

PEAK
TECHNOLOGY

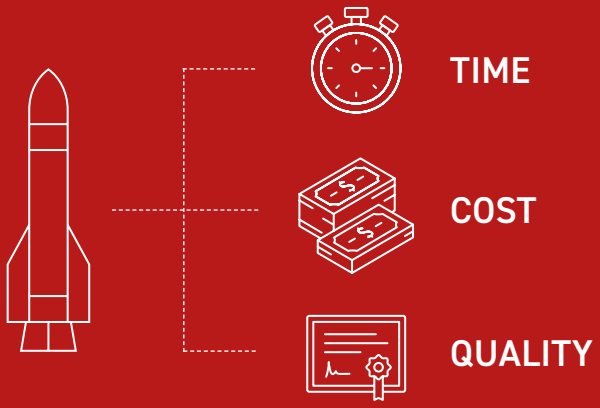
WORLD-CLASS

HIGH PRESSURE VESSELS

2026

WANTED: MISSION SUCCESS

In aerospace, COPVs must deliver peak performance, yet cost and lead time remain critical constraints. Mission success depends on aligning technical goals with economic and schedule constraints.



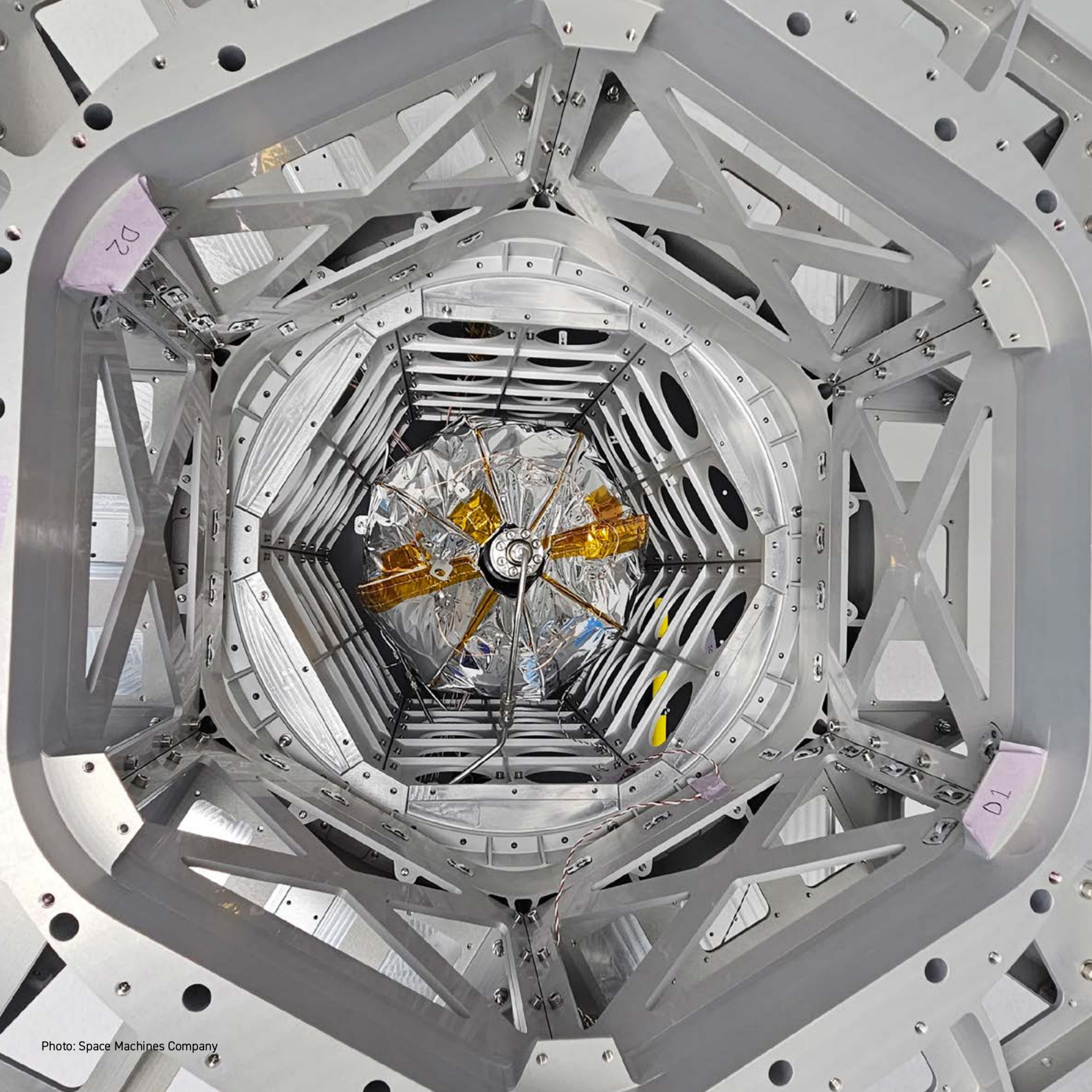


Photo: Space Machines Company

NO COMPROMISES

With 19 years of in-house expertise, we have designed and perfected our production systems to achieve a unique combination of:

— **UNCOMPROMISING QUALITY**
— **PRODUCT PERFORMANCE**
— **COST EFFICIENCY**

PEAK TECHNOLOGY

Founded as a bootstrapped venture in 2007, Peak Technology has grown into a trusted partner for Europe's most demanding space missions. From our roots in crafting lightweight components for Formula 1, we have carried forward a culture of speed, precision, and reliability—now embedded in every aerospace solution we deliver from our headquarters in Holzhausen, Austria.

OUR NAME IS OUR MISSION

DEMISEABLE TANKS

