

The logo features a stylized white circular icon on the left, composed of three curved segments. To its right, the word "ProSep" is written in a large, bold, white sans-serif font. Below "ProSep", the words "Expert Series" are written in a smaller, white sans-serif font.

ProSep Expert Series

With John Sabey, Chief Technical Officer



What is the current state of the LNG industry globally and has it changed in the last six months and if so why?

The events between Russia and Ukraine have dramatically changed the LNG landscape.

The sanctions that have been imposed and the disruption of the supply of natural gas from Russia to Europe has put a significant strain on the supply chain there and so currently most all of the supply chain available of LNG is going to Europe and we see this lasting for the foreseeable future as that conflict continues.

How can ProSep contribute positively to the LNG industry going forward? Specifically what products and what value can they add? What is the track record?

One of the issues, particularly here in the US, is most of the natural gas producers have a heavy hydrocarbon separation unit where they pull out the LPGs.

Those are the heavier hydrocarbon components because they command a higher price and so it really helps with their cost of operation and their revenue stream, the knock off effect of that is that in some cases trace aromatics are left in the feed gas going to the LNG facility that can damage either turbomachinery or heat exchangers. And as a result, that gas needs to be pre-conditioned, then those aromatics removed and the technology that ProSep has in our injection and mixing devices has proven to be quite effective in achieving that goal.

Is ProSep working on any current LNG/Midstream projects?

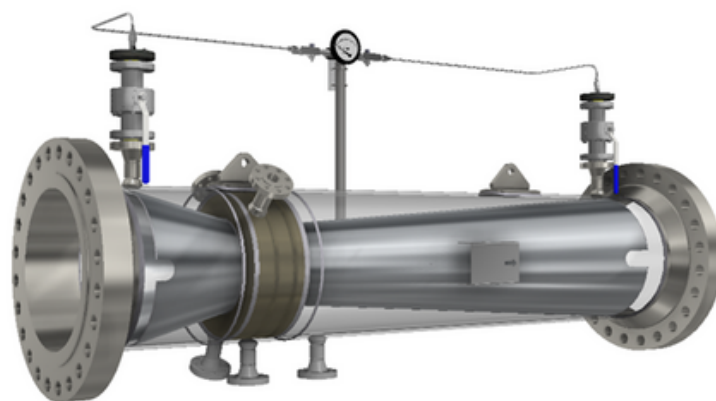
What products are being provided and what is the value-add?

Yes, we have several projects that have been up and running for a while, the longest being since late 2019. And we have a couple in the pipeline currently that are specifically targeting this issue in the feed gas going to LNG facilities.

We are currently using our AIM injection mixer which is a modification or modified venturi design and this was initially developed with that very first project where we did some CFD working studies where we evaluated the process and that resulted in some improvements to the design, which then we made the applications for patents and those are currently being pursued.

How did ProSep's entry into the LNG/Midstream market come about? What intellectual property exists?

Further onto that with that first project the client was quite concerned that the technology would do what we said it would. They had a very, very large turn down or operational parameters in terms of natural gas flow rate, LPG injection, pressure, temperature. And so, what we did is we did that CFD evaluation we found a couple areas of improvement. Those, we filed patent, as I had mentioned, and the real benefit to the client was being able to inject and disperse large amounts of LPG into the stream and have it turned to vapor prior to the LNG facility which was a key for their particular process.



ProSep's AIM injection mixer

What is your 1-3-5 year outlook on the LNG/Midstream industry?

We certainly see with the ongoing conflict, and it doesn't unfortunately, doesn't show any signs of evading, that it will be quite robust for LNG. And besides the conflict, as the awareness of the impact of global warming and carbon emissions raises societal understanding, we want to transition to renewables, wind, solar etc.

I think part of what has come to light out of this disruption of the natural gas from Russia to Europe is we're not quite there yet with renewables, and so we need to make sure that we have this transition bridging technology or energy available to us until we can develop those infrastructures to sufficient extent that they can then basically replace our current energy network. And so, for LNG in particular, this being a clean fuel, lower carbon emissions is probably one of the best candidates to make that transition, and so we see a robust future for the foreseeable future. You know these projects are not fast turn around and so with the current situation we see a number of the prospective projects in the US going to FID due to the increased demand.

Thank you to John for sharing his thoughts on the LNG and Midstream Market.

Keep up-to-date with the rest of the series and hear more from our experts at www.prosep.com