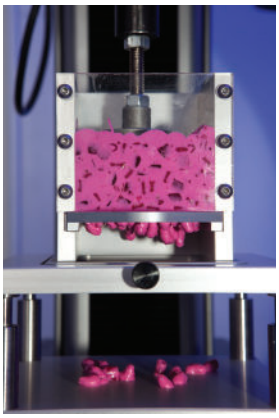
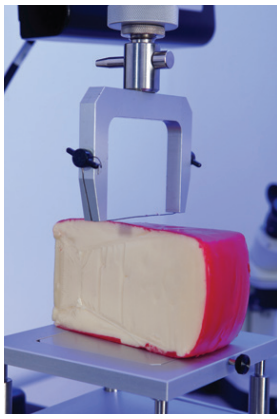
AMETEK®
TEST & CALIBRATION INSTRUMENTS

Food Fixture Catalog



LLOYD materials testing™

Ice Cream Scoop

Part Number	Catalogue Number	Description	Capacity	Fixing Method
01/2654	FG/ICE	Ice Cream Scoop Jig	500N	5/8 inch eye end

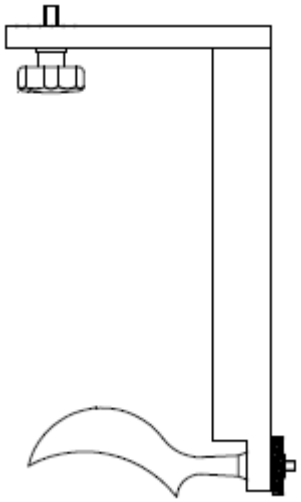
The Ice Cream Scoop Jig is primarily used for testing blocks of ice cream, but may be used for any sample that can hold a block form without a container

It consists of two parts the upper scoop assembly and the lower sample holder. The sample (180mm H x 90mm W x 60mm T maximum) is pressed on to the vertical support plate and held in place with the four pins.

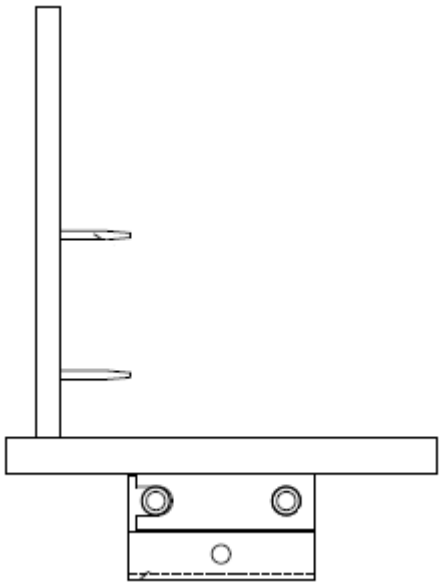
The upper fixture that connects to the loadcell may be moved towards or away from the sample for different depths of scoop.

Care must be taken when aligning the scoop so it does not contact the pins; this is best done before a sample is fitted.

The test is a compress to limit over a fixed distance



Upper Scoop



Lower Fixture

Dough Preparation Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/2656	FG/DPJ	Dough Preparation Jig*	500N	M6 Probe	Base Table

**Requires FG/BASE 01/3426*

The Dough Preparation Jig is primarily used for testing the firmness of dough

It consists of a preparation cell, an aeration plunger, flat plunger and a 6mm diameter cylinder probe

110g of dough mixture is weighed and placed in to the container, the lid with the multiple probes is then pushed in to the dough, this is done to remove air pockets which may affect the consistency of the test and minimizes handling of the sample.

The lid is removed and the dough now has an uneven surface, this is smoothed out by placing the smooth surface lid on the pot and pushing down to even out the dough surface, then remove the lid, place the pot on the machine base or base table.

The 6mm probe can be screwed directly in to the loadcell then moved down until it is slightly above the surface of the dough.

The test can now be started by positioning the pot so that the probe is above a smooth region; the test is a simple compression test to a limit from trigger

Typical Results:

Maximum Force	Firmness

Dough Stickiness Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Lower	Fixing Upper
01/2657	FG/DSJ	Dough Stickiness Jig*	500N	Base Table	M6 Male

**Requires FG/BASE 01/3426*

The Dough Stickiness Jig is primarily used for the stickiness and adhesion properties of dough

It consists of an extrusion cell, Perspex disc and a 25mm diameter cylinder probe

Remove the screw cap from the top of the extrusion cell and move the piston to the lowest position by turning the inner screw anti-clockwise.

Place a suitable quantity of the prepared dough into the chamber. (The top of the dough should not be proud of the cell body). Replace the screw cap.

Rotate the inner screw clockwise until dough is just extruded through all the holes, and then remove the extruded dough with a spatula.

Extrude 1mm of dough by turning the inner screw one turn clockwise and then back off the screw a little to remove the pressure on the dough.

Place the circular transparent plate over the top cap for 30 seconds, taking care not to touch the dough. This retains the moisture whilst allowing the dough to rest.

Place the cell on the base table and directly under the cylindrical probe and carry out the test.

The test is a drive to trigger then extension limit then return above start position

Typical Results:

Maximum Negative Force	Stickiness
Area Under the Curve	Adhesiveness

Crisp Fracture Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Lower	Fixing Upper
01/2658	FG/CFS	Crisp Fracture Jig*	500N	Base Table	M6 Male

**Requires FG/BASE 01/3426*

The Crisp Fracture Jig is primarily used for testing the Crispiness, Fracturability and Hardness of crisps, potato chips, corn chips and snack food products that are fried or baked

It consists of a base table insert with 6mm hole, a support cylinder and a 10mm stainless steel ball probe

Fit the probe to the loadcell

Using the supplied fixing screw mount the support jig on to the base table insert and fix using the screw, then fit the insert to the base table and align if necessary using the four adjusting screws on the base table

Place the sample on the support cylinder

The test is a drive to limit with break detection

Typical Results:

Maximum Force	Hardness
Break Force	Fracturability
Extension at Break	Flexibility

Volodkevich Bite Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Lower	Fixing Upper
01/2663	FG/VBJ	Volodkevich Bite Jig*	500N	Base Table	5/8 inch eye end

**Requires FG/BASE 01/3426*

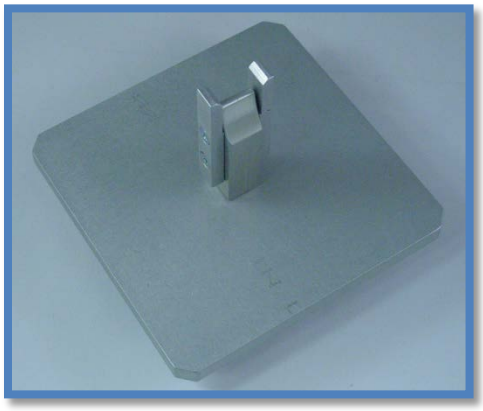
The Volodkevich Bite Jig is primarily used for shear testing on meat products although may be used for other products; it simulates a bite action similar to incisor action.

It consists of a base table insert with 6mm hole, lower fixture with sample guide and a matching upper fixture, lower fixture is fitted to the insert and upper to the loadcell

Fixture width 12mm with a 1.5 radii on upper and lower fixture

Before testing mount the upper fixture on the loadcell and the lower fixture on the base table, using the four adjustment screws on the base table align the upper and lower fixtures so no contact is made between them when they are moving to within touching distance

10mm wide samples are rested over the lower fixture, the upper fix is then moved down to touch the sample with a trigger force, the test then drives to a extension limit shearing the product



Typical Results:

Maximum Force	Firmness
Work to Maximum	Toughness

Kramer Shear Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/2754	FG/KSJ	Kramer Shear Jig*	500N	5/8 inch eye end	Base Table

**Requires FG/BASE 01/3426*

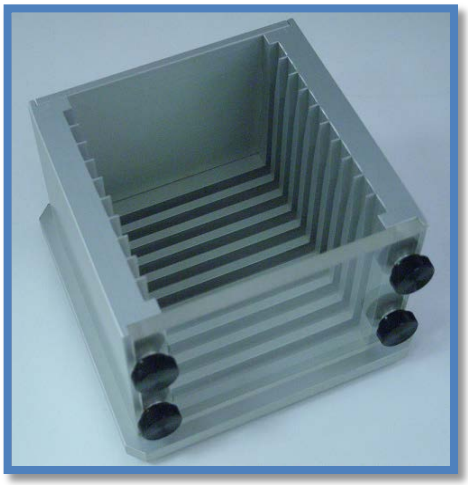
The is primarily used for Shear testing of bulk products that have multiple particles such as fruit and vegetable, beans, pulses, peas, cereal. Testing for compression, extrusion and shear where an average is required

It consists of lower fixture container with a Perspex front, an upper fixture with 10 blades that match to 10 slots in the lower fixture. The blades are guided through the slots and protrude through the base of the container

Fit the lower fixture to the base table and the upper fixture to the loadcell, using the slow jog function lower the upper fixture in to the lower and align for minimum friction between the blades and slots. Raise the upper fixture clear of the container ready to load sample

Weigh out sufficient sample to fill the container by 50%, jog the upper fixture down until the bottom of the blades are level with the top of the container.

