



H₂MAX™

Powering the Future



**The Largest Diameter
Type 3 Cylinders
for H₂ Storage**



Key Advantages:

Largest diameter Type 3 cylinder for hydrogen applications in the market

- Custom cylinder diameters fabricated in-house

Seamless, one-piece aluminum liner

- Inherent leak before burst failure mode
- Superior heat tolerance for extended cylinder life
- Higher impact tolerance for increased safety

Faster and complete filling with significant benefits

- Efficient and complete fills in extreme temperatures
- Reduced fueling cost due to excellent heat dissipation of the aluminum
- 100% usable storage volume; empties completely – no residual hydrogen

Extended life cylinders

- No replacement needed after exposure to high temperatures
- Surpassed testing requirements for maximum cylinder life

H₂MAX hydrogen cylinders are uniquely suited for rugged environments, and ideal for compressed cryogenic applications.

- **Off-road**
- **Mining**
- **Construction**
- **Marine**
- **Rail**

H₂MAX

Powering the Future

H₂MAX™ cylinders are designed for hydrogen storage in various applications for zero-emission and sustainable mobility solutions with service pressures of 350 and 517 bar (5,076-7,500 psi).

The large diameter and volume of the **H₂MAX** allows for fewer cylinders, valves, and PRDs; thus, minimizing potential leak points due to the reduced number of fittings and connection points required when compared to a traditional hydrogen storage system designed with conventional cylinders.

For optimal safety and storage potential, AST manufactures large pressure vessels using its own unique flow-formed forged liner technology, exceeding the performance of extruded tube methods.

Type 3 cylinders offer advantages for compressed gas applications where safety and enduring impermeability are paramount.

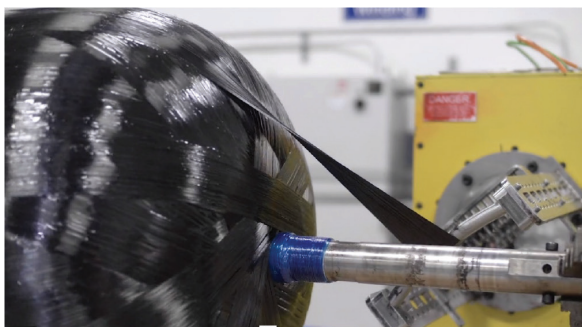


H₂MAX Sizes

Various sizes are readily available, some of which are listed below. We fabricate in-house, and can customize cylinder sizes to suit your specific requirements.



Cross-section of **H₂MAX** cylinder (350 bar/5,076 psi service pressure)



350 bar (5,076 psi)

Certified to UN ISO 11119-2

Water volume (L)	Dia. (in.)	Length (in.)	Weight (lbs.)	H2 Storage (kg)	Neck Thread	Mount	Cylinder Life (yr.)
290	26.0	54.0	370	7.0	1-1/8-12 UNF	Neck/Strap	15
445	26.0	77.3	489	10.8	1-1/8-12 UNF	Neck/Strap	15

517 bar (7,500 psi)

Certified to UN ISO 11515

Water volume (L)	Dia. (in.)	Length (in.)	Weight (lbs.)	H2 Storage (kg)	Neck Thread	Mount	Cylinder Life (yr.)
540	26.5	92.0	848	17.2	1-1/2-12 UNF	Neck/Strap	15

H₂MAX

MAXimum
SPEED FILL

•

MAXimum
DIAMETER SIZE

•

MAXimum
VOLUME CAPACITY

•

MAXimum
CYLINDER LIFE

•

MAXimum
FLEXIBILITY TO MEET YOUR NEEDS



950 Richmond Ave
Oxnard, CA 93030
(805) 204-9133

4680 Calle Carga
Camarillo, CA 93012
(805) 920-7980



ADVANCED
STRUCTURAL
TECHNOLOGIES, INC.
ASTFORGETECH.COM

ASTforgetech.com