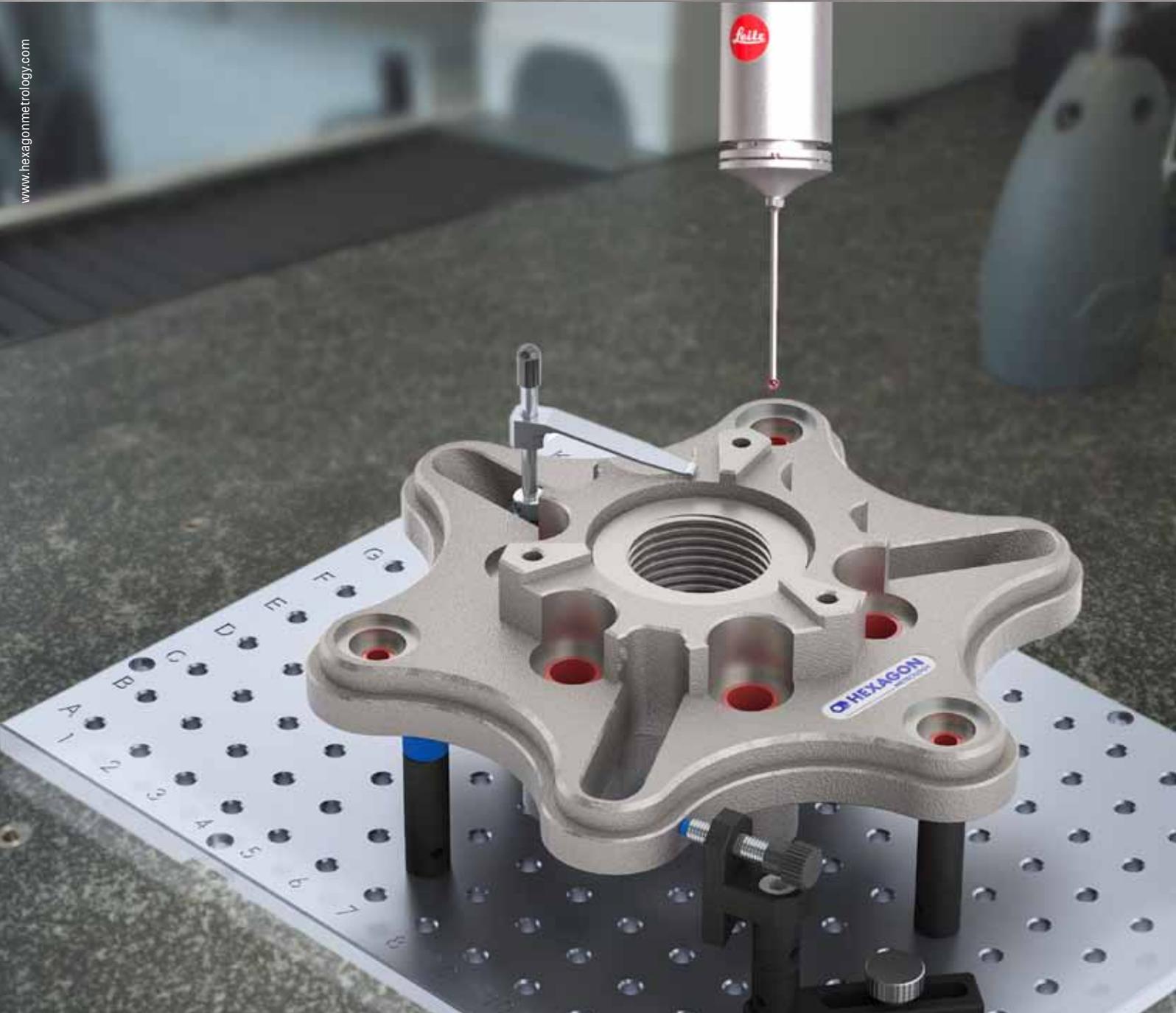




Swift-fix
Metrology Fixturing
& Part Holding Solutions

Where quality comes together

www.hexagonmetrology.com





A unique collection of fixturing and work holding systems from Hexagon Metrology

Swift-fix has been developed by Hexagon Metrology, a world leading measurement system manufacturer, who recognise the need for a fixturing system that allows maximum access to the part which is to be measured.