Test is a compress to a distance of 70mm with trigger



Typical Results:

Maximum Force	Hardness
Area Under Curve	Work to Shear

Three Point Bending Jig

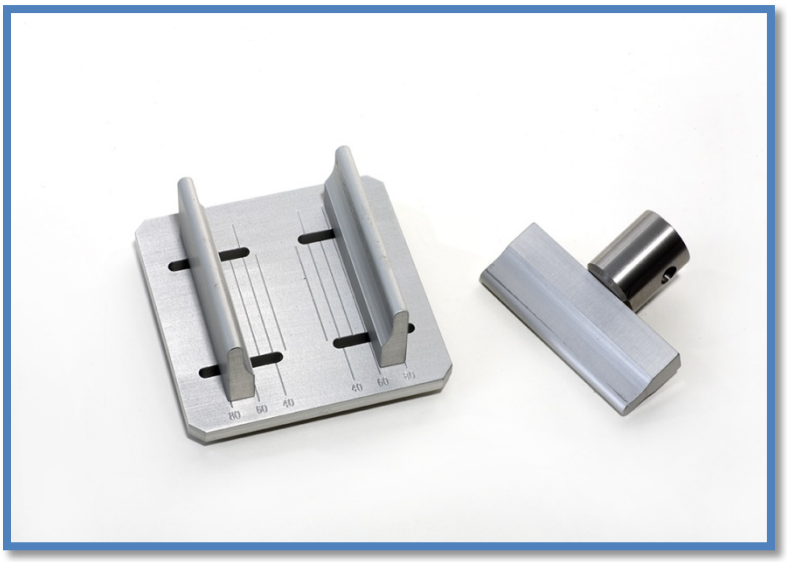
Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/2756	FG/TBP	Three Point Bend Jig*	500N	5/8 inch eye end	Base Table

**Requires FG/BASE 01/3426*

The is primarily used for measuring the hardness, Fracturability and bending moment of products such as bread sticks, cereal bars, biscuits, cookies, dry pasta sheet and strands and crackers

It consists of base table insert with two adjustable supports 20mm – 80mm, 30mm high, 6mm Radii, with matching upper probe. The base has graduated marks to set the distance between supports and supports may be reversed

Test is a bending test with break



Typical Results:

Maximum Force	Hardness
Extension at Break	Fracturability
Bending Moment	Flexibility

Ottawa Forward Extrusion Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/2758	FG/OFE	Ottawa Forward Extrusion Jig*	500N	5/8 inch eye end	Base Table

**Requires FG/BASE 01/3426*

The is primarily used for the bulk compression of products that are variable is size and would exhibit too much variation when tested individually, such as tinned fruit, cereal, beans, peas, pulses and bulk product

It consists of a 70cm³ sample container, 65mm² compression plate, two cell inserts 9 x 3mm Ø bars and 158 x 3mm Ø holes (other inserts are available)

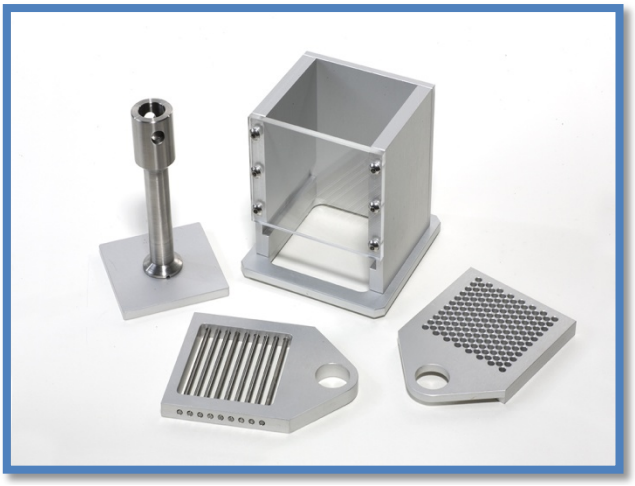
Use with a Spill Bowl (FG/SPL) to capture extruded product

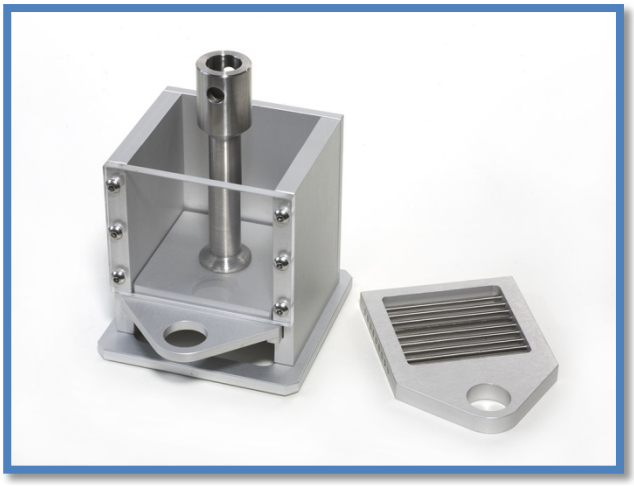
Fit the lower jig to the base table and the upper compression plate to the loadcell, align the fixtures by moving the plate in to the cell and adjust for minimum friction. Move the plate to within 1mm of the bottom of the fixture and zero the machine, move the upper plate upwards to clear the lower cell ready to load sample

Weigh out sufficient sample to fill the sample container to 50%

Move the compression plate in line with the top of the cell and commence the test

Test is a compress to limit with markers





Typical Results:

Average Force between Markers	Firmness
Area between Markers	Work of Shear

Gluten Dough Extendibility Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/2759	FG/GDE	Gluten Dough Extendibility Jig*	500N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

The jig is used to prepare and test dough samples for Extendibility

It consists of two fixtures, one for sample preparation and one for testing

Fit the extendibility fixture to the base table with and the sample hook directly to the loadcell.

Remove the sample plate by pressing down on the clamp plate and sliding out.

Jog the machine down so the sample hook fits between the slot in the Perspex top and stop 0.5 mm from contacting the probe against the lower jig.

Zero the machine.

Prepare the sample using the sample press; Remove the two par sample die from the press and lightly oil both surfaces, place 20-25g of the dough across the grooved block, place the flat surface block on top and fit the block to the sample press, tighten the press to form the samples. Remove the block and clean off excess sample from the edges, replace the block, tighten the clamp and leave the sample for 30 minutes to rest

To test the sample loosen the press, slide the upper block either left or right to reveal the first complete sample, tighten the press again. Carefully remove the sample using an oiled spatula, whilst trying to minimize sample damage or stretch.

Place the sample on the test plate and lie equidistantly across the plate, push down on the sample clamp and insert the test plate in to the jig, release the sample clamp gently

Test is a pull to break

Typical Results:

Maximum Force	Extension Resistance
Extension at Maximum Force	Extendibility

Magnus Taylor Puncture Probe Set

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3108	FG/MTP	Magnus Taylor Puncture Probe Set	1000N	M6 Male

Ideal for puncture and penetration tests on fruits, vegetables and other food products.

This set consists of two pairs of cylindrical probes of different diameters: 7.94 mm (0.32 in) and 11.11 mm (0.44 in). Each pair has one flat end and one half round domed end

Test is a simple compress to limit from trigger

Typical Results:

Initial Maximum	Skin Toughness
Maximum Force	Firmness

Pea and Bean Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3195	FG/PAB	Pea and Bean Jig	500N	5/8 inch eye end	5/8 inch eye end

Primary use is for compressive shear on peas, beans and pulses. Multiple samples tested at the same time to produce an average across the sample

Consists of an upper fixture with eighteen 2mm diameter flat ended probes and a matching lower fixture with eighteen 3mm holes in small indents

Fit the upper fixture to the loadcell eye end and the lower fixture to the machine base. Align the upper fixture with the lower so that all probes match the holes.

