

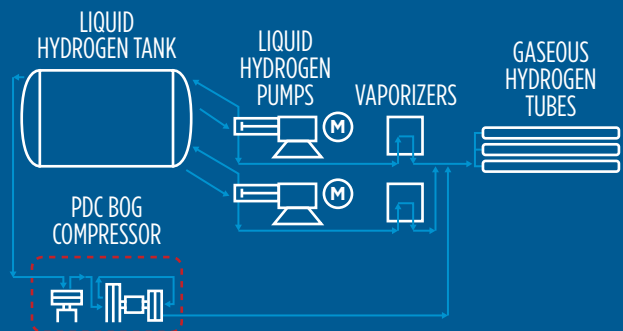


HYDROGEN BOIL-OFF GAS RECOVERY MADE EASY WITH PDC'S **RecoH2ver**

Loss of evaporated gas through the vent stack of a liquid hydrogen tank results in significant and costly operating expenses. With a PDC Machines boil-off gas (BOG) compressor, leverage all the hydrogen you paid for!

Our equipment will close the loop by capturing and compressing this gas stream directly from the cryogenic vessel into high pressure storage tubes or trailers resulting in **zero losses**. Based on your current venting profile, PDC's robust system can pay back your investment in as little as one year!

With over 400 installations to date, PDC has the experience to help you drive down the cost of green technologies!



RecoH2ver benefits

- ✓ Wide compression range from as low as 5 bar hydrogen tank pressure up to 517 bar discharge
- ✓ Automatic start/stop based on LH2 tank pressure or customer signal
- ✓ Fully containerized or open skid frame design suitable for any climate
- ✓ Integrated PLC control/power panel with remote monitoring and data logging
- ✓ Compliance with domestic and international codes and standards, if required, and can certify to any NRTL, simplifying AHJ approval and permitting processes
- ✓ Compact size and low power consumption make it easy to integrate into existing sites or new installations
- ✓ Compatible with all tank sizes and configurations

HOW MUCH WILL YOU SAVE?

A major solutions provider was using liquid hydrogen pumps fed by a cryogenic hydrogen tank to fill storage tubes to 450 bar for a mobility application.

They determined the heat introduced to the liquid during pump cooldown (which is recirculated back to the tank), the pumping process itself, and the normal evaporation rate of LH2 was causing frequent and substantial venting to atmosphere from the stack, as well as creating a lot of noise.

PDC analyzed the conditions and proposed a solution that could quickly be installed on an already operating site to recapture and compress hydrogen from the tank into their high-pressure storage tubes.

Upon installation, the tank stopped venting and all hydrogen was recovered. The provider also realized when the LH2 pumps were being serviced, the compressor, if sized properly, would be able to match the daily demand from the LH2 pump thereby eliminating disruption in fueling to the end user's operation.

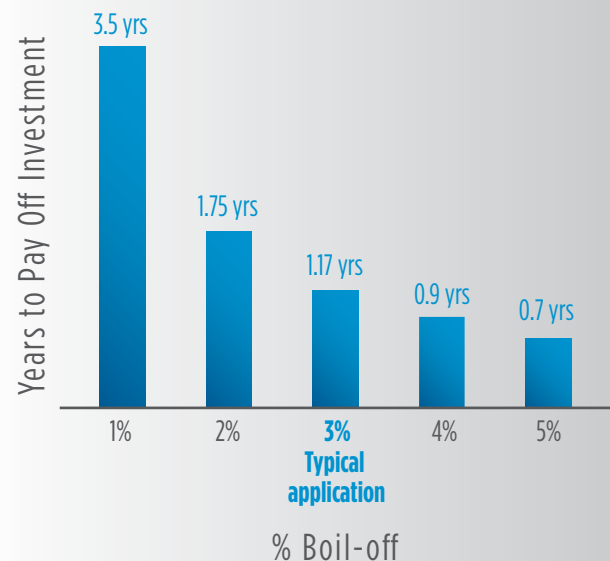


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BREAK EVEN ANALYSIS



Typical application



15,000 gal LH2 tank with two cryogenic pumps



Pumps start/stop eight times per day

PDC BOG compressor payback

14 months including power and maintenance costs plus the added benefit of continued supply to the customer with high pressure hydrogen if pumps are unavailable.