Committed to the Clean Space Charter, Peak Technology has been actively developing and qualifying COPV structures designed for complete demise since 2019. Unlike standard COPVs, which often demise poorly due to limited oxygen and the formation of a protective char layer during re-entry, our designs significantly reduce the risk of residual components surviving atmospheric re-entry and impacting Earth.

Watch
re-entry simulation:


DLR



CRYO-SUBMERGED TANKS

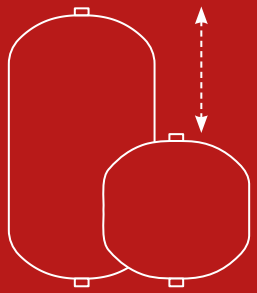
Cryogenic conditions enhance the efficiency of helium storage in COPVs by a factor of 2.5. However the true challenge lies in meeting extreme low-temperature requirements while ensuring safety, structural integrity, and cleanliness. Peak Technology excels in designing and manufacturing helium COPVs for cryo-submerged conditions, setting new industry standards for launchers.

ADVANCED AUTOMATION

Enabled by full vertical integration and advanced automation, our production system is built for precision, speed, and scalability. By keeping every possible step in-house—from design and tooling to final testing—we ensure seamless process flow, exceptional reliability, and cost efficiency. This approach allows us to meet the rigorous demands of aerospace manufacturing without compromise.

