

BayoTech®



HYDROGEN SOLUTIONS

TRANSPORT, STORAGE &
ON-SITE CYLINDER FILLING

www.bayotech.us

Making Hydrogen Easy™

JOIN THE HYDROGEN REVOLUTION

BayoTech offers a comprehensive line of transport and storage modules for the distribution of high-pressure hydrogen gas.

ACCELERATING HYDROGEN AVAILABILITY

BayoTech's high-pressure, Type III cylinder-based solutions enable more compressed hydrogen to be stored and transported in a smaller footprint than any other technology.

KEY BENEFITS



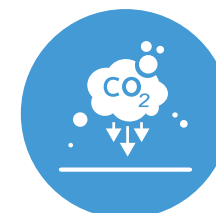
LOWER TRANSPORTATION COSTS

BayoTech's bulk hydrogen transport trailers hold up to three times more than steel tube trailers. More sites can be refueled per trip lowering transportation costs and maximizing driver productivity.



ON-SITE FILLING OF HYDROGEN STORAGE SOLUTIONS

Customers' hydrogen storage cylinders are refilled directly on-site from BayoTech's transport equipment. Avoid the complicated logistics of swapping and transporting empty cylinder packs. Minimize the overhead costs of cylinder pack inventory.



FEWER EMISSIONS

Higher payloads per trailer mean fewer delivery trips, lowering emissions from transportation. Purchase hydrogen from BayoTech's distributed production hubs and travel shorter distances to the end customer.



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BAYOTECH PRODUCT PORTFOLIO

BULK HYDROGEN TRANSPORT TRAILERS

- High-pressure, high capacity gas transport trailers
- Move more hydrogen in a smaller, lighter package
- Small transport trailers can be towed by a pickup truck
- Larger 40' trailers carry up to 318,500 scf at 7,500 psig



BULK TRANSPORT TRAILER



MICRO-BULK TRANSPORT TRAILER



GROUND STORAGE MODULES

GROUND STORAGE MODULES

- Rack mounted, high-pressure cylinders ideal for long-term bulk hydrogen storage
- Compact container footprint with scalable storage capacity
- Fill directly on-site from transport trailers



ON-SITE FILLING OF HYDROGEN STORAGE

- Directly fill hydrogen storage cylinders at the customers' site with BayoTech trailers
- Eliminate the logistics cost of hauling empty cylinders to a central fill site for refilling
- High-capacity trailers fill up to 50 cylinder packs per trip, maximizing drivers' efficiency

HyFill™ Bulk Hydrogen Transport Trailers

BayoTech™ is an established leader in the design and manufacture of high-pressure, cylinder-based gas storage and delivery equipment. Our high-capacity gas transport trailers carry up to three times more per load than traditional steeltube trailers. Higher payload means more sites can be refueled from each trailer, lowering transportation costs and increasing driver productivity.

Composite cylinders provide a lightweight, high-pressure package for storing compressed gases with pressure up to 7,500 psig. Compact 27' trailers carrying 500 kilograms of hydrogen are designed to fit tight spaces and are ideal for delivery to hydrogen refueling stations. Larger 40' trailers maximize payloads carrying up to 730 kilograms of hydrogen per load for industrial gas delivery.

Cylinders are fitted with a proprietary valve controlled via a pneumatic actuator. An operator control panel allows access to specific cylinder rows at ground level, enabling cascade filling without climbing the trailer bed. This technique enables the filling of significantly more storage tanks to higher fill pressures and greater hydrogen optimization from the transport trailer.

Best in class safety features include emergency shutdown systems, thermally-activated pressure relief devices, and welded manifold connections to mitigate potential manifold leaks.

