

Liquid Helium Technology. The leading helium supplier with many competitive advantages.



Helium is abundant throughout the universe, but on Earth it is extremely rare. At the same time, it is a very important and extremely valuable element. Its range of applications covers many aspects of our lives, especially in research, cutting-edge technology and medicine.

Linde Gas stands for high quality and customer orientation. And this is precisely what has made us one of the world's leading gas producers. Our range of services extends far beyond the extraction and supply of high-grade helium. We ensure optimum and comprehensive support and service by placing our broad knowledge and years of experience at our customers' disposal.

An element with unique properties

Helium is colourless, odourless, non-toxic, non-corrosive and non-combustible. It is completely inert, forming no chemical compounds, even at high temperatures, and it is barely soluble in liquids. With a value of 4.2 Kelvin or -269°C, it has the lowest boiling point of any gas and, as a result, liquid helium is the coldest matter on earth. This is what makes it the only available refrigerant for cooling metallic superconductors. Another outstanding feature is that it poses no major safety or environmental problems.

Using liquid helium in MRI and NMR technology

Liquid helium is used to cool down the superconducting magnet coils employed in MRI and NMR technology. Superconductivity is a physical effect that occurs in various materials when they are subjected to extremely low temperatures. It enables an electrical current to flow without any resistance, resulting in zero losses. Liquid helium is the only medium cold enough to promote superconductivity in metals. Linde has always been deeply involved in the cool-down services and the supply of liquid helium to the MRI and NMR communities. Today, we are not only a leading refrigerant supplier, but also a provider of custom-made technical solutions and unparalleled levels of service.



Helium production and processing

On Earth, helium is extracted almost exclusively from natural gas. This is in fact the only economically feasible means of production. Over the course of geological time, helium accumulates as a result of radioactive decay. There are many known helium-rich natural gas deposits located in several regions of the world. And Linde is involved with almost all of them.

As far back as 1918, Linde Engineering provided the know-how for the first helium purification plant in the USA. And ever since, we have continued to deliver outstanding services in the liquefaction of helium and have been building plants for research as well as production.

Today, Linde is the leader in helium liquefaction technology and supplies helium to the entire world. We play a crucial role in both the advancement and implementation of the latest developments and ideas in research, technology and medicine.

Meeting the demand for helium

The demand for helium increases every year. As a result, there is an ongoing search for new sources. In order to guarantee a safe and reliable supply, Linde obtains helium from many of the major deposits located around the world, including those in the USA, Russia and Poland. Another country with extensive helium-rich natural gas resources is Algeria. This is why we have developed a new, major project there.

Helium supply for years to come

The new helium production facility in Skikda, Algeria, marks the beginning of a new era for Linde. Helium is a limited resource and some deposits are nearly depleted. And in the meantime, the worldwide demand steadily increases. Just as they have occurred in the past, some supply bottlenecks may also occur in the future. With our own helium source, as well as access to other major sources, we are prepared for this future.

If you want to secure a highly reliable helium supply, combined with unparalleled engineering and service capabilities, then talk to Linde today.

Ordering information – Helium Liquid

Part Number	Description	Content (litre)
24064571	PLC500 LP 022	500
24064575	PLC250 LP 022	250
24064574	PLC100 LP 022	100
24064573	PLC60 LP 022	60
24064572	PLC30 LP 022	30