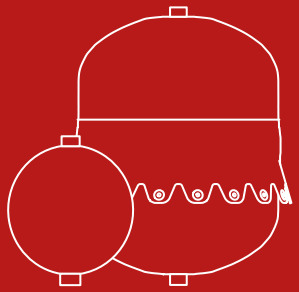

KUKA
KUKA

YOUR STRATEGIC CHOICE



FAMILY TANKS

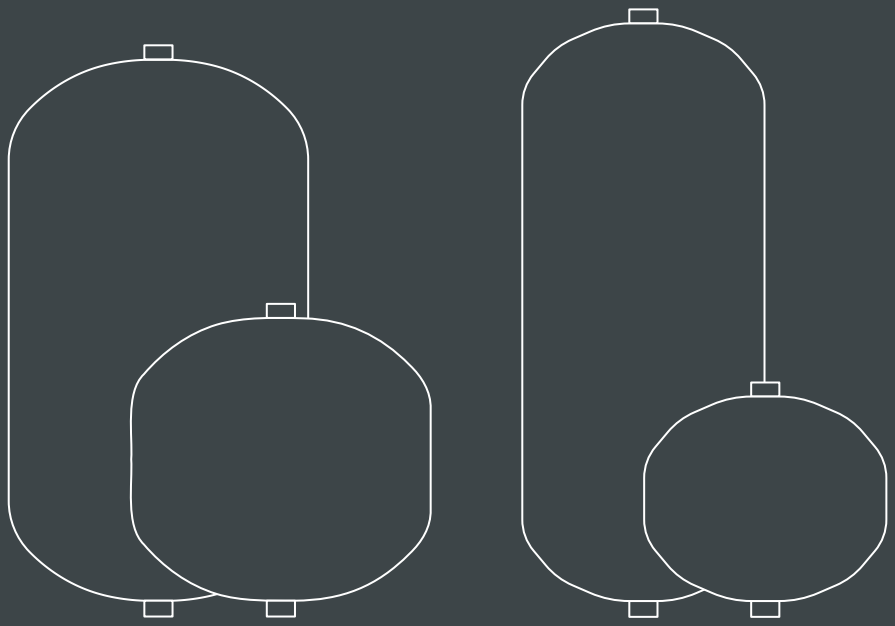
The Peak Technology COPV family spans volumes from 3 to 260 liters, offering full flexibility across mission profiles. Choosing a family tank provides volume agility—enabling iterative design and seamless scaling without compromise.



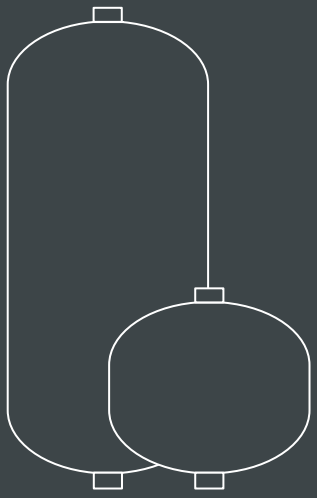
BESPOKE TANKS

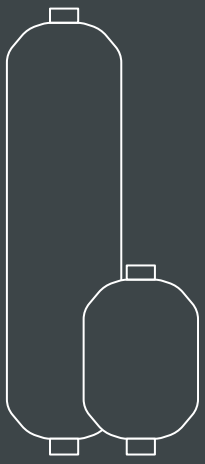
Peak Technology bespoke COPVs are purpose-built for specific missions—fully optimized for volume, storage medium, and operational demands. This precision engineering ensures maximum performance, making it the ideal choice when every detail counts.

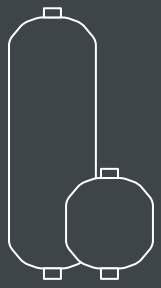
TANK FAMILIES



	EPSILON ε	OMEGA ω
VOLUME	115 L – 260 L	50 L – 185L
LENGTH	641 – 1174 mm	485 – 1256 mm
DIAMETER	624 mm	501 mm
DESIGN	according to ECSS, LBB Design, cryo-qualified	acc. to ECSS & AIAA, LBB Design
LEAKAGE RATE	1 x 10-6 mbarL/s	
PRESSURE (MEOP)	400 bar / ~5800 psi	186 bar / ~ 2700 psi 310 bar / ~4495 psi

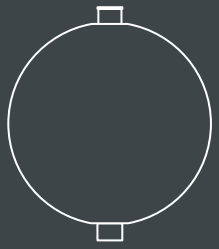




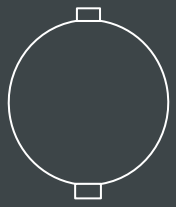


GAMMA γ	ZETA ζ	KAPPA κ
30 L – 100 L	10 L – 30 L	3 L – 10 L
418 – 997 mm	407 – 922 mm	248 – 566 mm
417 mm	236 mm	180 mm
according to ECSS & AIAA, LBB Design		
1 x 10-6 mbarL/s		
310 bar / ~4495 psi 400 bar / ~5800 psi		

