

MADE IN GERMANY

## MITUTOYO MODULAR FIXTURING SYSTEMS

PRECISION WITH A PASSION

GENERAL



## MITUTOYO FIXTURING SYSTEMS EXPERTISE IN ACCURACY

Industrial inspection and quality control rely on precision measuring machines and precision fixturing alike. Reliable and repeatable fixture set-up is a basic requirement for successful and accurate measurement. Therefore, fixturing is as important a part of proper quality control as the choice of a suitable CMM, form measuring machine or vision measurement system.

Mitutoyo fixture equipment is designed and manufactured with uncompromising precision in mind. Additionally, universality, flexibility, repeatability and efficiency are essential aspects for choosing Mitutoyo fixturing systems. Quintessentially, our products are the result of over 40 years of experience in fixture system development.

eco-fix and eco-fix<sup>plus</sup> are modular fixturing systems for coordinate measuring machines and form measuring machines. The product lines' components can be set up on a wide choice of base plates. The Mitutoyo pallet receiver system secures highest efficiency for manual CMM loading. Even large structures can be covered by building frames with the multiflex<sup>profile</sup> elements. The adjustable vari-fix columns allow free and unrestricted workpiece orientation in any desired set-up position




opti-fix was especially developed for optical measuring systems. eco-fix and opti-fix components can be combined by using adapters, additionally increasing performance and flexibility.

Mitutoyo fixtures set the industrial standard for repeatable and efficient fixturing. The powerful simplicity of our pallet receiver system facilitates the execution of more measurements per shift than any other brand – without impairing the accuracy.

Mitutoyo fixture systems are the result of our long-standing experience and constant enhancement in fixturing technology. This is our way to reward our customers' trust in Mitutoyo products.

Mitutoyo fixtures: For measurably better results.

## Discover the Mitutoyo online styli catalogue

 Straight Styli (442)	 Diamond Coated Styli (29)	 Joints (13)	 Cylinder Styli (15)
 Master Ball (1)	 Machine tool Styli (11)	 Disk Styli (19)	 Tip Styli (5)
 Extensions (70)	 Star Styli (17)	 Screws for Cube (7)	 Tools (3)
 Holders (29)	 Styli for 5-Way Styli (12)	 StyliCleaner (1)	 Styli Kits (18)
 Styli for clamping holder (14)	 Adapters (21)		












### Styli components from Mitutoyo: Add the touch of perfection.

The Mitutoyo product line includes over 1000 stylus components plus highly specialized equipment to provide the best possible solution to your specific measurement needs with a sophisticated sense of touch.

- Precise filtering for fast product access
- Product visualization
- Product description
- Downloadable PDF Drawing
- Competitor cross reference search

## Discover the Mitutoyo online fixture system catalogue

 Base plates (18)	 Build-up components (60)	 Clamping components (57)	 Adapters (6)
 Positioning and stopper components (68)	 Profile components (21)	 Slider components (6)	 Fixturing kits (30)
 Racks (5)	 Base components (59)		



### Mitutoyo fixtures: For measurably better results.

Our CMM fixturing product lines eco-fix, eco-fixplus and the multi-flexprofile series ensure that from small and light to large and heavy workpieces, everything can be fixtured and measured with ease.

- Filtering function for fast product access
- Product visualization
- Product description
- Drawing

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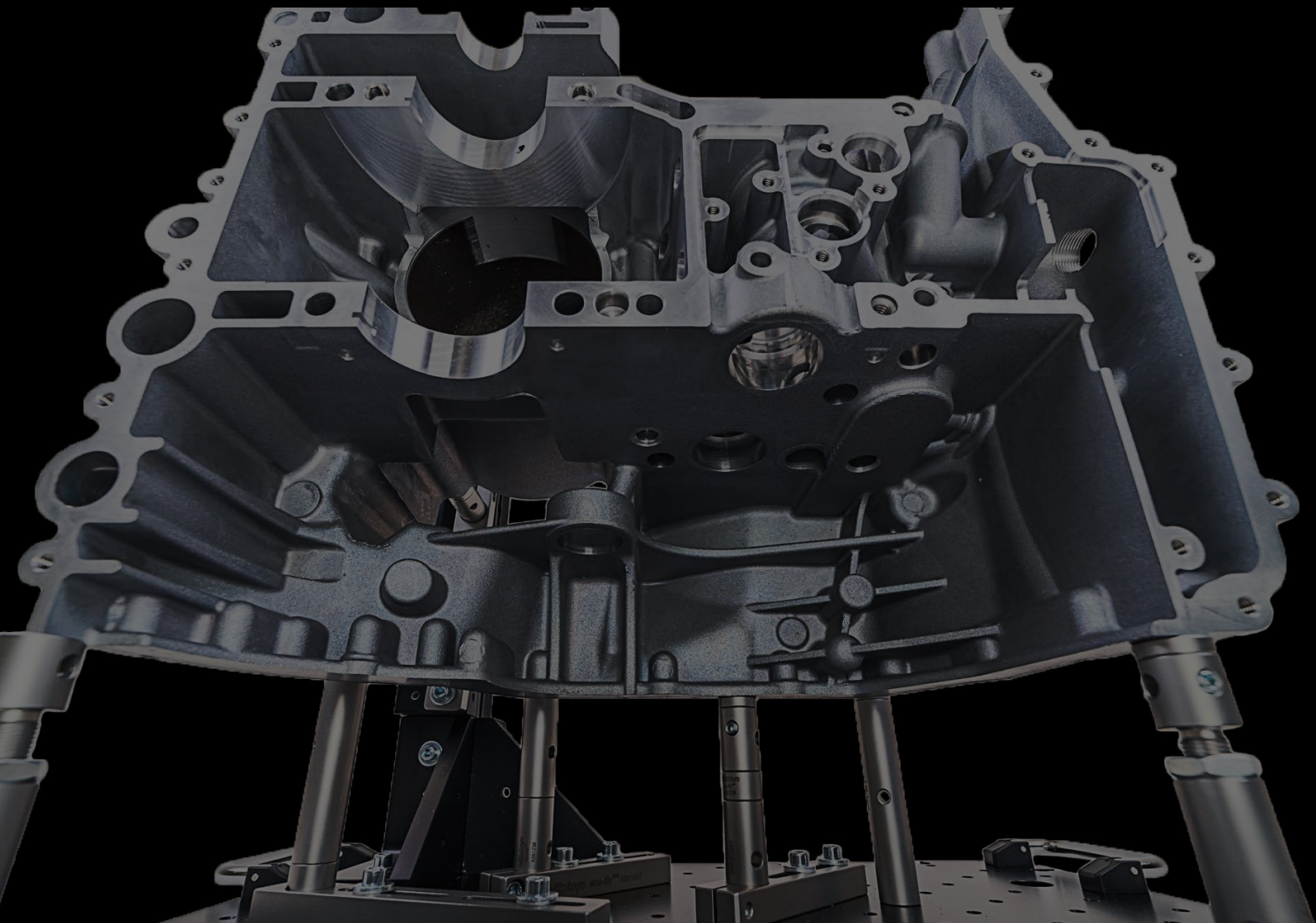
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# Modular Fixturing Systems

## Product Lines

Mitutoyo modular fixturing series **eco-fix** and **eco-fix<sup>plus</sup>** are fast and affordable solutions to get workpieces clamped on the coordinate measuring machine. In just a few minutes, your fixture is ready for measurement. Therefore, **eco-fix** and **eco-fix<sup>plus</sup>** are attractive alternatives to customised jigs.

These modular clamping systems for CMM allow relaxed working in many ways. Systematical design, keeping an eye on the essential: **eco-fix** and **eco-fix<sup>plus</sup>** concentrate on accomplishing nearly every

clamping task in a likewise constant performance optimising way. Applications in aerospace, automotive, electronics or medical industry are suited with a full solution. Logically assignable elements in an uncomplicated and user-friendly design build-up on the base plate equipped only with threads.

The results are systematic efficiency at compelling profitability and considerably reduced costs at enormous versatility.

### eco-fix

Hard-anodized aluminium components for small to midsize and -weight workpieces guarantee an outstanding durability and resistibility. The **eco-fix** line features M6 threading.



Receiver bracket



Joint



Column

### eco-fix<sup>plus</sup>

Stainless steel components for midsize to large and heavy workpieces – long-lasting operation even under rough conditions. M6 threading. **eco-fix<sup>plus</sup>** benefits from our decade long experiences with **eco-fix** and **repro-fix**, its direct predecessor, combining the best of both product lines.

**eco-fix** and **eco-fix<sup>plus</sup>** are combinable and expandable as required, increasing the economic benefit compared to other clamping systems.



Receiver bracket



Spring loaded contact point



Adjustable positioning pin

# The Mitutoyo CMM fixturing range

With our fixturing ranges, it's easy to document your repeatable fixture set-up for reduced variation:

- Part numbers featured on all elements for easy identification of the components.



- Alpha numeric grid pattern on all base plates for simplified positioning and relocation of elements.



- Mitutoyo clamping systems feature positioning components made from hardened steel for long last.



# MITUTOYO FIXTURES



# Modular Fixturing Systems

## Product Lines

### Reproducible structure

The reproducible structure enables the workpiece to be positioned in the same spatial position for repeated measurements.

### Consistently compatible

With a range of system components that has been constantly improved over the years, a wide variety of clampings can be implemented: from the watch case to the vehicle body. The basic grid and assembly principle always remain the same. In this way, all components are used consistently. A convincing concept: for recurring measuring tasks and for the one-off fixing of parts!

### Practice-oriented and economical

The eco-fix and eco-fix<sup>plus</sup> clamping systems were specially developed for coordinate measuring technology. During development, the focus was on fundamental properties:

- universal system
- logical concept
- highly economical
- reproducible set-up
- high rigidity
- high strength
- easy handling
- flexible application

### Optimal accessibility

The linear structure and the direct screw connection of the construction components ensure maximum stability with optimum accessibility to the test part.

### Reduced costs

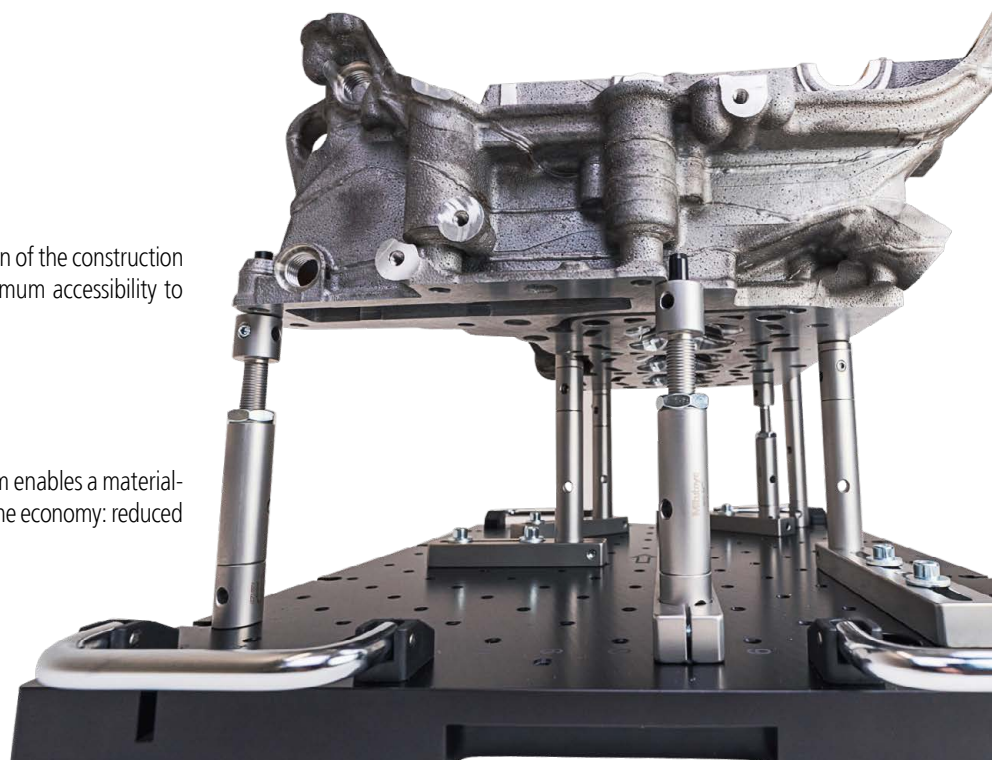
The high flexibility of the Mitutoyo fixturing system enables a material-saving construction. This advantage is reflected in the economy: reduced costs and small storage volume.

### Universal set-up

The receiving elements are screwed directly onto the base. The use of bolts and brackets as central components has proven itself in practice. With them, the support and clamping points can be reached very quickly and straightforward, because both the angle position and the height and overhang of the straps are infinitely adjustable. The design is not only material-saving and therefore inexpensive, but also very slim, which is reflected in good accessibility to the workpiece. The components used to build the receiving columns guarantee excellent stability. The direct screwing of the components, both to the base and to each other, contributes to this. It also makes the system easier to use, since no assembly aids are required.

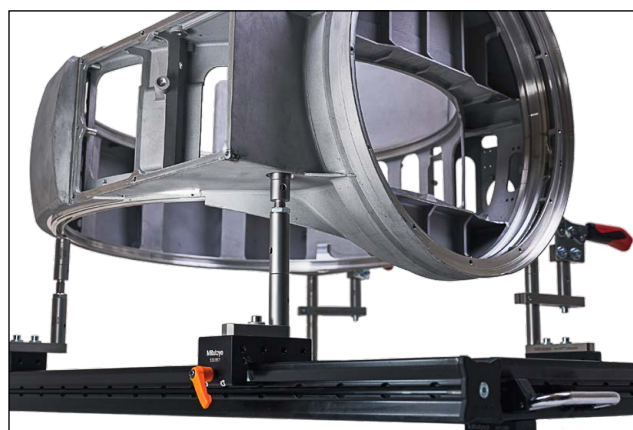
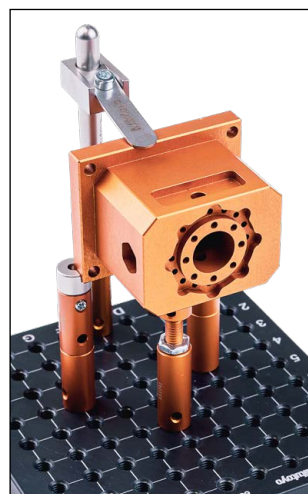
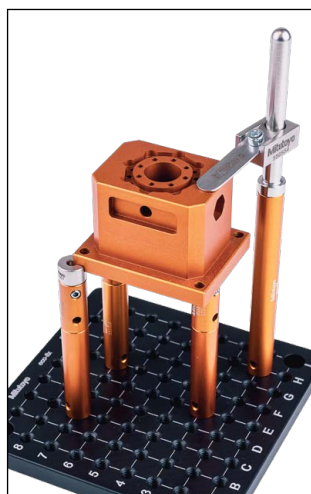
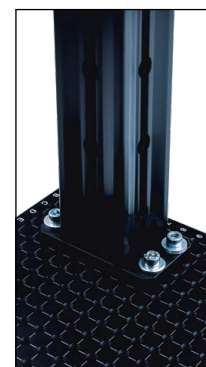
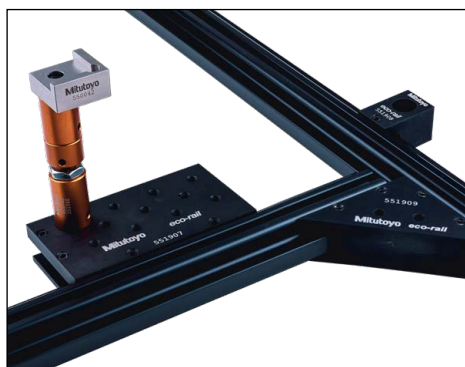
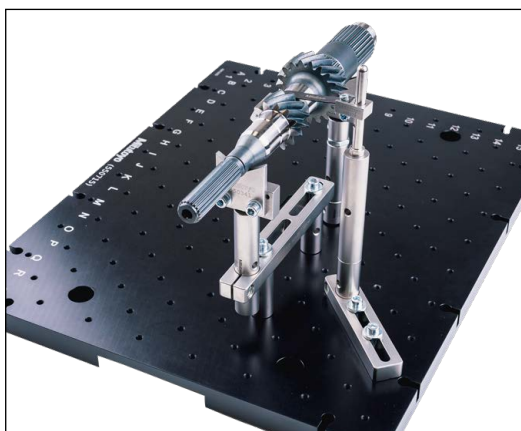
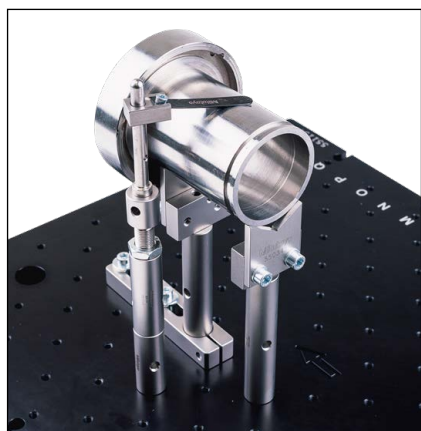
- Fits all CMM brands
- Build your individual fixture in only 20 minutes!
- Fast & affordable
- Easy adaption to product changes
- Purchase one kit for each workpiece

**Mitutoyo's fixturing systems for improved reproducibility and accuracy of inspection!**





# The Mitutoyo CMM fixturing range



# Modular Fixturing Systems

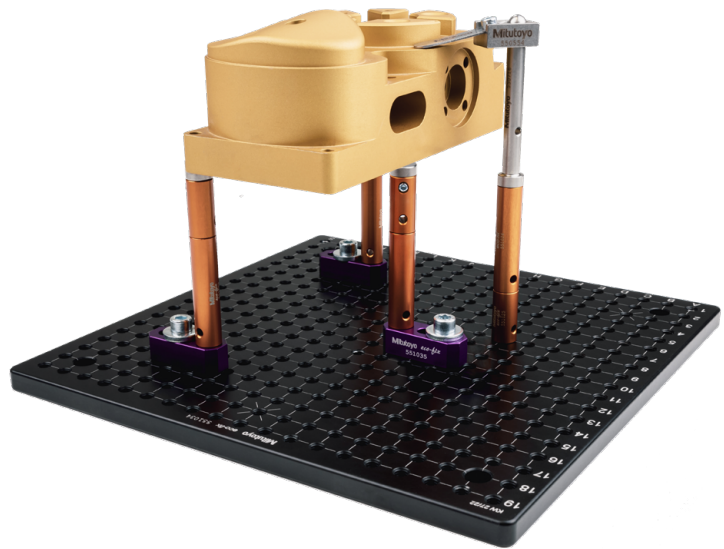
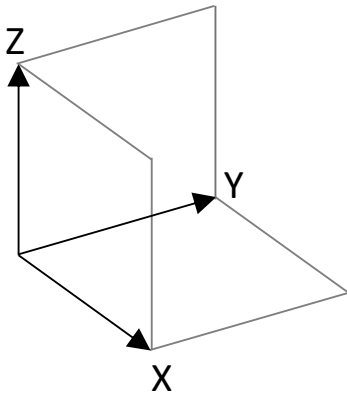
## The basics of fixturing

In metrology, a distinction is made between 2 types of coordinate systems:

- Machine coordinate system
- Workpiece coordinate system

Both consist of 3 levels (Cartesian coordinate system):  
XY, YZ and XZ plane.

Three mutually perpendicular reference surfaces of a workpiece, each of which has three, two or one reference points for alignment, are defined as a reference system.



### 3-2-1 fixturing principle:

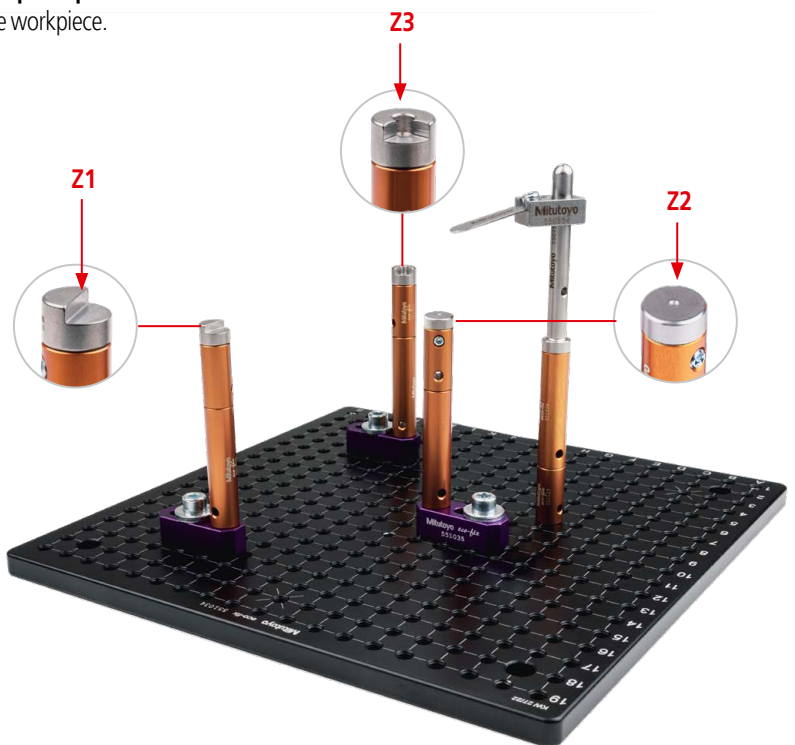
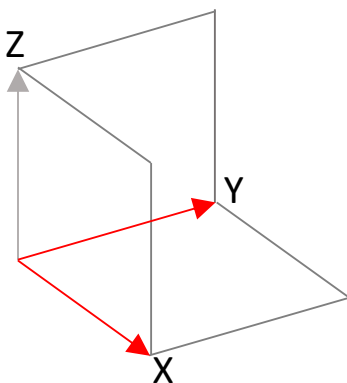
Based on the 3 planes, as defined above, the so-called **3-2-1 principle** is used, which applies to both clamping and alignment of the workpiece.

