

Power your life with LAVO | TELCO™

Introducing the next generation of energy storage.

The unique metal hydride storage system for telecom marker that combines with renewable energy to deliver sustainable, reliable and long duration storage anywhere.



Renewable

Stores green energy from your source



Operational in conditions 5° to +45°C



Australian

Designed and Developed

Technical Specifications

LAVO | TELCO™ is a modular system that can be built to suit specific storage and generation requirements.

Mechanical		Environmental	
Hydride Vessels per module	5 vessels	Operating Temperature Range	-20° to +80° C
Max System Pressure	35 bar	Recommended Temperature Range	5° to 45° C
Max Total Hydrogen Storage	1.69 kg	Environmental Humidity Range	3 to 100 ° RH
Max Total Energy Density	56.3 kWh	Lifetime of storage	30 years
Total Installed Weight	300 kg	Noise Level	< 85 dB at 1.0m
Mounting ¹	Concrete	Enclosure Protection Rating	IP54 (Open frame)
	slab/footings		

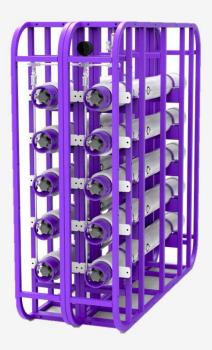


Image of 2 LAVO modules (10 vessels) stacked

The LAVO | TELCO™ Energy Storage System

LAVO's metal hydride hydrogen storage solution is a 'gamechanger' in the race to achieve decarbonisation. It is a clean, costeffective, sustainable and safe solution for widespread distributed use. The alloy filled containers can be directly integrated with electrolysers and fuel cells to store hydrogen at low pressure without the need of compressors.

Furthermore, the storage container can be carried by standard heavy vehicle and sea vessels for usage at hydrogen refueling stations or for a range of industrial use where high quality hydrogen is required.

www.lavo.com.au

^{1.} Per Australian Building Code regulations.



LAVO | TELCO™ System Specifications

 $LAVO\ |\ TELCO^{\text{TM}}\ acts\ as\ a\ hydrogen\ sponge,\ capturing\ the\ generated\ hydrogen\ on\ a\ molecular\ level\ as\ a\ solid\ state\ for\ use\ when\ needed.$

Stores Hydrogen into LAV $O^{TM'}$ s patented metal hydride

Safety Controls safety controls integrated within the system for over-pressure or fire event

Integrates with fuel cells and electrolysers without the need of compressors

General	Material Type	Metal Alloy
Hydrogen Input	Max H ₂ Pressure	35 bar
	Max. H ₂ Input Flow rate	Max. peak > 6 kg/hr (Continuous flow is dependent on system design)
	Quality	Dry H ₂ Grade ≥ 99.995 purity
Dimensions	Gross Max Weight	300 kg including module weight, support etc.
	Built Level	0.4 m² footprint (5 off DN100 vessels)
	Length	1.40 m
	Width	0.25 m
	Height	1.29 m
Hydrogen Output	Quality	Dry H ₂ Grade ≥ 99.995 purity
	Supply pressure	Variable (2 - 35 bar)
	Max. Output Flow-rate	Max. peak > 6 kg/hr (Continuous flow is dependent on system design)
Durability	Life-time	≥ 20,000 cycles
	Testing to date	The alloy has been tested using hydrogen with 99.99% quality for a sustained period, the alloy has not yet displayed any storage degradation.
Environmental	Installation	Fit for outdoor installation
	Intended Climate	Suitable for most climates (consult LAVO for your climate conditions)
	Placement	To be placed on a flat concrete surface or a hardstand area

The product has been designed in compliance with the below standards:

Design	Standard
Pressure Vessel Design	ASME VIII Division 1, AS1210
Piping	ASME B31.12, AS4041
Compatibility & Hydrogen Safety	ISO 11114 , ISO TR 15916
Frame and Structure	ISO 10799, AS4100

