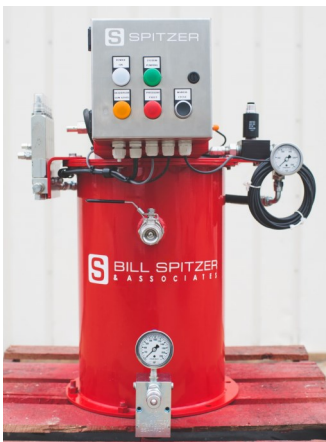




# BILL SPITZER & ASSOCIATES

O: (713) 937-8977

<http://www.billspitzerassoc.com/>



## Increased Frac Pump Packing Life & Uptime Performance for Top Well Service Provider

### Client:

Founded over 100 years ago, this customer has about 50,000 employees in over 80 countries. For this case, we worked with their Mega-Camp in the Eagle Ford Shale operating 10 Frac Fleets.

### Key Outcomes:

- Delivered smaller and more precise shots of lubrication more frequently
  - Increased the packing life
- Expanded the reservoir capacity
  - Minimized refill intervals, human touches, and time in the Red Zone
- Evolved the hydraulic facturing client to continuous production pumping practice by enlarging the capacity 650%
- Maintained desired performance and reliability with zero component failures over the course of a year





**Overview:**

Hydraulic fracturing has evolved into a continuous production situation with rigorous demands on the equipment used and the personnel involved. Our client was experiencing field performance issues throughout their Frac Fleet with their packing lubrication system. Specifically, the previous system was designed to discontinue flow of lubricant to the fluid end upon failure of one packing point. As the fracing industry evolved and the hours of operation increased, the maintenance time of the systems also increased proportionately. Furthermore, the customer struggled with frequent refilling of the small reservoir. This limitation created risk of introducing contamination into the reservoirs and concern of safety hazards with operators in the Red Zone. The goal was to improve system reliability and design that would enhance packing life and uptime performance, while reducing the number of human touches.



**Location:** Eagle Ford Shale

**Date:** Jan. to Dec. 2019

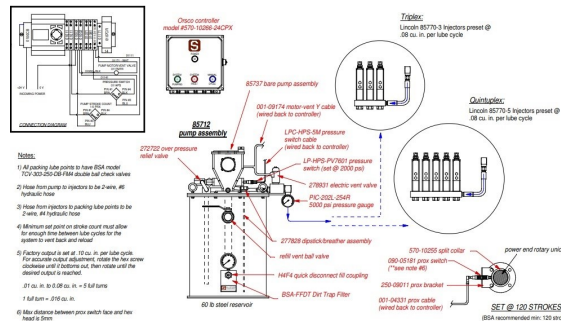
**Product:** Spitzer FlowMaster Packing Lube System

**Reservoir Capacity:** 60 lb.

**System Driver:** 24 VDC Electric Motor

**System Type:** Centro-Matic

**Application:** Reciprocating Plunger Seal Packing on a Trailer Mounted Frac Pump



*Bill Spitzer & Associates field knowledge quickly identified real life fracing changes in the industry*



*Bill Spitzer & Associates built individualized solutions for each truck setup*





## Recommendations and Implementations:

- Advocated a large (60 lb. capacity) single line parallel system
  - Exceptional performance in harsh and severe environments
- Developed a filtration system on the reservoir lubricant fill port to combat contamination when refilling
  - 90% of lube system failures could be attributed to contamination or impurities
- Engineered lubrication rates for increased efficiency
  - Delivered smaller, precise shots of lubricant, more frequently
- Installed and commissioned custom systems in three (3) hours per frac pump
  - Four (4) frac pumps were equipped with the Spitzer FlowMaster Packing Lube System
- Commenced a 365-day field test of the Spitzer FlowMaster Packing Lube System
  - Pumped from the “dirty” side of the frac manifold
  - Served in numerous Zipper Fac’s in the Eagle Ford
- Performed frequent system validation checks to monitor success
  - Partnership with the client enabled the packing life to be tracked over the course of a year



## Results:

- Increased average packing life from 50 to 130 stages on pumps working dirty side of the manifold
- Delivered lubricant more frequently in smaller dosages
- Created independent operating metering valves for continuous lubrication to all points in the system, should blockages occur
- Expanded the reservoir capacity eight (8) times than previous reservoir
- Decreased the frequency in refill from once every shift to every five (5) days
- Mitigated contamination through filtration resulting in zero component failures to date
- Constructed a rugged solution that has lasted over a year in some of the harshest environments
- Achieved the return on investment in less than one year, based solely on packing life

## BILL SPITZER & ASSOCIATES

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## OTHER WAREHOUSES / BRANCHES

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Beaumont, TX (409) 351-2106

Corpus Christi, TX (361) 944-9926

Dallas, TX (281) 409-6845

Odessa, TX (817) 456-7417



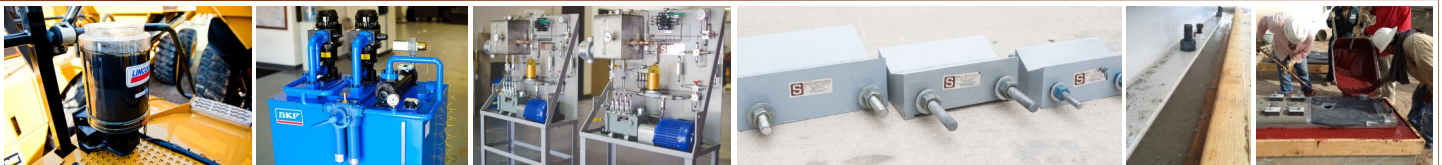
*We exist to take care of customers*

<http://www.billspitzerassoc.com/>

## CORE PRODUCT PARTNERS:



Engineered Lubrication Systems



## Our Story

Bill Spitzer and Associates, Inc. (BSA) was founded in 1978 by Bill Spitzer, Shirley Spitzer, and Jim Mosebrook with a primary focus on servicing reciprocating compression equipment used in the pipeline, oil and gas, petrochemical, and refining markets. Lincoln Lubrication Systems, ITW foundation products (Previously Philadelphia Resins), and Spitzer Enterprises air filtration systems were the primary product lines. The addition of Alemite Oil Mist systems, Superbolt technologies, specialty ready mix concrete designs, industrial coatings, and anchor

bolt products created opportunities to expand into a wider variety of new markets: food and beverage, heavy and light manufacturing, construction, over the road equipment, liquified natural gas (LNG), oil well servicing equipment, pulp and paper, power generation, railways, and many more. We continue to support these markets with an evolving portfolio of products and services.

Currently, BSA still employs a small business mindset that started back in 1978; however, BSA has methodically grown and integrated competitive advantages, differentiation, modernization, and technological advancements. Connor Spitzer, 3<sup>rd</sup> generation, commenced his leadership in 2014 to merge an "old school" mentality with an improved focus on continuous process improvement and strategic planning methods. All of these adaptations are performed with one goal in mind, ensuring customers receive the best possible service and support found everyday.

*We proudly serve NM, TX,  
LA, MS, AL, GA, SC, and FL*