

MicroRefueler Series

On-site refilling of small, high-pressure hydrogen cylinders powering fuel cell drones and other applications. Longer runtimes and quick cylinder swaps are made possible by BayoTech™.

HYDROGEN GAS, COMPRESSED



For longer flying times and simpler logistics for commercial drones, hydrogen fuel cells are the solution. Fuel cell powered electric drones are clean and quiet, with higher system durability than combustion power sources. Fuel cells are logistically less demanding than batteries offering 4 to 5 longer flight times. Longer flight times mean operators can improve efficiencies, expand mission capabilities, and significantly reduce costs.

An essential component of a fuel cell-based drone solution is the ability to transport hydrogen to the job site and refill a drone’s 6,000 psig hydrogen fuel tank on site. BayoTech’s MicroRefueler is the answer.

The compact, lightweight, single axle trailer can be towed to any location the drone is being operated. It is easily pulled by a small passenger vehicle and no special hazmat license is required. Each trailer holds up to 13.8 kilograms of hydrogen and refuels up to six hydrogen cylinders to power fuel cell drones to pressures as high as 6,000 psig. Cylinders can be swapped and refilled quickly, to keep drones in operation and minimize downtime.

Using a boost compressor filling from the onboard, high-volume, high-pressure industrial gas cylinder enables tight control of the flight tank pressure. This significantly reduces residual hydrogen in the source container. The compressor also allows for refilling of the storage tank on the trailer from low pressure hydrogen sources.

FEATURES

- » Lightweight trailer can be towed by small vehicle
- » No CDL or hazmat enforcement required to transport
- » Compact trailer can access drone launch sites

APPLICATIONS

Fueling fuel cell-powered drones for:

- » Surveillance missions
- » Delivery services
- » Commercial surveying applications
- » Law enforcement and military

	MicroRefueler-S	MicroRefueler-XL
Working pressure	350 bar / 5,075 psig	
Cylinder water volume (scf)	116 ltr / 4.1 scf	290 ltr / 10.3 scf
# of cylinders	2	2
Total water volume (scf)	8.2	20.5
Hydrogen capacity (scf)	2,320	5,800
Hydrogen capacity (kgs)	5.5	13.8
Tare weight (lbs)	470	1,800
Gross weight (lbs)	480	1,830
Pod dimensions (W x H x L)	42" x 40" x 50"	6' x 5' x 5'

Specifications are subject to change without notice. Updated 2/2022.

FOR MORE INFORMATION, OR TO CONTACT US,
PLEASE VISIT WWW.BAYOTECH.US