



HEAT PUMP HOSES

SUSTAINABLE ENERGY SOLUTIONS



About Ayvaz

Established in 1948, Ayvaz has been at the forefront of flexible connection parts manufacturing for over seven decades. Our extensive range of products includes various types and customized designs tailored to meet the specific needs of different industries.

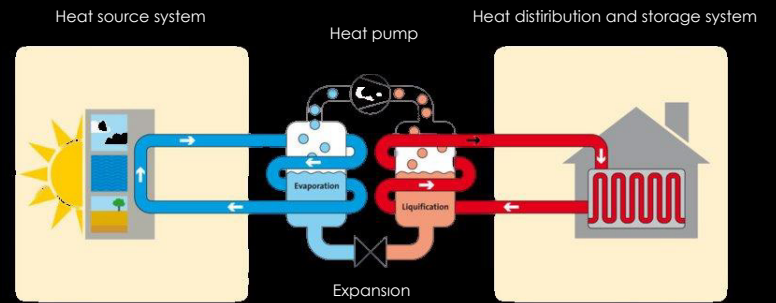
Our company's reputation remains high, built on a foundation of providing innovative and reliable solutions to our partners. This steadfast commitment to quality and innovation has earned us the trust and loyalty of cooperators worldwide.

At Ayvaz, we are dedicated to supporting our partners around the clock, ensuring that they feel the presence and expertise of our "flexible solutions" no matter where their businesses are located. Our global reach and unwavering dedication to excellence make Ayvaz a name synonymous with reliability and innovation in the industry.

Consulting

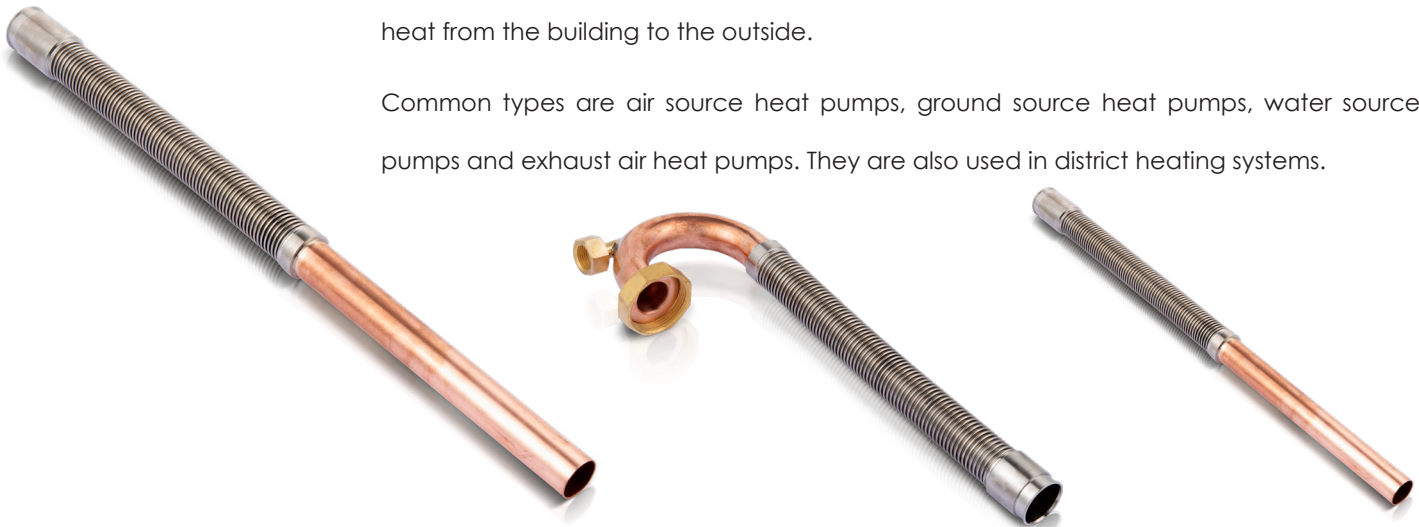
At Ayvaz, we offer a wide range of products catering to various industries, ensuring that we meet the diverse needs of our clients. Our services go beyond just providing products; we also offer comprehensive engineering activities from product specification to project estimation, ensuring that we deliver the most specific solutions for each unique case.