Move the machine down slowly and fine adjust the position so that there is no friction between probes and holes.

Place the 18 samples to be tested on the lower fixture

The test is a compress to limit from trigger

Typical Results:

Initial Peak	Skin Hardness
Average Force between limits	Firmness
Maximum Force between limits	Hardness

Burger Punch Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3402	FG/BPJ	Burger Punch Jig*	500N	M6 Male	Base Table

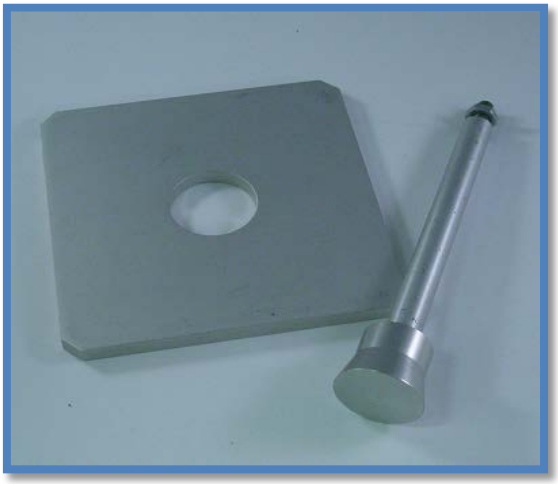
**Requires FG/BASE 01/3426*

The burger puncture jig is primarily used for the shear stress properties of burgers and patties

It consists of a universal extension rod, a trapezoid test head of 25mm diameter and base tables insert with a 27mm hole 0.5 radii

Fit the upper probe directly to the loadcell and the lower fixture to the base table, jog the machine down and align the upper compression plate so it fits in to the lower plate recess with no friction.

To test, place the sample centrally on the lower plate and move the probe to within 5mm of the sample surface



Typical Results:

Shear Stress	$\frac{F}{\pi * DT}$
F	Peak Force
D	Diameter of Punch
T	Thickness of Sample

Burst Strength Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3404	FG/BSJ	Burst Strength Jig*	600N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

The Burst Strength Jig is primarily used for testing the burst strength of thin sheet products such as tortilla, chapatti, Crepe, Bhatoora, Naan, Pancake, Piadina or may be used for pastry and pasta sheet

Fit the upper probe directly to the loadcell and the lower fixture to the base table, jog the machine down and align the upper compression plate so it is centered on the plate hole.

To test, separate the upper plate from the lower plate, place the sample on the lower plate and secure with the upper plate.
Ensure the sample is not pre stretched but has minimum slack

Move the upper ball probe to within 5mm of the sample and start the test

Test is a compress to limit with break

Typical Results:

Maximum Force	Toughness
Extension to Break	Extendibility (Elasticity)

5 Blade Kramer Shear Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3405	FG/5KSJ	5 Blade Kramer Shear Jig*	500N	5/8 inch eye end	Base Table

**Requires FG/BASE 01/3426*

The is primarily used for Shear testing of bulk products that have multiple particles such as fruit and vegetable, beans, pulses, peas, cereal. Testing for compression, extrusion and shear where an average is required

It consists of lower fixture container with a Perspex front, an upper fixture with 5 blades that match to 5 slots in the lower fixture. The blades are guided through the slots and protrude through the base of the container

Fit the lower fixture to the base table and the upper fixture to the loadcell, using the slow jog function lower the upper fixture in to the lower and align for minimum friction between the blades and slots. Raise the upper fixture clear of the container ready to load sample

Weigh out sufficient sample to fill the container by 50%, jog the upper fixture down until the bottom of the blades are level with the top of the container.

Test is a compress to a distance of 70mm with trigger

Typical Results:

Maximum Force	Hardness
Area Under Curve	Work to Shear

Thin Film Puncture Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3406	FG/TFP	Thin Film Puncture Jig*	500N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

The Thin Film Puncture Jig can be used for sheet gelatin, edible film, drug release film, nori, dried leaves and oral mouth freshener strips to test. Bursting strength, stress relaxation and stretch recovery

It consists of two sets of base table inserts, fitted to the base table

1. Aluminium insert with a 6mm aperture, a matching Perspex insert with 6mm aperture, two locking screws and a 5mm diameter ball probe
2. Aluminium insert with a 11mm aperture, a matching Perspex insert with 11mm aperture, two locking screws and a 10mm diameter ball probe

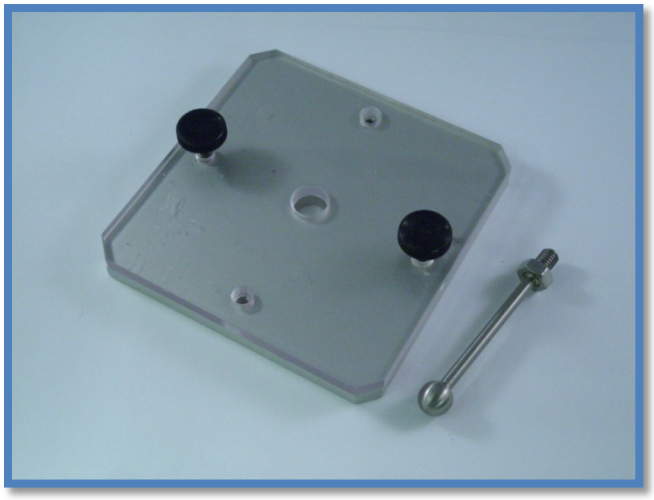
Jig selection depends upon sample thickness and maximum force, a larger aperture for the thicker samples. Always use the same combination for the sample samples and do not mix and match fixtures for the same sample

Fit the upper probe directly to the loadcell and the lower fixture to the base table, jog the machine down and align the ball probe so it fits in to the lower plate aperture with no friction.

To test, separate the upper plate from the lower plate, place the sample on the lower plate and secure with the upper plate.

Move the probe to within 5mm of the sample and start the test

Test is a compress to limit with break



Typical Results:

Force at Break	Burst Force
Extension at Break	Extendibility
Force at Break / Aperture Area	Burst Strength

Spreadability Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3407	FG/SPJ	Spreadability Jig*	500N	M6 Male	Universal Holder

**Requires FG/BASE 01/3426*

The jig is used to test the Spreadability of butter, margarine, fat, cheese spreads, chocolate spreads and pastes

It consists of a universal pot holder (07/2336), three sample pots and a 90 ° cone probe

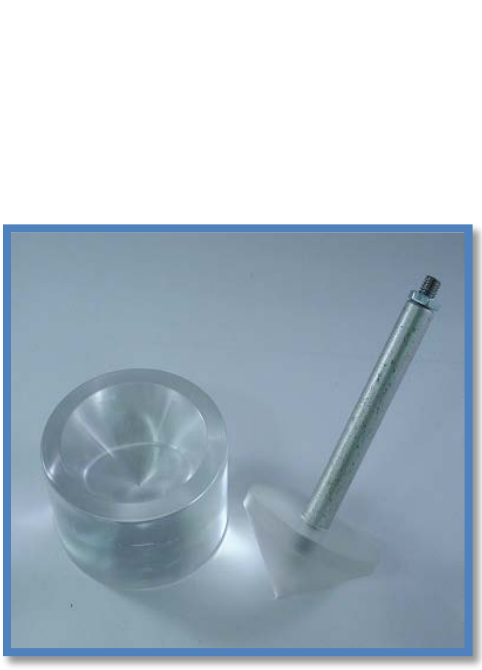
Fit the universal pot holder to the base table and a pot to the in to holder, connect the cone probe directly to the loadcell.

Align the probe and pot before the test using the slow jog function

Prepare the samples by filling the pots with product using a spatula, ensuring that air pockets are removed but not to overwork the sample. Sample may be conditioned prior to testing.

Place the sample in the holder and secure, move the machine down until the probe is approximately 5mm from the sample

Test is a compress to distance from trigger



Typical Results:

Maximum Force	Firmness
Area Under the Curve	Spreadability

Pasta Stickiness Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3408	FG/PSJ	Pasta Stickiness Jig*	500N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

The Pasta Stickiness Jig is primarily used for the adhesive or stickiness properties of cooked sheet pasta. May also be used for adhesive tapes and sheets

It consists of a plain base table insert, a matching upper plate with a 51mm x 26mm aperture and two clamp screws, an upper compression plate 25mm x 50mm with an extension rod

Fit the upper probe directly to the loadcell and the lower fixture to the base table, jog the machine down and align the upper compression plate so it fits in to the lower plate recess with no friction.

