The STRATOS® SL-Series

Transport Containers for liquid Helium ... light, economical and practical

Contact
Cryotherm GmbH & Co. KG
Euteneuen 4
D-57548 Kirchen
Fon: +49 2741 9585-0
Fax: +49 2741 6900
E-Mail: info@cryotherm.de
www.cryotherm.de

We reserve the right to make technical changes without prior notice!

www.cryotherm.de
### STRATOS® LHe-Containers

Vacuum super-insulated transport and supply containers for stationary and mobile use. Make use of the many advantages of the STRATOS® series for your applications with deeply cold, liquid helium. Easy handling and high safety standards are the marks of this lightweight.

We produce these high-tech containers with lots of experience, technical know-how and highly qualified manufacturing skill.

### Convincing Option:

**Highly efficient, electrical pressure build-up control feature**

Economical and also space saving solution in the integrated heating system. It enables a regulated pressure build-up for easy extraction of the helium without external He-pressure gas.

- Optimized heating evaporates liquid helium and overheats the helium gas in order to achieve good pressure efficiency.

### Advantages that convince:

- Efficient He-exhaust gas cooling system
- Low evaporation rate (only 0.9 % in STRATOS® 100 SL)
- Optimized super-insulation
- Robust transport frame
- Compact dimensions
- Safety neck tube
- Patented anti-oscillation-system
- Vacuum safety system and safety neck tube on security connection
- Smooth running castors
- Safety extension with exhaust pressure build-up and evacuation connection
- Overflow device which can be shut off (70 mbar)
- Various extraction facilities are possible
- Easy to set pressure regulator
- Transfer pressure of 0-500 mbar
- Low maintenance
- Wide range of accessories

### STRATOS® containers are also available in stainless steel. Speak to us.

---

### Cryo-Supply Systems

**Cryo-Storage Systems**

- Using storage systems in many years of research. A wide range of our Cryo-Storage Systems for deep storage of biological, medicinal and chemical materials like samples and Cryotubes.
- STRATOS® LHe-Transport Container (100 -1,000 l) · SIRIUS® LIN-Supply Container (1,000 - 2,000 l) · HELIOS® LHe-Storage Container (100 -10,000 l)
- BIOTEST® LHe-Storage Container (1,000 - 2,000 l) · STELLA®-work container (0.5 -63 l)
- Freezing apparatus (3.3 -16 l) · dryo shipper
- Instruction/Training, Technical Hotline +49 (0)2741 958575
- Installation/Assembly, Start Up, Spare Parts Service, Repair/Maintenance, CRYOGEN®-Trans-System

**Cooling of Transport Systems**

- Deep tissue lasts longer at lower turbulence point in daily requirements. For an optimal cooling quality we supply you solid storage vehicles, containers, exchange tanks, exchange liquid containers with transportable Cryo-Systems.
- CRYOGEN®-Trans-System

**Cryo-Piping Systems**

- In order to transport deeply cold fluid phases from A to C it is important without any loss we have developed special vacuum insulated transfer piping. These transfer piping systems are distinguished by high thermal quality. For POLY-De-LoCo/LPCL/Co/PCL on transfer piping (DN 14-105) flexible transfer piping (DN 3-12) plug-in coupling – vessel coupling – gas phase separator (101) · phase separator (ISO-200)

**Cryo-Consulting/Cryo-Engineering**

Custom-built systems for your special Cryo-Questions fit the Cryo-Problem of the day. Whether your work is in medicine or one of the many other areas of research we have the specialists who know your field and speak your language.

---

So that you have an easy time ...

---
STRATOS® LHe-Containers

Vacuum super-insulated transport and supply containers for stationary and mobile use. Make use of the many advantages of the STRATOS® series for your applications with deeply cold, liquid helium. Easy handling and high safety standards are the marks of this lightweight. We produce these high-tech containers with lots of experience, technical know-how and highly qualified manufacturing skill.

Naturally, the Cryo-containers are type approved according to the international dangerous goods guideline ADR 2011 and the European transport equipment directive 2010/35/EU with the marking.

That the evaporation of gas is used highly efficiently to cool the neck tube, the radiation shield and the insulation adds to the high level of economy of the system.

**Convincing Option:**
Highly efficient, electrical pressure build-up control feature

Economical and also space saving solution in the integrated heating system. It enables a regulated pressure build-up for easy extraction of the helium without external H-pressure gas.

- optimized heating evaporates liquid helium and overheats the helium gas in order to achieve good pressure efficiency.

