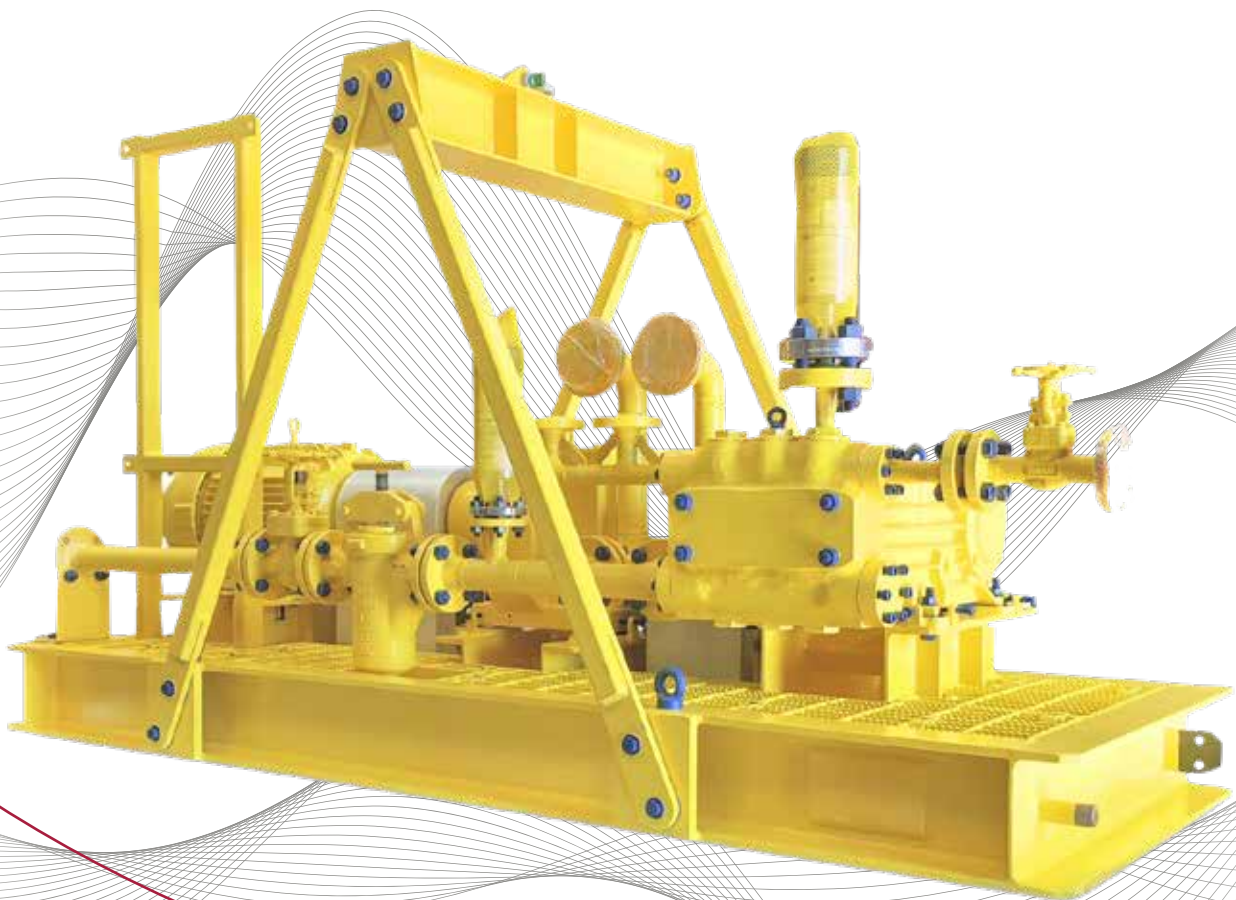




**FTL TECHNOLOGY**  
Sealing, Bearing and Engineered Solutions

# Plunger Pump Sealing Solutions

Solving Sealing Challenges for Demanding Applications



[www.ftl.technology](http://www.ftl.technology)



# Sealing and Engineering Expertise Since 1973

For many years, FTL Technology has provided reliable high performance sealing systems into critical plunger pump applications across all industrial markets. Our expertise and experience working on the fluid (wet) end has seen us establish sealing solutions that deliver and exceed the standards of sealing and reliability expected by today's pump manufacturers and end users.

