

# ProScav H<sub>2</sub>S REMOVAL



ProScav is a system for injecting and mixing H<sub>2</sub>S scavenger in the pipeline to remove moderate amounts of H<sub>2</sub>S from gas or liquids. ProScav utilizes the scavenger chemical more efficiently than do conventional injection and mixing methods such as atomizing nozzles, quills and static mixers. This added efficiency allows operators to reduce their scavenger consumption by 30-40% while reducing the related operating expenditure (transportation, storage, handling and disposal). In less than a year, a typical ProScav system will show a significant return on investment.

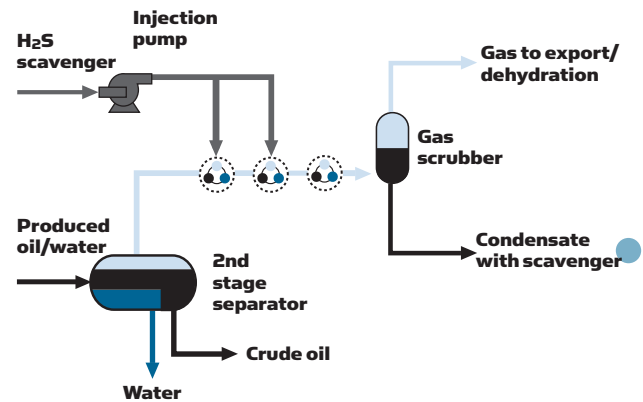
## EXTREMELY EFFICIENT MIXING WITH A LOW PRESSURE DROP

The C100 Injection Mixer, the key component of the ProScav system, achieves efficient mass transfer between an appropriate scavenger chemical and H<sub>2</sub>S in gases or liquids contaminated with H<sub>2</sub>S. Its internal geometry provides an extremely efficient mixing with a low pressure drop, typically below 0.3 bar.

## IDEAL FOR OFFSHORE APPLICATIONS

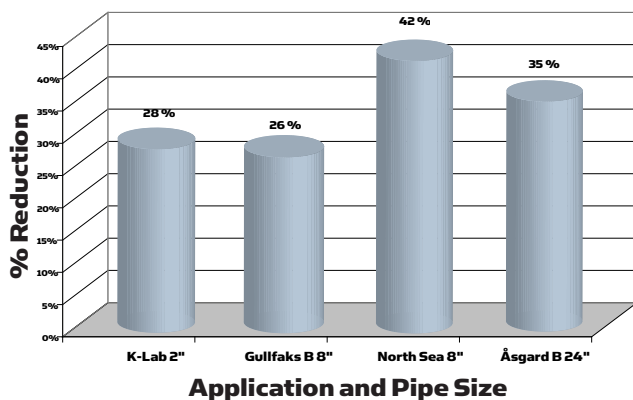
The H<sub>2</sub>S scavenging process has been installed in over 30 applications worldwide, mainly for offshore operations. The system's compact size, low-maintenance, robustness and tolerance to flow variations make it ideal on offshore installations, where the spent scavenger can

## ProScav SYSTEM PFD



be discharged to sea or to disposal wells. Compared to other offshore gas sweetening methods, ProScav is very cost efficient, particularly compared to alternatives like amine plants and solid scavengers.

## REDUCTION IN SCAVENGER CONSUMPTION

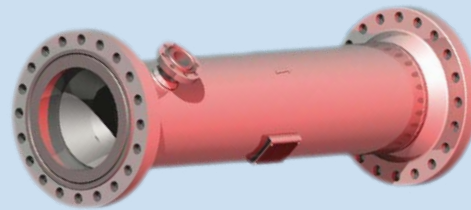


## BENEFITS

- 30–40 % reduced scavenger consumption
- Cost-efficient compared to other offshore H<sub>2</sub>S removal processes
- Reduced chemical transportation, handling and storage costs
- Efficient even with high flow variations
- Compact inline system, easy to install at any pipe angle

## STATOILHYDRO ÅSGARD B PLATFORM

As part of the qualification program for ProScav, ProPure's contactor was installed on a 24" gas line for a demanding high pressure and temperature application. The inlet H<sub>2</sub>S concentration was 7 ppmv and needed to be reduced to below 2.5 ppmv. ProScav managed an outlet of 0.5 ppm, which reflects a very efficient use of the injected scavenger. Compared to a quill or nozzle injection, this represents a 35% reduction in chemical consumption with the corresponding OPEX savings related to logistics, storage, handling and pump capacity.



In 2001 Statoil (now Statoil-Hydro) reported in a letter to the Norwegian Pollution Control Authority SFT:



"... the installation of the ProPure contactor at Åsgard B achieves a reduction in chemical consumption of more than 35%."

## REFERENCES

Available upon request.

## FOR MORE INFORMATION

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