#### Example:

- 3 contact points in the **Z-Axis** (XY-plane)
- 2 contact points in the **X-Axis** (YZ-plane)
- 1 contact point in the **Y-Axis** (XZ-plane)

### 3-2-1 fixturing principle:

- 3 contact points in the **Z-Axis** (XY-plane)



# The Mitutoyo CMM fixturing range

Our positioning and support components offer multiple plane workpiece support.



**Backstopper**  
3 plane support  
X, Y and Z

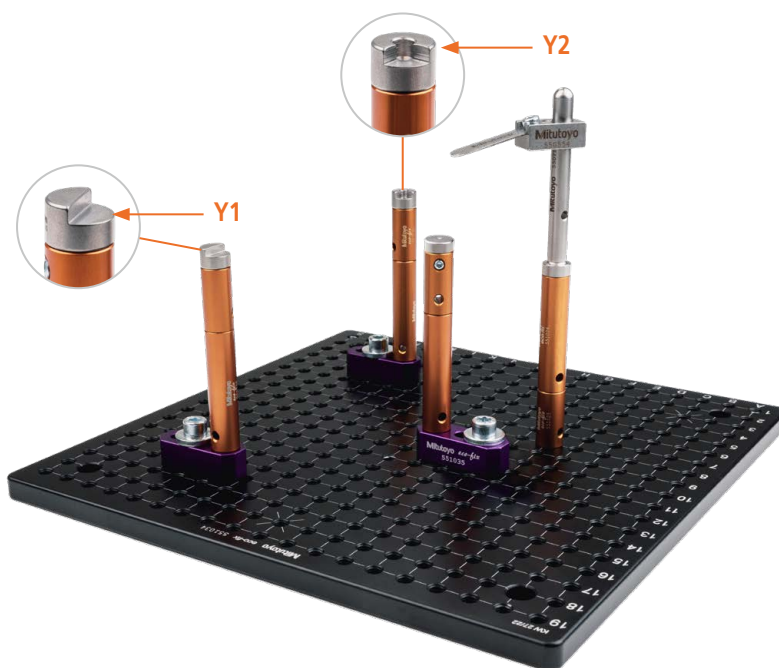
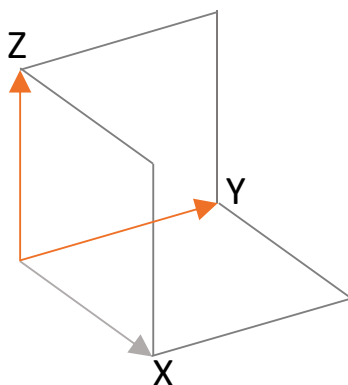


**Stopper**  
2 plane support  
X or Y and Z

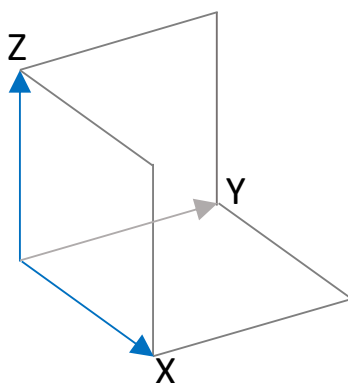


**Flat top**  
1 plane support  
Z

**3-2-1 fixturing principle:**  
2 contact points in the X-Axis (YZ-plane)




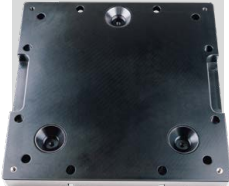
**3-2-1 fixturing principle:**  
1 contact point in the Y-Axis (YZ-plane)



# Modular Fixturing Systems

## Base Components – Base Plates

Successful fixturing tasks need to rely on a solid base. Therefore, we provide a wide range of standard product base plates and a comprehensive line-up of profiles to perfectly suit the application. We are also open for customization requests.

COMPONENT TYPE						MATERIAL																									
<p><b>eco-fix base plates</b> M6 threaded grid, 12,5mm or 25,0 mm grid pattern. Fully compatible to eco-fix and eco-fix<sup>plus</sup> components. Made from thickness 15,0 mm. Lighter build for fully manual handling.</p> <table border="1"> <thead> <tr> <th>Part No.:</th> <th>Available Sizes</th> <th>Thickness</th> <th>Thread</th> <th>Thread grid pattern spacing</th> </tr> </thead> <tbody> <tr> <td>K551306</td> <td>125 x 125 mm</td> <td>10 mm</td> <td>M6</td> <td>12,5 x 12,5 mm</td> </tr> <tr> <td>K551226</td> <td>250 x 125 mm</td> <td>10 mm</td> <td>M6</td> <td>12,5 x 12,5 mm</td> </tr> <tr> <td>K551034</td> <td>250 x 250 mm</td> <td>10 mm</td> <td>M6</td> <td>12,5 x 12,5 mm</td> </tr> <tr> <td>K551533</td> <td>500 x 400 mm</td> <td>25 mm</td> <td>M6</td> <td>25 x 25 mm</td> </tr> </tbody> </table> <p>Other sizes on request</p>						Part No.:	Available Sizes	Thickness	Thread	Thread grid pattern spacing	K551306	125 x 125 mm	10 mm	M6	12,5 x 12,5 mm	K551226	250 x 125 mm	10 mm	M6	12,5 x 12,5 mm	K551034	250 x 250 mm	10 mm	M6	12,5 x 12,5 mm	K551533	500 x 400 mm	25 mm	M6	25 x 25 mm	Hard-coated Aluminium
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<p><b>eco-fix<sup>plus</sup> base plates for conventional use and for Manual Loading Systems MPS</b> M6 25,0 mm or 50,0 mm grid pattern base plates. Fully compatible to eco-fix and eco-fix<sup>plus</sup> components. Thickness 25,0 mm. Thicker build for sufficient stiffness when handling heavier workpieces. Prepared for 3-point ball support on the CMM. Can be used with the manual CMM loading system range MPS.</p> <table border="1"> <thead> <tr> <th>Part No.:</th> <th>Available Sizes</th> <th>Thickness</th> <th>Maximum load</th> <th>Thread</th> <th>Thread grid pattern spacing</th> </tr> </thead> <tbody> <tr> <td>K551138</td> <td>250 x 250 mm</td> <td>25 mm</td> <td>60kg</td> <td>M6</td> <td>25 x 25 mm</td> </tr> <tr> <td>K551137</td> <td>500 x 400 mm</td> <td>25 mm</td> <td>120 kg</td> <td>M6</td> <td>50 x 50 mm</td> </tr> <tr> <td>K551202</td> <td>600 x 600 mm</td> <td>25 mm</td> <td>250 kg</td> <td>M6</td> <td>50 x 50 mm</td> </tr> </tbody> </table> <p>Other sizes on request</p>						Part No.:	Available Sizes	Thickness	Maximum load	Thread	Thread grid pattern spacing	K551138	250 x 250 mm	25 mm	60kg	M6	25 x 25 mm	K551137	500 x 400 mm	25 mm	120 kg	M6	50 x 50 mm	K551202	600 x 600 mm	25 mm	250 kg	M6	50 x 50 mm	Hard-coated Aluminium  	
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K551202	600 x 600 mm	25 mm	250 kg	M6	50 x 50 mm																										
<p><b>System pallets for Manual Loading Systems MPS</b> Non threaded system-base plates for full customization. Customization can be executed by Mitutoyo, customer or third party company. Thickness 25,0 mm. Prepared for 3-point ball support on the CMM.</p> <table border="1"> <thead> <tr> <th>Part No.:</th> <th>Available Sizes</th> <th>Thickness</th> <th>Maximum load</th> <th>Thread</th> <th>Thread grid pattern spacing</th> </tr> </thead> <tbody> <tr> <td>K551356</td> <td>250 x 250 mm</td> <td>25 mm</td> <td>60kg</td> <td></td> <td>none</td> </tr> <tr> <td>K551357</td> <td>500 x 400 mm</td> <td>25 mm</td> <td>120 kg</td> <td></td> <td>none</td> </tr> <tr> <td>K551358</td> <td>600 x 600 mm</td> <td>25 mm</td> <td>250 kg</td> <td></td> <td>none</td> </tr> </tbody> </table> <p>These plates are also available without threaded grid for full customization. Other sizes on request.</p>						Part No.:	Available Sizes	Thickness	Maximum load	Thread	Thread grid pattern spacing	K551356	250 x 250 mm	25 mm	60kg		none	K551357	500 x 400 mm	25 mm	120 kg		none	K551358	600 x 600 mm	25 mm	250 kg		none	Hard-coated Aluminium  	
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<p><b>Special base plates for CMM</b> M6 50,0 mm grid pattern base plates. Fully compatible to eco-fix and eco-fix<sup>plus</sup> components. Thickness 15,0 mm.</p> <table border="1"> <thead> <tr> <th>Available Sizes</th> <th>Thickness</th> <th>Thread</th> <th>Thread grid pattern spacing</th> </tr> </thead> <tbody> <tr> <td>according to CMM model</td> <td>15 mm</td> <td>M6</td> <td>50 x 50 mm</td> </tr> </tbody> </table> <p>Other sizes and models on request. The plates can be customized for any CMM brand.</p>						Available Sizes	Thickness	Thread	Thread grid pattern spacing	according to CMM model	15 mm	M6	50 x 50 mm	Hard-coated Aluminium																	
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# The Mitutoyo CMM fixturing range




eco-fix and eco-fix<sup>plus</sup> compatible base component systems:

	APPLICATION	PRODUCT LINES
		<p>eco-fix</p>
		<p>eco-fix<sup>plus</sup></p>
		<p>eco-fix eco-fix<sup>plus</sup></p>
		<p>eco-fix eco-fix<sup>plus</sup></p>

# Modular Fixturing Systems

## Base Components – profile frame systems

In order to set-up bigger workpieces measurement ready, Mitutoyo has developed three profile types that offer endless options of combination and in fixture construction. The weight and cost efficiency is another striking feature of the multiflex<sup>profile</sup> line.

COMPONENT TYPE	MATERIAL
<p><b>multiflex<sup>profile</sup> rail</b> - Single function:</p> <ul style="list-style-type: none"> <li>• Dovetail profile rail</li> </ul> <p>Fix the rail directly on the CMM granite. Set-up the fixture structure directly on the machine</p> <p>Dovetail slider components for attachment and positioning of eco-fix and eco-fix<sup>plus</sup> components. Lengths and screw hole positioning are customizable.</p> 	<p>Hard-coated Aluminium</p>
<p><b>multiflex<sup>profile</sup> frame</b> - Dual functional profile:</p> <ul style="list-style-type: none"> <li>• Fourfold dovetail</li> <li>• T-nut for flexible positioning</li> </ul> <p>Economically priced and ideal for building base frame structures for large-sized workpieces. Uses dovetail slider components for attachment and positioning of eco-fix and eco-fix<sup>plus</sup> components.</p> 	<p>Hard-coated Aluminium</p>
<p><b>multiflex<sup>profile</sup> profile</b> - Triple function profile:</p> <ul style="list-style-type: none"> <li>• Fourfold dovetail</li> <li>• T-nut for flexible positioning</li> <li>• 50,0 mm bushing hole grid for fixed positioning</li> </ul> <p>Can be used as a large-sized stand-off on frame constructions and base plates. Uses dovetail slider components for attachment and positioning of eco-fix and eco-fix<sup>plus</sup> components. Fix multifix base components to set-up build-up modules on the 50,0 mm grid.</p> 	<p>Hard-coated Aluminium</p>

# The Mitutoyo CMM fixturing range

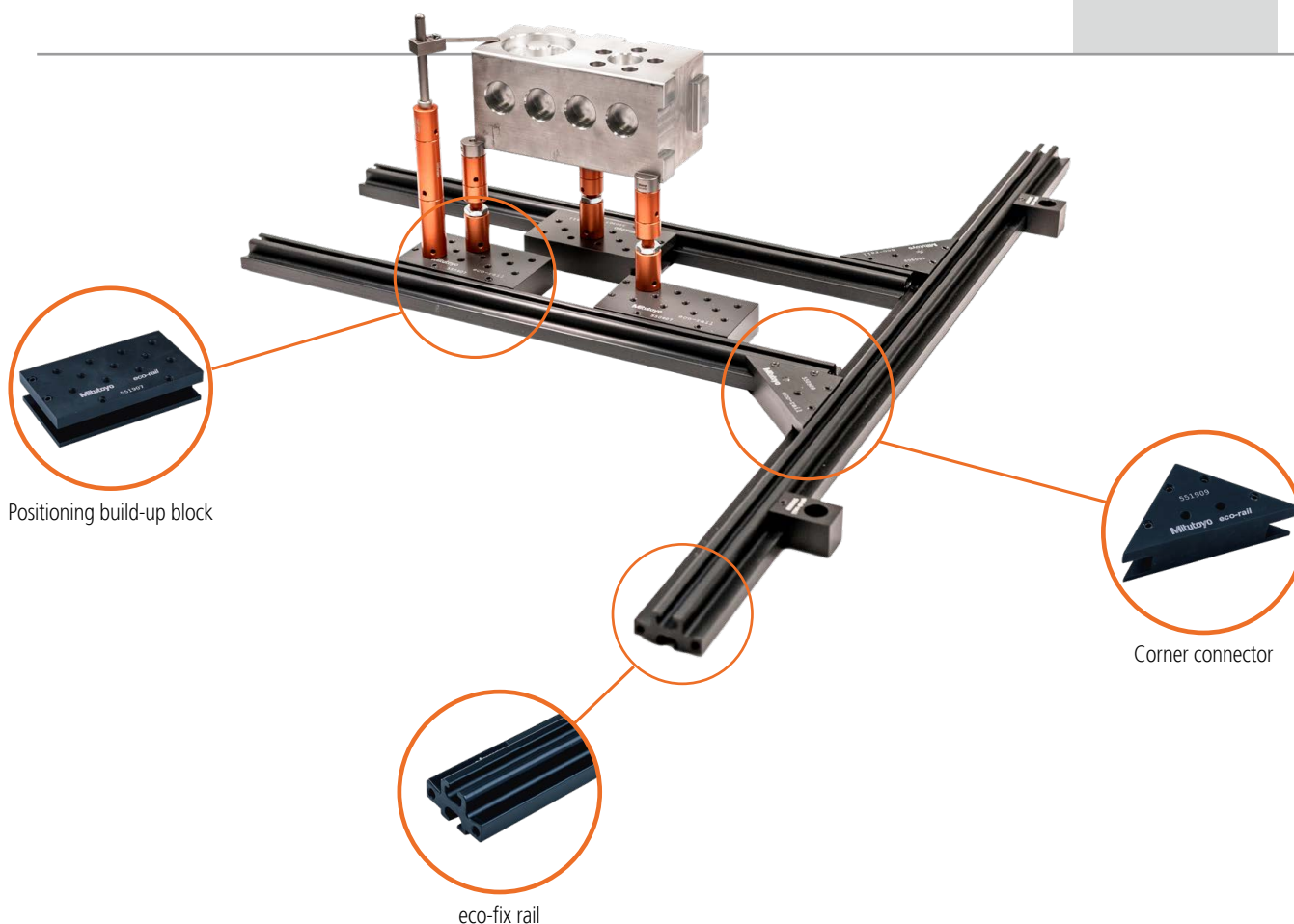
	APPLICATION	PRODUCT LINES
		<p>eco-fix<sup>plus</sup></p>
		<p>eco-fix eco-fix<sup>plus</sup></p>
 <ul style="list-style-type: none"> <li>• 50,0 mm 12,5 mm bushing hole grid on the sides</li> <li>• 10,0 mm diagonally positioned front end bushing holes for twist free stable connection</li> </ul>		<p>eco-fix eco-fix<sup>plus</sup></p>

# Modular Fixturing Systems

## Base Components – eco-fix rail

The ultra-flexible CMM fixturing system eco-fix rail is suitable for small to midsize components. It ensures a fast set-up and change of orientation in just a few simple steps and is hardly limited in its possibilities. Three mini base plates, the positioning build-up blocks can be relocated in seconds, so the mounting points can be freely positioned via the rail system. Just like the corner connectors who determine the actual rail frame size. In the height level, the adjustability is guaranteed using height-adjustable mounting bolts. This enables you to reproducibly clamp workpieces in the measuring volume of the CMM.

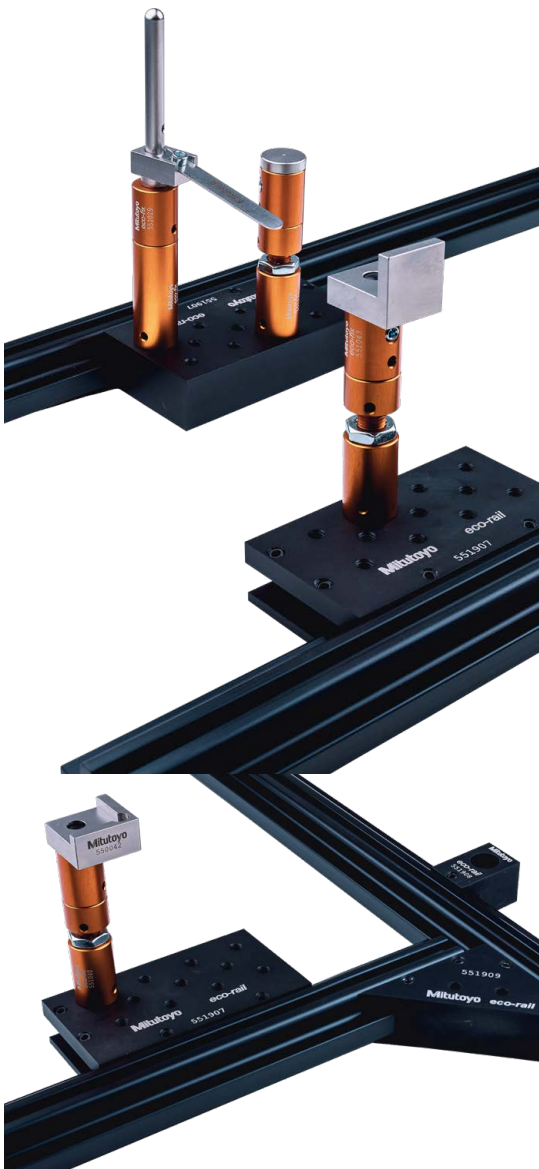

COMPONENT TYPE	MATERIAL
<p><b>eco-fix rail</b> – Flexible positioning rail system using eco-fix and eco-fix<sup>plus</sup> components</p> <ul style="list-style-type: none"> <li>• T-slot implied for additional fixturing options.</li> <li>• Quick change of the base dimension according to workpiece size by moving the <b>corner connectors</b>.</li> <li>• Fast repositioning of the positioning <b>build-up blocks</b> which have the functionality of a small base plate.</li> <li>• Build an angle from the rails to easily reposition a base plate.</li> </ul>	<p>Hard-coated Aluminium</p>





# The Mitutoyo CMM fixturing range








Due to the compatibility of the clamping elements, an expansion of the clamping system is possible at any time. Since the construction of a clamping device can be realized very quickly. Thanks to the well-thought-out system, the little time required is worthwhile even for small series, and even for individual parts. When the build-up blocks are removed, the frame can be used for fast repositioning of the eco-fix base plates.

	APPLICATION	PRODUCT LINES
 <p>Close-up images of Mitutoyo CMM fixturing components. The top image shows a clamping block with a silver handle and orange body mounted on a black base plate. The middle image shows a similar component with a silver handle and orange body mounted on a black base plate. The bottom image shows a clamping block with a silver handle and orange body mounted on a black base plate.</p>	 <p>Three images showing the application of Mitutoyo CMM fixturing to different parts. The top image shows a yellow block being clamped. The middle image shows a clear plastic part being clamped. The bottom image shows a silver wheel being clamped.</p>	<p>eco-fix eco-fix<sup>plus</sup></p>




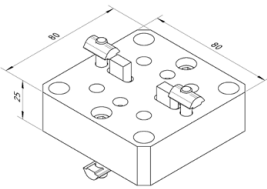




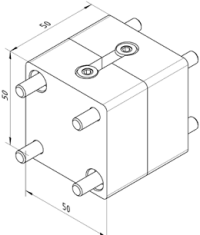

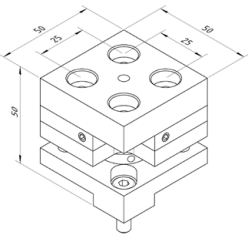

# Modular Fixturing Systems

## Base Components – for profile connection

In order to build a frame structure, several profiles need to be connected. A rectangular frame can be build by using the support angles or the cross connectors, in up right direction the slider connector is the item of choice. End to end connection is carried out with the front-end connector and further alignment with the XYZ adjustment component.

COMPONENT TYPE	MATERIAL
<p>Profile connectors</p> <p><b>multiflex<sup>profile</sup></b></p>  <p>Support angle</p>	Aluminium
  <p>Cross connector</p>	
 <p>Slider components</p>	
 <p>Front-end connector</p> 	
<p>Components for build-up module connection</p> <p><b>multiflex<sup>profile</sup></b></p>  <p>XYZ adjustment</p>	


# The Mitutoyo CMM fixturing range

CONNECTION	APPLICATION		PRODUCT LINES
 <p>For a stable connection to our 50mm grid profiles use: K550461 Positioning bushing 12,5 mm and K551158 T-slot nut M6</p>	<p>For the rectangular connection of profile frames or the support of profiles on base plates</p> 		<p>multiflex<sup>profile</sup> eco-fix eco-fix<sup>plus</sup></p>
  <p>K551158 T-slot nuts and screws included</p>	<p>For the composition of frames or sideways mounting on profile components</p>		<p>multiflex<sup>profile</sup></p>
 <p>Clamping lever</p>	<p>For setting up of adjustable cross connections. The dovetail slider can also be used as a stopper, for repositioning of slider components such as the vari-fix columns</p>		<p>multiflex<sup>profile</sup></p>
 <p>Screws included</p>	<p>For the front-end connection of multiflex profiles</p>		<p>multiflex<sup>profile</sup></p>
 <p>Screws included</p>	<p>For the front-end connection of multiflex profiles and fine positioning in 3 axes</p>		<p>multiflex<sup>profile</sup></p>









# Modular Fixturing Systems

## Base Components – for profile systems

As the abilities for direct attachment of support points and clamping components on the profiles are limited, additional components, the base components for profile systems are required. Therefore, a range of components for connection of build-up modules is available.

