



**We put you first.  
And keep you ahead.**

## InLine DeSander – more efficient, safer, and more cost-effective

FMC Technologies water treatment line-up helps process oilfield waste streams that would otherwise be disposed of. The aim is to help operators expedite well production, reduce the cost of sourcing fresh water and handling flowback/produced water, and increase their environmental stewardship.

As part of its portfolio the company has produced a groundbreaking advance – a land-based InLine DeSander that is compact, mobile and can eliminate more than 95 percent of the incoming sand from a flowback stream.

Current technology is limited in the amount of sand it can remove from a stream; it achieves a figure in the range of 20 to 40 percent. This presents a threat to downstream equipment such as manifolds, chokes and valves that can be eroded by any proppant (sand) which remains in the flow.

Furthermore, in addition to operational inefficiency and increased costs, choke breakdown can lead to safety and environmental hazards.

The FMC Technologies InLine DeSander has been specifically designed to remove 95 percent of proppant that is larger than 100 microns (over 90 percent of proppant is this size).

It has been developed using separation technology designed by the FMC Technologies Separation Innovation and Research Center (SIRC) at Arnhem in the Netherlands, and employs generic, easy to replace parts that help keep costs down and give the system a long life.

InLine DeSander - Water treatment



The InLine DeSander has the potential to provide operators with a solution which:

- » reduces the need to regularly replace eroded equipment
- » allows optimal well production level from an early stage, providing a faster return on investment (ROI)
- » improves the efficiency of oil and water separation (the separator is dealing with a stream that is virtually free of sand larger than 100 microns)
- » eliminates potential safety and environmental hazards related to choke breakdown, and the need for intervention to maintain or operate equipment
- » consolidates proppant for volume analysis and potential re-use.

### Eagle Ford trial

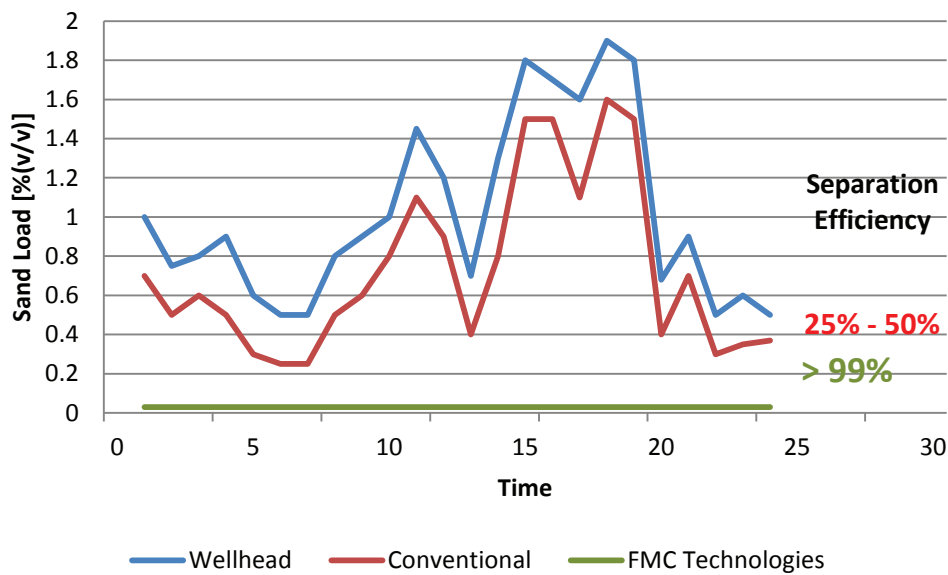
One of the key trials of the InLine DeSander took place at the Eagle Ford shale play in South Texas between August and October 2014.

In one phase of the trial, working in conjunction with a traditional sand-trap, the InLine DeSander helped remove 99.9 percent of sand from the flow. In another phase, a comparison test was set up where the InLine DeSander operated alongside a conventional arrangement – the FMC Technologies system proved superior.

The operator was impressed by these results and is now looking at ways that the InLine DeSander could be deployed in the future.

Meanwhile, the FMC Technologies team is moving ahead to, among other things, consolidate the test results, formulate a value proposition for the InLine DeSander, and define the operating range and procedures of the system.

### Sand Load over Time



12 hour period samples, during and after choke increase