

gPRO[®] Technology Description

gPRO, stands for groundwater Pressurized Remediation Optimizer is a groundwater bioremediation delivery system for introducing supersaturated oxygen or other gaseous substrates into groundwater.

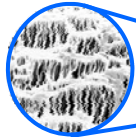
There are 2 versions of gPRO, the High Pressure Unit (HP) and the Low Pressure Unit (LP), both units:

- Are simple to operate
- Can inject discharge water or fresh water into the aquifer
- Have **NO** risk of vapour intrusion
- **DO NOT** form preferential pathways
- **NO** gas loss or off gassing
- **NO** gas entrapment leading to mounding

Gas inFusion Technology:

Developed by inVentures Technologies Incorporated, gPRO products use patented hydrophobic microporous hollow fibers that ultrasaturate the groundwater with any miscible gas. This gas is can be ultrasaturated into the groundwater either in-situ or ex-situ depending on remedial conditions.

gPRO HP System



Close up of the
Microporous Hollow
Fiber (1 um)

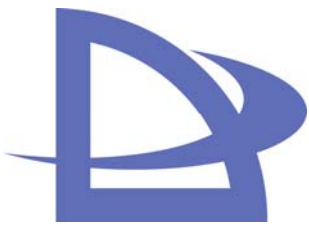


Bundle of Hollow
Fibers inside a Gas
Transfer Module

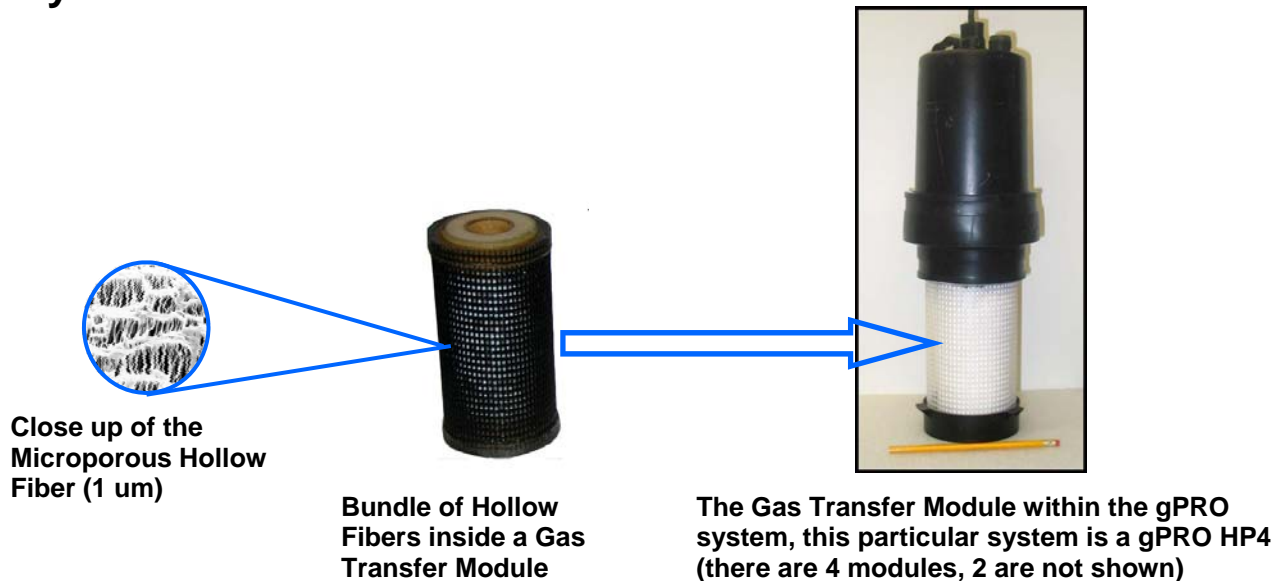


The Gas Transfer Module within the gPRO system, this particular system is a gPRO HP4 (there are 4 modules, 2 are not shown)

- Delivered gas (from the green hose on the far right picture above) enters the Gas Transfer Modules and fills the inside of the Microporous Hollow Fibers.
- Pressurized water flows past the hollow fibers, mass transfer occurs transferring gas into the high pressured water.
- Ultrasaturated gas (for a gas such as oxygen 25-150 mg/l of dissolved oxygen can be produced) is now pumped down the well via a 1/2" diameter hose.



gPRO LP System



- The gPRO LP system is submerged directly into the body of water (whether it be a tank or down a well).
- Gas enters via an inlet on the top of the unit and fills the inside of the Microporous Hollow Fibers.
- Water is pumped through an internal core and passes through the hollow fibers, mass transfer occurs transferring gas into the high pressured water.
- Ultrasaturated gas, for a gas such as oxygen 25-150 mg/l of dissolved oxygen can be produced (based upon depths upto 70 feet)

Who do I contact for gPRO sales and Information?

Click onto www.gproinfo.com to locate the gPRO Representative nearest you.