- easy and safe: no need to install a siphon
- extraction tube remains constantly cold
- no loss of helium when a siphon is installed
- no problem in lower rooms
- low investment costs for siphon due to adapter system for filling into varying consumers
- low siphon wear and tear due to secure and protective storage on the container
- patented anti-oscillation-system ensures low evaporation rates

**Advantages that convince:**
- efficient H-exhaust gas cooling system
- low evaporation rate (only 0.9 % in STRATOS® 100SL)
- optimized super-insulation
- robust transport frame
- compact dimensions
- safety neck tube
- patented anti-oscillation-system (optional)
- vacuum valve safety facility and integrated safety facility on the security extension.
- smooth running castors
- safety extension with exhaust pressure build-up and evacuation connection
- overflow device which can be shut off (70 mbar)
- various extraction facilities are possible
- easy to set pressure regulator
- transfer pressure of 0-500 mbar
- low maintenance
- wide range of accessories

**Cryo-Supply Systems**

Using storage containers of many years in duration, we have built up our Cryo-Supply Systems for long-term storage of biological, medicinal and chemical materials. In laboratories and Cryoproduction.

- STRATOS 100–1,000 SL serve to supply liquid helium MR-tomographs and large cryostats.
- SATURN  LIN-Transport Container (100 - 300 l) · MERKUR  Transport Tank (500 - 2,000 l)
- JUNO  LIN-Supply container (25 -100 l) · APOLLO  LIN-Supply Container (50 - 350 l)
- Deeply cold liquid helium protects the specialist staff who know your field and speak your language.

**Cryo-Piping Systems**

In order to transport deeply cold fluids in order to transport by means of a closed circuit with no loss we have developed special units for multi-tranfer piping. These transfer piping systems are distinguished by high thermal quality. For LHe/De/Ca/Li/Na:

- plug in coupling – weld coupling · gas phase separator (10 l)
- ELASTIFORM® LHe-supply storage container (100 - 1,400 l) · CHRONOS® sample container (100 - 1,400 l)
- ELASTIFORM® LHe-supply container (100 - 1,400 l) · ELASTIFORM® LHe-supply container (500 - 1,400 l)

**Cooling of Transport Systems**

Deep tissue finds their way in liquid helium systems on a daily basis. For optimal cooling quality, we have a wide range of cold storage vehicles, boxes, vacuum boxes, deep freezers and containers with transferable Cryo-Systems.

**Cryo-Storage Systems**

Deep storage facilities in many years in duration. We have built up our Cryo-Storage Systems for long-term storage of biological, medicinal and chemical materials. In laboratories and Cryoproduction.

- STRATOS containers are also available in stainless steel. Speak to us.

**So that you have an easy time …**

As accessories to the STRATOS®-containers we offer:
- Anti-Oscillation-Device
- integrated decanting siphon
- level display
- adapter set for MRT-filling
- anti-magnetic castors
- electric pressure build-up
- and lots more

**After-Sales-Service**

Multi-country sales for the English speaking world.

- Installation/Assembly, Start Up, Spare Parts Service, Repair/Maintenance, installation/Anti-Oscillation system
- anti-oscillation system
- 2,5 m flexible transfer tube with protective coating
- protected flange system
- anti-oscillation system
- level display
- integrated safety facility on security extension
- Cryo-valve safety facility
- Vacum valve safety facility
- Pressure control valve in safety neck tube
- integrated safety facility on security extension

**Container Description**

<table>
<thead>
<tr>
<th>Container Material</th>
<th>100 SL</th>
<th>250 SL</th>
<th>380 SL</th>
<th>1000 SL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer Diameter (mm)</td>
<td>782.00904</td>
<td>782.00905</td>
<td>782.00908</td>
<td>782.00906</td>
</tr>
<tr>
<td>Castor Diameter (mm)</td>
<td>105</td>
<td>130</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Necker Diameter (mm)</td>
<td>32</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Outer Diameter (mm)</td>
<td>1,831</td>
<td>1,900</td>
<td>2,020</td>
<td>2,020</td>
</tr>
<tr>
<td>Total Width (mm)</td>
<td>2,5 m</td>
<td>2,5 m</td>
<td>2,5 m</td>
<td>2,5 m</td>
</tr>
<tr>
<td>Neck Diameter (mm)</td>
<td>105</td>
<td>130</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Connections</td>
<td>KS 50</td>
<td>KS 25</td>
<td>KS 25</td>
<td>KS 25</td>
</tr>
<tr>
<td>Article Number</td>
<td>794.21109</td>
<td>782.00904</td>
<td>782.00905</td>
<td>782.00906</td>
</tr>
</tbody>
</table>

The vessels’ weight may vary depending on the equipment used!

**Cryo-Engineering**

If you have completely individual research tasks to perform. Do you have the right partner for the job? Whether you work in bio-electronics or one of the many other areas of research we have the specialist staff who know your field and speak your language.
The STRATOS® SL-Series

Transport Containers for liquid Helium
... light, economical and practical

Contact
Cryotherm GmbH & Co. KG
Euteneuern 4
D-57548 Kirchen
Fon: +49 2741 9585-0
Fax: +49 2741 6900
E-Mail: info@cryotherm.de
www.cryotherm.de

We reserve the right to make technical changes without prior notice!