Maximum accessibility

By virtue of the complexity of many of today's manufactured components, the held part needs to be uncluttered and the holding & clamping has to be discreet, to allow the measurement probe room to obtain the maximum accessibility.

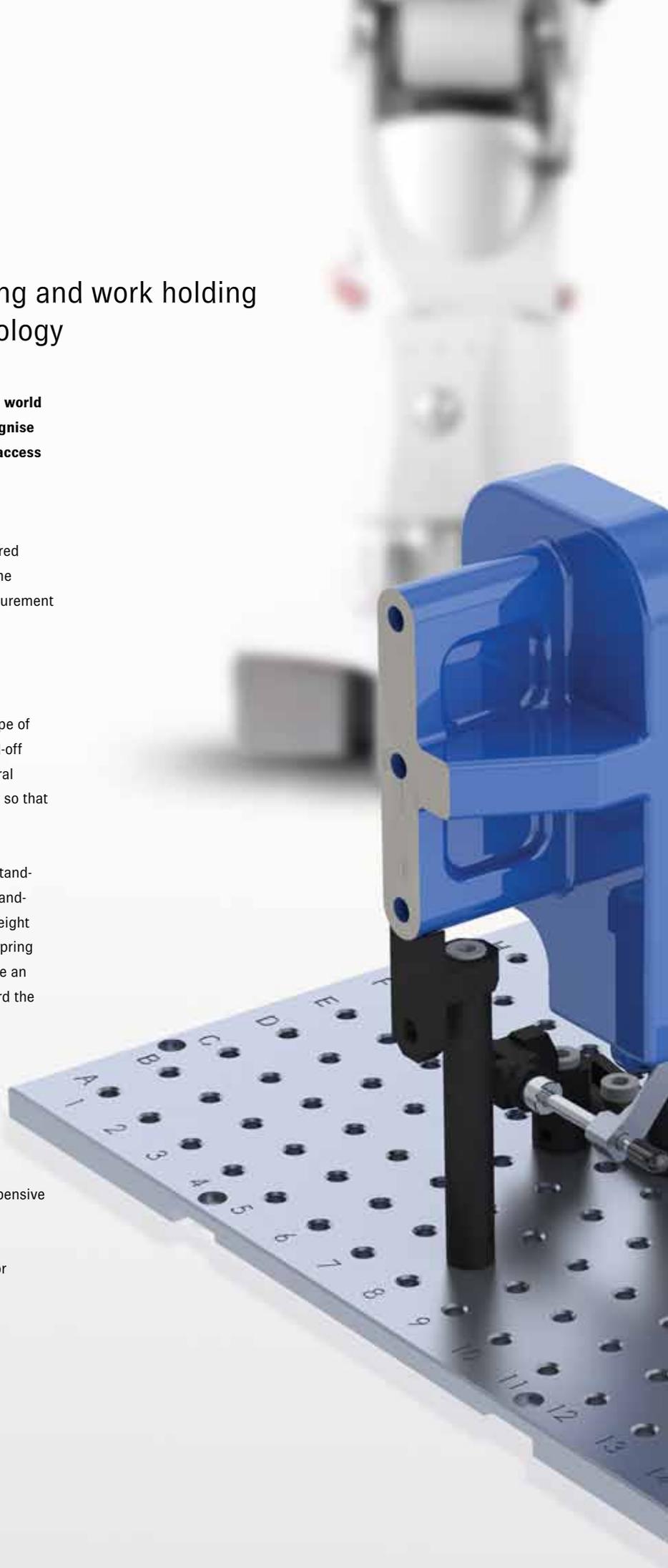
Wide range of accessories

A wide range of accessories are available to suit every type of component holding. The basis of the system is the Stand-off which screws into the base plate and is available in several diameters and lengths. These also connect to each other so that exact heights can be reached.