COMPONENT TYPE	MATERIAL
<p><b>Components for build-up module connection</b></p> <p><b>multiflex<sup>profile</sup></b></p>  <p>For profiles or base plates</p>  <p>Front end mount on profiles</p>  <p>Free positioning</p>  	<p>Aluminium</p>
<p><b>Slider component for build-up module connection</b></p> <p><b>multiflex<sup>profile</sup></b></p>  <p>Flexible build-up positioning on the profile</p>	

# The Mitutoyo CMM fixturing range

CONNECTION	APPLICATION	PRODUCT LINES
 <p>For a stable connection to our 50mm grid profiles use: K550461 Positioning bushing 12,5 mm and K551158 T-slot nut M6</p>	<p>For the connection of build-up modules on multiflex profiles and base plates</p> <p>Can also be used as an alternative to cylindrical build-up columns on the base plate</p> 	<p>multiflex<sup>profile</sup> eco-fix eco-fix<sup>plus</sup></p>
 <p>For a twist-free and stable connection to the profile end-face use: K551136 positioning bushing 10 mm. (only on the triple function profile)</p>	<p>For the front-end connection of build-up modules on multiflex profiles</p> 	<p>multiflex<sup>profile</sup> eco-fix eco-fix<sup>plus</sup></p>
 <p>For a stable connection to our 50mm grid profiles use: K550461 Positioning bushing 12,5 mm and K551158 T-slot nut M6</p>	<p>For creating free receiving positions in cantilever construction. Also in 90°</p> 	<p>multiflex<sup>profile</sup> eco-fix eco-fix<sup>plus</sup></p>
 <p>Clamping lever</p>	<p>Slider unit M6 For free positioning on multiflex<sup>profile</sup> components, e.g., for the build-up of receiving points</p> 	<p>multiflex<sup>profile</sup> eco-fix eco-fix<sup>plus</sup></p>

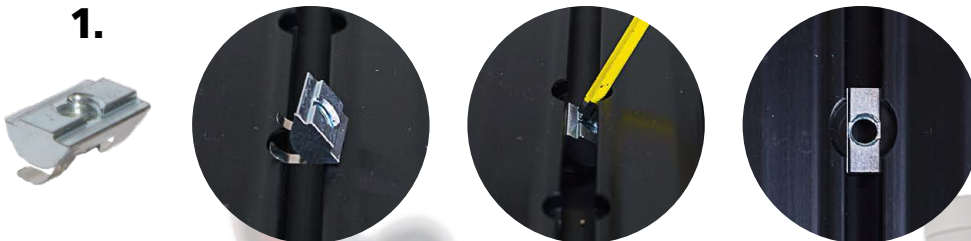
# Modular Fixturing Systems

## Base Components – for profile systems

### How to connect base components for build-up modules on multiflex profiles

In just a few quick steps, the base component is attached on the 50 mm profile grid by using K550461 positioning bushing 12,5 mm and K551158 M6 T-slot nut. The bushing secures the correct positioning of the to be attached component.

1.



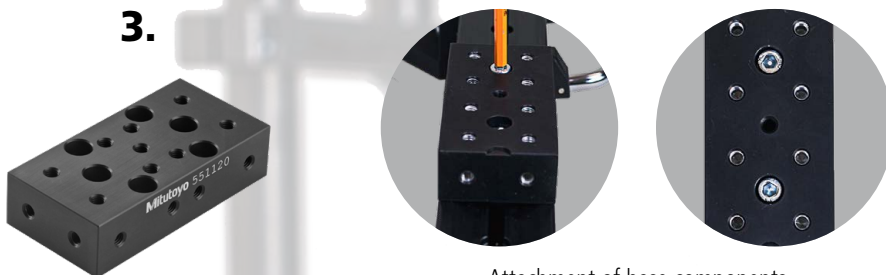
Inserting of the M6 T-nut into the **multiflex<sup>profile</sup>**

2.



Inserting of the positioning bushing

3.



Attachment of base components

# MiStar eco-load duo

## K543667 MiStar eco-load duo

The MiStar eco-load duo two pallet loading station enables a simple and fast workpiece exchange and a maximized throughput at a great price performance ratio.

Multiple safety installations make sure, the operation is safe:

- The lowering monitor switch confirms when the pallet is in position.
- The laser controlled CMM home sensor ensures the measuring head is in home position for loading.
- Rigid pallet locks prevent undesired movement of the pallets.
- Pneumatic pallet lowering action
- Air unit, sensors and communication cables included

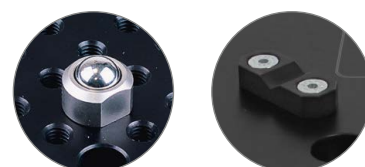


### Optimized for eco-fix

The MiStar eco-load duo uses all advantages of the eco-fix pallet receiver system (see also from page 54). The pallets are set-up in 3-point positioning via attached ball screws in positioning prisms for accurate repositioning.

Required parts:

Part No.:	Description	qty.	see page
K551533	eco-fix pallet L 500x400mm	2	76
K551216	set of handles and ball screws	2	58



Please choose eco-fix kits or single components according to your requirement.

### Pallet exchange



# Modular Fixturing Systems

## Base Components – for profile systems

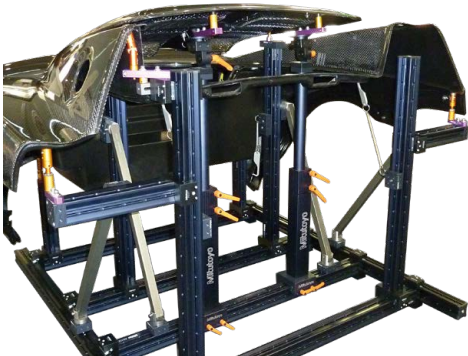
COMPONENT TYPE	MATERIAL
<p>vari-fix slider units Adjustable build-up columns</p> <p>multiflex<sup>profile</sup></p> 	<p>Aluminium</p>

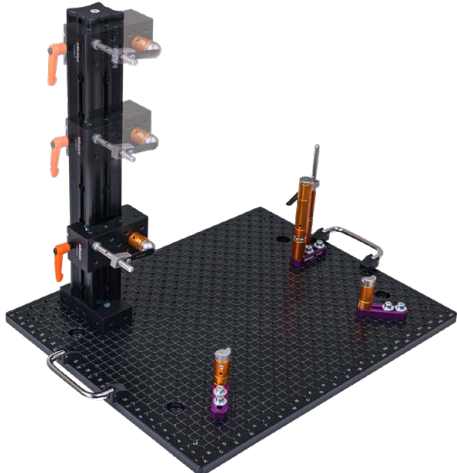
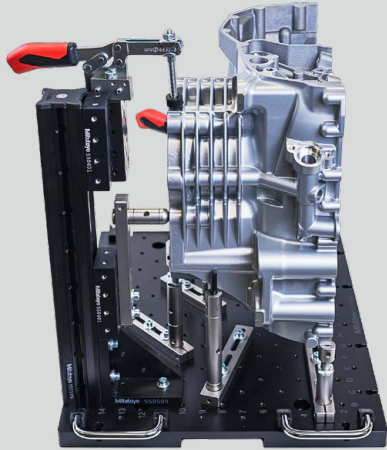
## Base Components – support & multi-position build-up columns

COMPONENT TYPE	MATERIAL
<p>Multi-position build-up columns</p> <p>eco-fix eco-fix<sup>plus</sup></p>  <p>multi-position build-up column and adapter K551212 for base plate attachment</p> <p>multiflex profile as support column</p> <p>multiflex<sup>profile</sup></p> 	<p>Aluminium</p>



# The Mitutoyo CMM fixturing range

CONNECTION	APPLICATION	PRODUCT LINES
<p>Set up receiving and clamping positions with the help of brackets. Adaptation of other components by customizing</p> 	<p>For free and unrestricted orientation of the workpiece in any desired pick-up position and flexible positioning on the multiflex<sup>profile</sup>.</p> <p>The shaft is rotatable, and the head is indexable.</p> <p>375 mm to 1075 mm height</p> <p><b>vari-fix</b> columns are always custom made, tailored to the needs of the customer! Accessories and various versions available on request.</p>	<p>eco-fix eco-fix<sup>plus</sup></p>

CONNECTION	APPLICATION	PRODUCT LINES
<p><b>multiflex<sup>profile</sup></b> and the multi-position build-up columns can be mounted up right on the base plate with adapter K551212</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>





# Modular Fixturing Systems

## Build-up components – location pins

Choose the right location pins, to build-up the required height of the fixture

COMPONENT TYPE			MATERIAL
<p>Location pin</p> <p>eco-fix</p>	<p>Ø 20mm standard</p>	<p>Ø 12mm small</p>	<p>Aluminium</p>
<p>Location pin</p> <p>eco-fix<sup>plus</sup></p>	<p>Ø 20mm standard</p>		<p>Stainless steel</p>
		<p>Requires thread bolt K550592-10 for M6 connection</p>	
<p>Joint</p> <p>eco-fix</p>	<p>Ø 20mm standard</p>	<p>Ø 12mm small</p>	<p>Aluminium</p>
<p>Joint</p> <p>eco-fix<sup>plus</sup></p>	<p>Ø 20mm standard</p>		<p>Stainless steel</p>

# The Mitutoyo CMM fixturing range

CONNECTION TOP	CONNECTION BOTTOM		APPLICATION	PRODUCT LINES
<p><b>Type A</b> Internal M6 thread</p> <p>or</p> <p><b>Type B:</b> Bore for pin attachment 6 mm - Ø 12mm location pin 8 mm - Ø 20mm location pin</p>	<p>Integrated M6 thread bolt</p> <p>both:</p> <p>Integrated M6 thread bolt</p>	<p>For the adjustment of the required height of the fixture</p>		<p>eco-fix</p>
<p><b>Type A</b> Internal M6 thread</p> <p><b>Type B:</b> 8 mm bore for pin attachment</p>	<p>Separate M6 thread bolt</p> <p>both:</p> <p>Separate M6 thread bolt</p>	<p>For the adjustment of the required height of the fixture</p>		<p>eco-fix<sup>plus</sup></p>
<p><b>Integrated pin</b> 6 mm - Ø 12mm joint 8 mm - Ø 20mm joint</p>	<p>Internal M6 thread</p>	<p>To create free angles in space</p>		<p>eco-fix</p>
<p>Integrated M6 thread bolt</p>	<p>Integrated M6 thread bolt</p>	<p>To create free angles in space</p>		<p>eco-fix<sup>plus</sup></p>

# Modular Fixturing Systems

## Build-up components – brackets

Type A Brackets are required, when the M6 grid of the base plates doesn't fit the part size. The slotted holes ensure the right positioning.  
 Type B brackets are used to build clamping positions directly in line with the receiving position.

COMPONENT TYPE		MATERIAL
<b>Brackets</b>  <b>eco-fix</b>	Type A:  	Aluminium
	Type B:   	
<b>Brackets</b>  <b>eco-fix<sup>plus</sup></b>	Type A:  	Stainless steel
	Type B:   	
	Type C:  	
	Type D:  	

# The Mitutoyo CMM fixturing range

CONNECTION LEFT	CONNECTION RIGHT	APPLICATION	PRODUCT LINES	
<p><b>Type A</b> Internal M6 thread</p>	<p>6,6mm slotted hole for M6 bolts</p>	<p>Mount the location pin on the bracket by using the M6 hole. Use the slotted hole to reach positions that are not covered by the M6 grid of the base plates</p>	eco-fix	
<p><b>Type B</b> Bore for location pin attachment Ø 12mm location pin Ø 20mm location pin</p>	<p>8 mm slotted hole for dedicated slot nut</p>	<p>For mounting on location pins, to reach any position, e.g., for positioning of clamping elements directly on receiving points, by using the slot nut</p>		
<p><b>Type A</b> Internal M6 thread</p>	<p>6,6mm slotted hole for M6 bolts</p>	<p>Mount the location pin on the bracket by using the M6 hole. Use the slotted hole to reach positions that are not covered by the M6 grid of the base plates</p>	eco-fix <sup>plus</sup>	
<p><b>Type B</b> Bore for location pin attachment Ø 20mm location pin</p>	<p>8 mm slotted hole for dedicated slot nut</p>	<p>For mounting on location pins, to reach any position, e.g., for positioning of clamping elements directly on receiving points, by using the slot nut</p>		
<p><b>Type C</b> Bore for location pin attachment Ø 20mm location pin</p>	<p>Internal M6 thread</p>	<p>For mounting a spring clip pin close to the location pin</p>		
<p><b>Type D</b> Bore for pin attachment Ø 8 mm pin</p>	<p>6,6mm slotted hole for M6 bolts</p>	<p>For creating free receiving positions in cantilever construction. Also in 90°</p>		

# Modular Fixturing Systems


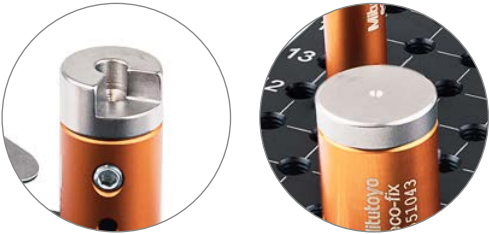



## Positioning and stopper components

Positioning and stopper components are used for accurately defining the position and to reposition the part. These components come in a wide range of choice, always spot on the requirement. Simple block shaped workpieces, as well as rotationally symmetric parts are more complicated shapes are suited by our product range.

COMPONENT TYPE	small Ø 6mm connection pin	eco-fix	standard Ø 8mm connection pin	eco-fix eco-fix <sup>plus</sup>	MATERIAL
Stopper					Stainless steel
Stopper with support surface			 		
Backsquare			 		Stainless steel
Flat top					
Cone sphere cylinder blade	 		 	 	Stainless steel
V-block magnet V-block	 		 		Stainless steel
Prism			 		K550522-10 

Connect with fastening element  
K550522-10 2x M4 screw

# The Mitutoyo CMM fixturing range

CONNECTION	APPLICATION	PRODUCT LINES
 <p>Ø 8mm connection pin for Ø 20mm location pin Ø 6mm connection pin for Ø 12mm location pin</p>	<p>For receiving a workpiece in a defined position</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>
 <p>Ø 8mm connection pin for Ø 20mm location pin Ø 6mm connection pin for Ø 12mm location pin</p>	<p>For receiving a workpiece in a defined position in XYZ</p> <p>For direct workpiece support</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>
 <p>Ø 8mm connection pin for Ø 20mm location pin Ø 6mm connection pin for Ø 12mm location pin</p>	<p>For receiving parts in bores or centerings etc.</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>
 <p>Ø 8mm connection pin for Ø 20mm location pin Ø 6mm connection pin for Ø 12mm location pin</p>	<p>For receiving e.g., rotationally symmetrical test parts without center hole</p> <p>For receiving of e.g. rotationally symmetrical parts in a defined position</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>





# The Mitutoyo CMM fixturing range

CONNECTION	APPLICATION	PRODUCT LINES
<p>Connect with fastening element K550522-10 2x M4 screw</p>  	<p>For quick and easy clamping of workpieces</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>
<p>Ø 8 mm pin Connect to location pin with bore</p>   <p>or use K550716 Straight pin with thread</p>  	<p>For quick and easy clamping of workpieces</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>
<p>Integrated M6 thread bolt</p>  <p>Separate M6 thread bolt K550592-10</p>  	<p>For quick and easy clamping of workpieces</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>
<p>Ø 6mm connection pin holes</p>  <p>Internal M6 thread</p> 	<p>For quick and easy clamping of workpieces</p> 	<p>eco-fix eco-fix<sup>plus</sup></p>

# Modular Fixturing Systems

**Decisive factors**

**1. Application**

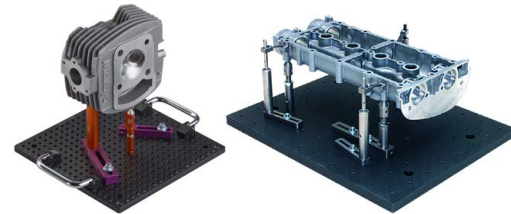
**TACTILE MEASUREMENT**



Base plates:

**BASE PLATES**

- up to 500x400mm (manual handling)
- up to 600x600mm (loading station only)



**2. Dimension**

**Base type**

Light- to medium weight workpieces:

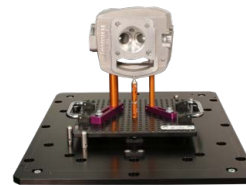
**eco-fix**



**3. Mass**

**Product Line**

Serial measurement:



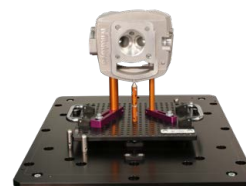
Pallet receiver system

**4. Through-put**

**Set-up method**

Manual loading system options:

**A**



Pallet receiver system

**5. Efficiency**

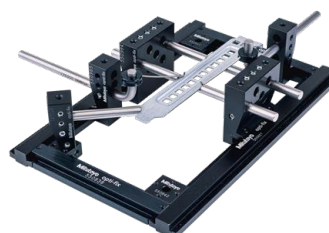
**Loading System**

# Fixture system guide

OPTICAL MEASUREMENT



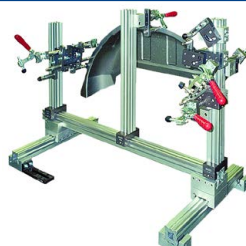
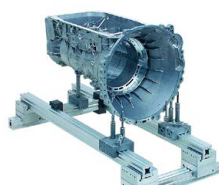
opti-fix



Profile frames:



**multiflex***profile* for larger structures



Medium to heavy weight workpieces:



**eco-fix***plus*



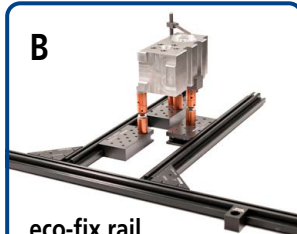
Single measurement options:

**A**



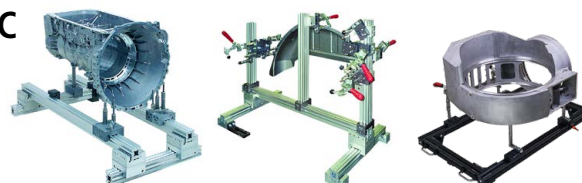
base plate

**B**



eco-fix rail

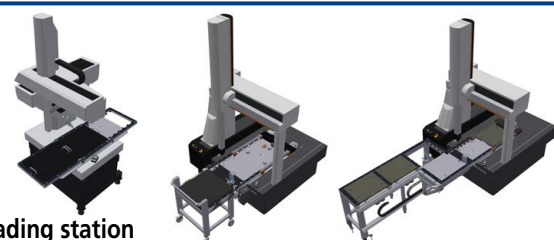
**C**



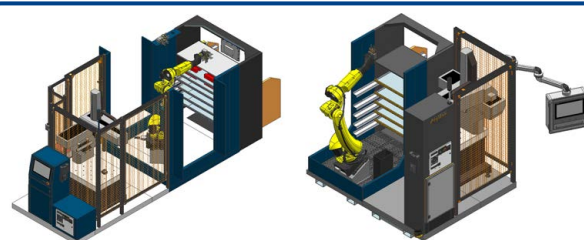
**multiflex***profile*

Automatic loading system:

**B**



Loading station



## eco-fix kits

### eco-fix Starter kits Beginner level fixturing

#### 3-point fixture set up in one plane

##### Advantages:

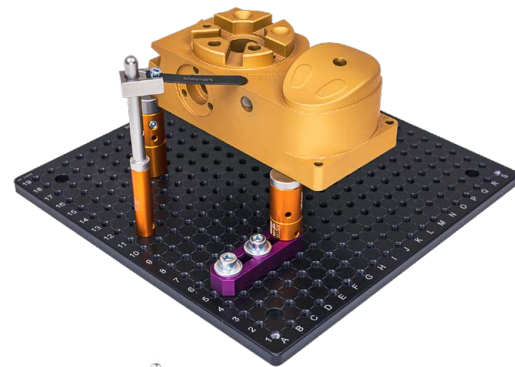
- Enough fixturing materials to easily set up a simple workpiece
- Entry level kits – easy to overview
- Lower cost
- Scope is easily extended by using extension sets



# eco-fix Starter Kit S

Part No.: K551284

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551034	1	Base plate 250 mm x 250 mm
<b>Build-up Components</b>		
<b>Columns</b>		
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
K551028	2	Location pin $\varnothing$ 20 mm x 13 mm
K551029	1	Location pin $\varnothing$ 20 mm x 25 mm
K551043	3	Location pin $\varnothing$ 20 mm with bore 8 mm
<b>Brackets</b>		
K551036	2	Receiver bracket large
<b>Positioning Components</b>		
K551070	1	Flat top $\varnothing$ 20 mm
K550982	1	Stopper element
K550248	1	Back square
<b>Clamping Components</b>		
K550716	1	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
<b>Screws and Washers</b>		
K550110	4	Cylinder head screw M6 x 20 mm
K550591	4	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Total qty.</b>	<b>23</b>	



# eco-fix Starter Kit L



**Part No.: K551285**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551533	1	Base plate 500 mm x 400 mm
<b>Build-up Components</b>		
<b>Columns</b>		
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
K551028	2	Location pin $\varnothing$ 20 mm x 13 mm
K551029	1	Location pin $\varnothing$ 20 mm x 25 mm
K551043	3	Location pin $\varnothing$ 20 mm with bore 8 mm
<b>Brackets</b>		
K551036	2	Receiver bracket large
<b>Positioning Components</b>		
K551070	1	Flat top $\varnothing$ 20 mm
K550982	1	Stopper element
K550248	1	Back square
<b>Clamping Components</b>		
K550716	1	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
<b>Screws and Washers</b>		
K550110	4	Cylinder head screw M6 x 20 mm
K550591	4	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Total qty.</b>	<b>23</b>	