BESPOKE TANKS

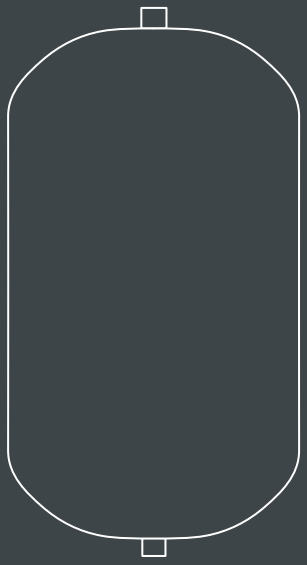


40 L SPHERICAL

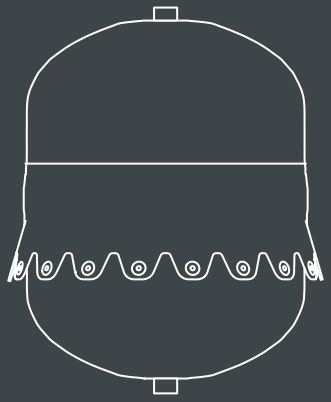


20 L SPHERICAL

VOLUME	40 L	20 L
LENGTH	506 mm	412 mm
DIAMETER	440 mm	346 mm
DESIGN	according to ECSS, LBB Design	
LEAKAGE RATE	1 x 10-6 mbarL/s	
PRESSURE (MEOP)	400 bar / ~5800 psi (He)	190 bar / ~2755 psi (He)



