

A low-angle photograph of industrial valves with red handwheels against a clear blue sky. The valves are made of grey metal and have several red handwheels. One valve in the foreground has the number '6149X' stamped on it. The background shows a utility pole and a tall chimney.

# Valves



In-depth sealing solutions



In-depth   
Knowledge

# Introduction



**FTL Technology understands the needs of valve manufacturers and operators, and the criticality of valve seals to deliver optimum operational performance.**

As a specialist provider of innovative high performance sealing solutions for critical valve applications, FTL can provide a wide range of valve sealing materials that have been engineered to perform to a high standard tested to the most demanding of operating environments.

**From concept to design and finished solutions, we are your engineering partner.**

Every valve sealing product available through FTL can be adapted to best meet the demands of your operating environment.

Whatever the operating environment, from temperature and pressure extremes through to mechanical stresses and exposure to corrosive media, FTL can develop a sealing solution which is second to none.

With a refined materials range which is unrivalled in its depth, and a level of ongoing consultancy support which is completely customised to your requirements. FTL can incorporate whatever you need to keep your valve performing to its full potential.

# Our Process

**FTL partner with you from initial concept to commercial reality.**

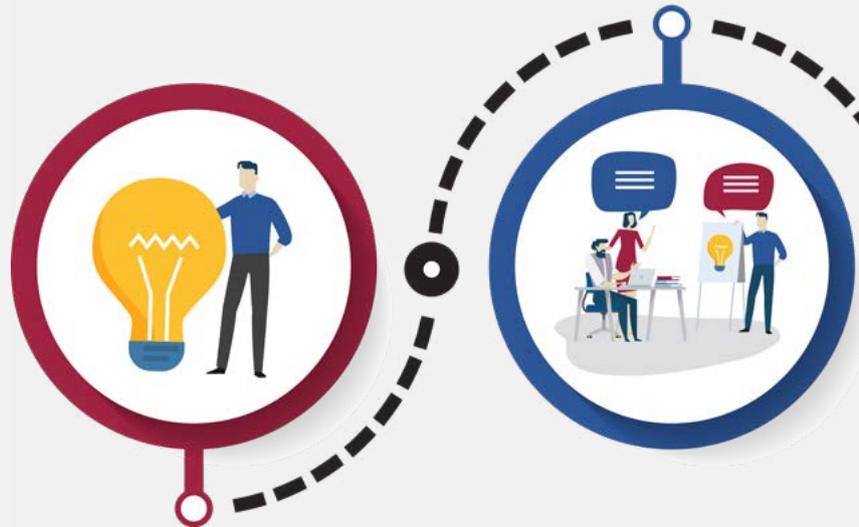
We provide a collaborative consultancy service for any sealing requirement, from a single custom seal component to a complete complex sealing system.

Our business model is designed to meet fast-changing customer needs, working with customers to identify opportunities for improvements in formulations, production processes and operation infrastructure.

We draw upon a breadth of industry knowledge to provide dynamic and effective sealing solutions, that deliver revenue and results for customers across the globe.