# eco-fix Starter Kit extension sets

## eco-fix Extension Set Stand-offs

Part No.: K551286

Part No.	Qty.	Part name
<b>Build-up Components</b>		
<b>Columns</b>		
K551040	2	Adjustable location pin $\varnothing$ 20 mm
K551030	1	Location pin $\varnothing$ 20 mm x 50 mm
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
<b>Total qty.</b>	<b>4</b>	



## eco-fix Extension Set Clamping Elements

Part No.: K551287

Part No.	Qty.	Part name
<b>Build-up Components</b>		
<b>Columns</b>		
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
<b>Clamping Components</b>		
K550716	1	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
<b>Total qty.</b>	<b>3</b>	



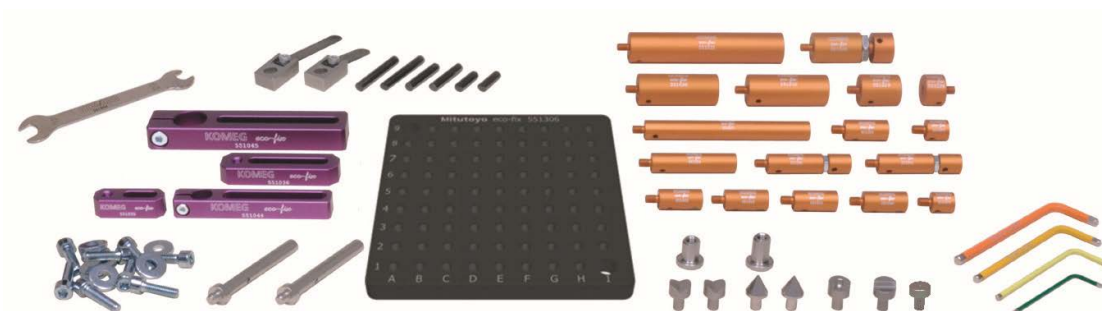
## eco-fix Tool Kit

Part No.: K551288

Part No.	Qty.	Part name
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>5</b>	



# eco-fix Kit XXS



Part No.: K551231

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551306	1	Base plate 125 mm x 125 mm
<b>Build-up Components</b>		
<b>Columns</b>		
K551024	2	Location pin $\varnothing$ 12 mm x 13 mm
K551025	2	Location pin $\varnothing$ 12 mm x 25 mm
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
K551027	1	Location pin $\varnothing$ 20 mm x 100 mm
K551028	1	Location pin $\varnothing$ 20 mm x 13 mm
K551029	1	Location pin $\varnothing$ 20 mm x 25 mm
K551030	1	Location pin $\varnothing$ 20 mm x 50 mm
K551031	1	Location pin $\varnothing$ 20 mm x 100 mm
K551040	1	Adjustable location pin $\varnothing$ 20 mm
K551041	2	Adjustable location pin $\varnothing$ 12 mm
K551042	3	Location pin $\varnothing$ 12 mm with bore 6 mm
<b>Brackets</b>		
K551035	1	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551045	1	Receiver bracket L = 120 mm, $\varnothing$ 20 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
K551047	1	Slotted nut for receiver bracket h = 15 mm
<b>Positioning Components</b>		
K550262	2	V-block mini, $\varnothing$ 12mm
K550261	2	Cone receiver mini, $\varnothing$ 12 mm
K550250	1	Stopper element mini, $\varnothing$ 6 mm
K550247	1	Back square mini, $\varnothing$ 6 mm
K551069	1	Flat top $\varnothing$ 12 mm
K550888	2	Straight pin $\varnothing$ 6 mm x 20 mm
K550889	2	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40 mm
<b>Clamping Components</b>		
K550716	2	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
K550554	1	Spring clip, $\varnothing$ 8 mm, L = 40 mm
<b>Screws and Washers</b>		
K550563	2	Cylinder head screw M6 x 25 mm
K550110	6	Cylinder head screw M6 x 20 mm
K550591	8	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>61</b>	





# eco-fix Kit XS



**Part No.: K551235**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551226	1	Base plate 250x125; eco-fix
<b>Build-up Components</b>		
<b>Columns</b>		
K551024	2	Location pin $\varnothing$ 12 mm x 13 mm
K551025	2	Location pin $\varnothing$ 12 mm x 25 mm
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
K551027	1	Location pin $\varnothing$ 12 mm x 100 mm
K551028	1	Location pin $\varnothing$ 20 mm x 13 mm
K551029	1	Location pin $\varnothing$ 20 mm x 25 mm
K551030	1	Location pin $\varnothing$ 20 mm x 50 mm
K551031	1	Location pin $\varnothing$ 20 mm x 100 mm
K551040	1	Adjustable location pin $\varnothing$ 20 mm
K551041	2	Adjustable location pin $\varnothing$ 12 mm
K551042	3	Location pin $\varnothing$ 12 mm with bore 6 mm
<b>Brackets</b>		
K551035	1	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551045	1	Receiver bracket L = 120 mm, $\varnothing$ 20 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
K551047	1	Slotted nut for receiver bracket h = 15 mm
<b>Positioning Components</b>		
K550262	2	V-block mini, $\varnothing$ 12mm
K550261	2	Cone receiver mini, $\varnothing$ 12 mm
K550250	1	Stopper element mini, $\varnothing$ 6 mm
K550247	1	Back square mini, $\varnothing$ 6 mm
K551069	1	Flat top $\varnothing$ 12 mm
K550888	2	Straight pin $\varnothing$ 6 mm x 20 mm
K550889	2	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40 mm
<b>Clamping Components</b>		
K550716	2	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
K550554	1	Spring clip, $\varnothing$ 8 mm, L = 40 mm
<b>Screws and Washers</b>		
K550563	2	Cylinder head screw M6 x 25 mm
K550110	6	Cylinder head screw M6 x 20 mm
K550591	8	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total</b>	<b>61</b>	



# eco-fix Kit S

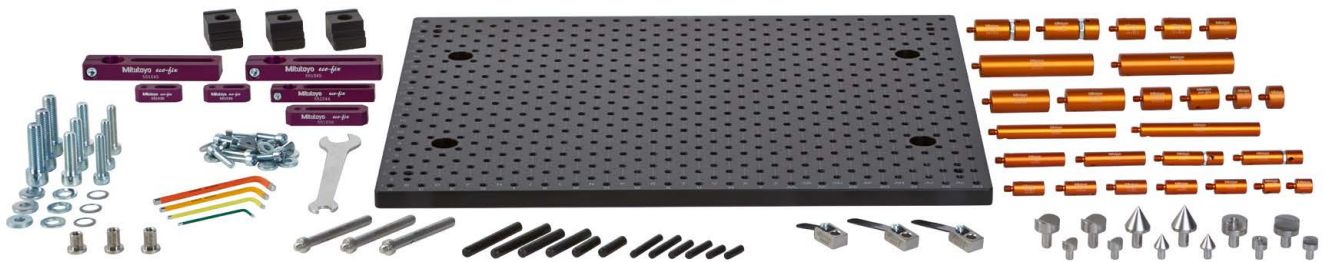


**Part No.: K551048**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551034	1	Base plate 250 mm x 250 mm
K551032	2	Clamping claw
<b>Build-up Components</b>		
<b>Columns</b>		
K551024	1	Location pin $\varnothing$ 12 mm x 13 mm
K551025	1	Location pin $\varnothing$ 12 mm x 25 mm
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
K551027	1	Location pin $\varnothing$ 12 mm x 100 mm
K551028	1	Location pin $\varnothing$ 20 mm x 13 mm
K551029	1	Location pin $\varnothing$ 20 mm x 25 mm
K551030	1	Location pin $\varnothing$ 20 mm x 50 mm
K551031	1	Location pin $\varnothing$ 20 mm x 100 mm
K551040	1	Adjustable location pin $\varnothing$ 20 mm
K551041	1	Adjustable location pin $\varnothing$ 12 mm
K551042	3	Location pin $\varnothing$ 12 mm with bore 6 mm
<b>Brackets</b>		
K551035	1	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551045	1	Receiver bracket L = 120 mm, $\varnothing$ 20 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
K551047	1	Slotted nut for receiver bracket h = 15 mm
<b>Positioning Components</b>		
K550262	2	V-block mini, $\varnothing$ 12mm
K550261	2	Cone receiver mini, $\varnothing$ 12 mm
K550250	1	Stopper element mini, $\varnothing$ 6 mm
K550247	1	Back square mini, $\varnothing$ 6 mm
K550888	2	Straight pin $\varnothing$ 6 mm x 20 mm
K550889	2	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40 mm
<b>Clamping Components</b>		
K550716	2	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
K550554	1	Spring clip, $\varnothing$ 8 mm, L = 40 mm
<b>Screws and Washers</b>		
K550563	2	Cylinder head screw M6 x 25 mm
K550110	6	Cylinder head screw M6 x 20 mm
K550591	8	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>59</b>	



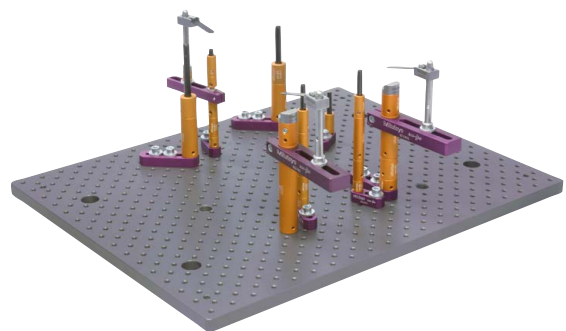
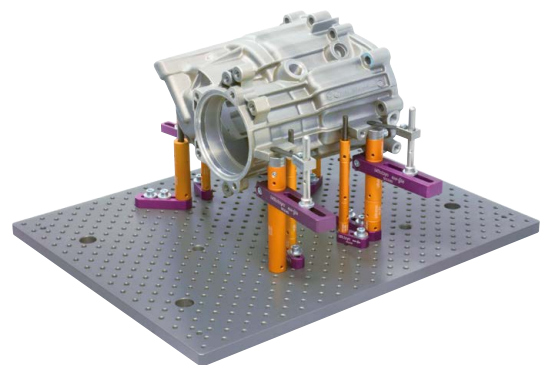
# eco-fix Kit L



**Part No.: K551549**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551533	1	Base plate 500 mm x 400 mm
K551032	3	Clamping claw
<b>Build-up Components</b>		
<b>Columns</b>		
K551024	2	Location pin $\varnothing$ 12 mm x 13 mm
K551025	2	Location pin $\varnothing$ 12 mm x 25 mm
K551026	2	Location pin $\varnothing$ 12 mm x 50 mm
K551027	2	Location pin $\varnothing$ 12 mm x 100 mm
K551028	2	Location pin $\varnothing$ 20 mm x 13 mm
K551029	2	Location pin $\varnothing$ 20 mm x 25 mm
K551030	2	Location pin $\varnothing$ 20 mm x 50 mm
K551031	2	Location pin $\varnothing$ 20 mm x 100 mm
K551040	2	Adjustable location pin $\varnothing$ 20 mm
K551041	2	Adjustable location pin $\varnothing$ 12 mm
K551042	3	Location pin $\varnothing$ 12 mm with bore 6 mm
K551043	3	Location pin $\varnothing$ 20 mm with bore 8 mm
<b>Brackets</b>		
K551035	2	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551045	2	Receiver bracket L = 120 mm, $\varnothing$ 20 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
K551047	2	Slotted nut for receiver bracket h = 15 mm
<b>Positioning Components</b>		
K550262	2	V-block mini, $\varnothing$ 12mm
K550261	2	Cone receiver mini, $\varnothing$ 12 mm
K550250	1	Stopper element mini, $\varnothing$ 6 mm
K550247	1	Back square mini, $\varnothing$ 6 mm
K550058	2	V-block
K550365	2	Cone Receiver
K550982	1	Stopper element
K550248	1	Back square
K550888	2	Straight pin $\varnothing$ 6 mm x 20 mm
K550889	2	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40 mm
K550000	2	Straight pin $\varnothing$ 8 mm x 30 mm
K550001	2	Straight pin $\varnothing$ 8 mm x 50 mm
K550002	2	Straight pin $\varnothing$ 8 mm x 65 mm
<b>Clamping Components</b>		
K550716	3	Straight pin with thread, M6 x 75 mm
K550279	2	Spring clip, $\varnothing$ 8 mm, L = 60 mm
K550554	1	Spring clip, $\varnothing$ 8 mm, L = 40 mm

Part No.	Qty.	Part name
<b>Screws and Washers</b>		
K550563	6	Cylinder head screw M6 x 25 mm
K550110	6	Cylinder head screw M6 x 20 mm
K550591	12	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total</b>	<b>98</b>	

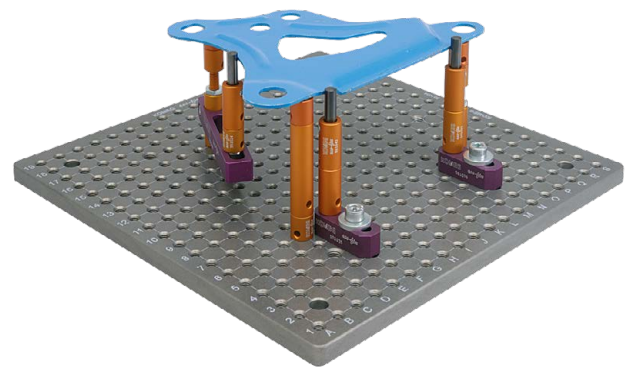


# eco-fix Kit MAG-S



**Part No.: K551089**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551034	1	Base plate 250 mm x 250 mm
K551032	2	Clamping claw
<b>Build-up Components</b>		
<b>Columns</b>		
K551024	3	Location pin $\varnothing$ 12 mm x 13 mm
K551025	3	Location pin $\varnothing$ 12 mm x 25 mm
K551026	3	Location pin $\varnothing$ 12 mm x 50 mm
K551027	3	Location pin $\varnothing$ 12 mm x 100 mm
K551041	3	Adjustable location pin $\varnothing$ 12 mm
K551042	3	Location pin $\varnothing$ 12 mm with bore 6 mm
<b>Brackets</b>		
K551035	3	Receiver bracket small
K551044	2	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551046	2	Slotted nut for receiver bracket h = 12 mm
<b>Positioning Components</b>		
K550889	3	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	3	Straight pin $\varnothing$ 6 mm x 40 mm
<b>Clamping Components</b>		
K551073	3	Magnetic receiver $\varnothing$ 12 mm
<b>Screws and Washers</b>		
K550563	5	Cylinder head screw M6 x 25 mm
K550110	10	Cylinder head screw M6 x 20 mm
K550591	15	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>72</b>	

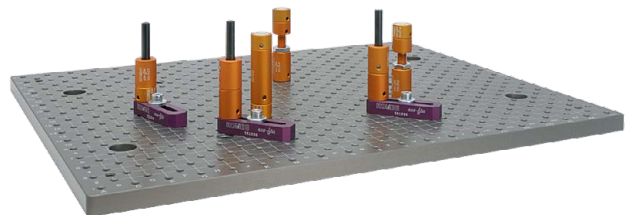


# eco-fix Kit MAG-L



**Part No.: K551590**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551533	1	Base plate 500 mm x 400 mm
K551032	3	Clamping claw
<b>Build-up Components</b>		
<b>Columns</b>		
K551028	3	Location pin $\varnothing$ 20 mm x 13 mm
K551029	3	Location pin $\varnothing$ 20 mm x 25 mm
K551030	3	Location pin $\varnothing$ 20 mm x 50 mm
K551031	3	Location pin $\varnothing$ 20 mm x 100 mm
K551040	3	Adjustable Location pin $\varnothing$ 20 mm
K551043	3	Location pin $\varnothing$ 20 mm with bore 8 mm
<b>Brackets</b>		
K551036	3	Receiver bracket large
K551045	2	Receiver bracket L = 120 mm; $\varnothing$ 20 mm
<b>Positioning Components</b>		
K550000	3	Straight pin $\varnothing$ 8 mm x 30 mm
K550001	3	Straight pin $\varnothing$ 8 mm x 50 mm
<b>Clamping Components</b>		
K551074	3	Magnetic receiver $\varnothing$ 20 mm
<b>Screws and Washers</b>		
K550563	10	Cylinder head screw M6 x 25 mm
K550110	10	Cylinder head screw M6 x 20 mm
K550591	20	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>81</b>	



# eco-fix Kit quick-S



**Part No.: K551302**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551034	1	Base plate 250 mm x 250 mm
K551032	2	Clamping claw
<b>Build-up Components</b>		
<b>Columns</b>		
K551043	3	Receiver bolt $\varnothing$ 20 mm; bore $\varnothing$ 8 mm
K551303	3	Joint stand eco-fix S20
<b>Brackets</b>		
K551227	3	Receiving bracket for joint stand
<b>Positioning Components</b>		
K551070	2	Flat top $\varnothing$ 20 mm x 22 mm
K550982	1	Stopper element $\varnothing$ 20
<b>Clamping Components</b>		
K550716	2	Cylinder pin with thread, M6 x 75 mm
K550279	2	Spring clip without ball $\varnothing$ 8 x 60 mm
K551228	1	Clamping thimble, KT1 Alu, M6
<b>Tools</b>		
K551229	1	Double open-ended wrench 7-8 mm
<b>Total qty.</b>	<b>21</b>	

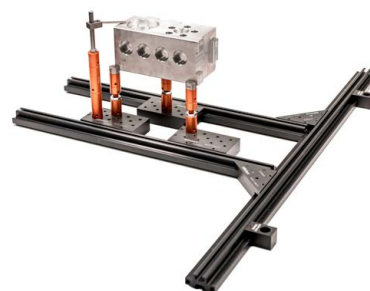


# eco-fix rail Kit S



## Part No.: K551279

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Rails</b>		
K551273	1	Clamping profile rail 800 mm
K551271	2	Clamping profile rail with slot 500 mm
K551908	2	Clamping claw
K550909	2	Corner Joint
K551907	3	Clamping plate
<b>Build-up Components</b>		
<b>Columns</b>		
K551043	3	Location pin $\varnothing$ 20 mm with bore 8 mm
K551029	2	Location pin $\varnothing$ 20 mm x 25 mm
K551030	3	Location pin $\varnothing$ 20 mm x 50 mm
K551040	3	Adjustable location pin $\varnothing$ 20 mm
<b>Positioning Components</b>		
K550282	1	Stopper element $\varnothing$ 20 mm
K550261	1	Back square $\varnothing$ 20 mm
K551070	1	Flat top $\varnothing$ 20 mm
K550042	1	Back square 30 mm x 30 mm
K550249	1	Stopper element 30 mm x 25 mm
<b>Clamping Components</b>		
K550716	1	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
K550554	1	Spring clip, $\varnothing$ 8 mm, L = 40 mm
<b>Tools</b>		
K551261	1	Hexagon spanner with t-handle
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>31</b>	

