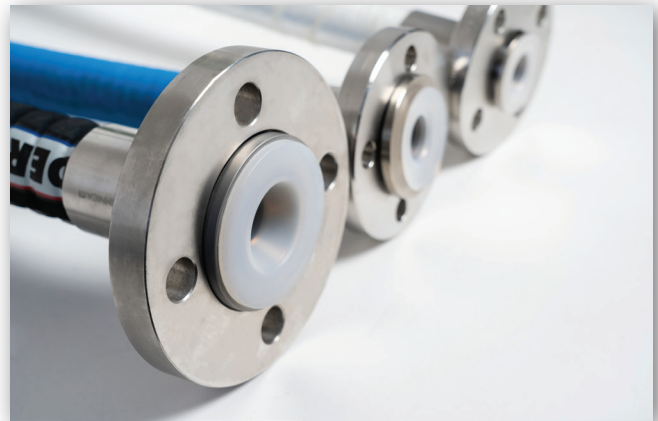
Tudertecnica focuses on the top-end of the market rather than supplying commodity products. Mr. Compostella emphasized the company's dedication to safety; the users handle ergonomic, light, safe, and aesthetically pleasing hoses, while the final consumers enjoy products that remain unaltered while passing through the hoses.

This dedication has led to success in various demanding sectors - including the cosmetic and pharmaceutical industries - that have high degrees of safety within their production process, extremely high standards, and very specific requests.

"Our purpose is to provide them with the perfect solution: the ideal hose that is flexible and made with high-quality materials. Our production materials are highly resistant to frequent cleaning and sterilization, are odorless, tasteless and flexible; and the quality and characteristics of the conveyed products are unaltered."

The Advantages of Teflon™ PTFE

The Tudertecnica Tufluor range products are manufactured in Teflon™ PTFE, the most well-known brand of fluoropolymers and the benchmark in the market. It is an ideal solution for demanding industries looking for continuous improvements with a particular focus on safety. "Chemically and mechanically, PTFE is simply the best material," explained Mr. Compostella. "The uniqueness of



this material lies in its characteristics: it has a low coefficient of friction, excellent levels of resistance to chemical agents, a non-stick surface, and a high degree of resistance to low and high temperatures. Plus, it has very high mechanical resistance. Thanks to our partnership with Fluortubing BV, a leading manufacturer of certified Teflon™ PTFE tubes, we offer many different options and colors. The PTFE liners can be either thin and completely smooth, or corrugated on the outside."

Black PTFE

Black Teflon™ PTFE liners are used in applications requiring conductivity, such as Atex zones chemical plants. "Black liners are made with high purity FDA-approved carbon black to improve electrical properties," continued Mr. Compostella. "A key property is that these hoses are fully conductive, so static electricity in the assembly is dissipated safely. Furthermore, the electrical resistance through the hose wall does not exceed $10^9 \omega$ ".

A HISTORY OF TECHNICAL EXCELLENCE

Tubigomma Deregibus, a.k.a. Tudertecnica, was founded by Alfio Deregibus, a famous technical expert in rubber hoses made on a rigid mandrel. He had tremendous experience in the sector thanks to his roles as production manager, first at Pirelli, then at Manuli Rubber Industries, and as the original founding partner of I.V.G. Colbachini in 1966. In the early 1970s, the partners of I.V.G. Colbachini decided to open a plant in North America, and Alfio Deregibus created I.V.G. Colbachini Canada, based in Granby, Quebec (now part of Continental Group).

Tufluor® PTFE Chem Full Conductive is a suction and delivery hose designed for chemicals and solvents resistant to high temperatures. It is tested and certified by Bureau Veritas for use in the Atex area. The thin tube in Teflon™ PTFE is black, so it is conductive, smooth, and phthalates free.





Tudertecnica Tufluor PTFE hoses with Teflon™ PTFE liner. Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Tubigomma Deregibus S.R.L.

Tufluor® Flex Chem Full Conductive is a black Teflon™ PTFE tube that conducts electrostatic discharges. The tube is smooth on the inner side and corrugated on the outer side, allowing tremendous flexibility with the possibility of flaring.

Smooth, Co-Extruded Clear/White PTFE

“The smooth, co-extruded clear/white pigmented Teflon™ PTFE tube is the ideal solution for industries requiring high levels of safety within their production process,” explained Mr. Compostella. Tudertecnica and Fluortubing developed this idea together and it was patented jointly by the two companies.

The advantages include:

- Purity - The inner layer of virgin Teflon™ PTFE guarantees the highest level of purity for the delivered fluid;
- Flexibility - Despite being co-extruded, the Teflon™ PTFE liner is so thin that it maintains the hose flexibility;
- Fluidity - Being smooth and with a very low coefficient of friction, this substrate is ideal for the passage of highly viscous materials;
- Resistance - Increased resistance to high temperatures and aggressive sterilization cycles, and;
- Certified - Pharmaceutical and food standard approved.