## Define

Defining and diagnosing challenges

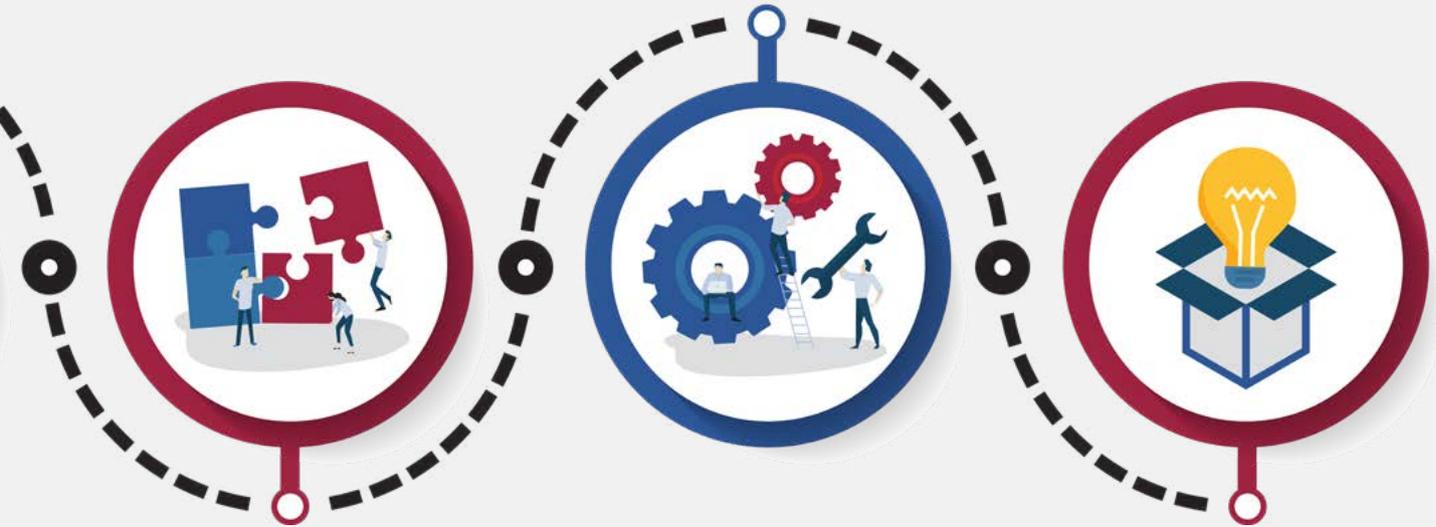


## Discover

Understanding customers' requirements and challenges

## Develop

Validation and performance testing



## Design

Detailed design programme

## Deliver

Dedicated supply chain management

[Click here to find out more](#)



In-depth  
Service



# Sealing Solutions

As valve sealing experts, trust FTL to supply the specialist products needed to optimise your operations. Our range of sealing solutions include:

- Custom engineered O-rings
- PTFE spring-energised lip seals
- Packings
- Gaskets

FTL knows that you can't optimise every seal system with an off-the-shelf product. If our standard products won't do the job, we'll engineer a custom sealing solution which does.

Every valve sealing product available through FTL can be adapted to best meet the demands of your operating environment. From temperature and pressure extremes through to chemical corrosion, our sealing solutions will outlast and outperform to deliver long-term sealing you can rely on.

## Personalised Service

At FTL, we can incorporate whatever you need to keep your valve performing to its full potential.

Whatever your requirements, our team of sealing experts and engineers will recommend the components and materials to work best for the unique demands of your application. In addition, our kitting capabilities can reduce your supply chain complexity, empowering you to maintain your valve with the exact components required.

Down to custom packaging with bespoke branding, with FTL your valve sealing needs are customised down to the finest details.

# Sealing Solutions

FTL's broad selection of elastomer O-rings, PTFE seals and other high performance sealing solutions are tested and certified to API specifications.

It makes for a product range which is well equipped to perform against temperature and pressure extremes, as well as variable flow rates and chemically aggressive media.

## Advantages of using FTL valve solutions:

- ✓ Reduced fugitive emissions
- ✓ Extended maintenance intervals
- ✓ Lower lifetime cost of ownership
- ✓ Increased valve efficiency and reliability

Once the choice of material for your seal has been made, FTL can produce specialist precision mouldings tailored to your exact requirements.

We understand that the right sealing product for a critical valve application is rarely found on a warehouse shelf. That's why we are committed to providing custom engineered mouldings based on the exact needs of your operations, not a 'best fit' from similar problems in the past.

From silicon grades (VMQ/FVMQ) all the way through to highly refined perfluoroelastomers (FFKM), FTL have over 350 different materials available for moulding. We offer some of Europe's most advanced injection and compression moulding technology, together with 3D Finite Element Analysis software to ensure that nothing is ever left to chance.



