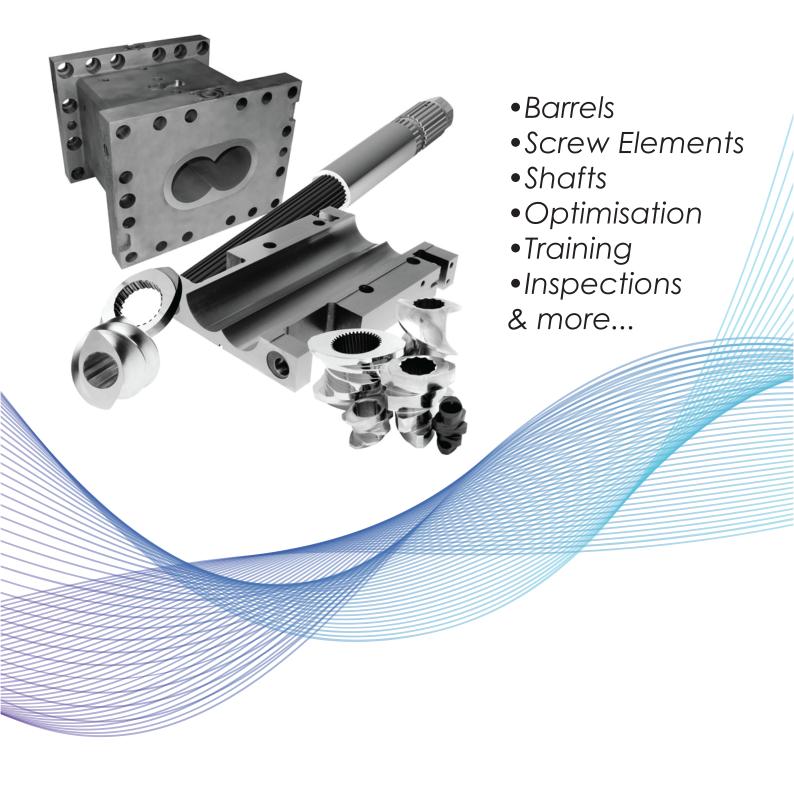


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# Explore our range of **Spare Parts & Services** to support your Twin Screw Extruder Lines



# **Spare Parts**

Xtrutech are a leading independent supplier of OEM spare parts for Twin Screw Extruders. As a result, we strive to only use quality materials that ensure compatibility with original parts. We supply **screw elements, shafts, barrels, and liners** for a variety of extruder manufacturers listed below.

Our spares are focused on quality, not only as a finished product but throughout the manufacturing process. We can offer consignment stock to plan future downtime, alongside a range of supporting engineering services for efficient replacements and repairs.

**Looking for something else?** Xtrutech supply a range of extrusion spares such as thermocouples, heaters, feeder spares, motors, and gearboxes, some of which are no longer in manufacture with the OEM.

Please speak to a member of our team directly who can advise you on the availability of these parts.

Email@ sales@xtrutech.com Call: +44 (0)1782 621122

# Screw Elements

- Single flight, twin flight & tri-lobe elements
- •Discharge elements
- •High volume intake elements
- •Conveying elements
- Dispersion elements to mix different viscosities
- Compression elements
- •Reverse elements
- Transition elements from single flight to twin flight
- Side feeder elements
- Kneading blocks, single mixing paddles or discs



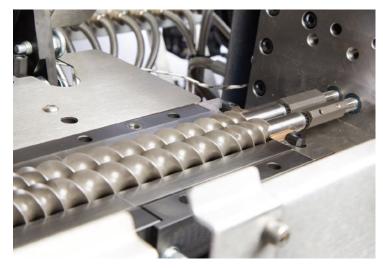
# **Benefits:**

- •We can provide screw elements for a range of machine sizes from 10mm to 160mm
- •Our OEM parts use powder metallurgy steel, which involves a more refined
- process for the creation of fatigue resistant materials.
- Our parts are subject to Hot Isostatic Pressing (HIP) to enhance longevity and reduce defects.
- •HIP also boosts corrosion resistance and fatigue strength to produce a robust
- & effective material.
- •Xtrutech can provide a new design or a customised element

# Shafts

Xtrutech supply **shafts**, **shaft couplings**, **sleeves**, **screw tips** and all related assemblies for a variety of extruder manufacturers.