To test, separate the upper plate from the lower plate, place the sample on the lower plate and secure with the upper plate.

Move the upper compression plate to within 5mm of the sample and start the test

Test is a compress to force limit with wait time followed by extraction

Typical Results:

Maximum Negative Force	Stickiness
Area Under Curve	Adhesive Force

Tube Extrusion Jig

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3409	FG/TEJ	Tube Squeeze Jig	1KN	5/8 inch eye end

The Tube Squeeze Jig is primarily used for extruding samples from tubes or sachets, ideal for toothpaste, cosmetics, sauces, puree and hand creams

It consists of an anchor pin mounted base with four support pillars. The top plate consists of two bearing mounted guided rollers adjustable from 0mm to 25mm and a spill bowl

To be used in conjunction with a vice grip for the upper fixture

Fit the vice grip to the loadcell

Fit the squeeze jig to the anchor pin

Open the rollers to maximum and place the end of the sample either down through the open roller or up through the open rollers. Clamp the sample in the vice grip and lower the vice grip to lower the sample to a suitable start position

Adjust the width of the roller to accommodate the tube (1-2mm wider than the total thickness of the empty sample)

Place the spill bowl beneath the sample

Top View of Jig

Typical Results:

Maximum Force	Average Force Between Markers
Work to Maximum	Work Between Markers

Multi-probe

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3410	FG/MPJ	Multi-probe Jig	500N	M6 Male

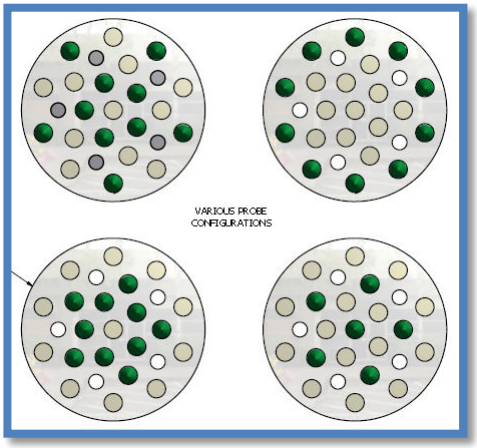
The Multi-probe Jig is primarily used for testing the firmness and hardness of samples containing particles where a single probe may contact a particle to give an erroneous reading, the unique product design allows for the probes to be configured in several combinations to suit the sample to be probed. Typical products are jams, preserves, marmalades, ice creams, nut spreads and peanut butter

It consists of 10 probes, a two part probe clamp and direct connects to the loadcell with 6mm set screw. The probe clamp may be opened to arrange the probes in several configurations (as shown). Flat end probes are also available

Fit the probe to the loadcell and place the sample directly under the probe

Test is a compress to limit with trigger

Ensure probe configuration remains the same for comparative testing



Typical Results:

Area Under the Curve	Firmness

Wedge Knife Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3412	FG/WKJ	Wedge Knife Jig*	500N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

The Wedge Knife Jig can be used to test crack opening in products such as Cheeses, fruit and vegetables prepared in cubes to measure fracture force

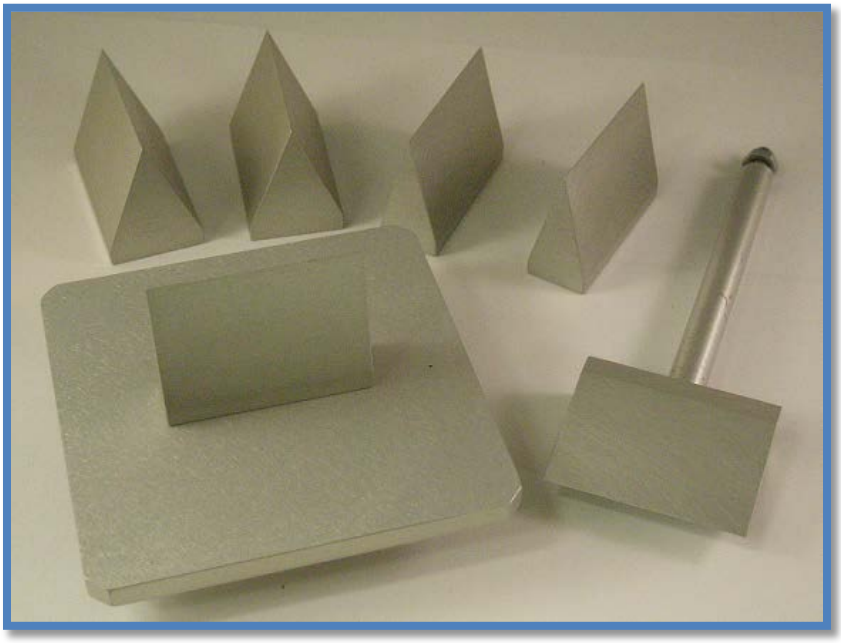
It consists of a base table insert, six wedge blades in three matching pairs (25°, 30° and 45°) and an extension rod.

Each wedge half can be fitted to the base table insert and the extension rod

Fit a matching pair and align each wedge tip so they are parallel

Test is a compress to limit from trigger with break

Hold the sample on the lower wedge and begin the test, when the upper wedge touches the sample it can be released



Typical Results:

Maximum Force	Hardness
Extension at Break	Brittleness

Forward Extrusion Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3413	FG/FEJ	Forward Extrusion Jig*	500N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

The jig may be used for testing gels, sauces, fats, pastes and viscous liquids

It consists of a universal pot holder, three extrusion containers, a 49.5mm compression disc, an extension rod and a set of five extrusion discs with trapezoid holes (2, 4, 6, 8 and 10mm diameter)

Select a disc based on the viscosity of the product to be tested, if the product is likely to extrude under gravity then choose a smaller hole. If this is still an issue a small piece of adhesive tape may be placed on the underside of the disc to hold the contents while they are conditioned or before the test starts

Fit the compression disc to the extension rod and the rod direct to the loadcell

Fit the universal holder to the base table

Fit the sample container with the first sample

Jog the machine down to insert the compression disc in to the container and align to minimize friction, withdraw the compression plate slightly above the container

Test is a compress to limit from trigger

Typical Results:

Average Force Between Markers	Firmness

Craft Knife Jig

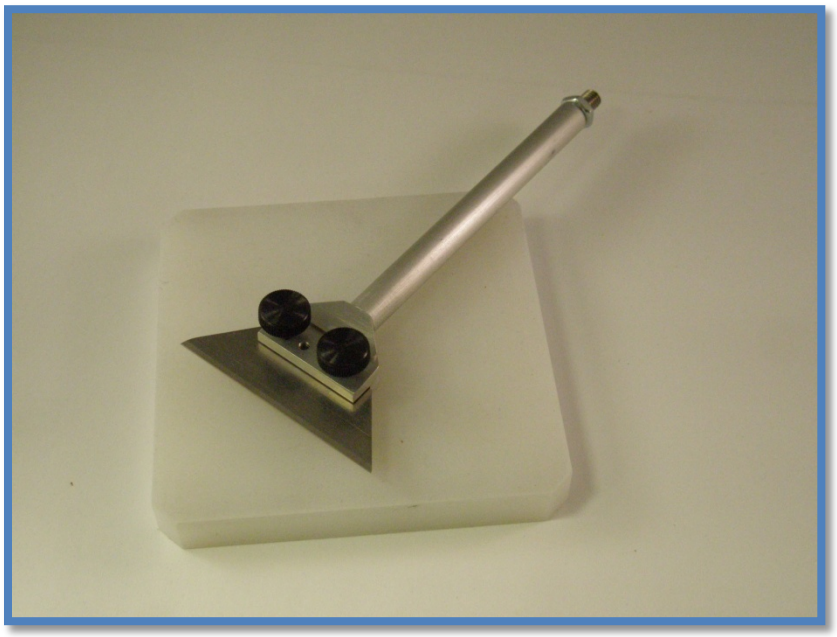
Part Number	Catalogue Number	Description	Capacity	Fixing
01/3414	FG/CKJ	Craft Knife Jig	500N	M6 Male

The craft knife is used for the cutting of small samples such as seeds, nuts, beans, pulses and confectionary

It consists of a sharp craft blade, blade holder and extension rod, ideally used with the HDPE base table insert

Place the sample directly under the blade in the center

Test is a compress to limit from trigger with break



Shown with HDPE Table Insert

Typical Results:

First Peak Load	Skin or case Hardness
Extension at Break	Fracturability
Load at Break	Hardness
Work to Marker	Shear

Spaghetti Compression Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3415	FG/SCJ	Spaghetti Compression Jig*	500N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

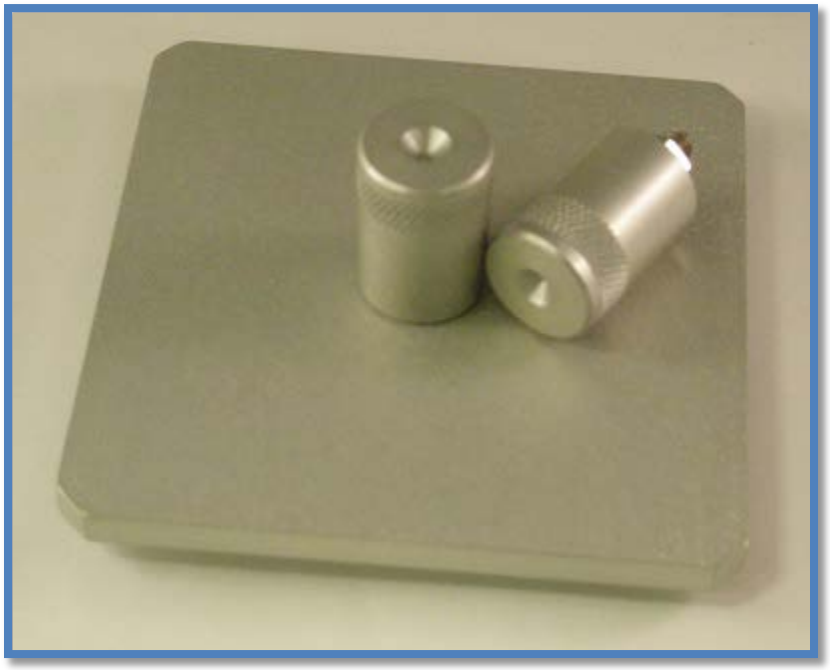
The is used for the compressive fracture of spaghetti or noodle strands

It consists of matching upper and lower sample holder cups with 90 ° indents to aid sample alignment and holding during the test.
Fit the upper direct to the loadcell and the lower to the base table insert with a 6mm hole

Prepare 100mm long sample

Place one end of the sample in the lower support and move the machine down until the sample sits in the upper support with no pre force applied to the sample, but the sample remains held between the fixtures

Test is a compress to break with auto zero and sample dimensions



Typical Results:

Load at Break / Sample Diameter	Breaking Strength
Extension at Break	Flexibility

AACC 16-50 Pasta and Noodle Blade

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3418	FG/PNB	AACC 16-50 Pasta and Noodle Blade	50N	M6 Male

The blade is designed to test to AACC 16-50

It consists of a Perspex blade with a 1mm flat edge fitted to a blade holder

Sample preparation of the noodle or pasta using consistent cooking times and temperature

Fit the rod with blade directly to the loadcell

Fit a blank insert in the base table or a flat compression plate may be used
Move the tip of the blade to within 10mm of the lower sample plate and zero the machine, move the blade down to within 1mm of the surface and start the test. The machine will measure the datum position of the plate and return to the 10mm position.

Place 5 strands of the sample next to each other in the center of the lower plate and perpendicular to the blade and start the test

Test comprises of a compression to 0.5mm above datum

Typical Results:

Maximum Force / Extension at Maximum Force	Firmness
Area Under Curve to Maximum Force	Work of Shear

Back Extrusion Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3419	FG/BEJ	Back Extrusion Jig*	500N	M6 Male	Base Table

**Requires FG/BASE 01/3426*

The jig is primarily used for testing creams, sauces, gels, soups and vegetable / fruit puree

It consists of universal pot holder, sample container, compression plates of 35mm, 40mm and 45mm diameter and a extension rod

Fit one of the compression plates to the extension rod and the rod directly to the loadcell.
Mount the universal holder in the base table, lower the compression plate in to the sample container and align to center the plate within the container with equal distance between the OD of the plate and the ID of the container, back off to 10mm above the top of the container

Fill the sample container 75% full and condition as required

Test is a cycle test, drive to extension limit with trigger and withdraw to starting position

Typical Results:

Maximum Positive Force	Firmness
Area Under Positive Force Curve	Consistency
Maximum Negative Force	Cohesiveness
Area Under Negative Force Curve	Viscosity Index

Confectionary Holding Jig

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3420	FG/CHJ	Confectionary Holding Jig*	500N	Base Table

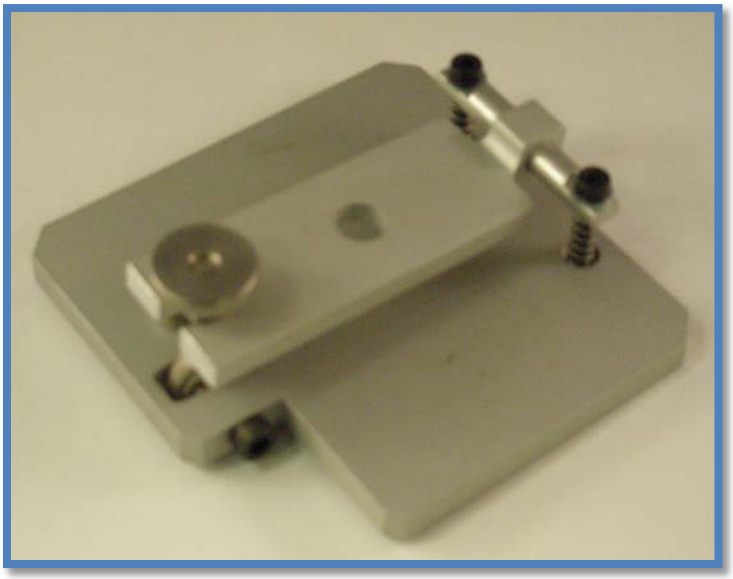
**Requires FG/BASE 01/3426*

The jig is used for holding small samples that may fracture or require holding down for a return stroke

It consists of a base table insert with a sample clamp, a maximum sample clamping height of 10mm (higher available) a 10mm access aperture for penetration. Probes should be ordered separately

Fit the jig to the base table, fit a probe directly to the loadcell (9mm maximum diameter), loosen the plate retaining bolt and lift the top plate up to expose the bottom plate, place the sample in the center of the lower plate and lower the top plate, fix the top plate to the bottom using the front screw clamp, the distance between plates can also be adjusted using the two screws on the back of the plate, and care is taken not to crush the sample

Test is a compress to limit from trigger or cycle to limit



Typical Results:

Maximum Force	Hardness

Optional Return Stroke Results	
Maximum Negative Force	Adhesion
Area Under Negative Curve	Adhesiveness

Spaghetti Tensile Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3421	FG/STJ	Spaghetti Tensile Jig*	500N	M6 Male	Base Table

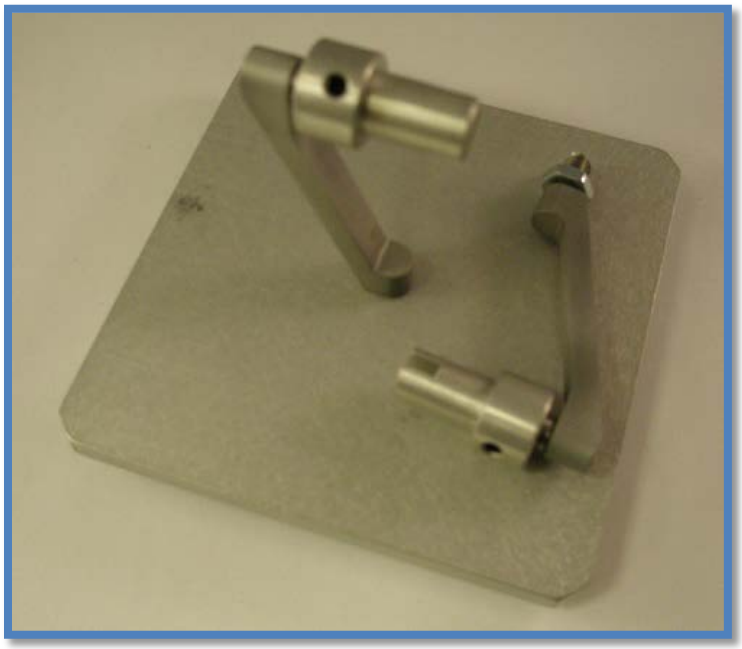
**Requires FG/BASE 01/3426*

The jig is used for the tensile and elongation properties of spaghetti and noodles, but may be used for other strand like products such a licorice or products that form a loop or ring