## Elastomer materials tested to industry standards:

- ✓ API 622
- ✓ API 589
- ✓ API 6A & 6D
- ✓ TA-LUFT
- ✓ ISO 15848

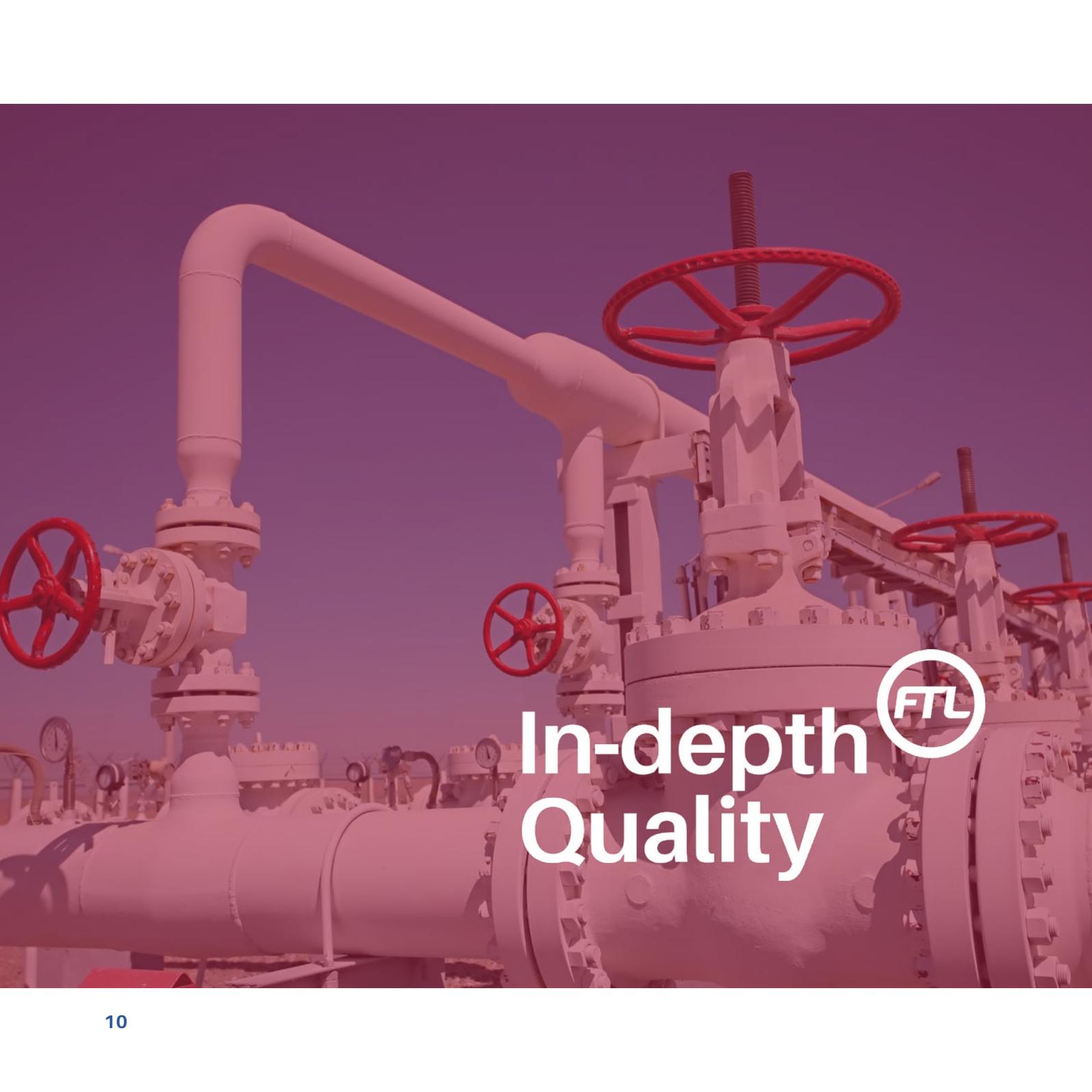
## From Concept to Solution

Over 30 years in the critical sealing industry, the team at FTL have built an enviable reputation for creative and innovative seal solutions.

We deliver these solutions by working closely with our customers, addressing their exact requirements from the first call through to installation and beyond.

This approach allows FTL to deliver truly comprehensive sealing support within honest, collaborative partnerships.

[Click here to find out more](#)



# In-depth Quality



# Why Choose FTL

## High Quality

Every single element of a valve sealing kit from FTL is engineered to the highest of industry standards, and can be personalised to meet your requirements.

## Bespoke

Custom engineering is one of our specialisms at FTL. From your initial consultation, we are focused on developing a valve seal kit to perform well under your exact operational conditions.

## Time-Saving

Downtime is the enemy of any valve application, and you can keep yours to an absolute minimum with an FTL seal kit containing everything your valves need to be fully operational.