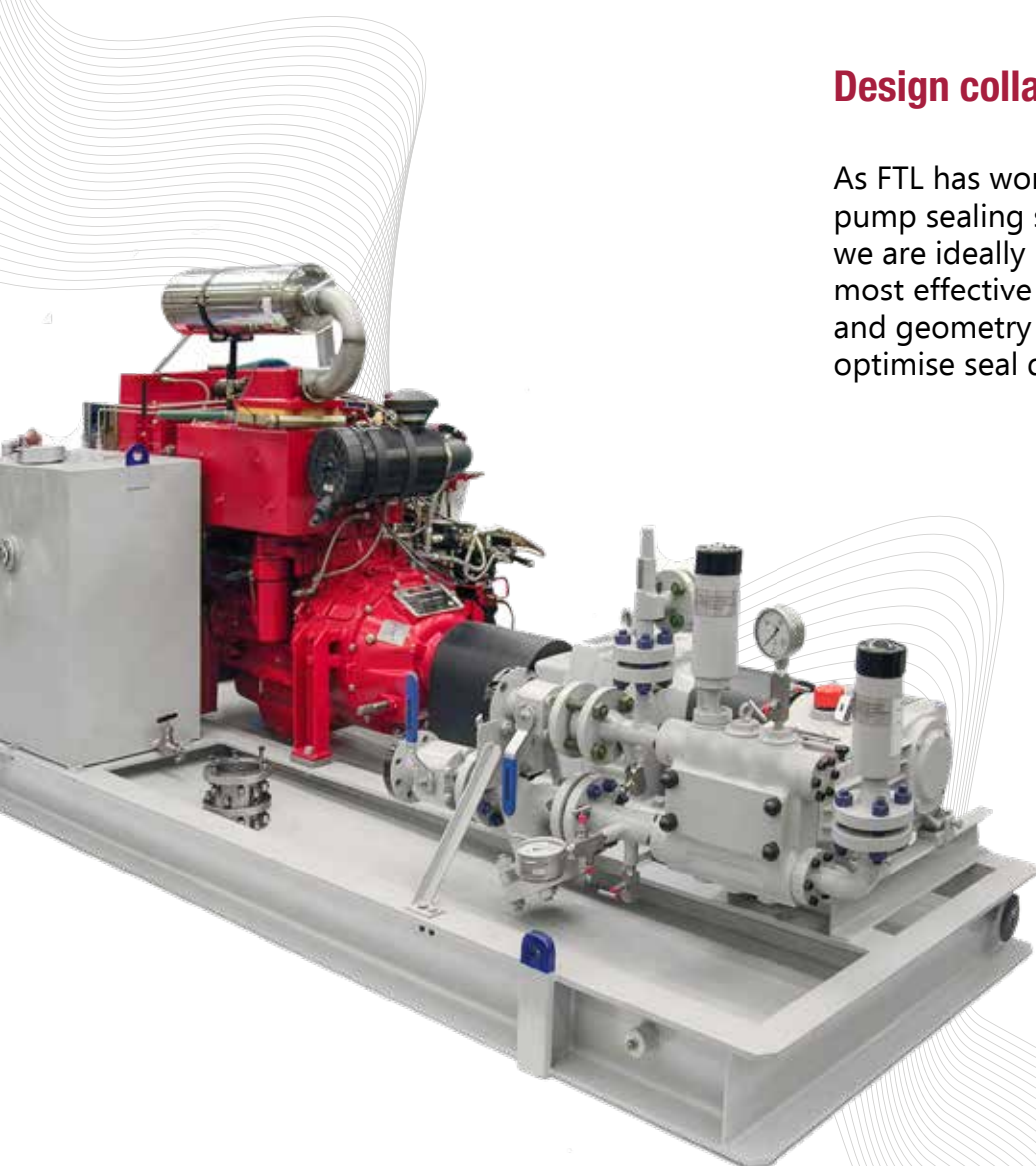
## Innovation at our fingertips

FTL Technology continue to work extensively on challenges faced by plunger pump manufacturers and have developed solutions to address issues in the following areas:

- Cross head seals
- Dump valves
- Low pressure sealing
- High pressure sealing (gland packing)

## Design collaboration

As FTL has worked extensively on plunger pump sealing solutions for a number of years we are ideally placed to assist and advise on the most effective material selection, material finish and geometry of interfacing components to optimise seal design.