It consists of two matching grip heads that are offset to allow for axial testing, each grip head has slots for sample location and rotate to wind samples on to a spool with a locking screw. The upper is fitted directly to the loadcell and the lower to the FG/BASE (01/3426)

Loosen the screw on each rotating head and feed one end of the sample in to the slot, rotate the head to wrap the sample around the spindle and lock when in position, repeat for the procedure to secure the sample taking care not to pre-tension the sample

Test is a pull to break with trigger; sample length is taken from the center of each spindle



Typical Results:

Maximum Force / Sample Area	Tensile Strength
Percentage Strain (based on original length)	Elastic Limit

Egg Support Jig

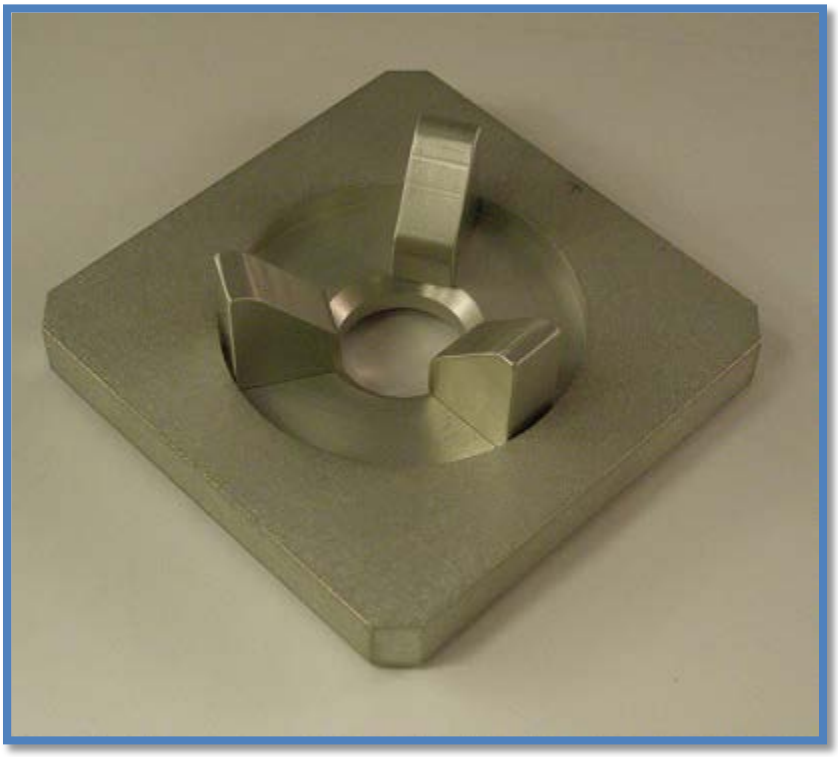
Part Number	Catalogue Number	Description	Capacity	Fixing
01/3422	FG/ESJ	Egg Support Jig*	500N	Base Table

**Requires FG/BASE 01/3426*

The jig is used to support samples where there is a possibility of the sample rolling off if used on a flat surface

It consists of a base table insert with three angular supports around a central hole

Use with probes for penetration or puncture testing



Butter and Cheese Jig

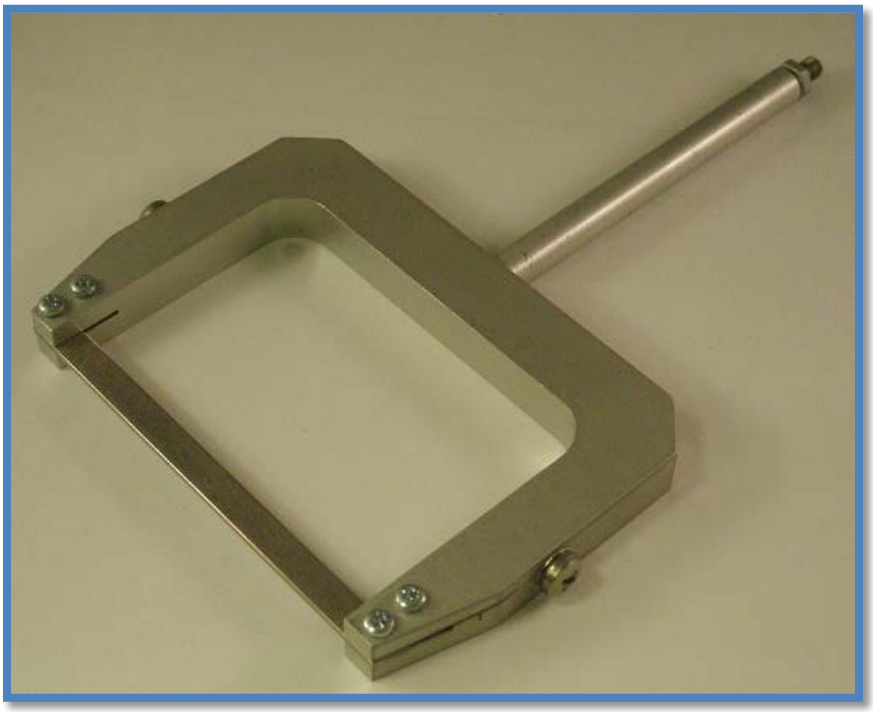
Part Number	Catalogue Number	Description	Capacity	Fixing
01/3423	FG/BAC	Butter and Cheese Jig*	500N	M6 Male

**Requires FG/BASE 01/3426*

The jig is primarily used for cutting of butter, cheese, lard and self supporting block samples.

It incorporates three options for different sample hardness types, consisting of a U shaped bracket that connects to the loadcell via an extension rod. The bracket can accept either a high tensile wire, 1mm thick or 2mm thick flat edge blades.

Test is a compress to limit from a known height



Shown with heavy duty blade

Typical Results:

Average Force between Markers	Firmness

Markers are used to ignore the initial start of the test where the blade or wire is not in full contact with the sample

Base Table Splinter Shield

Part Number	Catalogue Number	Description
01/3425	FG/BTSS	Splinter Shield*

**Requires FG/BASE 01/3426*

The splinter shield is a single round Perspex shield that is used to minimize the risk of debris when a sample fractures, it is also useful for samples that contain fluid to prevent splashing, and it fits directly on to the FG/BASE (01/3426) in the shallow groove on the top of the base table

It is supplied with three lids each having access holes of 10mm, 50mm and 100mm diameter. Additional shields may be ordered as they are stackable to increase overall height of the shield

Base Table

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3427	FG/BASE	Base Table	1kN	5/8 inch eye end

The food grip base table is supplied as standard with the Texture Analyser; it is a generic table for use with the majority of food grips. It can be used as a general testing platform and also to hold some of the specialist fixture.

It consists of a square aluminium platform mounted on four pillars, the center of the platform has a hole with a recess to accept other fixtures and four adjusting screws to aid alignment and the fixture is then mounted inside a universal drip tray that fits on the lower anchor pin of the machine.

The distance between the platform and the drip tray is designed to accept a spill bowl for sample run off (SPC/0004/00)

The drip tray is water tight and may be easily removed from the machine for emptying the overspill if not used with a spill bowl

The platform is supplied as standard with a blank insert which may be used as a compression plate

The table also has a circular recess to accept a splinter shield (01/3425)

Warner Bratzler Jig

Part Number	Catalogue Number	Description	Capacity	Fixing Upper	Fixing Lower
01/3428	FG/WBJ	Warner Bratzler Jig*	500N	5/8 inch eye end	Base Table

**Requires FG/BASE 01/3426*

The Warner Bratzler is used for the cutting and shearing of products such as sausages, hot dogs, cucumbers, carrots, celery, courgette, zucchini, radish, beetroot and sweet potato, salsify, parsnips, daikon, horse-radish, mooli, leeks, gherkins and dill pickles

