HPump surface pumping system supplements compressors to reliably boost CO₂ injection at lower power demand

CHALLENGES

Conventional 700-HP compressors for ${\rm CO_2}$ injection suffered from:

- Reduced performance with slight increases in CO₂ temperatures
- High CAPEX and large power requirements during operation
- Complicated and time-consuming installation on site
- Labor-intensive maintenance and repair, which increases nonproductive time and decreases CO₂ injection volumes

SOLUTION

Supplements compressor with the HPump™ surface pumping system to improve pumping efficiency and lower costs with features including:

- Proven performance based on electrical submersible pump technology
- Scalable, modular design and off-the-shelf components for faster install and repairs
- Optimized pump stage count for efficient CO₂ pumping at reduced densities
- Greater pumping flexibility and flow assurance at half the operating cost of a single compressor

RESULTS

26.7 MMcf/d transported at 450 HP load

36% less power required to run the pumps

Increased pumping
output at continuous injection rates

Lower costs

to install, operate, and maintain