The Xtrutech team can help you to determine the most cost-effective way of replacing your shafts to provide improved reliability and performance.



## Benefits:

- •We can provide a range of shaft profiles listed below.
- Shafts are made from high tensile strength steel to improve durability.

•Xtrutech can further support your extruder with our range of engineering services, such as torque limiter coupling servicing, which can increase the longevity of shafts.

# Shaft profiles:

- •Round shafts
- Keyed shafts
- Hex shafts
- •Bi-Hex shafts
- Splined shafts

# **Barrels & Liners**

Xtrutech supply Solid Barrel Housings, Lined Barrel Housings and Liners.

# **Benefits**

Liners and barrel housings are available in a range of materials such as powder metallurgy steel to accommodate a variety of applications and processing needs.
Barrels can also be subjected to Hot Isostatic Pressing (HIP) to enhance longevity and reduce defects.

**Looking to upgrade your barrel?** Xtrutech can retrofit your older worn-out barrels and replace them with a clamshell barrel design.

This upgrade is cost- effective and easily maintained, making screws and shafts more accessible. The retrofit also enables simple replacements of barrel liners when they become worn.





# Services



# Service and Machine Inspections

Xtrutech offer a range of preventative maintenance inspections including barrel wear inspections, torque coupling services, and gearbox alignments to help reduce potential breakdowns for a variety of twin screw extruders.

Each member of the service engineering team has a wide range of expertise, and many years of machine servicing experience. Our specialty is finding the right solution for our customers, which is not necessarily the easiest or quickest.

In addition to our global service work, Xtrutech offers flexible maintenance services that can include one off machine inspections and reports, or long-term preventative maintenance packages.

#### Annual machine inspections can include:

- •Gearbox inspection
- •End float/backlash on input and output shafts
- •Checking operation and performance of oil lubrication
- Agitator shaft coupling and gland packing
- •Torque coupling check (where necessary)
- Main motor condition and operation
- •Barrel temperature control including heating and cooling
- •Machine safety and operation interlocks
- •Control panel controls and indicators
- •Operation and control main D/C drive
- Barrel bolts and helicoils condition
- Agitator elements measured and liner inspection
- •Wear inspection
- Acid flushes
- (Gearbox and wear inspection, torque coupling check, acid flushes and main motor condition are but a few of the service and machine inspections we carry out)



# **Process Training**

Share in our industry knowledge as we talk you through our systems and how your materials interact with XTS machines. So you can you can thoroughly understand the relationship between your machinery and the substances in process.

This of course leads into process optimisation, where we can advise and collaborate ideas, to achieve optimum production rates and to maximise your profits.

#### **Process Optimisation**

Our experienced engineers are skilled across a range of industries and have the knowledge to offer advice on screw profiles, barrel temperature profiles, mixing, intake, or feed problems. This will allow you to fully optimise your production process.

#### We can help you with a range of common processing issues such as:

•Feeding or intake: We can help you to reprocess fines, feed bulky powders and high bulk density extenders.

• Side feeding: Xtrutech can reconfigure your screw profile or offer advice on an alternative feeding solution.

•Venting or vacuum ports: We can help with material exiting through the vent-port which is a common problem which creates 'black specs' in your finished product.

•Temperature: We can assist with overheating, burning temperature sensitive additives, stranding problems or material collecting in the barrel.

Xtrutech can offer solutions to all these processing issues and more...