Tudertecnica's top of the range product is the Tupharm® PTFE SIL, a hose manufactured, tested and packed in a controlled cleanroom (ISO 14644 CLASS 8).

Clear and Flex PTFE Tubes

The company also produces a range of clear and flex Teflon™ PTFE tubes. Tufluor® Flex Chem has an EPDM black, conductive cover. It is possible to remove the rubber, then flare the hose end by heating the PTFE and forming it around the fittings.

Fluid passing through only comes into contact with PTFE, not any rubber or metal. Tupharm® Flex PTFE Sil have a white, platinum-cured silicone cover. It is manufactured, tested, and packed in a controlled cleanroom (ISO 14644 CLASS 8) and can also be flared.

High-End Cleanroom Production Site

Tudertecnica has created a new cutting-edge cleanroom production plant (ISO 14644 Class 8) dedicated to producing high purity platinum-cured silicone hoses with extruded tubes in various structures. The controlled environment allows manufacture, testing, and packaging in an atmosphere with a controlled number of suspended dust microparticles, ensuring the final product's absolute quality and purity.

The main advantages of cleanroom production are:

1. The entire production process happens inside the cleanroom, from the start of manufacture until packaging, ensuring the shipping of pure coils;
2. The impact of scraps on every order is significantly smaller due to the production of 40 meter-long hoses, compared to the current industry standard of 4/6 meters;
3. Double production technology (mandrel-wrap & extrusion) provides customers with a wide range of structures and possibilities;
4. A faster response, especially to the European market.

Mr. Compostella explained: “Our cleanroom products are all manufactured with platinum-cured silicone, either white, transparent or translucent. We also offer



Tudertecnica's new controlled cleanroom environment production (ISO 14644 CLASS 8).

a unique solution; Tupharm® PTFE Sil, a high-end pharmaceutical hose with a certified tube of co-extruded clear/white Teflon™ PTFE and a white, glossy, high-temperature resistant silicone cover. The same hose is also available in our flareable Flex version, with a clear, smooth liner, and corrugated externally Teflon™ PTFE tube for enhanced flexibility.”

“The goal is clear and challenging: to become the benchmark in the high-quality, high-performance rubber hoses industry.”

Successful Food & Beverage Technologies

“Our main production plant manufactures hoses with mandrel-wrap technology for food & beverage, chemical, cosmetic, pharmaceutical, peristaltic pumps, material handling, and other industrial applications,” continued Mr. Compostella. Stainless steel mandrels from 3/8” to 4” (10 mm to 102 mm) are used for clean and smooth tubes. Forty meter-long coils are shipped for most applications and 16 meter-long hoses for abrasive material handling. Remarkable and distinctive properties characterize the company’s best-selling range of Glidotech® hoses.

“The many distinguishing characteristics of this product are all at the service of the customer. The bright, glossy, mold resistant, corrugated cover has high abrasion resistance, giving the hose a longer lifespan than standard hoses. Moreover, it has a low friction coefficient that allows the hose to glide easily under any circumstances, helping workers when moving the hose around the plant, for example in a cellar or a distillery. The corrugated outer layer allows water to flow under the hose, so it does not become a barrier.”

“This innovative design adds more value to the customer thanks to its dirt resistance and high cleanability, fundamental factors in choosing a final product. Last but not least, the aesthetic of our Glidotech® is a pleasure to the eye. The range is highly versatile and widely customizable in various materials and colors to cover many diverse applications.”

When lightweight and very high flexibility are required, Tudertechnica offers the product line Spiraltech® Extra Glide. “Spiraltech® Extra Glide hoses have an external thermoplastic helix embedded in the rubber cover. It protects the hose from abrasive surfaces and provides extra flexibility without adding weight. Like our Glidotech® hoses, our Spiraltech® Extra Glide hoses slide easily over the floor.”



“Workers will notice the difference from day one; these ergonomic hoses are easy to handle and operate in narrow spaces. They come in different materials and colors, spanning a wide temperature range to meet specific application requirements. The robust textile construction provides superior pressure resistance while remaining extremely flexible.”

“Alex Soeterbroek, owner of Fluortubing USA and Fluortubing B.V., is not just a partner but a great friend: we have the same vision of the future.”

North American Expansion: Tuder FT USA LLC

In 2020, Tudertechnica, in partnership with its long-time supplier and business partner Fluortubing USA, opened Tuder FT USA LLC in Campbellsville, Kentucky, to support the North American market. “This has strengthened our presence in the local market, establishing more cohesive communication with our distribution network, and offering a better service thanks to an inventory built according to the market requests and our local sales team,” said Mr. Compostella.

“As we are continually focused on high-quality hoses and innovative solutions, we opened the Kentucky location with a local inventory and sales team to better develop and support that distribution network.”