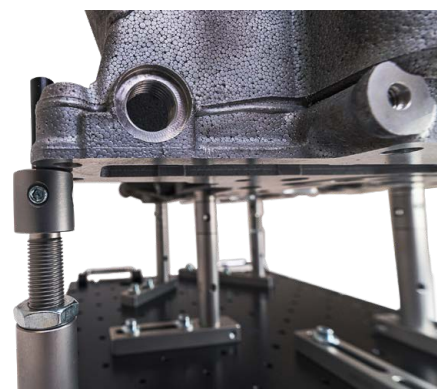


# eco-fix<sup>plus</sup> Kit L

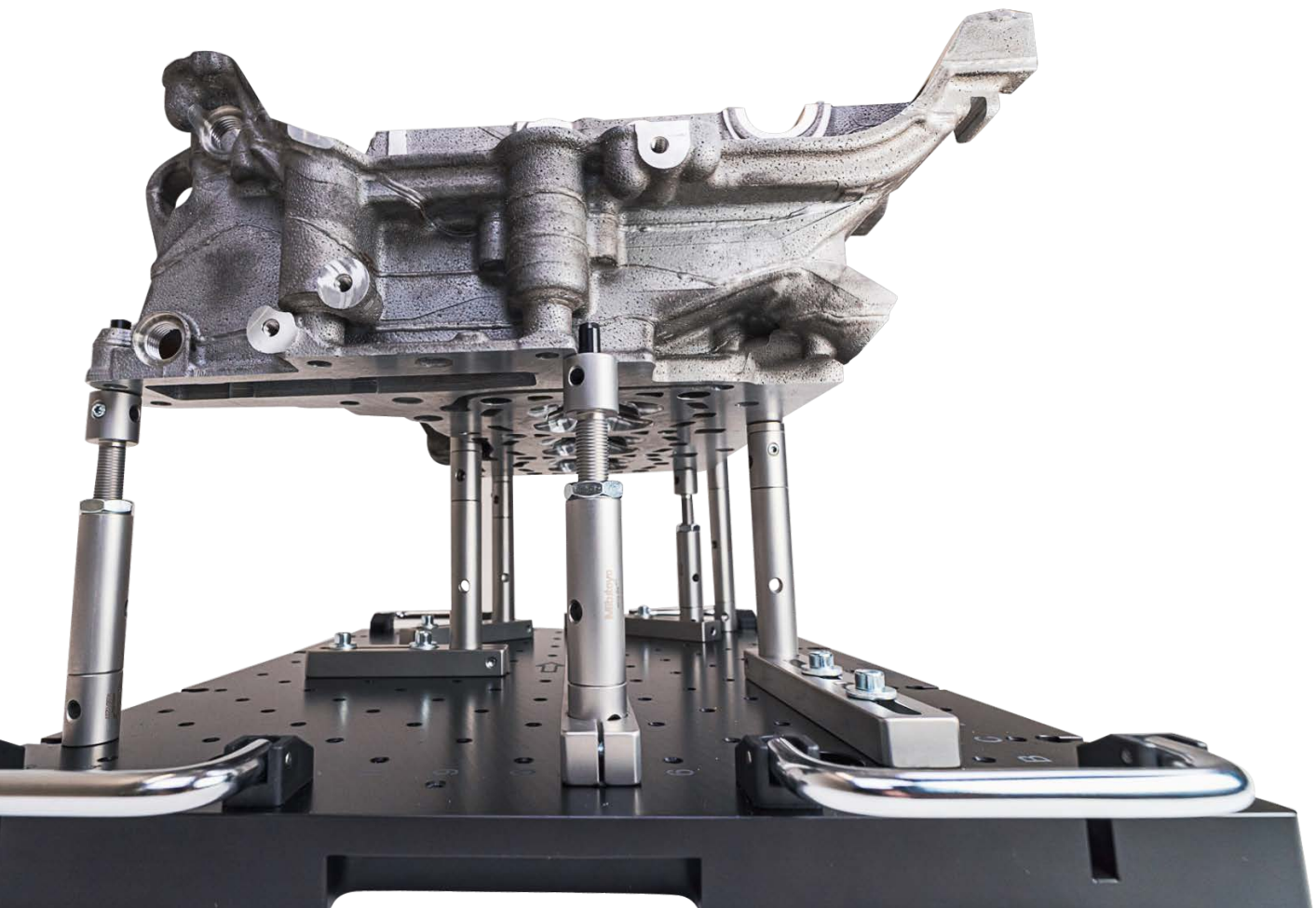
Part No.: K551289

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551137	1	Base plate eco-fix <sup>plus</sup> 500x400mm
<b>Handles</b>		
K551199	2	2pcs. Handles for eco-fix base plates
<b>Build-up Components</b>		
<b>Columns</b>		
K551061	2	Adjustable receiver bushing, 8H7 bore
K551249	2	Adjustable location pin with M6 thread.
K550521-10	3	Cube M6
K550529-10	2	Joint eco-fix <sup>plus</sup>
K551236	4	Location pin eco-fix <sup>plus</sup> Ø20,0 x 13,0mm.
K551237	4	Location pin eco-fix <sup>plus</sup> ø20x25mm
K551238	4	Location pin eco-fix <sup>plus</sup> ø20x50mm
K551239	4	Location pin eco-fix <sup>plus</sup> ø20x100mm
K551240	3	Location pin eco-fix <sup>plus</sup> ø8H7
<b>Brackets</b>		
K550345-10	2	Receiver bracket M6 L=100
K551246	2	Receiver bracket eco-fix <sup>plus</sup> M6 L=70mm
K551247	2	Receiver bracket eco-fix <sup>plus</sup> L=120mm
K551248	1	Receiver bracket eco-fix <sup>plus</sup> L=170mm
<b>Positioning Components</b>		
K550335-10	3	Connector with 8 mm fitting bore.
K550340	2	Prism 90°
K550341	2	Prism 120°
K550058	2	V-anvil insert ø 20 mm
K550248	2	Backsquare insert ø 20 mm
K551072	2	Sphere top insert ø 20 mm
K550365	2	Cone receiver insert ø 20 mm
K550982	2	Stopper insert ø 20 mm
K550000	2	Straight pin stopper d=8mm L=30mm
K550001	2	Straight pin stopper d=8mm L=50mm
K550002	2	Straight pin stopper d=8mm L=65mm
K550003	2	Straight pin stopper d=8mm L=80mm
K550557-10	16	Headless screw 25,0 mm
K550592-10	16	Headless screw 20,0 mm
<b>Clamping Components</b>		
K550554	2	Spring clip bore Ø = 8 mm L = 40 mm
K550279	2	Spring clip bore Ø = 8 mm L = 60 mm
K550716	4	Straight pin for spring clips ø 12 mm
K551242	2	Magnetic receiver
K550009-10	2	Toggle clamp M8
K550012-10	2	Pressure spindle M8
K550522-10	4	Fastening element for toggle clamps
K550536-10	1	Clamping extension M8 for K550009
K550010-10	2	Toggle clamp M4
K550013-10	2	Pressure spindle M4, L = 28,0 mm
<b>Screws</b>		
K550564	20	Screw M 6 x 30mm
K550591	20	Washer 6,4mm x 17mm

Part No.	Qty.	Part name
<b>Tools</b>		
K551054	1	Double open-ended spanner SW 10-17
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K550367	1	Open-end spanner SW 19
K550131	1	Open-end spanner SW 7
K550130	1	Open-end spanner SW 13
<b>Total qty.</b>	<b>166</b>	





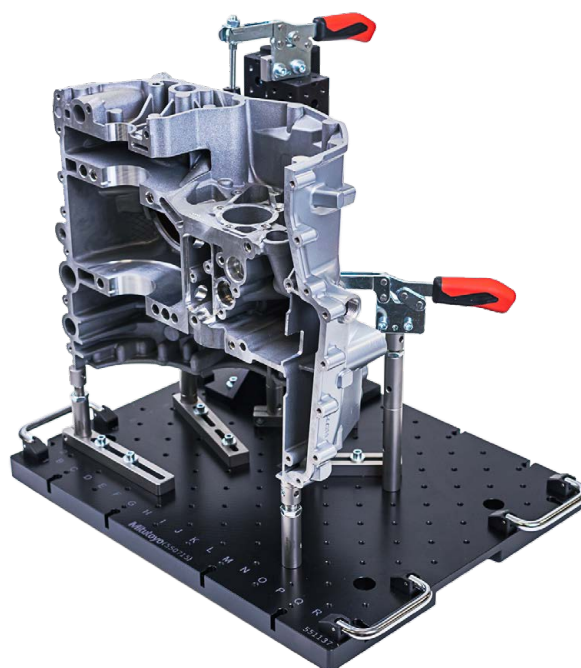
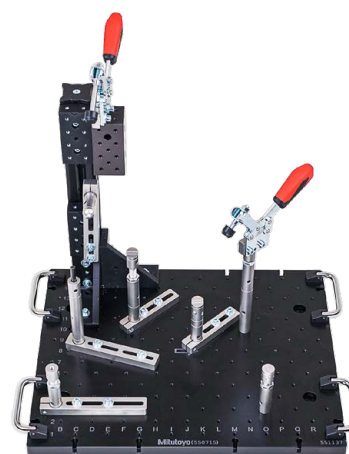


# eco-fix<sup>plus</sup> engine and gearbox Kit

## Part No.: K551290

Part No.	Qty.	Part name
<b>Base components</b>		
<b>Base plate</b>		
K551137	1	Base plate eco-fix plus 500x400mm
<b>Handles</b>		
K551199	2	2pcs. Handles for eco-fix base plates
<b>Build-up Components</b>		
<b>Profiles</b>		
K551109	1	multiflex <sup>profile</sup> 400mm
K651115	1	Cover plate multiflex <sup>profile</sup>
<b>Build-up plates</b>		
K550597-10	2	Mounting cuboid for module assembly
K550601-10	2	Mounting plate for module assembly
K550521-10	2	Cube M6
K550509-10	2	Angle 100/100 f. right-angled connection
K550461-10	16	Bushing; ø12,49mm
<b>Columns</b>		
K551061	2	Adjustable receiver bushing, 8H7 bore
K551249	2	Adjustable location pin with M6 thread.
K550521-10	3	Cube M6
K550529-10	2	Joint eco-fix <sup>plus</sup>
K551237	4	Location pin eco-fix <sup>plus</sup> ø20x25mm
K551238	4	Location pin eco-fix <sup>plus</sup> ø20x50mm
K551239	4	Location pin eco-fix <sup>plus</sup> ø20x100mm
K551240	3	Location pin eco-fix <sup>plus</sup> ø8H7
<b>Brackets</b>		
K550345-10	2	Receiver bracket M6 L=100
K551246	2	Receiver bracket eco-fix <sup>plus</sup> M6 L=70mm
K551247	2	Receiver bracket eco-fix <sup>plus</sup> L=120mm
K550605-10	2	Receiver bracket w.pin hole L = 100 mm
<b>Positioning Components</b>		
K550073	2	Cylinder pin insert Ø 22,0-26,0mm
K550067	2	Cylinder pin insert Ø 10,0-20,0mm
K550248	1	Backsquare insert ø 20 mm
K550365	2	Cone receiver insert ø 20 mm
K550982	2	Stopper insert ø 20 mm
K551072	2	Sphere top insert ø 20 mm
K550000	3	Straight pin stopper d=8mm L=30mm
K550001	3	Straight pin stopper d=8mm L=50mm
K550003	3	Straight pin stopper d=8mm L=80mm
K550557-10	16	Headless screw 25,0 mm
K550592-10	16	Headless screw 20,0 mm
<b>Clamping Components</b>		
K550554	2	Spring clip bore Ø = 8 mm L = 40 mm
K550279	2	Spring clip bore Ø = 8 mm L = 60 mm
K550716	4	Straight pin for spring clips ø 12 mm
K550009-10	2	Toggle clamp M8
K550522-10	4	Fastening element for toggle clamps
K550536-10	1	Extension Bracket for K550009
K550010-10	2	Toggle clamp, small M4
<b>Screws</b>		
K550564	20	Screw M 6 x 30mm
K550591	20	Washer 6,4mm x 17mm

Part No.	Qty.	Part name
<b>Tools</b>		
K551054	1	Double open-ended spanner SW 10-17
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551053	1	Allen key 5 mm
K550367	1	Open-end spanner SW 19
K550131	1	Open-end spanner SW 7
K550130	1	Open-end spanner SW 13
<b>Total qty.</b>	<b>177</b>	





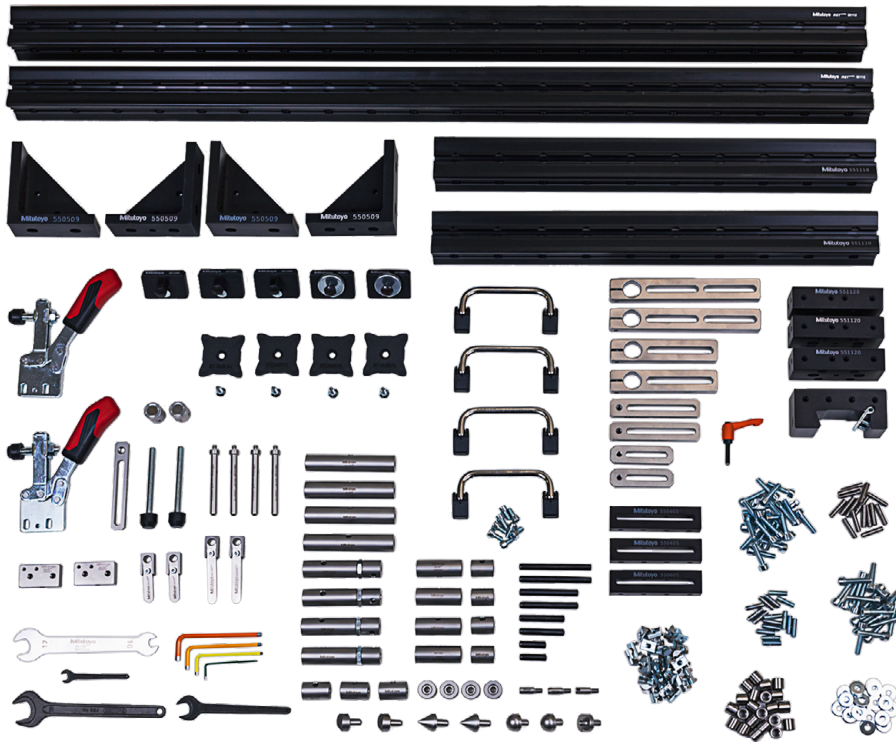
# eco-fix<sup>plus</sup> multiflex<sup>profile</sup> Combi Kit

Part No.: K551291

Part No.	Qty.	Part name
<b>Frame components</b>		
<b>Profiles</b>		
K551115	4	Cover plate multiflex <sup>profile</sup>
K551112	2	multiflex <sup>profile</sup> 1000mm
K551110	2	multiflex <sup>profile</sup> 500mm
<b>Handles</b>		
K551199	2	2pcs. Handles for eco-fix base plates
K551158	8	Sliding block M6 multiflex <sup>profile</sup>
<b>Angles</b>		
K550509-10	4	Angle 100/100 f. right-angled connection
K551158	16	Sliding block M6 multiflex <sup>profile</sup>
K550461-10	16	Positioning pin
K550563-10	16	Screws
<b>3-point set-up</b>		
K551280	2	Adjustable foot for multiflex <sup>profile</sup>
K551281	3	Fixed foot for multiflex <sup>profile</sup>
K551158	5	Sliding block M6 multiflex <sup>profile</sup>
K550563-10	5	Screws
<b>Build up Components</b>		
<b>Slider components</b>		
K550957-10	1	Slider element
K502620	1	Clamp lever
<b>Build-up plates</b>		
K551120	3	End plate 100 (Fl. 50x25x100)
K551158	6	Sliding block M6 multiflex <sup>profile</sup>
K550563-10	6	Screws
K550461-10	6	Positioning pin
<b>Columns</b>		
K551061	2	Adjustable receiver bushing, 8H7 bore
K551249	2	Adjustable location pin with M6 thread.
K550557-10	16	Headless screw 25,0 mm
K550592-10	16	Headless screw 20,0 mm
K551236	4	Location pin eco-fix <sup>plus</sup> Ø20,0 x 13,0mm.
K551237	4	Location pin eco-fix <sup>plus</sup> Ø20x25mm
K551238	4	Location pin eco-fix <sup>plus</sup> Ø20x50mm
K551239	4	Location pin eco-fix <sup>plus</sup> Ø20x100mm
K551240	3	Location pin eco-fix <sup>plus</sup> Ø8H7
<b>Brackets</b>		
K550345	2	Receiver bracket M6 L=100
K551246	2	Receiver bracket eco-fix <sup>plus</sup> M6 L=70mm
K551247	2	Receiver bracket eco-fix <sup>plus</sup> L=120mm
K551248	1	Receiver bracket eco-fix <sup>plus</sup> L=170mm
K550605-10	3	Receiver bracket with pin hole L = 100 mm

Part No.	Qty.	Part name
<b>Positioning Components</b>		
K550335-10	3	Connector with 8 mm fitting bore.
K550058	2	V-anvil insert Ø 20 mm
K550248	1	Backsquare insert Ø 20 mm
K550365	2	Cone receiver insert Ø 20 mm
K551072	2	Sphere top insert Ø 20 mm
K550000	2	Straight pin stopper d=8mm L=30mm
K550001	2	Straight pin stopper d=8mm L=50mm
K550002	2	Straight pin stopper d=8mm L= 65mm
K550003	2	Straight pin stopper d=8mm L=80mm
<b>Clamping Components</b>		
K550554	2	Spring clip bore Ø = 8 mm L = 40 mm
K550279	2	Spring clip bore Ø = 8 mm L = 60 mm
K550716	4	Straight pin for spring clips Ø 12 mm
K551242	2	Magnet receiver
K550009-10	2	Toggle clamp M8
K550012-10	2	Pressure spindle M8, L = 80,0 mm
K550522-10	2	Fastening element for toggle clamps
K550536-10	1	Extension Bracket for K550009
<b>Screws</b>		
K550564	20	Screw M 6 x 30mm
K550591	20	Washer 6,4mm x 17mm
<b>Tools</b>		
K551054	1	Double open-ended spanner SW 10-17
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K550367	1	Open-end spanner SW 19
K550131	2	Open-end spanner SW 7
K550130	2	Open-end spanner SW 13
<b>Total qty.</b>	<b>258</b>	





# MITUTOYO Pallet Receiver System PRS

The sophisticated Mitutoyo manual pallet receiver system significantly speeds up measuring on coordinate measuring machines as well as on form and vision measuring devices. Workpieces can be exchanged rapidly with the new system.

The pallet system comprises the tried and tested Mitutoyo eco-fix system, a base plate with two handles and three semi-spheres on the bottom. The latter help the measuring staff with quickly and precisely positioning the pallet on the receiver plate prisms fixed to the measuring machine – in just one step. This way, fine adjusting of the position is a thing of the past.

During the measuring process another workpiece can be positioned on a second, identically equipped pallet and placed on the machine as soon as the first workpiece has been measured. This not only guarantees very quick measurement and – therefore – a high workpiece throughput but also, top process safety.

The pallet receiver system even facilitates semi-automatic serial measurements with two possible options:

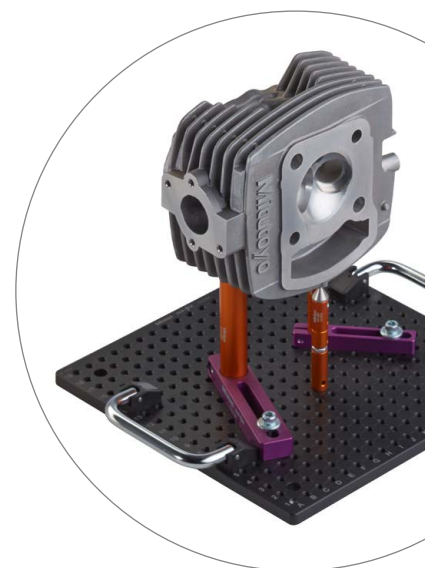
1. A barcode read out by the dedicated reader that identifies the workpiece and starts the corresponding measurement program via the remote manager function of the measurement software. This makes work for the measurement staff extremely easy: place the pallet onto the measuring machine and scan the barcode for initiating the measuring process.
2. The all-new RFID chip recognition system FixtureID is even more convenient to use: The attached RFID chip is assigned to an image and code in the dedicated FixtureID software user interface. When it gets in contact to the RFID reader on the receiver pallet, an image of the fixture with the mounted workpiece appears on the screen. If clicked on the image, it triggers the machine software via the remote manager and loads the assigned part program. You are ready to go!

This renders long clicking through menus and folders for starting the measuring unnecessary. Mitutoyo offers a rack system that can hold up to six pallets that can be placed close to the CMM. It will hold the Fixtures prepared for the next measurement. For perfect tidiness in the measuring room and stowing away pallets that are currently not in use Mitutoyo offers customized racks system that can hold all of your fixture pallets, even when equipped with fixtures and workpieces. That way, you can build up a fixture archive for all your parts with a repetitive measurement schedule.

The affordable new manual pallet receiver system is perfectly suitable where workpiece throughput shall be boosted although fully automated solutions are not feasible or beyond budget.

- Easy, precise and fast repositioning
- Enhances semi-automatic serial CMM measurement
- Significantly higher measurement throughput
- Stowing rack for perfect workshop tidiness.

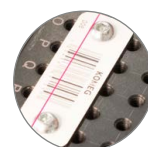
**In combination with the well-known eco-fix system, the PRS systems ensures, you get the most out of CMM measurement.**