FEATURES

- » Pod-mounted cylinders for flexible capacity
- » Lightweight, high-capacity Type III cylinders (aluminum liner wrapped in carbon fiber; non-permeable liner)
- » Compact footprint for easy access to refueling sites
- » Allows for cascade filling
- » Industry-leading safety features
- » High temperature cylinders (up to 120°C)

APPLICATIONS

- » Industrial gas delivery
- » Delivery/storage for hydrogen refueling stations
- » Mobile refueler for hydrogen storage packs

HyFill*	Tandem 450	Tandem 520	Tridem 520
Working Pressure	450 bar / 6,525 psig	520 bar / 7,500 psig	520 bar / 7,500 psig
Cylinder Water Volume	320 liters / 11.3 scf	315 liters / 11.1 scf	315 liters / 11.1 scf
# of Cylinders	40	50	75
Total Water Volume	12,800 liters / 454 scf	15,750 liters / 555 scf	32,625 liters / 833 scf
Hydrogen Capacity	366 kgs / 154,575 scf	501 kgs / 211,690 scf	731 kgs / 318,525 scf
Tare Weight (lbs)	35,000	41,100	55,000
Gross Weight (lbs)	36,000	43,100	56,000
Pod dimensions (L x W x H)	131" x 102" x 78"	129" x 102" x 96"	129" x 102" x 96"
Unit Dimensions (L x W x H)	324" x 102" x 150"	324" x 96" x 159"	480" x 96" x 159"

Footnotes

*All Hyfill products will require Semi truck with Kingpin connection.

*Some dimensions may be approximate.

Gas Transport Modules

Gas Transportation Modules (GTMs) from BayoTech™ are the smart, flexible way to transport large quantities of compressed gas in a small footprint. Trailer sizes range from large-volume 18' units to smaller solutions that can be towed with a standard sized pickup truck.

GTMs rely on bundles of high-pressure Type III cylinders “manifolded” together to a common fill/discharge load port(s). The composite cylinders provide a lightweight, high-pressure package for storing compressed gases with pressure up to 6,525 psig.

Initially used for compressed natural gas (CNG) in locations where there was no infrastructure in place to move the gas from a central pipeline or refinery, the usage of GTMs has increased to include a broader variety of gases, including helium, hydrogen, nitrogen, and breathing air.

Major natural gas utilities throughout the US rely on BayoTech’s GTMs to maintain CNG supply during planned and unplanned pipeline shutdowns.

Trailers are equipped with booster pumps for CNG refueling and dispensing. A proprietary, solar powered, heating system maintains the temperature of the regulators at 180°F, ensuring reliable autonomous equipment operation.

Best in class safety features include emergency shutdown systems, thermally-activated pressure relief devices, and welded manifold connections to mitigate potential manifold leaks.

FEATURES

- » Pod-mounted cylinders for flexible capacity and compact footprint
- » Lightweight, high-capacity Type III cylinders (aluminum liner wrapped in carbon fiber; non-permeable liner)
- » Industry-leading safety features
- » Transducer-based telemetry system for remote monitoring
- » Proprietary heating system to maintain temperature of regulator at 180°F

APPLICATIONS

- » Transportable CNG supply for planned and unplanned pipeline shutdowns
- » Industrial gas delivery including helium, hydrogen, nitrogen, and breathing air.

GTM	GPak4-XL	GTM800-450	GTM1500-450
Working Pressure	350 bar / 5,000 psig	450 bar / 6,525 psig	450 bar / 6,525 psig
Cylinder Water Volume	116 liters / 4.1 scf	320 liters / 11.3 scf	320 liters / 11.3 scf
# of Cylinders	4	8	16
Total Water Volume	464 liters / 16.4 scf	2,560 liters / 90.4 scf	5,120 liters/ 180.8 scf
Hydrogen Capacity	10.8 kgs / 4,586 scf	73 kgs / 31,024 scf	146 kgs / 60,845 scf
Tare Weight (lbs)	800	7,500	13,365
Gross Weight (lbs)	850	7,660	13,715
Unit Dimensions (L x W x H)	133" x 67" x 60"	238" x 102" x 64"	238" x 102" x 104"
Truck-Hitch Type Required	1/2-ton pickup truck (ball or pintle)	3/4-ton pickup truck (ball or pintle)	1-ton pickup truck (ball or pintle)

Footnotes

*Any 450 BAR product has a 350 BAR option.

*Some dimensions may be approximate.

YOUR TRUSTED HYDROGEN SOLUTION PROVIDER

BayoTech, an innovator in hydrogen solutions, is committed to addressing the global need for low-cost, low-carbon hydrogen.

Customers are accelerating the decarbonization of their energy and transportation systems through BayoTech's supply of hydrogen molecules.

BayoTech offers flexible options for leasing or purchasing storage and transport equipment to match your business needs. Contact us today at www.bayotech.us.

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