Fittings are available which connect to the end of these stand-offs to give even greater holding flexibility and include stand-off pins, magnets, cones, universal joints, vee locators, height adjusters etc. In addition thumbscrews, toggle clamps, spring plungers and tension spring posts are available to provide an infinite variety of solutions, in fact no matter how awkward the component, Swift-fix offers a solution for holding it.

Major benefits of Swift-fix include:

- Repeatable location of parts.
- Maximum access for probing.
- Aids accurate and repeatable measurement.
- Unlimited configurations from one kit - no need for expensive dedicated fixtures.
- Simple to build.
- Wide range of clamping and holding options - even for flexible parts.





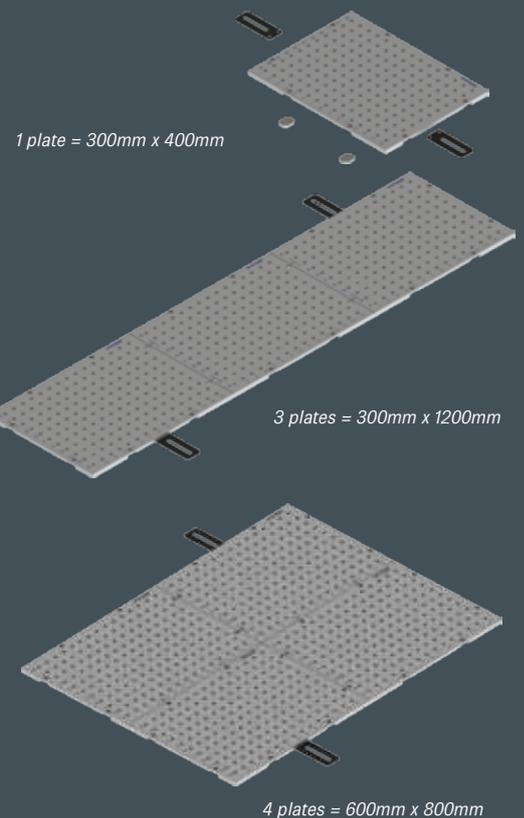
Swift-fix Kits

Swift-fix is available in 3 standard kits (Bronze, Silver & Gold) which are supplied in a rigid plastic carry case with protective high density foam inserts.

One size suits all

Flexibility is another major requirement, particularly where component size varies. Another unique feature of Swift-Fix is that it is a modular system which allows base plates to be linked together to suit larger components and ensure the hole pitch between plates is maintained.

The lightweight base plates are 12mm thick, each containing M8 tapped holes. Each base plate is supplied with a connection kit allowing multiple base plates to be attached together, forming one large fixture plate.