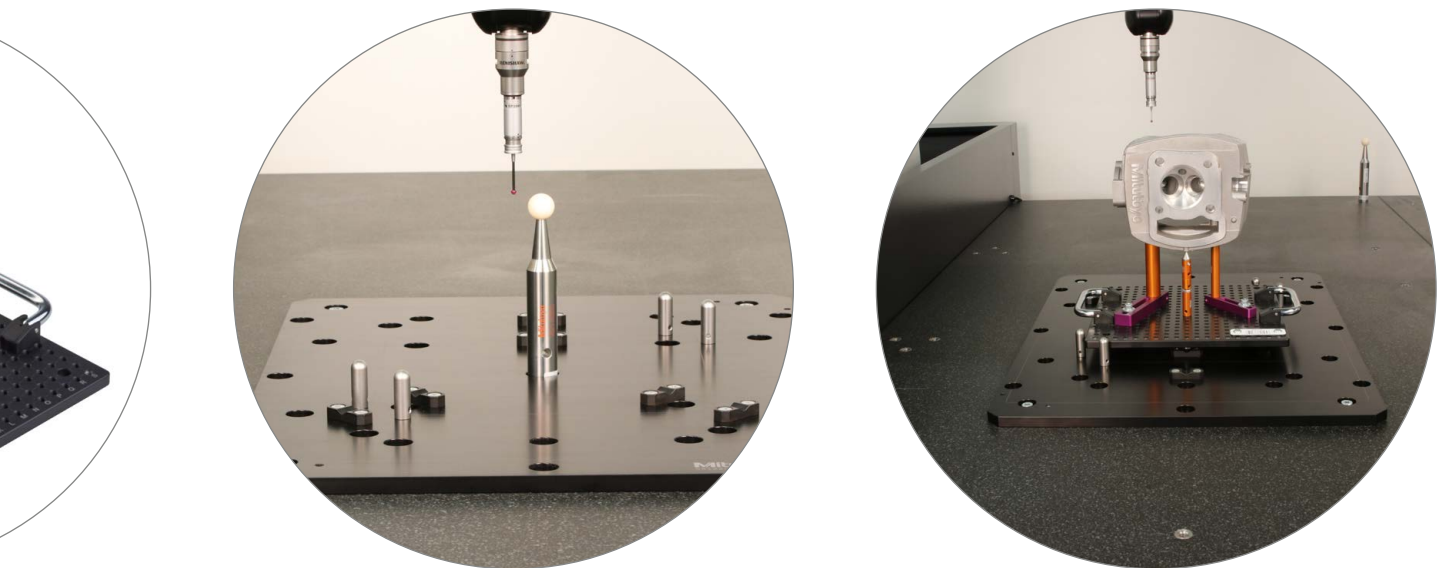


Part set-up on pallet



1. Bar code read out





Receiver plate mounted on CMM – Datuming process

Pallet in repeatable three-point set-up

Spheres mounted on bottom of pallet

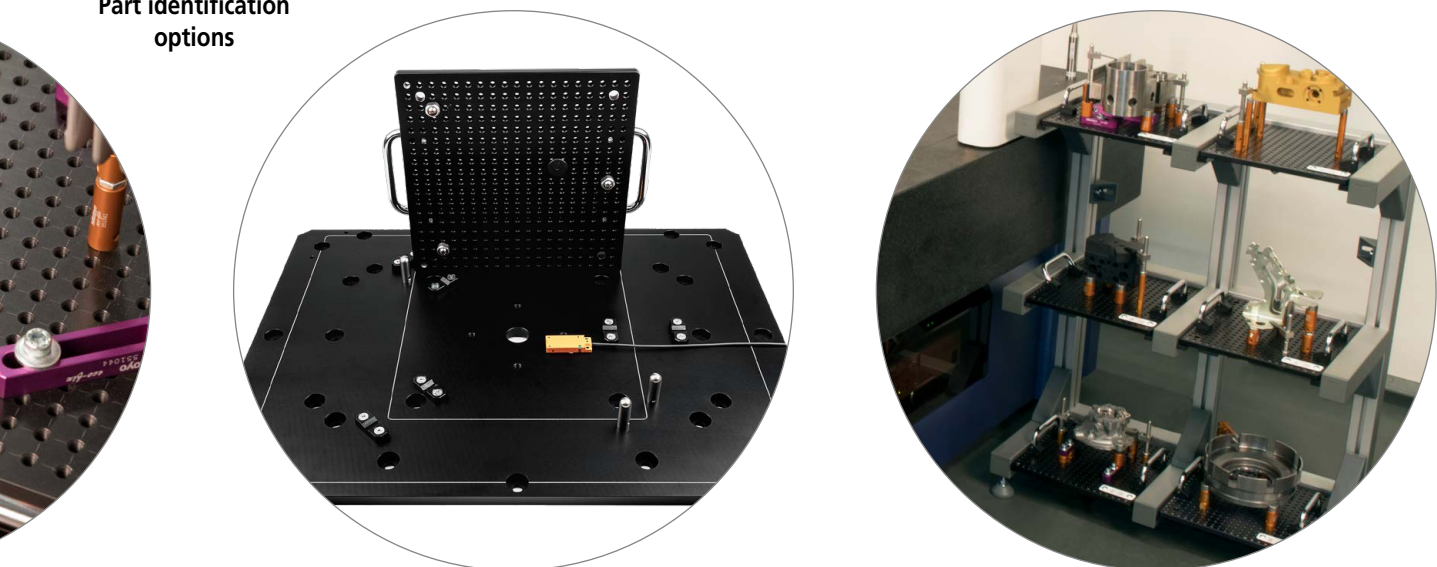


Prisms mounted on receiver plate



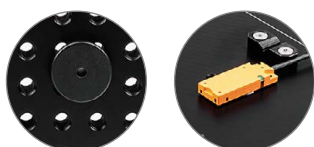
Spheres placed in prisms

**Part identification options**

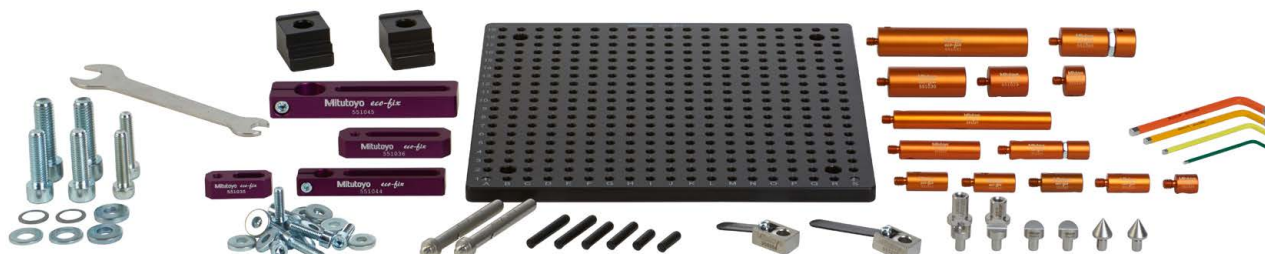


2. RFID tag readout

Pallet storage rack



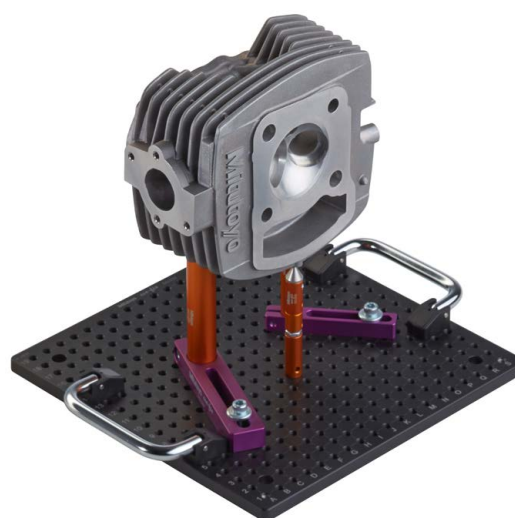
# eco-fix pallet receiver Kit S PRS



**Part No.: K551218**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551034	1	Base plate 250 mm x 250 mm
K551032	2	Clamping claw
<b>Build up Components</b>		
<b>Columns</b>		
K551024	1	Location pin $\varnothing$ 12 mm x 13 mm
K551025	1	Location pin $\varnothing$ 12 mm x 25 mm
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
K551027	1	Location pin $\varnothing$ 12 mm x 100 mm
K551028	1	Location pin $\varnothing$ 20 mm x 13 mm
K551029	1	Location pin $\varnothing$ 20 mm x 25 mm
K551030	1	Location pin $\varnothing$ 20 mm x 50 mm
K551031	1	Location pin $\varnothing$ 20 mm x 100 mm
K551040	1	Adjustable location pin $\varnothing$ 20 mm
K551041	1	Adjustable location pin $\varnothing$ 12 mm
K551042	3	Location pin $\varnothing$ 12 mm with bore 6 mm
<b>Brackets</b>		
K551035	1	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551045	1	Receiver bracket L = 120 mm, $\varnothing$ 20 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
K551047	1	Slotted nut for receiver bracket h = 15 mm
<b>Positioning Components</b>		
K550262	2	V-block mini, $\varnothing$ 12mm
K550261	2	Cone receiver mini, $\varnothing$ 12 mm
K550250	1	Stopper element mini, $\varnothing$ 6 mm
K550247	1	Back square mini, $\varnothing$ 6 mm
K550888	2	Straight pin $\varnothing$ 6 mm x 20 mm
K550889	2	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40 mm
<b>Clamping Components</b>		
K550716	2	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, $\varnothing$ 8 mm, L = 60 mm
K550554	1	Spring clip, $\varnothing$ 8 mm, L = 40 mm
<b>Screws and Washers</b>		
K550563	2	Cylinder head screw M6 x 25 mm
K550110	6	Cylinder head screw M6 x 20 mm
K550591	8	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm

Part No.	Qty.	Part name
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Receiver Components</b>		
K551220	1	Loading receiver plate
K551221	3	Ball screw $\varnothing$ 10
K551199	1	Pair of handles for eco-fix base plates
<b>Total</b>	<b>64</b>	





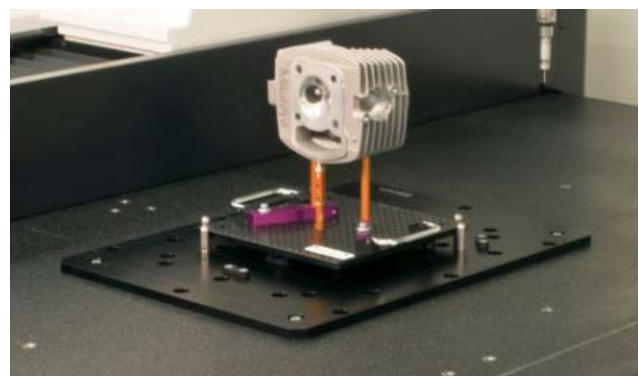
# eco-fix pallet receiver Kit L PRS



**Part No.: K551219**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551533	1	Base plate 500 mm x 400 mm
K551032	3	Clamping claw
<b>Build up Components</b>		
<b>Columns</b>		
K551024	2	Location pin $\varnothing$ 12 mm x 13 mm
K551025	2	Location pin $\varnothing$ 12 mm x 25 mm
K551026	2	Location pin $\varnothing$ 12 mm x 50 mm
K551027	2	Location pin $\varnothing$ 12 mm x 100 mm
K551028	2	Location pin $\varnothing$ 20 mm x 13 mm
K551029	2	Location pin $\varnothing$ 20 mm x 25 mm
K551030	2	Location pin $\varnothing$ 20 mm x 50 mm
K551031	2	Location pin $\varnothing$ 20 mm x 100 mm
K551040	2	Adjustable location pin $\varnothing$ 20 mm
K551041	2	Adjustable location pin $\varnothing$ 12 mm
K551042	3	Location pin $\varnothing$ 12 mm with bore 6 mm
K551043	3	Location pin $\varnothing$ 20 mm with bore 8 mm
<b>Brackets</b>		
K551035	2	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551045	2	Receiver bracket L = 120 mm, $\varnothing$ 20 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
K551047	2	Slotted nut for receiver bracket h = 15 mm
<b>Positioning Components</b>		
K550262	2	V-block mini, $\varnothing$ 12mm
K550261	2	Cone receiver mini, $\varnothing$ 12 mm
K550250	1	Stopper element mini, $\varnothing$ 6 mm
K550247	1	Back square mini, $\varnothing$ 6 mm
K550058	2	V-block
K550365	2	Cone Receiver
K550982	1	Stopper element
K550248	1	Back square
K550888	2	Straight pin $\varnothing$ 6 mm x 20 mm
K550889	2	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40 mm
K550000	2	Straight pin $\varnothing$ 8 mm x 30 mm
K550001	2	Straight pin $\varnothing$ 8 mm x 50 mm
K550002	2	Straight pin $\varnothing$ 8 mm x 65 mm

Part No.	Qty.	Part name
<b>Clamping Components</b>		
K550716	3	Straight pin with thread, M6 x 75 mm
K550279	2	Spring clip, $\varnothing$ 8 mm, L = 60 mm
K550554	1	Spring clip, $\varnothing$ 8 mm, L = 40 mm
<b>Screws and Washers</b>		
K550563	6	Cylinder head screw M6 x 25 mm
K550110	6	Cylinder head screw M6 x 20 mm
K550591	12	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Receiver Components</b>		
K551220	1	Loading receiver plate
K551221	3	Ball screw $\varnothing$ 10
K551199	1	Pair of handles for eco-fix base plates
<b>Total</b>	<b>103</b>	



# Extension kits for Pallet Receiver System PRS

Set of handles for eco-fix base plates and Ball screws



Part No.: K551216

Part No.	Qty.	Part name
<b>Receiver Components</b>		
K551221	3	Ball screw ø10
K551199	1	Pair of handles for eco-fix base plates
<b>Total</b>	<b>4</b>	

Loading receiver plate set for manual eco-fix loading system



Part No.: K551217

Part No.	Qty.	Part name
<b>Receiver Components</b>		
K551220	1	Loading receiver plate
K551221	3	Ball screw ø10
K551199	1	Pair of handles for eco-fix base plates
<b>Total</b>	<b>5</b>	

## Fixture ID RFID fixture recognition



FixtureID kit for automatic part and fixture recognition



The all-new RFID chip recognition system **FixtureID** takes ease of use and application security a wide step further. It literally takes only a few minutes to prepare the system and add great value to your process safety.

Part No.: K810313 FixtureID kit

Part No.:	Description	Quantity
	FixtureID Software	on USB stick 1 pc.
	Ethernet device configuration software	on USB stick
	User manual, English language	on USB stick
	RFID read/write head HF	M12 plug-in connection 1 pc.
	O-Link master with IoT interface, 4 positions	M12 plug-in connection IP67 1 pc.
	Power Supply 24VDC/1.0A/ww	M12 plug-in connection 1 pc.
<b>K807598</b>	Protective cap	M12 1 pc.
<b>K915481</b>	RFID tag	7 pc.
<b>K913273</b>	Double sided sticker	RFID tag connection 7 pc.
	Screw connection set	1 pc.
	USB Ethernet adapter	1 pc.

Connectivity	
<b>MCOSMOS</b>	Remote manager
<b>FORMTRACEPAK</b>	FORMEio



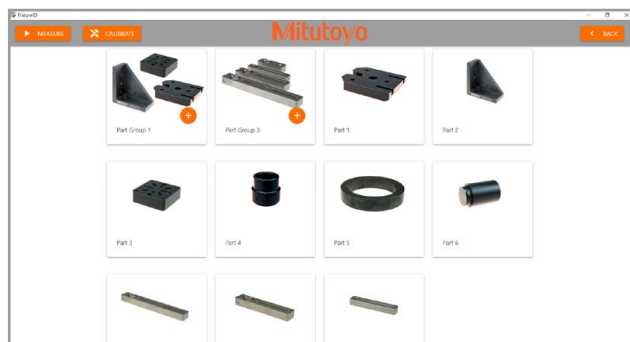
# FixtureID RFID fixture recognition

Five easy preparation steps:

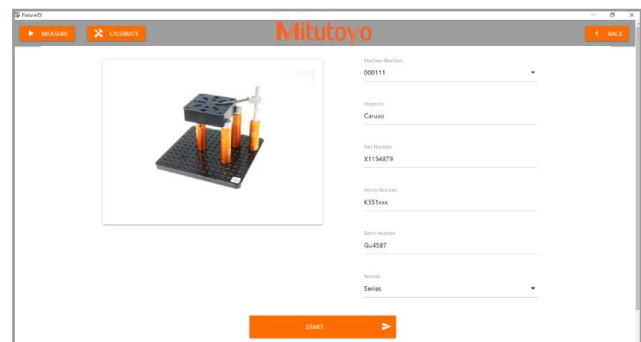
1. Take photographs of the unmounted and mounted workpiece and load it into the **FixtureID** directory.
2. Mount the RFID chip on the bottom side of the eco-fix base pallet.
3. Mount the RFID reader on the dedicated area of the pallet receiver plate.
4. Assign the RFID chip to the part program in **FixtureID**.
5. Assign the **FixtureID** data to the part program in the measuring software.

Now you are ready to start the measurement action most conveniently

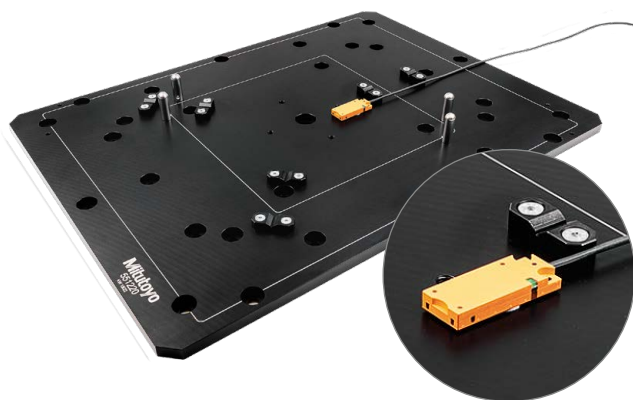
- High protection rating for the requirements of harsh industrial environments
- Reliable transmission of part and fixture data to the IT environment



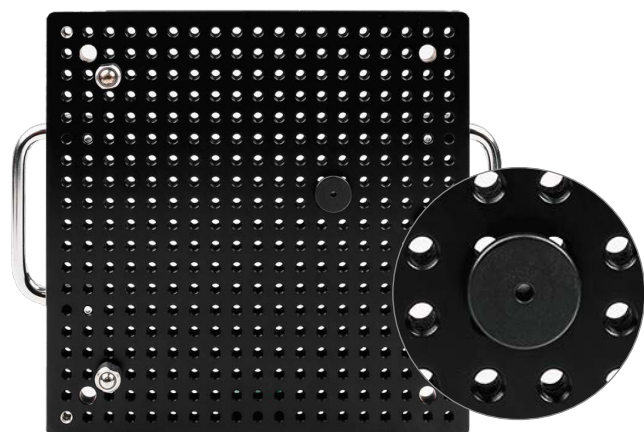
Part library overview



Mounted part view



RFID head mounted on pallet receiver plate



RFID tag mounted on the base plate bottom

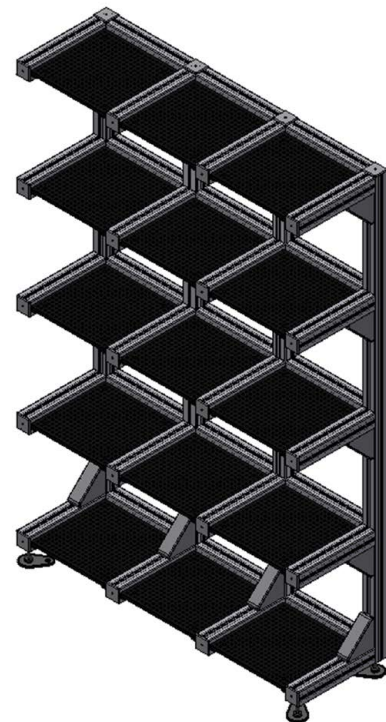
# Pallet system racks PRS

The eco-fix racks are used to easily store the workpiece equipped 250 x 250 mm eco-fix base plates either beside the CMM while preparing the application or running the measurement process or to store away the mounted jig until it is reused.  
The two and four pallet racks can be extended to the desired quantities of pallets to be stored by using the extension kits.

Other pallet dimensions and additional storage locations on request.



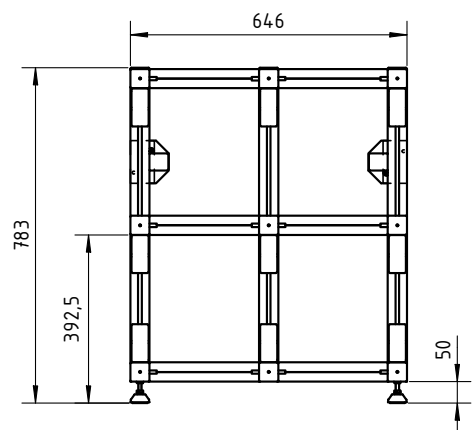
K543826 15 fold 250mm x 250 mm customized pallet rack

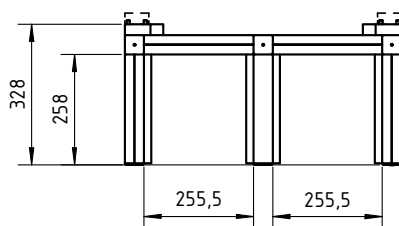
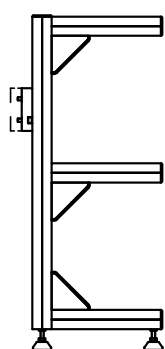


**Part No.: K551344**

Weight 20.000 g

**Rack for six pallets**  
**For the loading receiver pallet system**  
**328 mm x 646 mm x 780 mm**  
Made of aluminium, profiles





PRODUCT LINES

eco-fix  
eco-fix<sup>plus</sup>

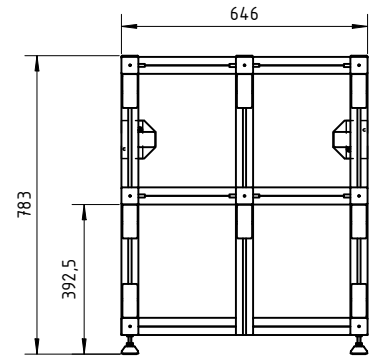
Pallet receiver  
system

# Pallet system racks PRS

**Part No.: K551343**

Weight 19.000 g

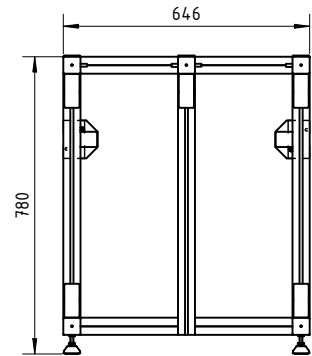
**Rack for four pallets**  
**For the loading receiver pallet system**  
**328 mm x 646 mm x 780 mm**  
 Made of aluminium, profiles



**Part No.: K551342**

Weight 19.000 g

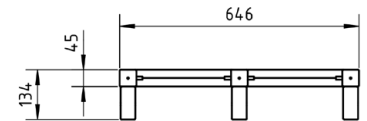
**Rack for two pallets**  
**For the loading receiver pallet system**  
**328 mm x 646 mm x 780 mm**  
 Made of aluminium, profiles



**Part No.: K551345**

Weight 3.815 g

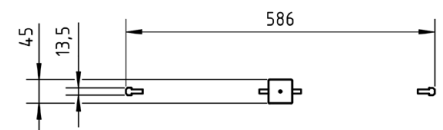
**Extension kit 2 – 4 pallets**  
**For the loading receiver pallet system**



**Part No.: K551346**

Weight 1.460 g

**Extension kit 4 – 6 pallets**  
**For the loading receiver pallet system**



		PRODUCT LINES
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>Pallet receiver system</p>
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>Pallet receiver system</p>
		<p>Pallet receiver system</p>
		<p>Pallet receiver system</p>

# Manual Loading Stations for CMM MPS

## Manual loading stations for CMM

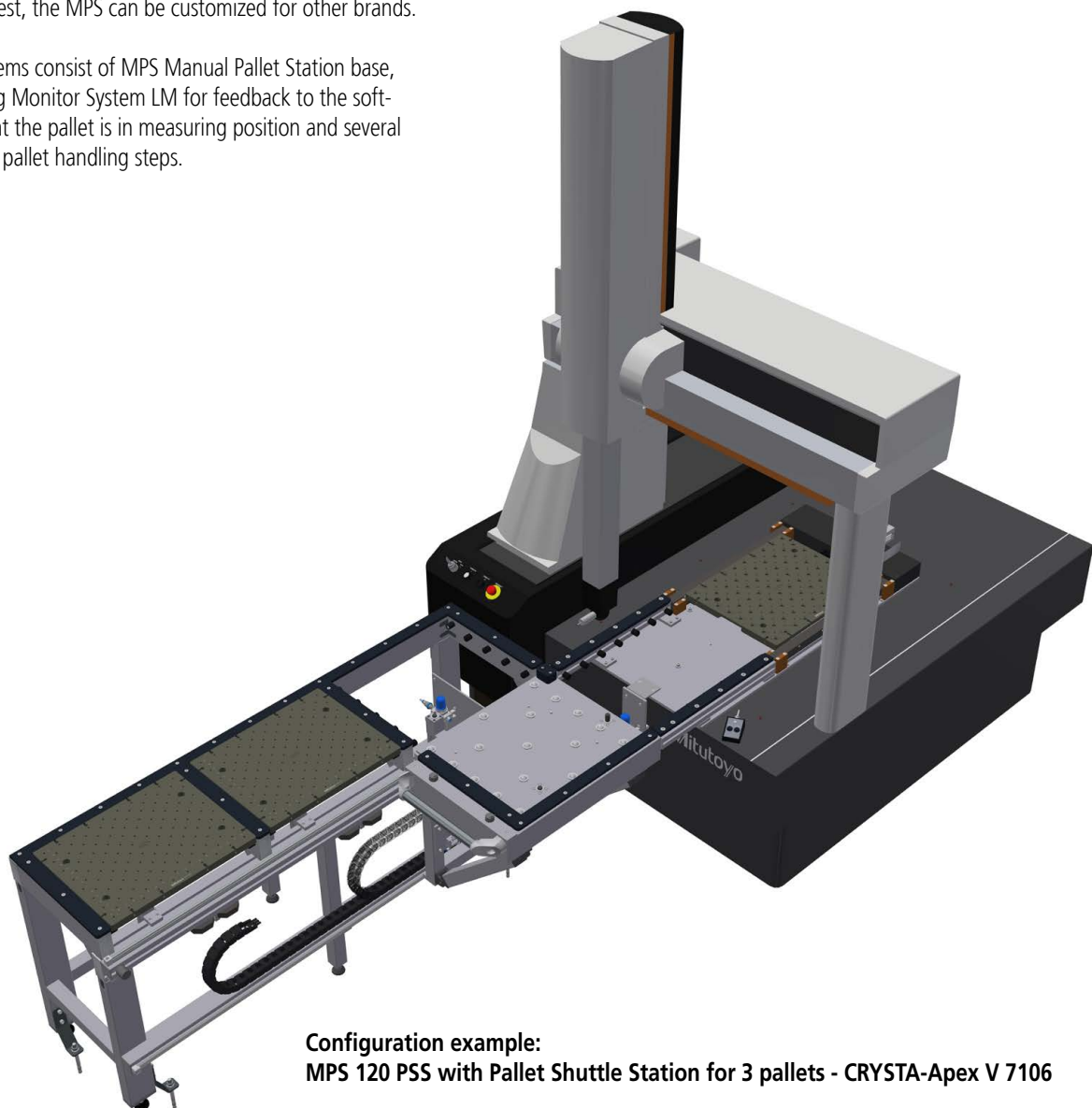
For serial measurements with improved efficiency and the handling of heavy workpieces our Manual Pallet loading System, MPS is the serious option.