#### **Typical Problems:**

- •Low output limits
- •Feeding or intake limits
- Reprocessing of fines
- Poor dispersion
- •Gel bits or pin holes
- Discharge problems

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If you have any questions regarding any of these problems, get in touch with us!



#### **Process Trials**

Xtrutech can provide process trials for customers interesting in purchasing an XTS Extruder, viewing can be arranged via video link or by arranging a visit to our headquarters in the UK. Process trials are run in our innovation centre, which includes an XTS19 line for specialist applications and a XTS35 line for powder coatings. Also available for trials is the XTS Compactor and M3 High Speed Mixer.

# **Extruder Operation Training**

Xtrutech deliver training on all XTS machines to ensure that our customers have the knowledge to operate their machines effectively. This includes how to use our systems, how components work together, and general control of the machine and operational features. Our industry experience also allows us to provide Extruder Operation Training for other Extruder manufacturers. Please contact us for further details on this service.



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#### Wear Measurement

Wear measurement is an important method of best practice, it helps to calculate when potential repairs and replacements will be needed. This allows suppliers like us to meet those requirements as soon as possible to reduce your downtime to a minimum.

XTS machines have been designed to prioritise accessibility, to ensure that maintenance tasks such as wear measurement can be performed accurately and easily. We supply wear gauges for XTS Screw elements and XTS barrel liners so that wear measurement can be done easily in-house.

We understand that unlike XTS products, other elements are housed in inaccessible structures e.g. closed barrels. In this case our engineers can visit and assess the wear of your machinery, to give an informed opinion on whether a replacement is needed.

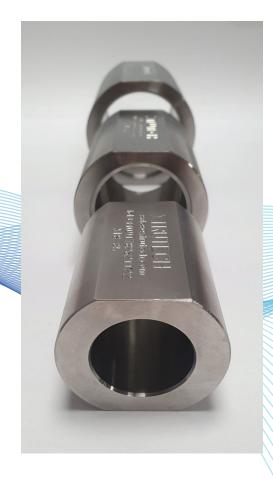
## **Torque Coupling Refurbishments**

Most twin screw/co-rotating extruders are fitted with a Torque Limiter Coupling (TLC) which can become damaged. Xtrutech provide an annual inspection of the Torque coupling, stock all the required XTS parts and can provide TLC service kits.

The coupling is generally fitted between the motor and gearbox as a safety device, with the aim of protecting the gearbox from damage. Which can happen if the screws stop suddenly due to over feeding, or if a foreign object jams the screw elements.

It is important to regularly inspect and service the TLC units as their function can be impaired by the intake of dust and feed materials, or by regular "tripping out". If they trip out too easily this can impact heavily on production output, and if they fail to disengage properly the consequences can be severe.

Xtrutech provide an annual inspection and overhaul service for many of these units, and we hold stock replacement parts for all XTS Extruders. Our engineers only replace the necessary parts and will check the correct operation of your TLC before leaving your site.







# Gearbox repairs

Xtrutech will begin by inspecting your gearbox for damage, afterwards a report is produced which includes an itemised quotation of the work that is required. This inspection can be carried out on site, or alternatively the gearbox can be shipped to Xtrutech.

Only on acceptance is any further cost incurred. It is also our standard practice to provide fresh bearings and seals no matter what other parts have been replaced.

After reconditioning, it is recommended that the gearbox be professionally refitted by an Xtrutech service engineer. This will include verification of the alignment, the input and output shafts and checks regarding the calibration and condition of the torque limiter coupling.

Key Points:

- A gearbox inspection is essential to evaluate the condition of the gearbox.
- Inspection report with itemised requirements for reconditioning.
- Gearbox rebuilt with new seals and bearing as standard.
- Service engineers provide professional refitting service.
- Checks of extruder failsafe devices made after refitting.

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# **Barrel Retrofitting**

Xtrutech can offer a Clamshell barrel retrofit to replace older, worn-out barrels with a cost-effective upgrade. The clamshell design allows for easy access to the screws and shafts, featuring wear resistant insert liners that are much easier to replace at a considerably lower cost.