1 plate = 300mm x 400mm

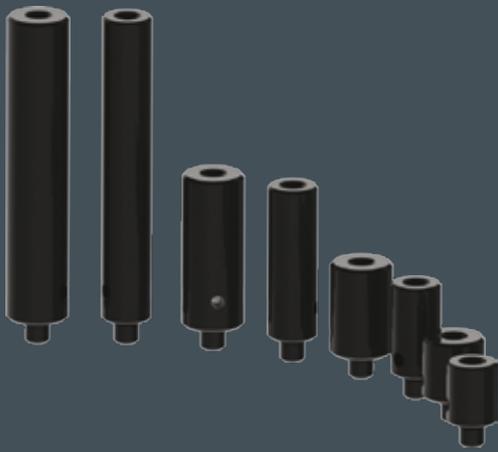
3 plates = 300mm x 1200mm

4 plates = 600mm x 800mm

Smart design: Practical uses

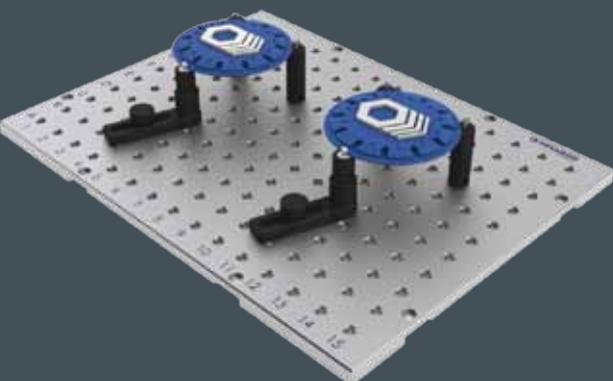
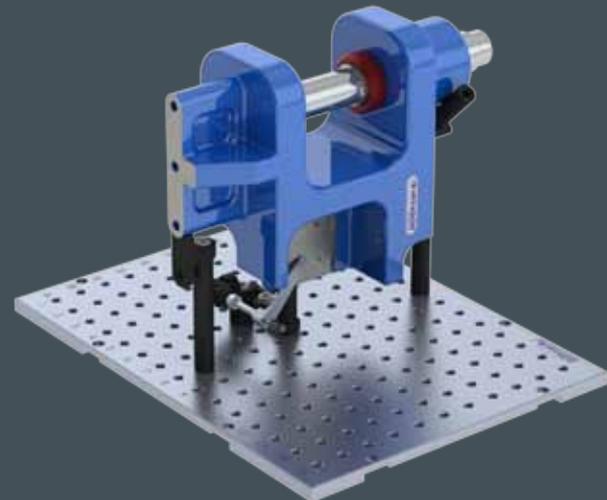
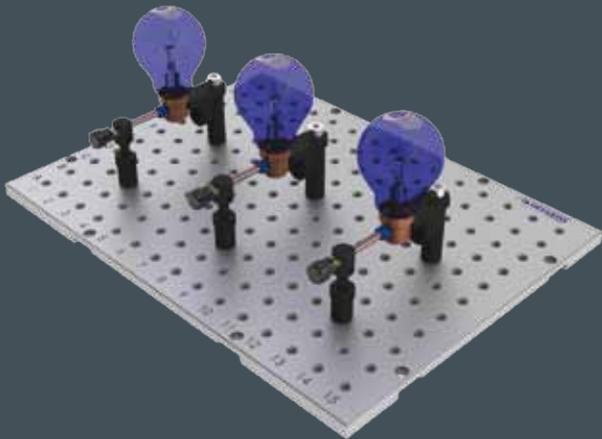
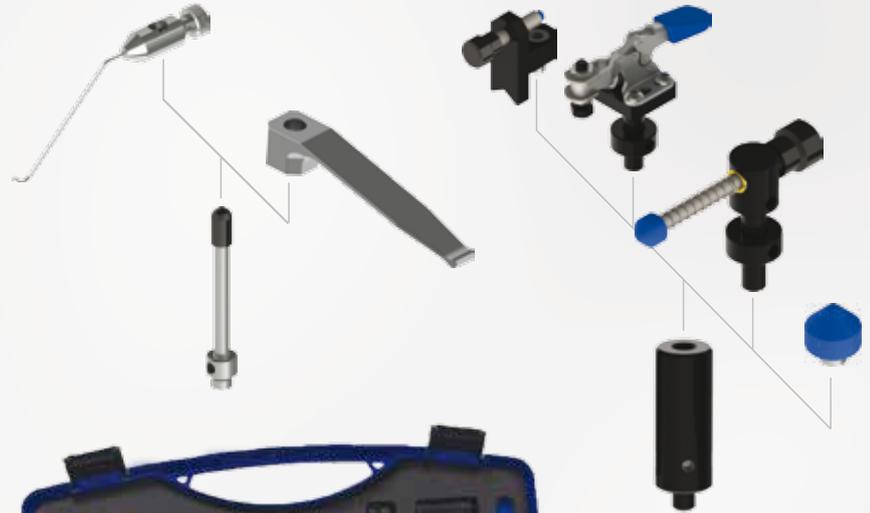
All the fixtures you need in one box - just build, use, break down and build again!