The stations are available as a standard solution for the following Mitutoyo frame sizes for the according MiStar, CRYSTA-Apex V and STRATO-Apex models:

Available frame sizes		
555	544	574
	776	7106
9106	9166	9206
9108	9168	9208
121210	122010	123010

On request, the MPS can be customized for other brands.

The systems consist of MPS Manual Pallet Station base, Lowering Monitor System LM for feedback to the software that the pallet is in measuring position and several optional pallet handling steps.



Configuration example:  
MPS 120 PSS with Pallet Shuttle Station for 3 pallets - CRYSTA-Apex V 7106



Configuration will start at the pallet dimension and properties:

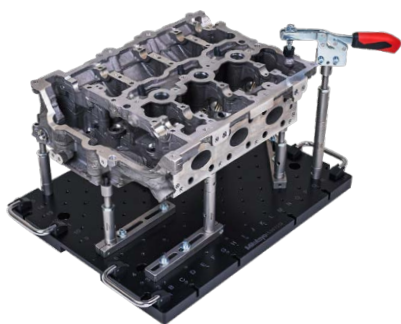
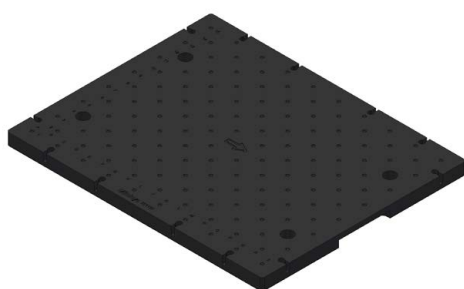
2 base plate variations are available in 3 dimensions each – all prepared with cone bushing inserts for the according 3-point set-up on the MPS frame. See also page 12

Threaded base plates for the use with our modular fixturing systems *eco-fix* and *eco-fix<sup>plus</sup>* and non-threaded system base plates for full fixturing customization. The customization can be requested at Mitutoyo or done by the customer.

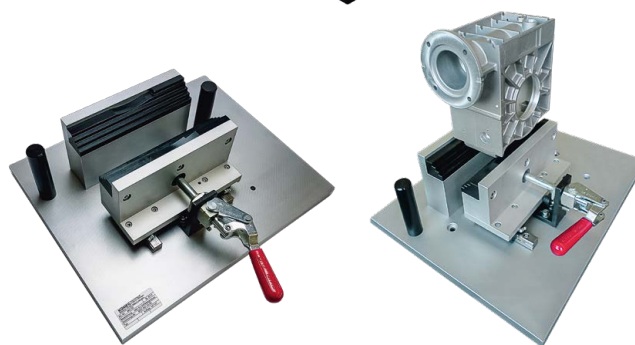
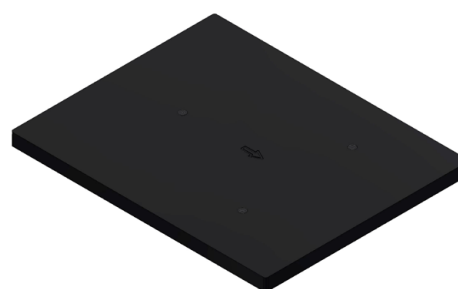
Pallet type	Available Sizes	Thickness	Maximum load
60	250 x 250 mm	25 mm	60 kg
120	500 x 400 mm	25 mm	120 kg
250	600 x 600 mm	25 mm	250 kg



Pallet bottom with cone bushings



*eco-fix<sup>plus</sup>* pallets for modular set-up

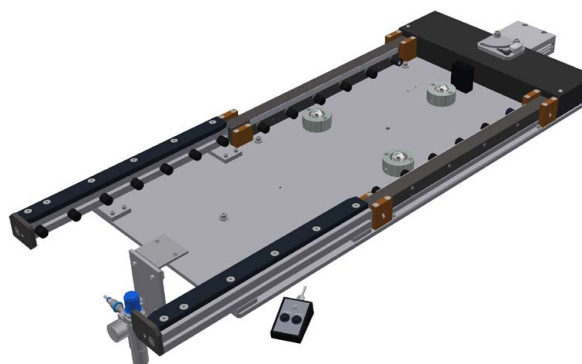


System pallets for customized set-up

**MPS Manual Pallet Station Base with 3-point set-up**

MPS type	for pallets
MPS 60	250 x 250 mm
MPS 120	500 x 400 mm
MPS 250	600 x 600 mm

Front loading in the centre of the measurement area.  
Different specification optional



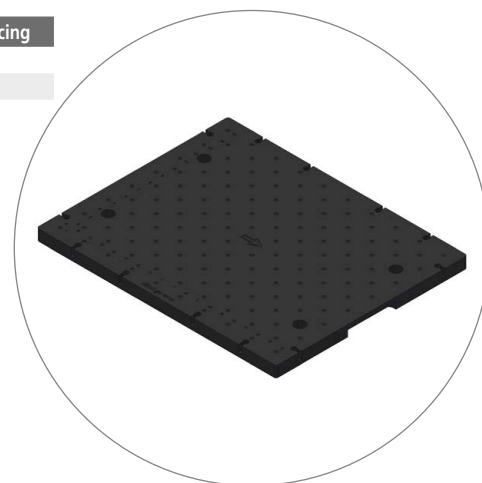
# Manual Loading Stations for CMM MPS

## Configuration steps - Manual loading stations for CMM

### 1. Pallet dimension and type

Part No.:	Available Sizes	Thickness	Maximum load	Thread	Thread grid pattern spacing
K551356	250 x 250 mm	25 mm	60kg	M6	25 x 25 mm
K551357	500 x 400 mm	25 mm	120 kg	M6	50 x 50 mm
K551358	600 x 600 mm	25 mm	250 kg	M6	50 x 50 mm

eco-fix<sup>plus</sup> pallets for set-up of modular fixtures



eco-fix<sup>plus</sup> pallets for set-up of modular fixtures

### 2. MPS type according to pallet dimension and machine frame

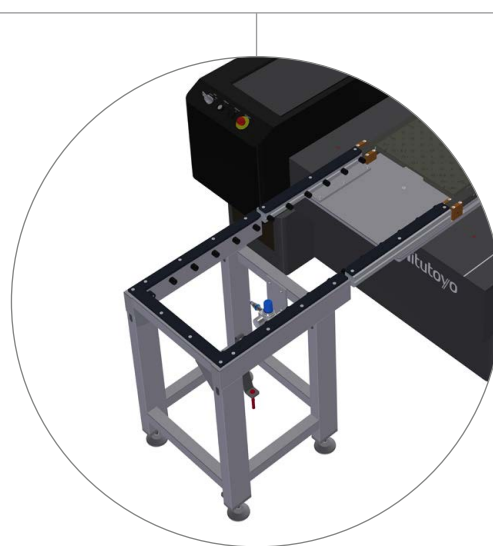
MPS type	for pallets
MPS 60	250 x 250 mm
MPS 120	500 x 400 mm
MPS 250	600 x 600 mm

### 3. Pallet set-up option

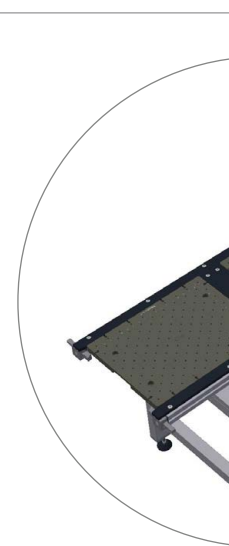
Name	Description	Number of pallets
PTT	Pallet Transport Trolley	Trolley option with docking unit
PST	Pallet Set-up Table	Fixed pallet table option
RST	Rotatable Pallet Set-up Table	Fixed rotatable table option
PSB	Pallet Station with Ball Rollers	Fixed pallet station option
PSS	Pallet Station with Shuttle transport	Fixed pallet station option



PTT Pallet Transport Trolley



PST Pallet Set-up Table



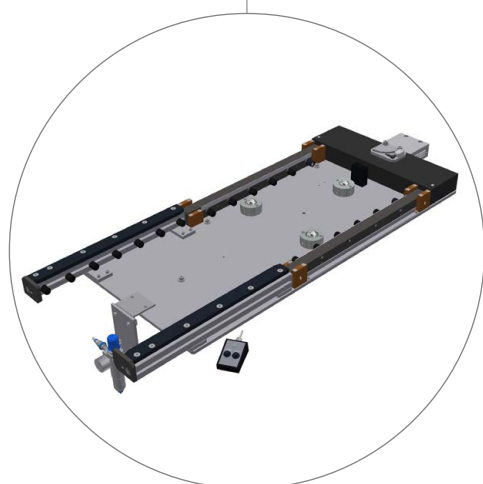
RST Rotatable

Part No.:	Available Sizes	Thickness	Maximum load	Thread	Thread grid pattern spacing
K551138	250 x 250 mm	25 mm	60kg		none
K551137	500 x 400 mm	25 mm	120 kg		none
K551202	600 x 600 mm	25 mm	250 kg		none

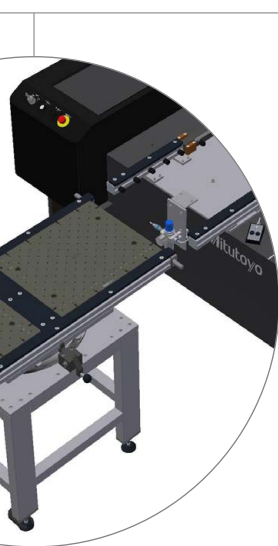
System pallets for customized set-up



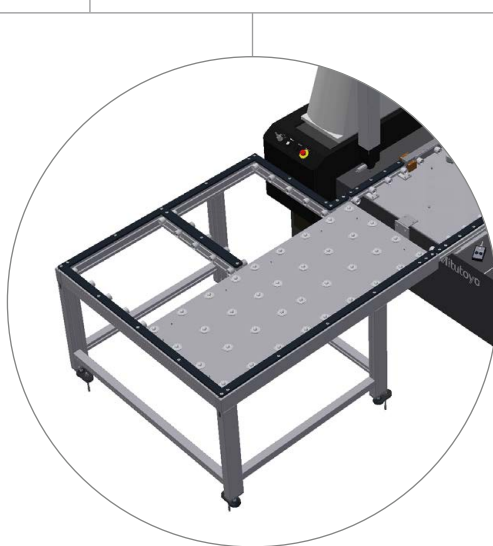
System pallets for customized set-up



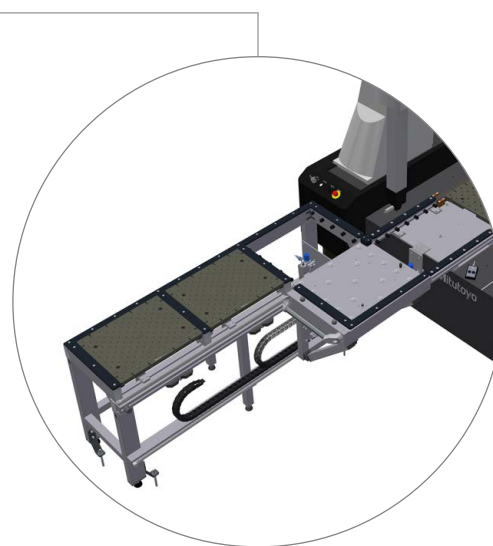
**MPS** base unit



Pallet Set-up Table



**PSB** Pallet Station with Ball Rollers



**PSS** Pallet Station with Shuttle transport

# FixtureBuilder Software

The free of charge software **FixtureBuilder** enables the user to easily plan and set up his CMM fixture in just a few minutes. Repeatable fixturing has never been easier and at a better price performance ratio. **FixtureBuilder** is a software tool that allows users to create virtual clamping fixtures quickly and easily. Users can choose whether to set the virtual fixture up manually or to allow the software's "AutoMode" to perform the task.

The interactive "AutoMode" operating mode guides the user step by step to a finalized clamping fixture. Only very few data need to be input, for example the choice of component to be clamped or the position and type of contact and tensioning points. This data is sufficient to enable **FixtureBuilder** to independently create a complete clamping fixture.

### FixtureBuilder advantages

- Fixture building by mouse click
- Ideal for online programming with e.g., **MiCAT Planner**
- Parts list with material overview
- Documented structure
- Assembly instruction for each column
- Alpha numeric column positioning coordinates according to base plate markings
- Automatic weight determination
- Multiple data formats for file data import and export

### Import data in

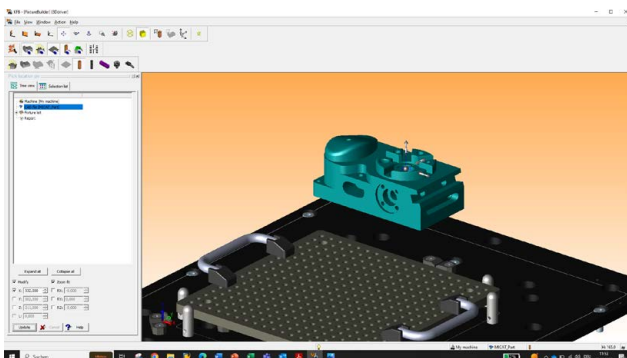
- Acis (\*.sat) file format
- Iges (\*.igs) file format
- Step (\*.stp) file format

### Save fixture report in

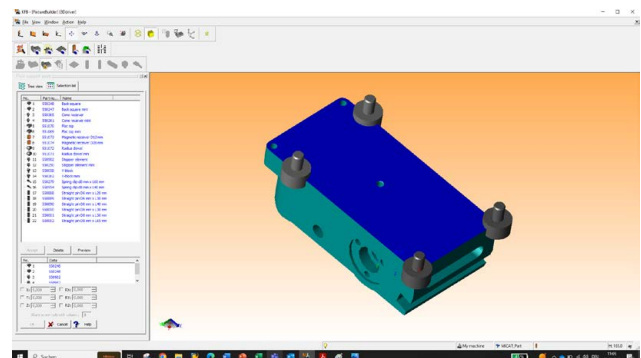
- PDF file format (3D option)
- HTML file format
- CSV file format

### Save fixture data in

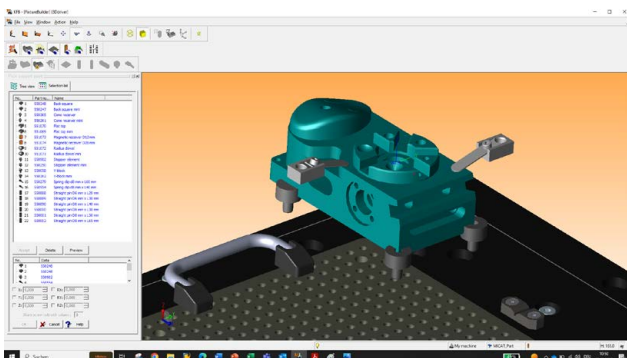
- HOOPS (.hsf) file format
- 3D PDF (.pdf) file format
- ACIS (.sat) file format



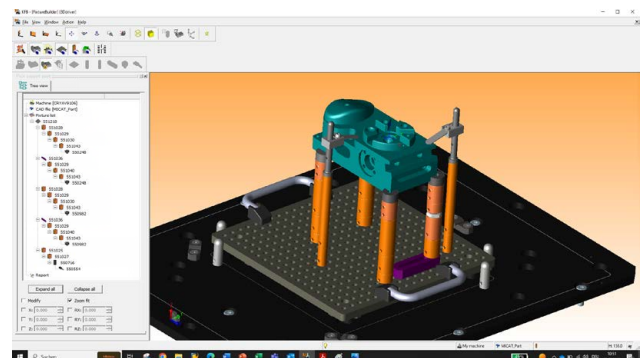
Imported CAD file and chosen base plate



Application of support points



Applied of support points and clamps



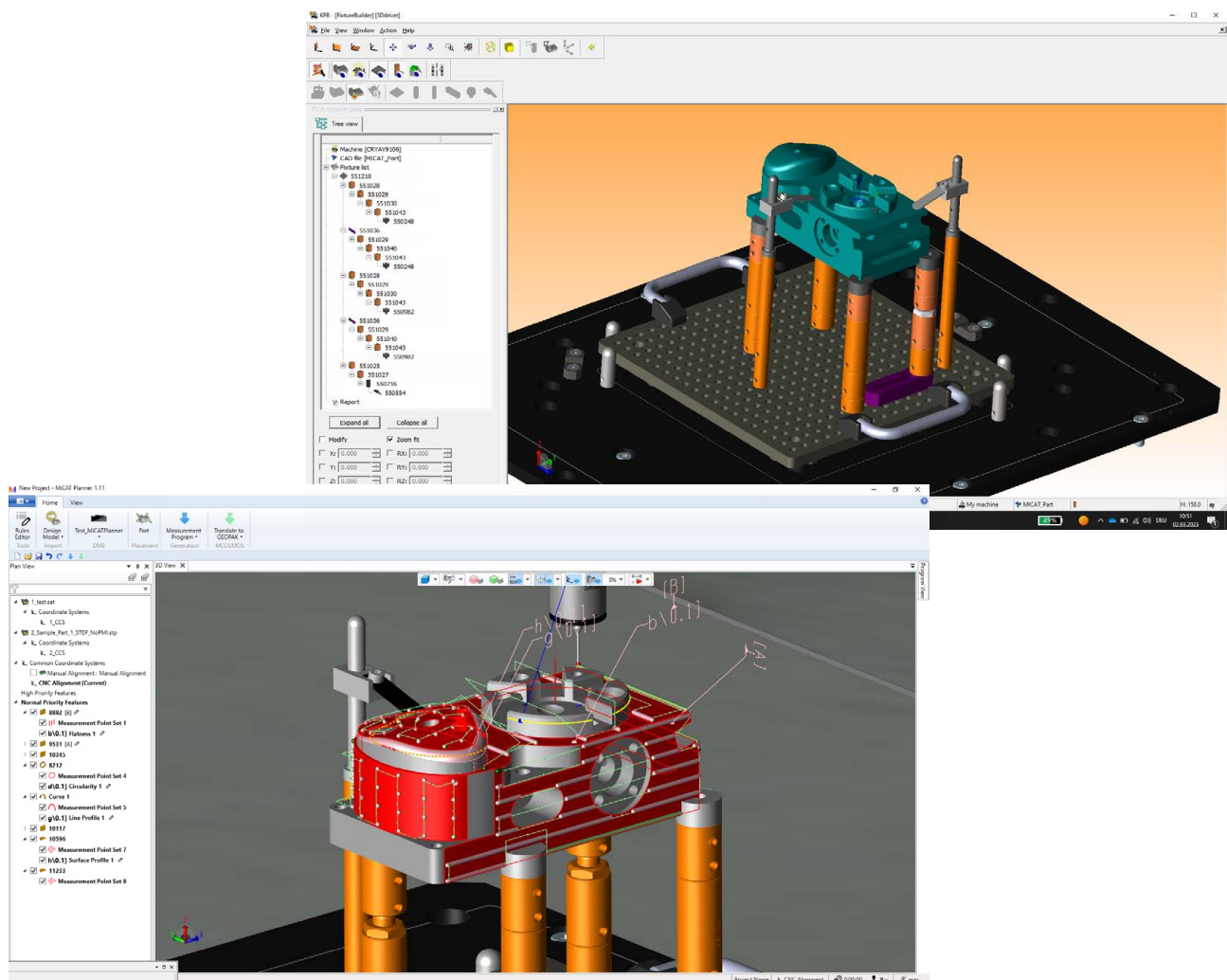
Automatically processed fixture

**FixtureBuilder** software allows data to be imported in Acis (\*.sat), Iges (\*.igs) and Step (\*.stp) formats. The export functions it offers include Hoops file (\*.hsf), A, 3d PDF (\*.pdf) and Acis Files (\*.sat).

Available integrated in Mitutoyo's **MCOSMOS** CMM software, or as a free standalone version, **FixtureBuilder** allows data to be processed in all **MCOSMOS** import formats. The fixture design can be imported into the measuring software, either on its own or complete with component, and thus be used for offline programming of the coordinate measuring machine. The import works too with any compatible 3rd party CMM software.