## Support

We provide an end-to-end service from consultancy to installation. Our team will work to identify your needs, before selecting the right materials for your perfect seal. For both new and repeat customers, our brand of personal service continues to make all the difference.

# Applications



Oil & Gas  
Energy



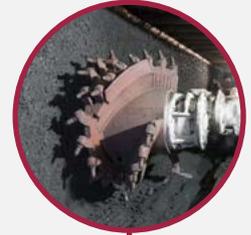
Chemical Processing  
Nuclear



Food & Pharmaceutical  
Agriculture



Automotive  
Marine



Tool Machines  
Hydraulics

# Sealing Challenges

## Products

Leading OEMs know to trust FTL for exceptional quality engineering across all valve sealing elements. We enjoy a proud reputation for our consistently high standards, working with both OEM and MRO alike.

## Flexibility

Whether you need standard materials or custom seals, we can meet all your valve sealing requirements. We excel in uniquely tailored kits, containing seals, sleeves, precision O-rings and back-up rings. Everything you need, for every kind of valve.

## Volume

FTL is able to meet the requirements of customers of all scales. With our resources, we can deliver what you need when you need it. Get in touch with our valve sealing experts to discover how we can best support your operations.

# Applications

## Oil & Gas

For valves operating in some of the most inhospitable environments in the world, FTL's range of elastomer grades are tailored to provide the ultimate in sealing performance.

- ✓ High pressure and rapid gas decompression (RGD) resistance
- ✓ High temperature capability (+500°C/932°F)
- ✓ Low temperature capability for API 6A & 6D valves (-46°C/-51°F)
- ✓ Chemical resistance to sour gas and oilfield media
- ✓ NORSOK, NACE and TOTAL tested materials



## Chemical Processing

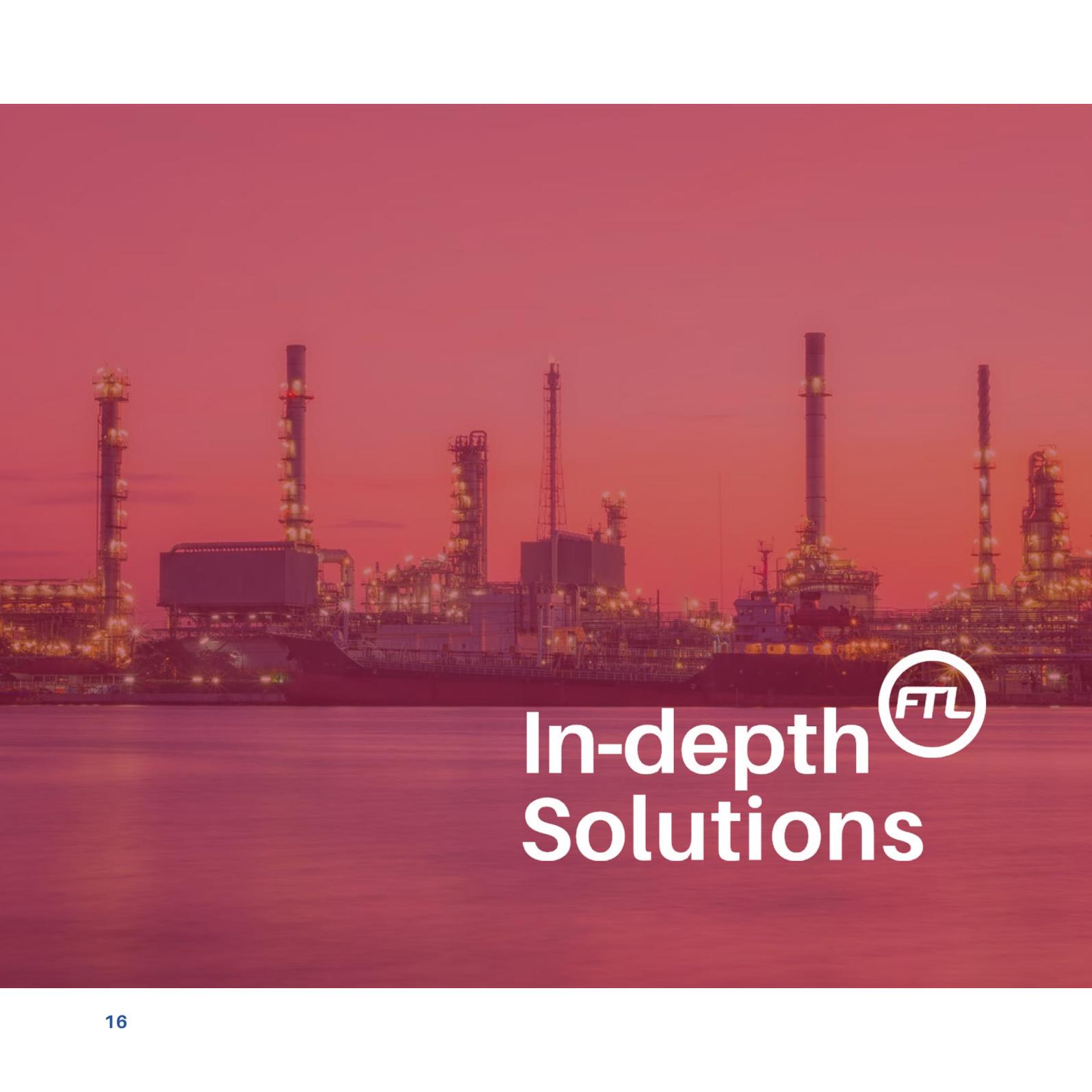
Sealing technology plays a crucial role in reducing fugitive emissions. FTL offers cost-effective solutions for the wide range of valve applications involved in the chemical processing industry.