The smart thing about using modular fixturing over traditional fixtures is that you get the ability to construct hundreds of different fixtures from just one kit meaning a very quick return on investment. Set-up is quick and easy with Swift-fix, you can even create fixtures to hold multiple parts thus increasing the throughput of your measuring device. Swift-fix is suitable for use with many types of measuring systems like automatic CMMs and manually operated Portable Measuring arms.



Stand-off - the key component in any fixture

Swift-fix stand-offs will feature in nearly every fixture that you design and build. The stand-off is the item which gives your fixture height and therefore accessibility. Stand-offs screw together in order to achieve the height you need. Stand-offs come in 2 diameters (16mm & 20mm) and 4 lengths (20, 30, 50 & 100mm long).

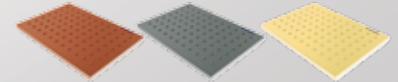


Swift-fix Kits

Swift-fix kits - match the kit to the complexity of your workpiece.

Swift-fix can be supplied as separate items, but the most cost effective method is to purchase the parts in kit form. Swift-fix kits come in 3 different standards to match the intricacy of the parts you need to measure.

1. Choose which kit best suits your requirement from the Bronze, Silver or Gold kits listed in the table below. Each kit comes complete with a handy storage case.
2. Choose the required quantity of baseplates for the size of fixture you need to make. Each Base Plate is 300mm x 400mm, they come complete with a connection kit which allows for the infinite connection of base plates to make as large a fixture as you require.

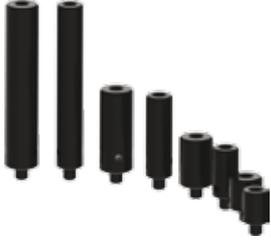
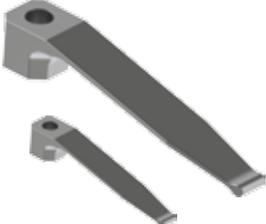
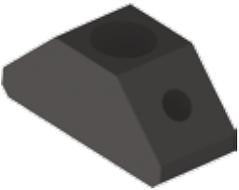


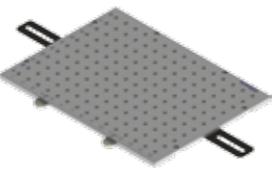
Item	Part Number	Bronze	Silver	Gold
Ø16 x 20 Stand Off	FX-SO16/20	3	4	5
Ø16 x 30 Stand Off	FX-SO16/30	3	4	5
Ø16 x 50 Stand Off	FX-SO16/50	3	4	5
Ø16 x 100 Stand Off	FX-SO16/100	2	2	3
Ø20 x 20 Stand Off	FX-SO20/20	3	4	5
Ø20 x 30 Stand Off	FX-SO20/30	3	4	5
Ø20 x 50 Stand Off	FX-SO20/50	2	4	5
Ø20 x 100 Stand Off	FX-SO20/100	2	2	3
Cones - Nylon	FX-CONE	3	3	6
M8 Thumbscrews	FX-THUMB	2	4	8
Tension Clamp Posts	FX-CTPOST	2	3	4
Slider Blocks	FX-SLIDER	2	2	3
Stand Off Flat Magnets	FX-SO/MAG	2	2	3
Tension Clamp Medium	FX-CTMED	2	2	2
Stand Off Pin	FX-SO/PIN	2	2	2
Lateral Pressure Pin	FX-LATMED	1	1	2
Height Adjuster	FX-HEIGHT	1	1	2
Plastic Case & Foam	FX-CASE	1	1	1
Stand Off Support	FX-SO/SUPP	-	3	3
Spring Clamp	FX-SPRING	-	1	2
Spring Plunger	FX-PLUNGER	-	1	2
Support Stop Assy	FX-SUP/STOP	-	1	2
Vertical Pillar	FX-PILLAR250	-	1	2
Universal Joint	FX-UNI/JOINT	-	1	2
Toggle Clamp	FX-TOG	-	1	1
Vee Assembly	FX-VEE	-	-	2
Special Capscrew M8x16	FX-TOOLS	2	2	2
Special Capscrew M8x20		2	2	2
6mm Allen Key		1	1	1
Tommy Bar		2	2	2
Bottle Lubricant		1	1	1
User Guide		1	1	1
Base Plate 300mm x 400mm	FX-BP300/400	Order Separately		
Base Plate 400mm x 600mm	FX-BP400/600	Order Separately		