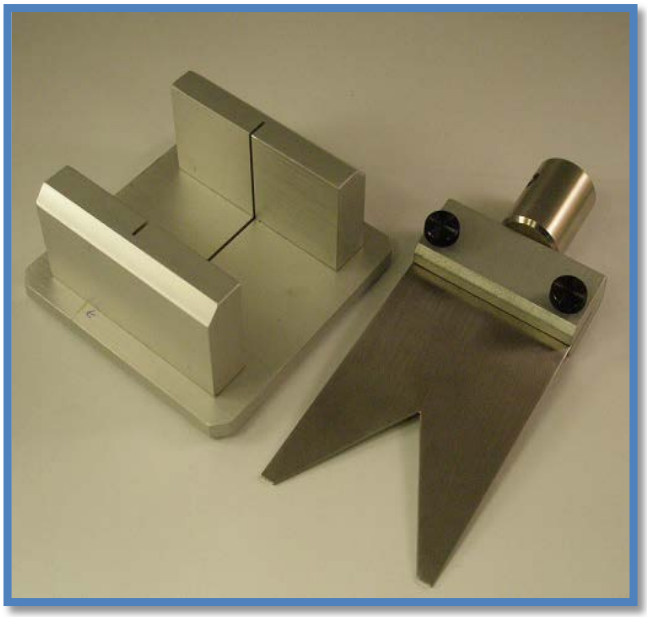
It consists of a lower fixture with blade guide that fits in the FG/BASE (01/3426) and two sets of reversible blades

1 V-Notch with 60 ° angle
2 Flat Edge
3 Square Hole (12.5mm x 12.7mm)
4 Round Hole (12.5R)

Select the blade to be used and fit to the blade holder and secure using the two thumb screws; fit the blade to the loadcell. Fit the lower fixture to the base table

Jog the machine down to insert the blade fully through the lower fixture and adjust alignment to for minimum friction, raise the blade above the fixture and place the sample centrally on the lower fixture

Test is a compress to extension limit from trigger



Typical Results:

Maximum Force	Firmness
Area Under the Curve	Work to Shear (Toughness)

Gel Bloom Jig

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3429	FG/GEL	Gel Bloom Jig*	500N	Base Table

**Requires FG/BASE 01/3426*

The Gel Bloom Jig may be used for testing the Gel Bloom and Gel Strength according to BS757: 1975, ISO 9665 and GMIA methods

It consists of a universal pot holder, 3 sample pots and a 0.5 inch flat cylinder probe

For BS757 and ISO 9665 use a PBT/0067/00 (0.5 inch probe with 0.5R)

For GMIA use the supplied 0.5 inch probe

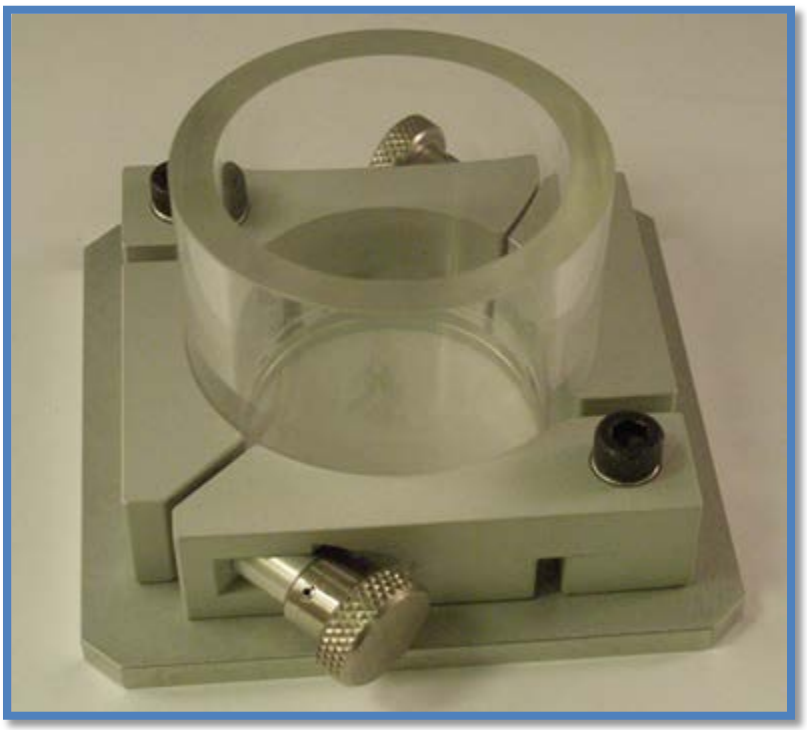
Fit the universal pot holder to the FG/BASE (01/3426) and secure, fit the probe directly in to the loadcell.

Prepare the sample and condition in the container as per the relevant standard

Fit the container to the universal holder and secure

Test is a compress to extension limit of 4mm from trigger, the trigger varies between standards, refer to the individual standard for each test type

Test may also be reversed to measure stickiness and adhesion

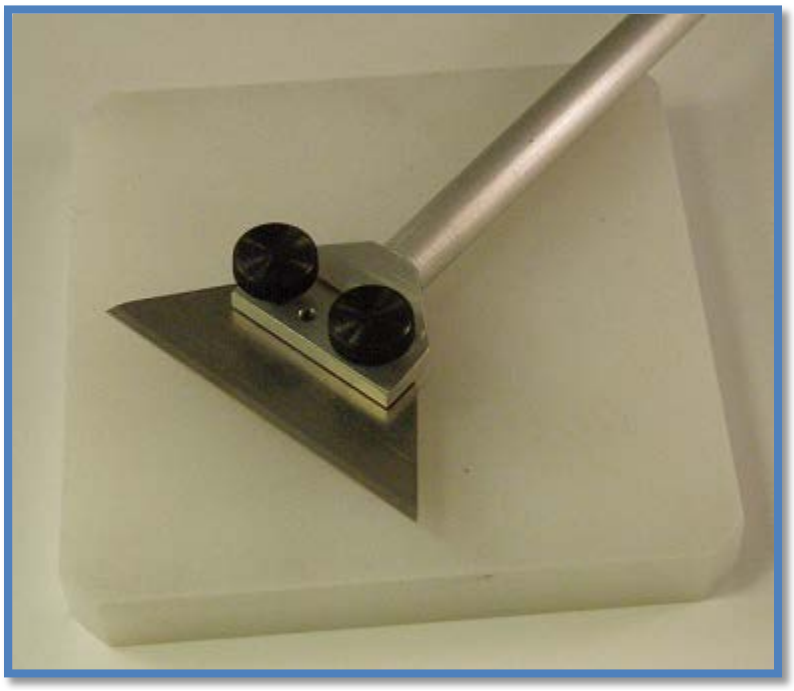


HDPE Base Table Insert

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3430	FG/HDPE	HDPE Base Table Insert*	500N	Base Table

**Requires FG/BASE 01/3426*

The insert fits on the FG/BASE (01/3426) and is designed to act as a chopping board for cutting and shearing samples when using the 01/3414 craft knife



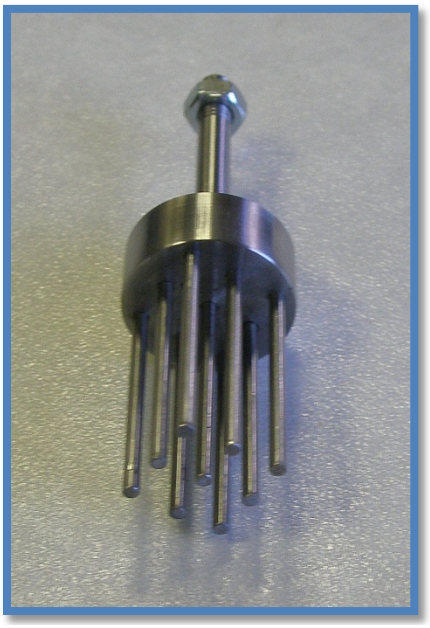
Salmon Probe

Part Number	Catalogue Number	Description	Capacity	Fixing
01/3445	FG/SAL	Salmon Probe	500N	M6 Male

The Salmon Probe designed for testing the force required to separate the flesh of fish fillets, to determine changes in firmness due to the effects of freezing, storage and thawing.

It consists of an array of nine stainless steel flat ended probes and screws directly in to the loadcell, can be used in conjunction with a FG/BASE (01/3426) or a general compression plate.

