



Wind power

**venAir**

**FLEXIBLE SILICONE HOSES FOR WIND  
TURBINES**

[WWW.VENAIR.COM](http://WWW.VENAIR.COM)

# WIND TURBINES

Wind energy is one of the main alternative sources necessary for the decarbonization of the electricity sector. Due to the great development that this eolic technology has reached, this renewable source is key to the future of energy in a possible scenario of depletion of traditional fuels.

Venair has developed over the years the most optimal solutions for this sector, adapted to the specific needs required, both in terms of technical requirements and those of safety and durability of the product, achieving maximum efficiency and optimization of maintenance.



Venair provides solutions for flexible connectors of **water cooling Systems** for wind turbines.

The new generation of wind turbines can provide enough power to supply thousands of houses. This high production of electrical Energy from the mechanical movement generated by the impellers, produces a **high quantity of heat** which must of course, be disipated with a powerfull water cooling system to **avoid any overheat** which would reduce the efficiency of the turbine and could even cause a fire. The correct design and the selection of **high quality materials** are crucial for the right **cooling System**.



Choose the right solution for your industry.

# CUSTOM SOLUTIONS FOR MAXIMUM EFFICENCY

The best solution for flexible connectors for water cooling systems:

- **CUSTOMIZATION:** Customized construction optimized for each design
- **DURABILITY:** Maximum resistance to weathering, ozone, UV rays, temperature variations...
- **SAFETY:** Fire & Fumes compliance according to main standards of reference (UL-94 & EN-45545-2)
- **RELIABILITY:** Zero risk of leaks. Optimized design and construction to ensure a perfect attachment of the connections. Possibility of crimping metal connections in stainless steel to reduce the retention area and to increase the reliability of the system, ensuring the resistance to the required pressure and eliminating any risk of fluid leakage.

## Certifications

### Fire safety- UL-94



Venair solutions are classified V0 according to UL-94, the Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing.

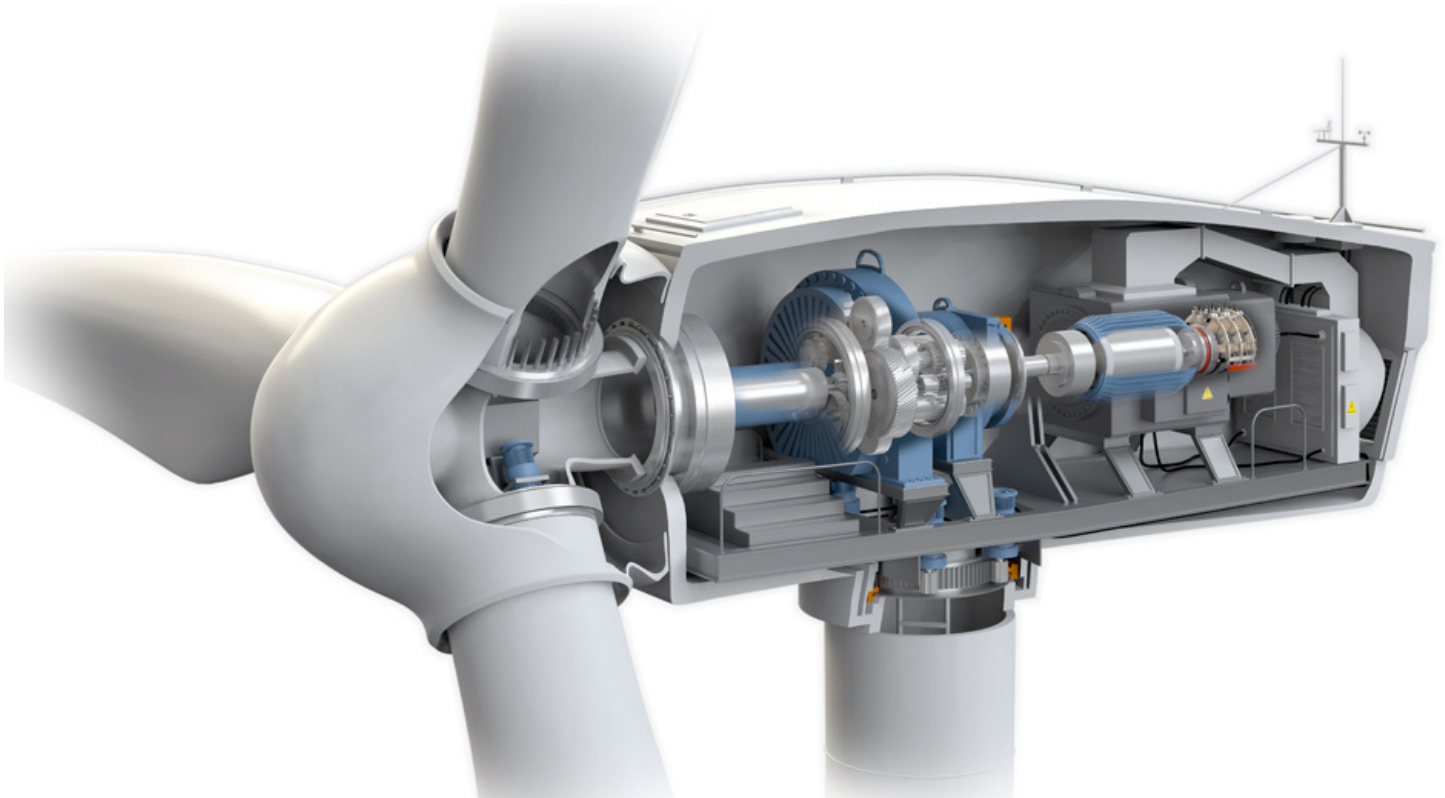
The standard determines the material's tendency to either extinguish or spread the flame once the specimen has been ignited. UL-94 is now harmonized with EIC 60707, 60695-11-10, 60695-11-20 and ISO 9772 and 9773.