Catalogue

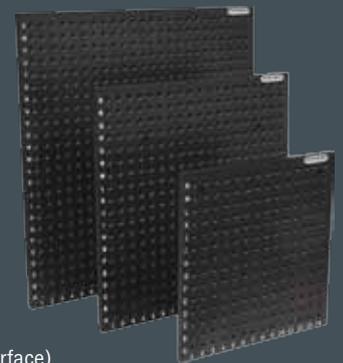
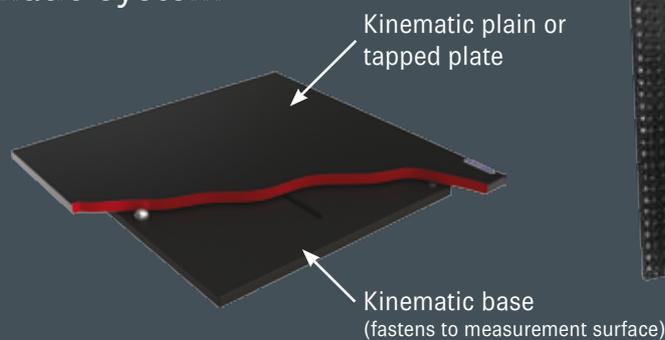
The complete list of Swift-fix parts

	<p>STAND OFFS</p> <p> Ø16 x 20mm long FX-16/20 Ø16 x 30mm long FX-16/30 Ø16 x 50mm long FX-16/50 Ø16 x 100mm long FX-16/100 </p>		<p> Ø20 x 20mm long FX-20/20 Ø20 x 30mm long FX-20/30 Ø20 x 50mm long FX-20/50 Ø20 x 100mm long FX-20/100 </p>	
	<p>STANDOFF PIN FX-SO/PIN</p> <p>Enables thin components to be both supported and located with minimal obstruction.</p>		<p>TOGGLE CLAMP FX-TOG</p> <p>The Toggle clamp allows adjustment in two directions, it is quick to operate and can apply a more positive pressure.</p>	
	<p>STANDOFF MAGNET FX-SO/MAG</p> <p>Fits into any M8 female thread, will exert excellent magnetic influence to ensure reliable and repeatable holding of steel components.</p>		<p>UNIVERSAL ARM FX-ARM</p> <p>This flexible element can achieve the most complex position with only a single locking handle. It becomes a valuable component when used with the 50mm Universal Clamp</p>	
	<p>STANDOFF SUPPORT FX-SO/SUPP</p> <p>Fits into any M8 female thread and can locate and protect customer parts from damage.</p>		<p>CONE NYLON FX-CONE</p> <p>Fits into any M8 female thread and can locate and protect customer parts from damage.</p>	
	<p>CLAMP TENSION</p> <p>Small FX-CTSMML Medium FX-CTMED</p> <p>Ideal finger clamp when medium force clamping is required combined with minimum obstruction.</p>		<p>HEIGHT ADJUSTOR FX-HEIGHT</p> <p>Fits onto the standard M8 female thread and allows variable height settings to be achieved.</p>	
	<p>SPRING CLAMP FX-SPRING</p> <p>Ideal finger clamp when low force clamping is required combined with minimum obstruction.</p>		<p>SLIDER BLOCK FX-SLIDER</p> <p>This element enables positions that are not covered by the hole pitching on the standard plate to be achieved. Infinitely variable.</p>	
	<p>TENSION POST FX-POST</p> <p>For use with Tension & Spring Clamps only. This post accommodates both small and medium Clamps</p>		<p>UNIVERSAL JOINT FX-UNI/JOINT</p> <p>The universal joint can be rotated in 45 deg increments and locked with the capscrew supplied.</p>	
	<p>SPRING PLUNGER FX-PLUNGER</p> <p>The Spring Plunger exerts low forces to hold components that may be easily influenced by other methods of clamping.</p>		<p>VEE LOCATOR FX-VEE</p> <p>Fits onto the baseplate or on top of standoffs. Add standoff's to form a large vee which can locate large components.</p>	