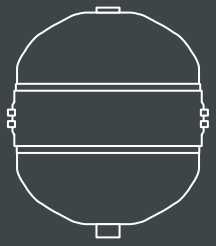
260 L CYLINDRICAL



175 L CYLINDRICAL



155 L CYLINDRICAL



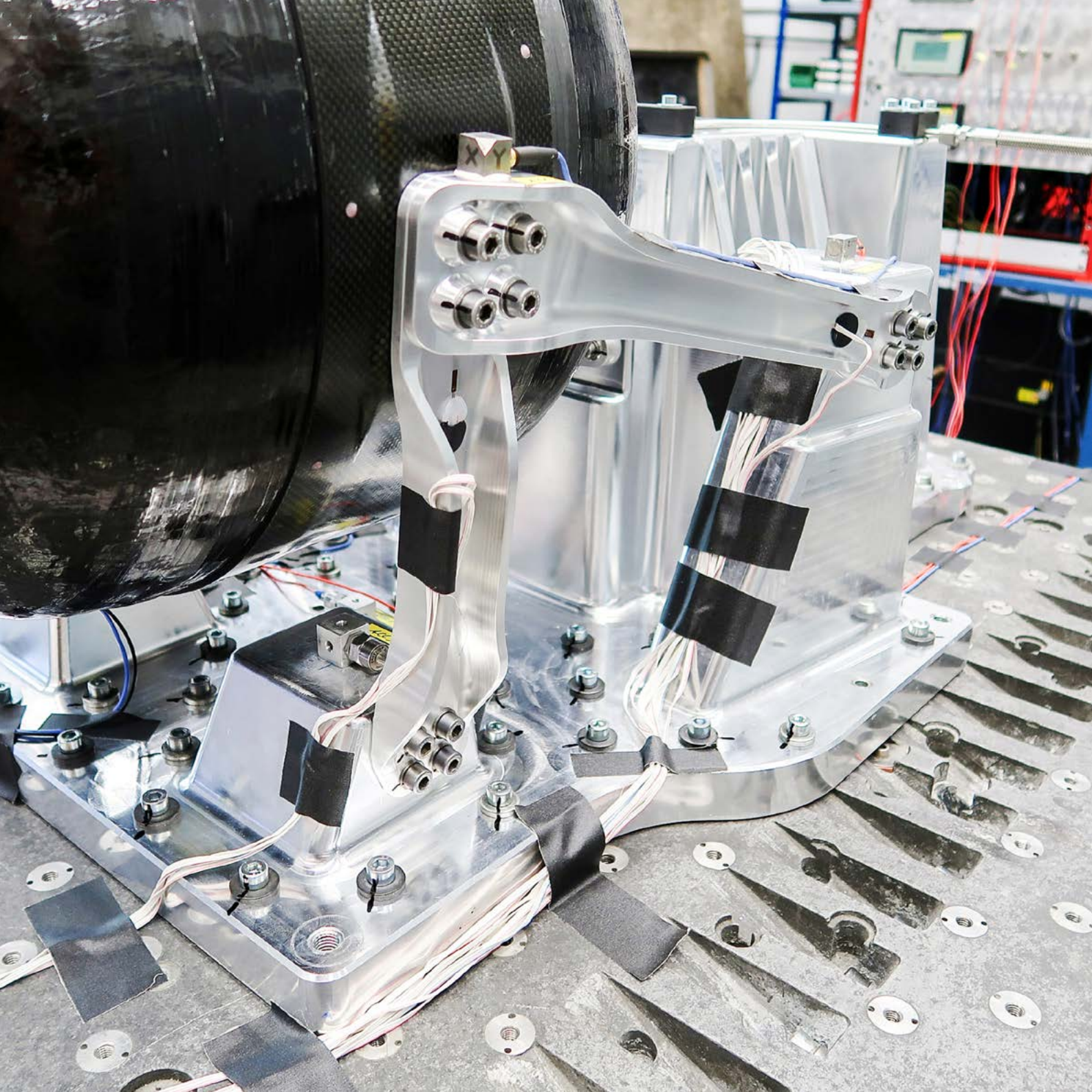
40 L CYLINDRICAL

260 L	175 L	155 L	40 L
1190 mm	838 mm	978 mm	500 mm
631 mm	604 mm	554 mm	395 mm
according to ECSS, LBB Design			
1 x 10-6 mbarL/s			
400 bar / ~5800 psi (He)	150 bar / ~2175 psi (Xe)	400 bar / ~5800 psi (He)	310 bar / ~4495 psi (Kr)

MOUNTING

Backed by decades of engineering experience in designing and developing structural components, Peak Technology offers reliable and tailored mounting solutions, including

- **POLAR MOUNTINGS**
- **SKIRTS**
- **STRUTS**
- **BELLY WRAPS**


X
Y



MUST-KNOW DETAILS

MATERIALS

Aluminum liner with carbon fiber/epoxy overwrap

COMPATIBILITY

Argon (Ar)
Helium (He)
Hydrogen (H_2)
Krypton (Kr)
Nitrogen (N_2)
Nitrous Oxide (N_2O)
Oxygen (O_2)
Xenon (Xe)

INTERFACE

1/4“–1/2“ fluidic interface made of titanium or 304L stainless steel

TRL 9
PROVEN

Meeting the rigorous standards of the European Space Agency, our tanks and structures launched on ESA's VEGA and SpaceX's Falcon 9 exemplify excellence and TRL 9 readiness in space.

esa

ThalesAlenia Space
a Thales / Leonardo company

AVIO

OHB

AIRBUS

maiaspace

arianespace
ariane GROUP

isar aerospace



Photo: Space X

LET'S TALK MISSON SUCCESS

Whether you are launching a satellite, building a new propulsion system, or designing the next generation of crewed vehicles, Peak Technology is your partner in pressure vessel excellence.

CONNECT WITH US:
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OUTSTANDING QUALITY & HERITAGE

from the heart of Europe





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