Test is a penetration test to 50% of the sample thickness and suitable results are maximum force (Firmness)



Typical Results:

Maximum Force	Firmness

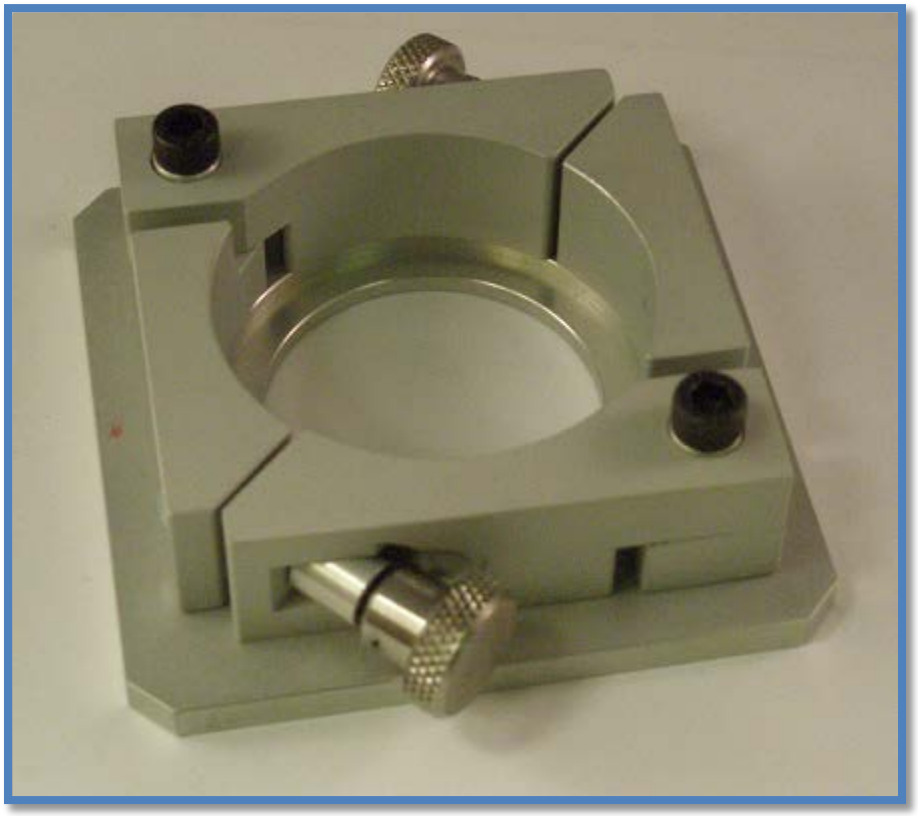
Universal Pot Holder

Part Number	Catalogue Number	Description	Capacity	Fixing
07/2336	FG/UPH	Universal Pot Holder Jig	500N	Base Table

**Requires FG/BASE 01/3426*

The Universal Pot Holder is a generic container holder that fits directly on to the FG/BASE (01/3426); it has concentric clamps to hold the containers firmly in place for testing in compression and tension.

It can be used with the Gel Container, Forward Extrusion Container, Back Extrusion Container and Spreadability Pot.



Stainless Steel Ball Probes

A range of general purpose metric and imperial ball probes, made from stainless steel the probes are direct connect to loadcell's 500N and below using a 6mm male thread

Part Number	Catalogue Number	Description	Capacity	Fixing
01/2683	FG/BP2	2mm Stainless Steel Ball Probe	500N	M6 Male
01/2684	FG/BP4	4mm Stainless Steel Ball Probe	500N	M6 Male
01/2685	FG/BP6	6mm Stainless Steel Ball Probe	500N	M6 Male
01/2686	FG/BP8	8mm Stainless Steel Ball Probe	500N	M6 Male
01/2687	FG/BP10	10mm Stainless Steel Ball Probe	500N	M6 Male
01/2679	FG/BP1/4	¼ inch Stainless Steel Ball Probe	500N	M6 Male
01/2680	FG/BP1/2	½ inch Stainless Steel Ball Probe	500N	M6 Male
01/2681	FG/BP3/4	¾ inch Stainless Steel Ball Probe	500N	M6 Male
01/2682	FG/BP1IN	1 inch Stainless Steel Ball Probe	500N	M6 Male

(Other sizes on request)

Cone Probes

A range of general purpose cone probes, made from Perspex the probes are direct connect to loadcell's 500N and below using a 6mm male thread

Part Number	Catalogue Number	Description	Capacity	Fixing
01/2688	FG/CP15	15 Degree Cone Probe	500N	M6 Male
01/2689	FG/CP30	30 Degree Cone Probe	500N	M6 Male
01/2690	FG/CP45	45 Degree Cone Probe	500N	M6 Male
01/2691	FG/CP60	60 Degree Cone Probe	500N	M6 Male
01/2692	FG/CP90	90 Degree Cone Probe	500N	M6 Male

(Other sizes on request)

Cylinder Probes

A range of general purpose imperial cylinder probes, made from acetyl the probes are direct connect to loadcell's 500N and below using a 6 mm male thread

Part Number	Description	Fixing	Capacity
PBT/0048/00	¼ inch diameter plastic cylinder probe	M6 Male	500N
PBT/0049/00	½ inch diameter plastic cylinder probe	M6 Male	500N
PBT/0050/00	¾ inch diameter plastic cylinder probe	M6 Male	500N
PBT/0051/00	1 inch diameter plastic cylinder probe	M6 Male	500N
PBT/0052/00	2 inch diameter plastic cylinder probe	M6 Male	500N
PBT/0053/00	3 inch diameter plastic cylinder probe	M6 Male	500N
PBT/0054/00	4 inch diameter plastic cylinder probe	M6 Male	500N

(Other sizes on request)

Cylinder Probes

A range of general purpose metric cylinder probes, made from acetyl the probes are direct connect to loadcell's 500N and below using a 6mm male thread

Part Number	Description	Fixing	Capacity
PBT/0022/00	5mm diameter plastic cylinder probe	M6 Male	500N
PBT/0023/00	6mm diameter plastic cylinder probe	M6 Male	500N
PBT/0024/00	7mm diameter plastic cylinder probe	M6 Male	500N
PBT/0025/00	8mm diameter plastic cylinder probe	M6 Male	500N
PBT/0026/00	9mm diameter plastic cylinder probe	M6 Male	500N
PBT/0027/00	10mm diameter plastic cylinder probe	M6 Male	500N
PBT/0028/00	15mm diameter plastic cylinder probe	M6 Male	500N
PBT/0029/00	20mm diameter plastic cylinder probe	M6 Male	500N
PBT/0030/00	25mm diameter plastic cylinder probe	M6 Male	500N

(Other sizes on request)

Cylinder Probes

A range of general purpose metric cylinder probes, made from stainless steel the probes are direct connect to loadcell's 500N and below using a 6mm male thread

Part Number	Description	Fixing	Capacity
PBT/0031/00	1mm diameter steel cylinder probe	M6 Male	500N
PBT/0038/00	2mm diameter steel cylinder probe	M6 Male	500N
PBT/0039/00	4mm diameter steel cylinder probe	M6 Male	500N
PBT/0032/00	5mm diameter steel cylinder probe	M6 Male	500N
PBT/0033/00	6mm diameter steel cylinder probe	M6 Male	500N
PBT/0034/00	7mm diameter steel cylinder probe	M6 Male	500N
PBT/0035/00	8mm diameter steel cylinder probe	M6 Male	500N
PBT/0036/00	9mm diameter steel cylinder probe	M6 Male	500N
PBT/0037/00	10mm diameter steel cylinder probe	M6 Male	500N

(Other sizes on request)

12.5mm Cylinder Probe 0.5 Radii

Part Number	Description	Capacity	Fixing
PBT/0066/00	Plastic cylinder probe 12.5mm diameter with a 0.5 radius	500N	M6 Male

½ inch Cylinder Probe 0.5 Radii

Part Number	Description	Capacity	Fixing
PBT/0067/00	Plastic cylinder probe ½ inch diameter with a 0.5 radius	500N	M6 Male

1cm² Plastic Cylinder Probe

Part Number	Description	Capacity	Fixing
PBT/0068/00	Plastic cylinder probe with 1cm² area	500N	M6 Male

1cm² Stainless Steel Cylinder Probe

Part Number	Description	Capacity	Fixing
PBT/0069/00	Stainless Steel cylinder probe with 1cm² area	500N	M6 Male

2mm Stainless Steel Needle Probe

Part Number	Description	Capacity	Fixing
PBT/0070/00	Stainless Steel needle probe 2mm diameter	200N	M6 Male

AACC 74-09 Bread Probe

Part Number	Description	Capacity	Fixing
PBT/0071/00	36mm diameter with 0.5 radius aluminium cylinder probe for AACC-74-09	250N	M6 Male

12.5mm Cylinder Probe

Part Number	Description	Capacity	Fixing
PBT/0073/00	12.5mm plastic cylinder probe	250N	M6 Male

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TEST & CALIBRATION INSTRUMENTS

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