	<p>CLAMP 50mm UNIVERSAL FX-CLAMP</p> <p>For use complex forms or shapes. Ideal for sheet metal panels or tubes.</p>		<p>THUMBSCREW FX-THUMB</p> <p>Enables the Slider Block and Pillar to be secured onto the Baseplate.</p>
	<p>CASE & FOAM INSERT FX-CASE</p> <p>Swift-fix Case and foam insert only</p>		<p>250mm PILLAR FX-PILLAR/250</p> <p>Locate many of the Swift fix elements vertically. It can be fixed to either the base plate or the CMM table with two thumbscrews</p>
	<p>LATERAL CLAMP FX-LATMED</p> <p>Ideal for thin sheet metal or plastic components. The lateral pressure button is tapered to ensure the component is pulled down to a location face.</p>		<p>TOOLS FX-TOOLS</p> <p>Contains: 6mm Allen key, Tommy bar x 2, lubrication oil and special capscrews (2 off M8x16mm and 2 off M8x20mm).</p>
	<p>BASEPLATE FX-BP300/400 FX-BP400/600</p> <p>Universal Aluminium grid plate, with M8 holes set at 25 mm pitch. Alpha Numeric identification. Comes with 2x Retainer plates, 2x Joint plates, 2x Capscrews and 2 x Fixing screws.</p>		<p>SUPPORT STOP ASSY FX-SUP/STOP</p> <p>Allows the user to apply a positive clamping force with variable pressure according to the operator. When inverting the assembly it can be used as a small Vee.</p>
<p>Kits (See page 5)</p>	 <p>BRONZE FX-BRONZE/KIT 46 Elements</p>	 <p>SILVER FX-SILVER/KIT 66 Elements</p>	 <p>GOLD FX-GOLD/KIT 93 Elements</p>

Legacy Baseplates & Kinematic system

The previous version of Swift-fix included square tapped plates and a kinematic location system, whilst this is not standard in the kits available today, we are still able to supply this to order. The kinematic plate system allows for fixtures to be placed onto an automatic CMM without the need for a manual alignment - literally 'load and go'.



Legacy Tapped Baseplates*		Legacy Kinematic System*			
Size	Order Code	Size	Kinematic base	Plain plate	Tapped Plate
300mm x 300mm	BP-300/300	Kinematic 300mm x 300mm	KB-250/250	KPP-300/300	KPT-300/300
400mm x 400mm	BP-400/400	Kinematic 400mm x 400mm	KB-300/300	KPP-400/400	KPT-400/400
500mm x 500mm	BP-500/500	Kinematic 500mm x 500mm	KB-400/400	KPP-500/500	KPT-500/500
600mm x 600mm	BP-600/600				

*Legacy items are manufactured to order

Hexagon Metrology

Hexagon Metrology is part of the Hexagon AB Group and includes leading metrology brands such as Brown & Sharpe, CogniTens, DEA, Leica Geosystems (Metrology Products), Leitz, m&h Inprocess Messtechnik, Optiv, PC-DMIS, QUINDOS, ROMER and TESA. Hexagon Metrology brands represent an unrivaled global installed base of millions of Coordinate Measuring Machines (CMMs), portable measuring systems and handheld instruments, and tens of thousands of metrology software licenses. Hexagon Metrology empowers its customers to fully control manufacturing processes that rely on dimensional precision, ensuring that products manufactured precisely conform to the original product design. The company offering of machines, systems and software is complemented by a wide range of product support, aftermarket and value-added services.

Swift-fix is available from your local Hexagon Metrology representative – find them at:
www.hexagonmetrology.com

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