○ Long wall systems  
(Mining supports)



○ Umbilical flushing  
Hydrostatic flushing  
Water blasting/descaling  
Glycol/methanol injection



○ Ship and submarine descaling  
Tank and vessel cleaning  
Cleaning subsea structures



○ Forging and extrusion  
Drain and sewer cleaning



○ Descaling during hot rolling  
Coke oven cleaning  
Fire resistance fluids

# Live Loaded Sealing Solutions

| Features            | Advantages   | Benefits  |
|---------------------|--|---|
| Self-lubricating    | Longer service life<br>Dry running<br>No need for additional lubrication systems | Lower running costs<br>Lower setup costs  |
| Low friction        | Reduced power consumption  | Lower running costs   |
| Dry running         | No additional lubricants needed  | No cross contamination<br>Lower consumable costs                                    |
| Live loading        | Reduced low pressure leakage<br>Controlled wear loss                             | Lower running costs<br>Reduce risk of cross contamination<br>Predictive maintenance |
| Spiral wound design | Ease of install<br>Reduced leakage path<br>Fewer joints                          | Reduction of installation errors<br>Reduced leakage<br>Longer seal life             |
| Cartridge assembly  | Ease of installation   | Reduced downtime<br>Reduction of installation errors                                |

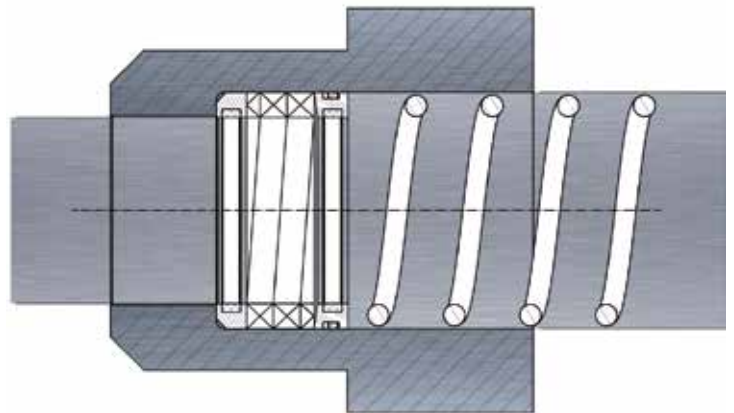
## Plunger Pump Sealing Solution Case Study

This FTL live loaded spiral wound packing assembly was for a high pressure plunger pump OEM.

**Challenge:** The customer's triplex/quintiplex high pressure plunger pumps was experiencing leakages from poor quality installed cut packing rings, showing signs of frayed ends.

**Solution:** FTL designed and supplied a tailored engineered sealing solution. Utilizing high performance spiralized endless packing sets in conjunction with a custom header rings solved the leakage issue.

For future considerations, an overhaul and repair of the pump would be much easier and cost effective for the customer, with only a few consumable items within this critical sub assembly.



## What Our Customers Say



Engineering Project Manager for a  
Global High Pressure Systems OEM



“I have known some of the sales and design engineers [at FTL Technology] for 25 years or more. Their level of expertise has been maintained. The help and assistance when we are looking at sealing arrangements is invaluable, and they are always quick to respond. We use FTL products for all pump assembly sealing requirements, for both rotary and dynamic applications associated with oil lubrication and water hydraulics.

I have no hesitation in recommending FTL to our customers and contacts when the occasion arises, and there is always good feedback. They have excellent customer facing engineers with a dedication to making sure the customer gets a product that will work - particularly in relation to heavy industry in the UK.”

“As a company we have worked with FTL Technology for a number of years, if not over a decade. I myself have had the pleasure of working with them on behalf of the Supply Chain team. One of the great benefits of working with FTL Technology are the stock holding agreements we have in place. This makes it easier for us to know the stock is ready when needed, and for FTL to be able to plan production. Once a SHA is running low we will always be notified and asked if a new agreement is required.

All the team at FTL are helpful, always provide a great level of service and respond in a timely manner. I would highly recommend FTL as a supplier.”



Procurement Team Leader for a  
Global Industrial OEM



# FTL TECHNOLOGY

Sealing, Bearing and Engineered Solutions

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