- ✓ Outstanding mechanical properties
- ✓ Excellent chemical resistance to a wide range of media
- ✓ High temperature materials (+500°C/932°F)
- ✓ Low temperature grades for cryogenic materials
- ✓ Steam resistance materials to withstand SIP cleaning

## Food and Pharmaceutical

Valve seals in food, dairy, water, pharmaceutical and life science applications require excellent mechanical properties, chemical resistance and hygienic sealing capabilities.

- ✓ Excellent chemical resistance to a wide range of process media and CIP
- ✓ Steam resistant materials to withstand SIP cleaning
- ✓ Free from animal derived ingredients
- ✓ FDA and 3-A compliant materials
- ✓ USP class VI, WRAS and KTW approved materials



# In-depth Solutions

# FEC Sealing Sets

Improperly sealed valves are responsible for hundreds of tonnes of fugitive emissions each year. This has significant implications for the environment, but there are also major legislative and cost-saving pressures on controlling fugitive emissions more effectively.

FTL valve sealing solutions are at the cutting-edge of material technology in this field, offering the optimal combinations of packing and valve seals to cut fugitive emissions to an absolute minimum, whatever your specific operating environment may be.

FTL have engineered a combination of sealing elements as part of a custom FEC kit. These FEC kits combine the extrusion resistance of mechanical packing with the advantages of a high performance elastomer seal.

## Benefits:

- ✓ Meet safety obligations and regulations more efficiently
- ✓ Minimise economic losses due to gas or other product leaks
- ✓ Increased environmental responsibility

## Tailored Solutions

FTL strives to be the partner of choice for fully customised, engineered sealing solutions using the latest sealing technologies. Following onsite technical surveys to determine the scope and scale of your requirements, FTL will create a fugitive emission control sealing system which is both technically and commercially viable.

# Research & Development Centre of Excellence

The FTL research and development centre of excellence comprises both rotary and reciprocating bespoke equipment to support the development and validation of our innovative Valve sealing solutions.

This unique facility allows us to simulate operational valve application parameters. Such as running speeds, pressure, media, temperature, and surface finish, to deliver relevant test results.

We provide a comprehensive consultancy service combined with component design and development. This is supported with state-of-the-art measurement and inspection technology, which combined with our R&D centre of excellence enables FTL to support the next generation rotary and reciprocating sealing challenges.



## The advantages of utilising FTL's test facility include:



Trusted solutions through partnership and innovation with leaders in valve sealing technology.



Optimise product reliability through validation and bespoke test programmes



Support with reducing valve fugitive emissions in line with industry standards



Next generation product development guided by in-house design, testing and validation



Material and design validation supporting valve industry requirements

[Click here to find out more](#)



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

E: [sales@ftl.technology](mailto:sales@ftl.technology)

T: 0113 252 1061

