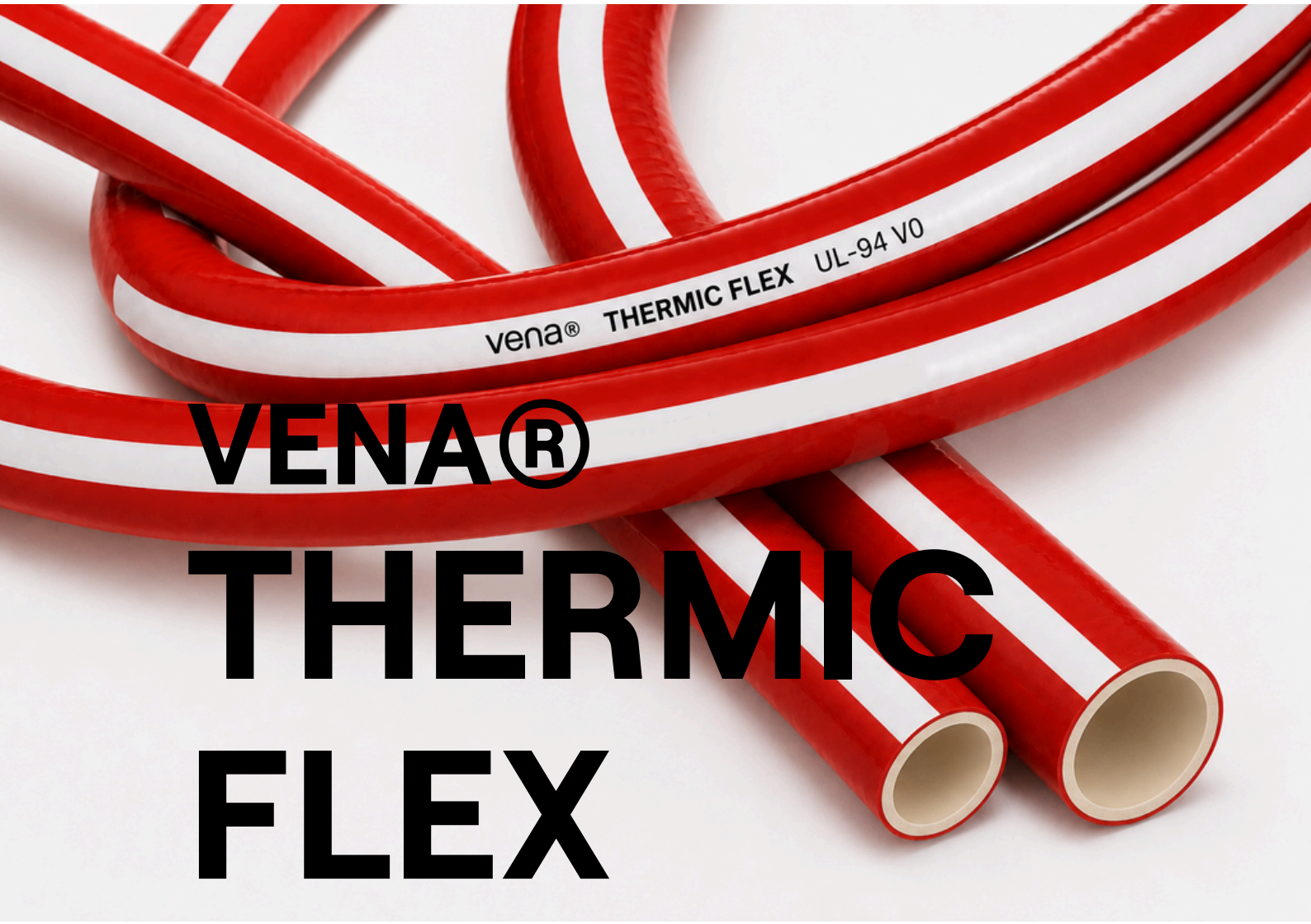


VENA® THERMIC FLEX

Vena® Thermic Flex is specifically engineered for secondary cooling loops, enabling the critical connection between Coolant Distribution Units (CDUs) and individual server racks in high-density data center environments. While primary loops manage high coolant volumes, this solution is optimized for complex routing within confined IT infrastructures.

Its advanced construction, combined with reduced internal diameters (IDs), delivers exceptional flexibility and tight bend radius capabilities. This ensures smooth integration within compact server enclosures, maintaining consistent flow to cold plates and heat sinks without kinking or flow restriction—key to preventing thermal inefficiencies and throttling.

Designed to withstand continuous thermal cycling, Vena®Thermic Flex guarantees long-term mechanical stability and uptime for high-performance computing (HPC) systems. Additionally, it offers excellent compatibility with dielectric fluids and inhibited glycols, preventing material degradation and safeguarding system integrity.

PROPERTIES

- Red color hose with smooth inner and outer surface.
- Not affected by anti-freeze or antirust liquids.
- Excellent flexibility to absorb high vibrations, compensate any level difference and improve the assembly process.
- Highly resistant to hardening with very good compression characteristics.
- Excellent resistance to thermal aging and oxidizing agents (oxygen, ozone, UV).
- Operational temperature ranges from -60°C (-75 F) to +200°C (392 F), it may reach up to 220°C (428 F) during short periods of time.
- The vacuum resistance for this hose is 0.80 bar (11.60 psi).
- Manufactured with standard inner diameters ranging between 6mm and 51mm[JS1] , in straight lengths from 1 to 4 m (13.12 ft).
- It can be customized to other ID's, consult with a Venair representative.

CONSTRUCTION MATERIALS

It is manufactured with a special flame retardant silicone rubber compound with 3 high temperature resistant textile reinforcements and encapsulated PPS spring wire.

REGULATIONS

Safety is a non-negotiable requirement for in-rack components. Vena Thermic Flex is UL-94 V0 certified, ensuring the hose meets strict flame-retardant standards. This certification alings with international fire safety regulations for electronics and data processing equipment.

TECHNICAL SPECIFICATIONS

INNER DIAMETER		WALL THICKNESS		WORKING PRESSURE ISO 1402		BURSTING PRESSURE ISO 1402		BENDING RADIUS	
mm	inch	+1,5/-0 ,8 mm	+0,06/ -0,03 inch	bar at 20°C	psi at 68°F	bar at 20°C	psi at 68°F	mm	inch
6	¼	5,5	0,22	28,53	413,75	85,58	1241,24	62	2,42
10	⅜	5,5	0,22	27,31	396,05	81,92	1188,15	68	2,68
13	½	5,5	0,22	22,22	322,32	66,67	966,97	73	2,87
19	¾	5,5	0,22	20,62	299,12	61,87	897,35	93	3,64
25	1	5,5	0,22	14,7	213,21	44,1	639,62	135	5,31
32	1 1/4	5,5	0,22	13,84	200,68	41,51	602,05	169	6,64
38	1 1/2	5,5	0,22	10,73	155,63	32,19	466,88	200	7,87
51	2	5,5	0,22	7,46	108,15	22,37	324,45	244	9,61

LIMITATIONS

Respect the bending radius and working pressure established values.
Gas oil and oil stains do not damage the hose, but it should not be used to transport fuel or oil, nor be submerged in these liquids.

CONTACT

IMPORTANT: The Company reserves the right to change, amend, modify, suspend, continue or terminate all or any part of this Document at any time without notice. It is the user's responsibility to ensure the suitability and safety of the VENAIR products for all intended uses. All the tests must be conducted in accordance with applicable regulatory requirements in order to determine the safety and effectiveness for use of the hoses in any particular application.

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venair
Fluid solutions. Solid performance.