### SAE J20 for cooling systems

Venair wind power solutions for cooling systems are according to specs of SAE J20, which covers flexible reinforced hoses intended for use in water and ethylene glycol-based engine-coolant system applications.

# Wind turbine products

## Applications



### VENA® SIL 700V / VENA® SIL 700V-PL

High flexible straight Silicone hose with several polyester fabric reinforcements and a metal or plastic spring wire.



PROPERTIES	DESCRIPTION
Outer layer	Silicone VMQ, smooth and blue
Reinforcement	Polyester fabric & steel wire spiral
Inner layer	Silicone VMQ, smooth and blue
Temperature	-55°C/+180°C (-67°F/+356°F)
Length	From 1m to 6m (3.8 to 19.70 ft) Smaller lengths under request.

## VENA® SIL 200 & 240

Straight Silicone hose with several polyester fabric reinforcements



PROPERTIES	DESCRIPTION
Outer layer	Silicone VMQ, smooth and blue
Reinforcement	4 plies of polyester fabric
Inner layer	Silicone VMQ, smooth and blue
Temperature	-55°C/+180°C (-67°F/+356°F)
Lengths	From 1 to 6m (3,8 to 19,70 ft) can be cut to smaller lengths.

**VENA® FR-VO** Flame retardant silicone hose acc. to UL94, V0 classified.

**VENA® FR-HL** Flame retardant silicone hose acc. to EN-45545-2, HL2 (R22&R23)



PROPERTIES	DESCRIPTION
Outer layer	Silicone special formulation, smooth and blue
Reinforcement	Several high temperature fabrics
Inner layer	Silicone special formulation, smooth and blue
Temperature	-55°C /+200°C (-67°F/ +392°F)
Lengths	From 1 to 6m (3,8 to 19,70 ft).

## Custom shapes & Connections available



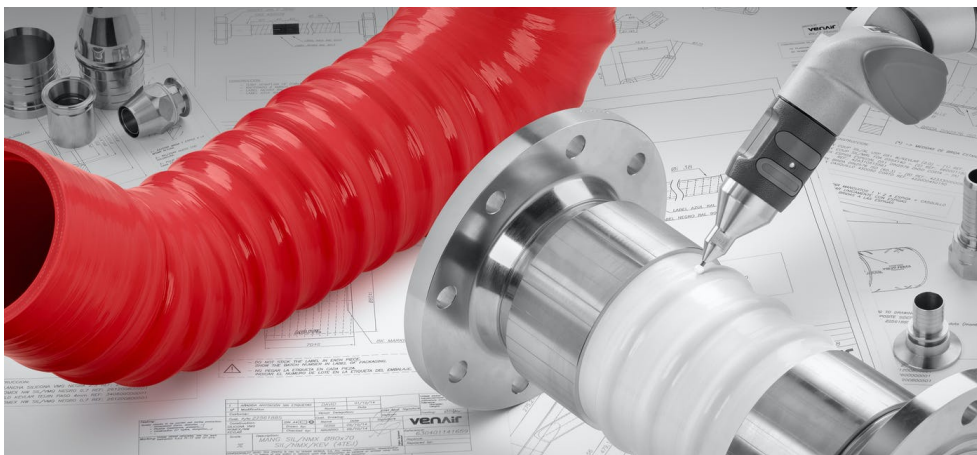


## Developing custom solutions since 1986

Our technical & engineering team is responsible for safeguarding the interests of our clients in designing the optimal product for each application.

Together with the inventions that come out from our R&D department, we have developed and patented a wide range of products and we have more than 70 registered trademarks that support our innovative activity.

We can produce different hoses and ducting solutions made of silicone and other materials such as other elastomers, thermoplastics, and composites to fulfill every demand.



### Prioritizing quality

We are committed to provide the highest quality in our products through state of the art facilities and third- party audits.

### International presence

Our products are present in over 70 countries. We have an extensive network of 30 offices in 21 countries.



### CUSTOMIZATION IS OUR ADDED VALUE

Venair is an international group leader in engineering and manufacturing silicone hoses for the most demanding industries such as fuel cells, railway, defense, biotechnological, food, and pharmaceutical.

Throughout its 30 years of history, Venair has created an extensive international direct network that has led to three manufacturing centers in Spain, Vietnam and Romania and 30 delegations distributed in Europe, America, Asia and Africa.

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