Our team of experts is dedicated to sharing their knowledge and expertise with potential clients. We take pride in assisting those who encounter challenges with calculations for piping systems and product selection in new plants. Whether you are dealing with complex projects or need precise product recommendations, Ayvaz is here to provide the support and guidance you need.



A heat pump is a device that transfers thermal energy between spaces, usually between an enclosed space and the outdoors. When used to heat a building, the energy is transferred from the outside into the building. A heat pump can also work as an air conditioner by transferring heat from the building to the outside.

Common types are air source heat pumps, ground source heat pumps, water source heat pumps and exhaust air heat pumps. They are also used in district heating systems.





Ayvaz's heat pump hoses are assembled using annularly corrugated stainless steel hoses and high strength stainless steel braiding. They are designed for optimum performance in applications and to reduce vibration.

Advantages of Using Flexible Metal Hose in Heat Pumps



Assembly Flexibility



Fast and Easy installation



High resistance against heat and temperature



Two types of refrigerant are used in heat pumps, R134A and R410A. The boiling point of R134A is -26.3 C and for R410A -48.5 C. Since copper pipe has the highest thermal conductivity as a material, these are used in applied to the lines in the heat exchanger. All connections between the expansion tank and the heat exchanger should be made of stainless steel pipe or stainless steel corrugated pipe even with icing.

Heat loss calculation:

1 meter copper pipe (when the room temperature is 20 degrees and the refrigerant is R134A)

$$U=390 \times (26.3+20) = 18000W.$$

Loss of 432 Kw/h based on a calculation of 24 hours of operation.

But if stainless steel pipe or stainless steel corrugated pipe is used, the loss is 700 W.

This also means a loss of 16.8 Kw/h based on a calculation of 24 operating hours.

In comparison, we achieve a yield of 415 Kw/h*.

Material	Thermal Conductivity (W/m*K)
Steel Stainless 316	13.53
Steel Stainless 321 and 347	13.807
Steel Stainless 430 430f and 431	16.736
Steel Stainless 304	14.644
Copper Alloy (110)	390



FACTORIES



Türkiye 4 Factories
İstanbul / Türkiye
Tel : +90 (212) 771 01 45
info@ayvaz.com



Ayvaz N
İsperih / Bulgaria
Tel : +359 (8431) 27 32
office@ayvaz-n.eu



Tricorr
Warsaw / Poland
Tel : +48 (32) 783 295 1
tricorr@tricorr.eu



Ayvaz China
Ningbo / China
Tel : +86 (152) 5830 73 61
msahin@ayvaz.com

OFFICES



Ayvaz Americas
Rhode Island
Tel : +1 (689) 280 09 08
americas@ayvaz.com



Ayvaz Germany
Viernheim / Germany
Tel : +49 (6204) 601 43 99
germany@ayvaz.com



Cona
Caserta / Italy
Tel : +39 (0823) 187 39 88
rmolaro@ayvaz.com



Ayvaz Ukraine
Kiev / Ukraine
Tel : +380 (44) 390 57 57
info@ayvaz.com.ua



Ayvaz Gulf
Dubai / U.A.E.
Tel : +971 (6) 621 58 04
mideast@ayvaz.com



Ayvaz Serbia
Belgrade / Serbia
Tel : +381 (61) 658 70 52
yakbiyik@ayvaz.com



Ayvaz Azerbaijan
Baku / Azerbaijan
Tel : +99 (455) 579 84 32
ahayatov@ayvaz.com



Ayvaz Egypt
Cairo / Egypt
Tel : +20 (122) 819 78 29
andrew.eid@ayvaz.com



Ayvaz Vietnam
HCMC / Vietnam
Tel : +84 (89) 850 83 45
ggursoy@ayvaz.com



Ayvaz Kazakhstan LLP
Almaty / Kazakhstan
Tel : +7 (727) 327 97 57
www.ayvaz.kz