



Pump cavitation got you down?

One-piece suction manifolds

Dixon innovation is demonstrated in the development of the one-piece suction manifold that feeds slurry into high-pressure pumps. The manifold design was the result of hydraulic fracturing companies experiencing pump cavitation due to proppant dropout, which causes destructive flow restrictions.

End-user input is invaluable, and it's the feedback that has helped guide our direction on an economical solution.

FEEDBACK ON MANIFOLDS

- Sand dropout causes flow restrictions, and pump cavitation is common.
- Traditional welded pipe manifolds create turbulence-causing excessive abrasion on internal walls.
- Leaks along the weld seams are a regular nuisance.

- Acidizing well treatments attack weld seams.
- CO₂ transfers at -30°F temperatures, and can cause performance issues.
- Repairs consist of re-welding and/or using rubber washers with screws.

Within the hydraulic fracturing operation there are multiple scenarios where downtime and pump failure can be avoided. Figure 1 shows a traditional welded pipe manifold, and Figure 2 exhibits sand dropout and internal weld erosion.

The Dixon design combines unique flow geometry with one-piece iron manufacturing technology to increase flow and eliminate 7-18 leak-prone weld seams. The 3-Port and 5-Port suction manifolds are patented for use with HHP pumps, and

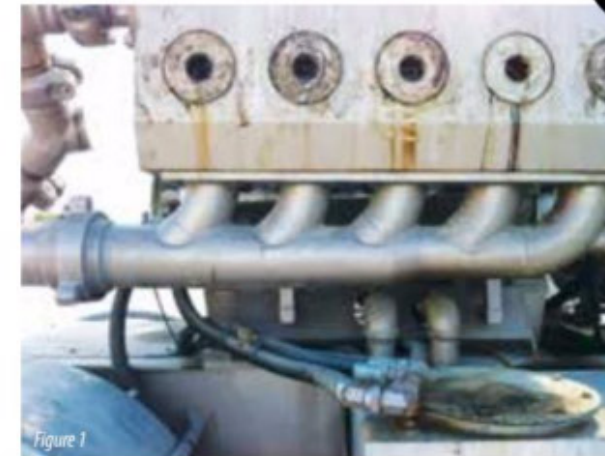


Figure 1

have been lab and field tested. The flow profile simulation demonstrates the differences between the standard welded pipe and the Dixon manifolds.

Dixon has been building a credible reputation for over 100 years, demonstrating that it's a responsible manufacturer producing safe, reliable, and long-lasting products. Open communication with customers and following through with solutions strengthens trust as a supplier of both current and future products.

Founded in 1916, Dixon is a premier manufacturer and supplier



Figure 2

of hose couplings, valves, dry-disconnects, swivels, and other fluid transfer and control products. The company's global reach includes a wide range of products for numerous industries, including petroleum exploration, refining, transportation, chemical processing, food & beverage, steel, fire protection, construction, mining and manufacturing.

How can Dixon help you? ▶

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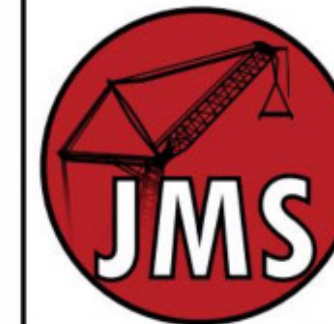
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5610 Interstate Avenue,
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