



FTL TECHNOLOGY

High Performance Sealing Solutions for Valve Applications



www.ftl.technology

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

FTL Technology is a specialist provider of innovative high performance sealing solutions for critical valve applications.

Our wide range of valve sealing materials has been engineered to perform to a high standard under the most demanding of operating environments.

FTL's uniquely personal service delivers a sealing system geared to the exact demands of your application.

With FTL Technology, your valve sealing requirements are in the safest of hands.



A perfect seal for every valve

Whatever the operating environment, from temperature and pressure extremes through to mechanical stresses and exposure to corrosive media, FTL Technology 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 Technology is a one stop shop for valve sealing support.

Product Quality

Leading OEMs know to trust FTL Technology 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 Technology 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.

Support

We provide an end-to-end service from consultancy to installation, working closely with you to identify your needs before selecting the materials needed for your perfect seal. Our brand of personal service has made all the difference for our repeat customers.

Industry specific valve sealing

FTL Technology provides high performance valve sealing solutions for:

- Chemical Processing
- Oil & Gas
- Energy
- Marine
- Hydraulic
- Automotive and Transport
- Tool Machines
- Nuclear
- Construction
- Food and Pharmaceutical
- Agriculture



Oil and Gas	Chemical Processing	Food and Pharmaceutical
<p>For valves operating in some of the most inhospitable environments in the world, FTL Technology's range of elastomer grades are tailored to provide the ultimate in sealing performance.</p> <ul style="list-style-type: none">• 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	<p>Sealing technology plays a crucial role in reducing fugitive emissions. FTL Technology offers cost-effective solutions for the wide range of valve applications involved in the chemical processing industry.</p> <ul style="list-style-type: none">• 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	<p>Valve seals in food, dairy, water, pharmaceutical and life science applications require excellent mechanical properties, chemical resistance and hygienic sealing capabilities.</p> <ul style="list-style-type: none">• 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



FEC packing for valves

The FTL Technology product range offers a variety of standard packing materials perfectly suited to valve applications. As well as a multitude of customer-specific solutions developed through collaboration with leading test institutes and development facilities.

	QG	RG	SG	JG	TG
					
Temperature range	-200 up to 280°C	-200 up to 280°C	-200 up to 400°C Steam	-200 up to 450°C Steam	-200 up to 400°C Steam +550°C
Pressure	250 bar	250 bar	300 bar	450 bar	250 bar
pH value	0-14	0-14	0-14	1-14	0-14
Sliding velocity	2 m/s	2 m/s	2 m/s	2 m/s	2 m/s
Approvals	TA-Luft ISO 15848	TA-Luft ISO 15848	TA-Luft ISO 15848 API 622 API 589 (Fire Safe)	TA-Luft ISO 15848 API 622 API 589 (Fire Safe)	TA-Luft ISO 15848 API 589 (Fire Safe)
Industry	Process / Chemical	General Purpose	General Purpose	Repair Solution / Maintenance	OEM

One stop shop for valve sealing

As valve sealing experts, trust FTL Technology to supply the specialist products you need to optimise your operations. Our product range includes:

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

Have it your way

At FTL Technology, 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 Technology your valve sealing needs are customised down to the finest details.

FTL Technology 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 Technology 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.



Key advantages: FTL for valve seal kits

High Quality

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

Time-saving

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

Bespoke

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

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.

The right choice

FTL Technology'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. For your valve application, this means:

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



From bearings and packings through to custom engineered precision O-rings, the sealing experts at FTL Technology can find the right solution.

Customer Elastomer Mouldings

Once the choice of material for your seal has been made, FTL Technology 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 Technology 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.

End-to-End Support

Over 30 years in the critical sealing industry, the team at FTL Technology 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 Technology to deliver truly comprehensive sealing support within honest, collaborative partnerships.

Consultation

Listening to clients to understand the project

Specification

Technical survey to determine operating parameters

Design/ Development

Technically and commercially viable solutions

Proof of Concept

Validation, testing and analysis

Integration

Prototyping, field trials and troubleshooting

Installation

Onsite commissioning and training



Fugitive Emission Control (FEC)

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 Technology 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. Our FEC kits are customised to the precise requirements of your application.

Applications for FEC kits include valve OEMs and MRO for oil and gas, as well as food, pharmaceuticals and chemical processing.



**FTL Packings comply with the above certifications. For specific grades, check with an application engineer.*

FEC Sealing Sets: The Benefits

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



Tailored Sealing Solutions

FTL Technology 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 Technology will create a fugitive emission control sealing system which is both technically and commercially viable.

All FTL Technology fugitive emissions control products conform to TA Luft legislature.



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