The barrel can be extended up to 42 L/D to increase mixing or residence time.

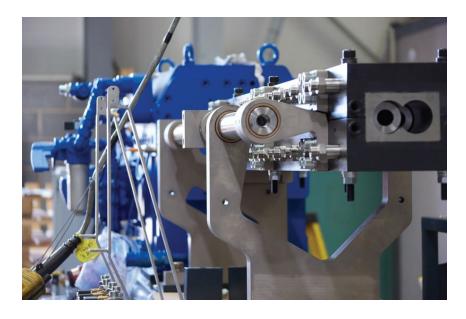
#### Features

The clamshell barrel has been designed with single piece backing blocks that eliminate cracked barrel parts. The backing blocks also house a highly efficient water-cooling circuit in the form of a new insert. As the water channels become blocked by calcium build up, the new style insert can be changed or cleaned out easily in situ.

Additionally, Xtrutech have incorporated the stuffing box into the barrel, which opens the top half to expose the shafts to make sure their removal is easy and simple.

To reduce maintenance, the traditional gland packing and followers have been replaced with oil impregnated split brushes. This separates fine powders from the feed material that create residue in the shaft coupling area.

The clamshell includes a specially designed feed port coupled with new high intake feed screws, to improve the intake of difficult to feed bulky powders, resulting in an overall improvement regarding output.



### Xtrucare

Protect your investment with an Xtrucare service plan, with the added reassurance of your service costs being covered for up to 3 years on XTS machines. Our service plans can increase the lifetime and reliability of your Xtrutech machinery, improve the availability of spare parts, and reduce the turnaround times for repairs.

#### Maximise production time Minimise down time Manage cash flow.

#### Features

- •Unlimited technical phone support services by qualified Xtrutech Engineers (Mon Fri)
- •Dedicated email support
- •Annual service and inspection of your machinery
- Special prices for additional service
- •Genuine Xtrutech replacement parts
- •Flexible payment options

#### **Benefits**

- •Receive fast help in the event of a fault
- •Reduce the Mean Time To Repair (MTTR)
- •Reduce overall maintenance expenses
- •Trust the reliability of your machinery

Service Feature	XTRUcare Bronze	XTRUcare Silver	XTRUcare Gold
Phone support coverage	9h x 5 business days	9h x 5 business days	9h x 5 business days
Email support	Unlimited	Unlimited	Unlimited
On-site service response	Approx 10 business days	5 business days	2 business days
Machine inspection visit	1 visit per year	1 visit per year	1 visit per year
Spare parts shipment (subject to availability)	5 business days	3-5 business days	3 business days guaranteed
Emergency assist visit	List price	1 visit included	1 visit included
Torque coupling service	List price	List price*	Included
Firmware updates	Included	Included	Included
Software updates	P.O.A	P.O.A	Included
None wear parts and labour	Included	Included	Included

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# **Remote Servicing and Commissioning**

Remote access provides a cost-effective alternative to traditional servicing & commissioning. Xtrutech can perform a variety of service tasks, updates, fault diagnostics and emergency assistance using our remote technology.

All new XTS Extruders are installed with 4G remote access modules, to make servicing and commissioning a fast & efficient process. As a result, we have successfully commissioned machines in Asia, North America & Europe via remote access.



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#### So why Xtrutech?

Xtrutech are a leading independent supplier of OEM spare parts for Twin Screw Extruders. As a result, we strive to only use quality materials that ensure compatibility with original parts.

We offer a range of engineering services for Twin Screw Extrusion equipment. Our team includes qualified engineers and technicians, many of which have experience working with a range of OEM manufacturers.

Additionally, the XTS range includes a variety of Twin Screw Extruders and ancillary equipment to create a complete production or laboratory line.

#### Xtrutech Ltd

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