Online part programming, for e.g., with part program generating software **MiCAT Planner**, is even easier by importing the fixture and part data directly into the software.

A parts list report with assembly instructions is available in various output formats for the assembly of the real fixture created in **FixtureBuilder**. The 3D function in PDF format is especially practical as it allows limitless variations on the view of the fixture model in the PDF document. The virtual design can therefore be examined from all possible views and positions.



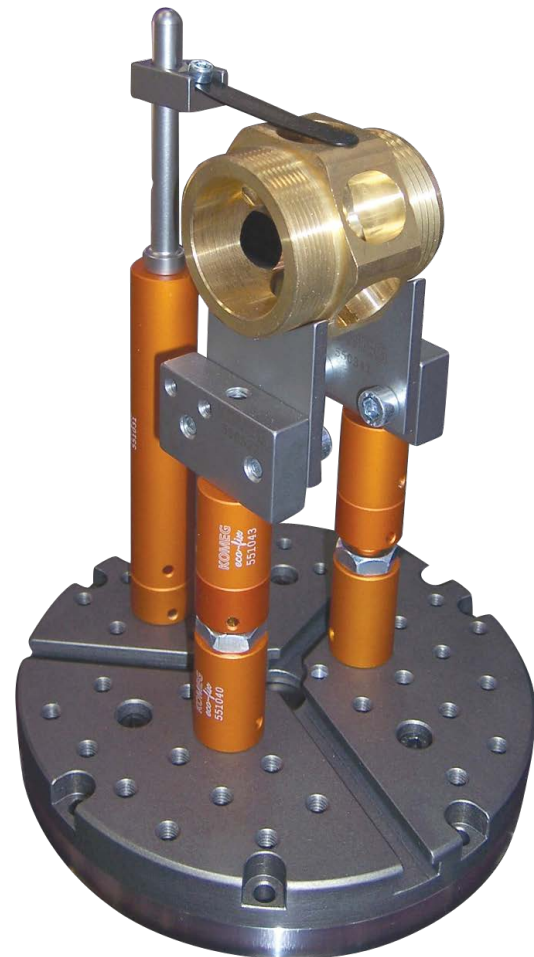
Imported Fixture project in MiCAT Planner part programming software

# eco-fix Kit Form-S



**Part No.: K551133**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551038	1	Base plate ø 150 mm
<b>Build up Components</b>		
<b>Columns</b>		
K551024	1	Location pin ø 12 mm x 13 mm
K551025	1	Location pin ø 12 mm x 25 mm
K551026	1	Location pin ø 12 mm x 50 mm
K551027	1	Location pin ø 12 mm x 100 mm
K551028	1	Location pin ø 20 mm x 13 mm
K551029	1	Location pin ø 20 mm x 25 mm
K551030	1	Location pin ø 20 mm x 50 mm
K551031	1	Location pin ø 20 mm x 100 mm
K551040	1	Adjustable location pin ø 20 mm
K551041	1	Adjustable location pin ø 12 mm
K551042	3	Location pin ø 12 mm with bore 6 mm
<b>Brackets</b>		
K551035	1	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, ø 12 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
<b>Positioning Components</b>		
K550262	1	V-block mini, ø12mm
K550261	2	Cone receiver mini, ø12 mm
K550250	1	Stopper element mini, ø 6 mm
K550247	1	Back square mini, ø 6 mm
K550058	1	V-block
K550888	2	Straight pin ø 6 mm x 20 mm
K550889	2	Straight pin ø 6 mm x 30 mm
K550890	2	Straight pin ø 6 mm x 40 mm
<b>Clamping Components</b>		
K550716	1	Straight pin with thread, M6 x 75 mm
K550279	1	Spring clip, ø 8 mm, L = 60 mm
<b>Screws and Washers</b>		
K550563	6	Cylinder head screw M6 x 25 mm
K550110	8	Cylinder head screw M6 x 20 mm
K550591	1	Washer ø 6.4 mm x ø 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>52</b>	



# eco-fix Kit Form-L



**Part No.: K551134**

Part No.	Qty.	Part name
<b>Base Components</b>		
<b>Base plate</b>		
K551039	1	Base plate $\varnothing$ 200 mm
<b>Build up Components</b>		
<b>Columns</b>		
K551024	1	Location pin $\varnothing$ 12 mm x 13 mm
K551025	1	Location pin $\varnothing$ 12 mm x 25 mm
K551026	1	Location pin $\varnothing$ 12 mm x 50 mm
K551027	2	Location pin $\varnothing$ 12 mm x 100 mm
K551028	2	Location pin $\varnothing$ 20 mm x 13 mm
K551029	2	Location pin $\varnothing$ 20 mm x 25 mm
K551030	2	Location pin $\varnothing$ 20 mm x 50 mm
K551031	1	Location pin $\varnothing$ 20 mm x 100 mm
K551040	2	Adjustable location pin $\varnothing$ 20 mm
K551041	1	Adjustable location pin $\varnothing$ 12 mm
K551042	2	Location pin $\varnothing$ 12 mm with bore 6 mm
K551043	3	Location pin $\varnothing$ 20 mm with bore 8 mm
<b>Brackets</b>		
K551035	1	Receiver bracket small
K551036	1	Receiver bracket large
K551044	1	Receiver bracket L = 90 mm, $\varnothing$ 12 mm
K551045	1	Receiver bracket L = 120 mm, $\varnothing$ 20 mm
K551046	1	Slotted nut for receiver bracket h = 12 mm
K551047	1	Slotted nut for receiver bracket h = 15 mm
<b>Positioning Components</b>		
K550262	1	V-block mini, $\varnothing$ 12mm
K550261	2	Cone receiver mini, $\varnothing$ 12 mm
K550250	1	Stopper element mini, $\varnothing$ 6 mm
K550247	1	Back square mini, $\varnothing$ 6 mm
K550058	1	V-block
K550365	2	Cone Receiver
K550982	1	Stopper element
K550248	1	Back square
K550888	2	Straight pin $\varnothing$ 6 mm x 20 mm
K550889	2	Straight pin $\varnothing$ 6 mm x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40 mm
K550000	2	Straight pin $\varnothing$ 8 mm x 30 mm
K550001	2	Straight pin $\varnothing$ 8 mm x 50 mm
K550002	2	Straight pin $\varnothing$ 8 mm x 65 mm
<b>Clamping Components</b>		
K550716	2	Straight pin with thread, M6 x 75 mm
K550279	2	Spring clip, $\varnothing$ 8 mm, L = 60 mm



Part No.	Qty.	Part name
<b>Screws and Washers</b>		
K550563	6	Cylinder head screw M6 x 25 mm
K550110	12	Cylinder head screw M6 x 20 mm
K550591	6	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551051	1	Allen key 3 mm
K551052	1	Allen key 4 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>82</b>	

# eco-fix and eco-fix<sup>plus</sup> Extension Sets

**Part No.: K551124**

Weight 938 g

**Extension set**  
Location pins  
ø 20 mm



**Part No.: K551123**

Weight 310 g

**Extension set**  
Location pins  
ø 12 mm



**Part No.: K551317**

Weight 154 g

**Extension set**  
Turn-swivel joints ø 20 mm



**Part No.: K551318**

Weight 52 g

**Extension set**  
Turn-swivel joints ø 12 mm



**Part No.: K551319**

Weight 82 g

**Extension set Magnet**  
ø 20 mm



**Part No.: K551320**

Weight 21 g

**Extension set Magnet**  
ø 12 mm



**Part No.: K551129**

Weight 144 g

**Extension set**  
Receiver brackets  
for ø12mm location pins





**CONTENT OF EXTENSION SETS**

**PRODUCT LINES**

Part No.	Qty.	Part name
K551028	5	Location pin $\varnothing$ 20 mm x 13 mm
K551029	5	Location pin $\varnothing$ 20 mm x 25 mm
K551030	5	Location pin $\varnothing$ 20 mm x 50 mm
K551031	5	Location pin $\varnothing$ 20 mm x 100 mm
K551043	5	Location pin $\varnothing$ 20 mm with hole $\varnothing$ 8 mm
K551040	2	Adjustable location pin $\varnothing$ 20 mm
<b>Total qty.</b>	<b>27</b>	

eco-fix

Part No.	Qty.	Part name
K551024	5	Location pin $\varnothing$ 12 mm x 13 mm
K551025	5	Location pin $\varnothing$ 12 mm x 25 mm
K551026	5	Location pin $\varnothing$ 12 mm x 50 mm
K551027	5	Location pin $\varnothing$ 12 mm x 100 mm
K551042	5	Location pin $\varnothing$ 12 mm with hole $\varnothing$ 6 mm
K551041	2	Adjustable location pin $\varnothing$ 12 mm
<b>Total qty.</b>	<b>27</b>	

eco-fix

Part No.	Qty.	Part name
K551076	3	Turn-swivel joint $\varnothing$ 20 mm
<b>Total qty.</b>	<b>3</b>	

eco-fix

Part No.	Qty.	Part name
K551075	3	Turn-swivel joint $\varnothing$ 12 mm
<b>Total qty.</b>	<b>3</b>	

eco-fix

Part No.	Qty.	Part name
K551074	5	Magnetic receiver $\varnothing$ 20 mm
<b>Total qty.</b>	<b>5</b>	

eco-fix

Part No.	Qty.	Part name
K551073	5	Magnetic receiver $\varnothing$ 12 mm
<b>Total qty.</b>	<b>5</b>	

eco-fix

Part No.	Qty.	Part name
K551044	3	Receiving bracket L = 90 mm, $\varnothing$ 12 mm
K551035	3	Receiver bracket small L = 40 mm, M6
K551046	3	Slotted nut h = 12 mm
<b>Total qty.</b>	<b>9</b>	

eco-fix

# eco-fix and eco-fix<sup>plus</sup> Extension Sets

**Part No.: K551130**

Weight 393 g

**Extension set  
Receiver brackets  
for ø20mm location pins**



**Part No.: K551126**

Weight 139 g

**Extension set  
Positioning components  
ø 12 mm**



**Part No.: K551127**

Weight 514 g

**Extension set  
Positioning components  
ø 20 mm**



**Part No.: K551125**

Weight 291 g

**Extension set  
Clamping components 1**



**Part No.: K551321**

Weight 520 g

**Extension set  
Straight pins  
ø 8 mm**



**Part No.: K551322**

Weight 400 g

**Extension set  
Straight pins  
ø 6 mm**



CONTENT OF EXTENSION SETS

PRODUCT LINES

Part No.	Qty.	Part name
K551045	3	Receiving bracket L = 120 mm, ø 20 mm
K551036	3	Receiver bracket small L = 70 mm, M6
K551047	3	Slotted nut h = 15 mm
<b>Total qty.</b>	<b>9</b>	

eco-fix

Part No.	Qty.	Part name
K551069	3	Flat top ø 12 mm
K550250	3	Stopper element mini ø 12 mm
K550247	2	Back square mini ø 12 mm
K550262	2	V-block mini ø 12 mm
K551071	5	Sphere top ø 12 mm
K550261	2	Cone receiver mini ø 12 mm
<b>Total qty.</b>	<b>17</b>	

eco-fix

Part No.	Qty.	Part name
K551028	3	Flat top ø 20 mm
K551029	3	Stopper element mini ø 20 mm
K551030	2	Back square mini ø 20 mm
K551031	2	V-block mini ø 20 mm
K551043	5	Sphere top ø 20 mm
K551040	2	Cone receiver mini ø 20 mm
<b>Total qty.</b>	<b>17</b>	

eco-fix  
eco-fix<sup>plus</sup>

Part No.	Qty.	Part name
K550716	5	Straight pin with thread
K550554	2	Spring clip, ø 8 mm L= 40 mm
K550279	3	Spring clip, ø 8 mm L= 60 mm
<b>Total qty.</b>	<b>10</b>	

eco-fix  
eco-fix<sup>plus</sup>

Part No.	Qty.	Part name
K550000	5	Straight pin ø 8 mm x 30 mm
K550001	5	Straight pin ø 8 mm x 50 mm
K550002	5	Straight pin ø 8 mm x 65 mm
K550003	5	Straight pin ø 8 mm x 85 mm
<b>Total qty.</b>	<b>20</b>	

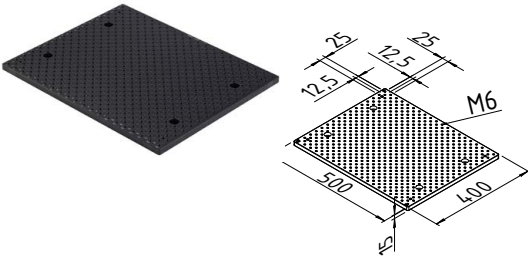

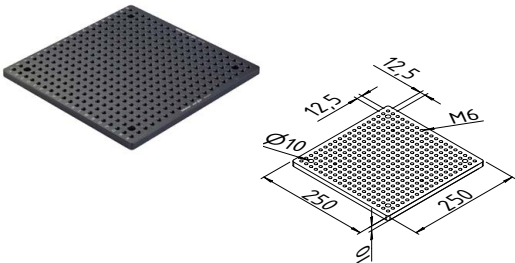
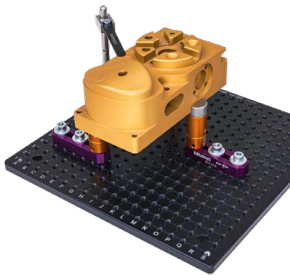
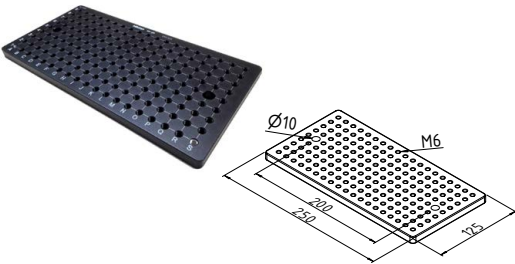

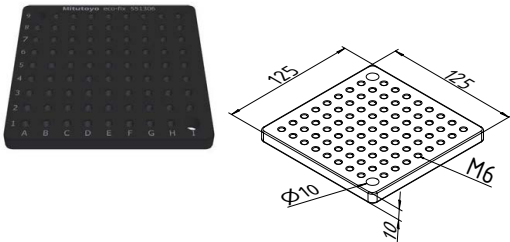

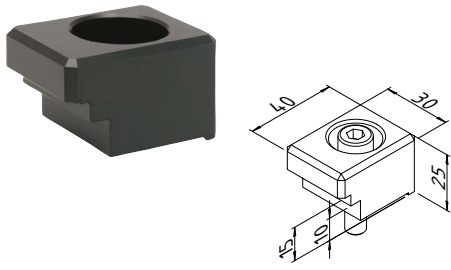

eco-fix  
eco-fix<sup>plus</sup>

Part No.	Qty.	Part name
K550888	5	Straight pin mini ø 6 mm x 20 mm
K550889	5	Straight pin mini ø 6 mm x 40 mm
K550890	5	Straight pin mini ø 6 mm x 60 mm
<b>Total qty.</b>	<b>15</b>	

eco-fix

# Base components

## Base plates

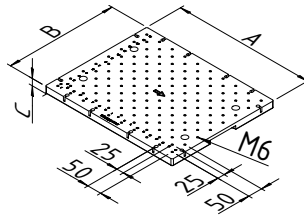
	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551533</b> Weight 7600 g</p> <p><b>Base plate eco-fix</b> 500 mm x 400 mm Made of hard-anodised aluminium, with connecting thread M6, grid distance 12.5 mm / 25 mm</p> 		eco-fix
<p><b>Part No.: K551034</b> Weight 1500 g</p> <p><b>Base plate eco-fix</b> 250 mm x 250 mm Made of hard-anodised aluminium, with connecting thread M6, grid distance 12.5 mm</p> 		eco-fix
<p><b>Part No.: K551226</b> Weight 750 g</p> <p><b>Base plate eco-fix</b> 250 mm x 125 mm Made of hard-anodised aluminium, with connecting thread M6, grid distance 12.5 mm</p> 		eco-fix
<p><b>Part No.: K551306</b> Weight 375 g</p> <p><b>Base plate eco-fix</b> 125 mm x 125 mm Made of hard-anodised aluminium, with connecting thread M6, grid distance 12.5 mm</p> 		eco-fix
<p><b>Part No.: K551032</b> Weight 64 g</p> <p><b>Clamping claw eco-fix</b> For fixing of base plates on the measuring table Incl. 1pc. M8, M10 and M12 bolt</p> 		eco-fix

eco-fix · eco-fix<sup>plus</sup>

**Base plates eco-fix<sup>plus</sup>**

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm. Prepared for 3-point ball support on the CMM.

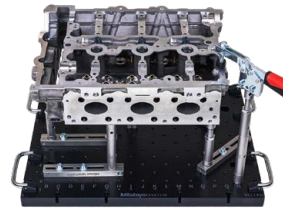
Part No.:	A	B	C	Weight
K551138	250	250	25	3.900g
K551137	500	400	25	12.900g
K551202	600	600	25	28.330g



MPS compatible

APPLICATION

PRODUCT LINES

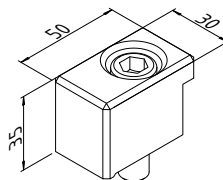


eco-fix<sup>plus</sup>  
MPS

**Part No.:**

Weight:

- K550936-10 for M10 55g
- K550937-10 for M8 60g
- K550475-10 for M12 65g



**Clamping claw eco-fix<sup>plus</sup>**

For fixing of base plates on the measuring table

eco-fix<sup>plus</sup>

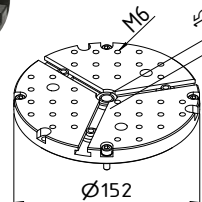
**Part No.: K551038**

Weight 720 g

**Base plate ø 152 mm**

Made of hard-anodised aluminium, to adapt holding fixtures on Mitutoyo turntables for roughness and form measuring machines.

Delivered including 3 slotted nuts and mounting parts.



eco-fix FMI

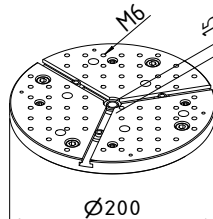
**Part No.: K551039**

Weight 1300 g

**Base plate ø 200 mm**

Made of hard-anodised aluminium, to adapt holding fixtures on Mitutoyo turntables for roughness and form measuring machines.

Delivered including 3 slotted nuts and mounting parts.



eco-fix FMI

# Base components

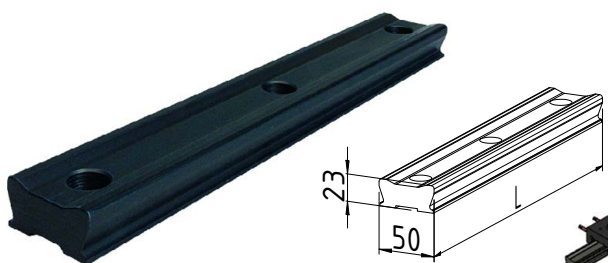
## Base profiles

	APPLICATION	PRODUCT LINES
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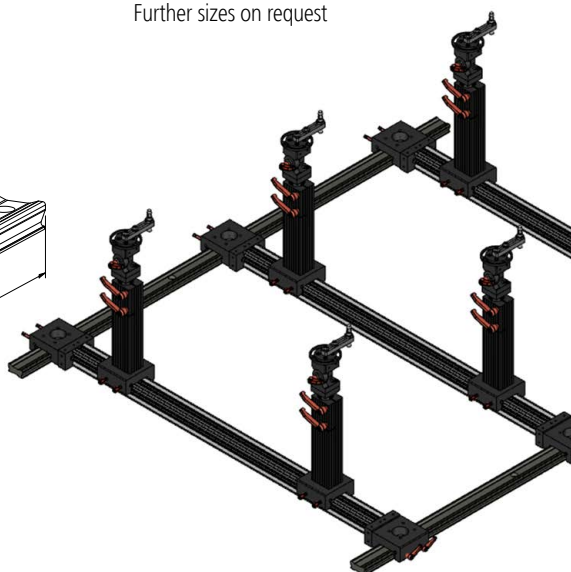
### multiflex<sup>profile</sup> rail

Part No.:	Description	L mm	weight g
K550631	multiflex <sup>profile</sup> rail	200	430
K550632	multiflex <sup>profile</sup> rail	300	650
K550633	multiflex <sup>profile</sup> rail	500	1.060

· **Dovetail profile**  
 To be fixed directly on the CMM granite.  
 Position slider components flexibly where  
 a build-up is required.  
 Further sizes on request



Made of durable black anodized aluminium



multiflex<sup>profile</sup>

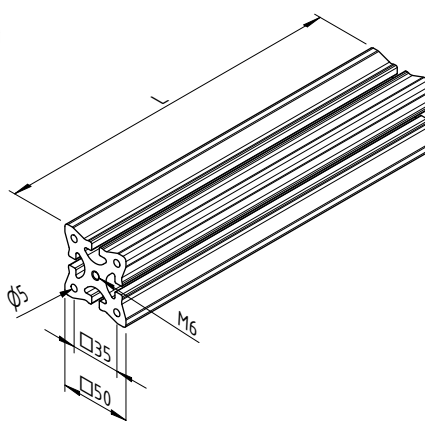
### multiflex<sup>profile</sup> profile frame

Part No.:	Description	L mm	weight g
K551176	multiflex <sup>profile</sup> frame	250	970
K551177	multiflex <sup>profile</sup> frame	500	1.940
K551178	multiflex <sup>profile</sup> frame	750	2.910
K551179	multiflex <sup>profile</sup> frame	1.000	3.880
K551180	multiflex <sup>profile</sup> frame	1.250	4.850
K551181	multiflex <sup>profile</sup> frame	1.500	5.990
K551182	multiflex <sup>profile</sup> frame	2.000	7.990
K551185	multiflex <sup>profile</sup> frame	2.500	10.990

· **4-fold dovetail profile**  
 · **4-fold T-slot**  
 To be used for cost efficiency in frame building,  
 when the 50 mm grid pattern is not required.  
 Further sizes on request



Made of durable black anodized aluminium



multiflex<sup>profile</sup>

APPLICATION

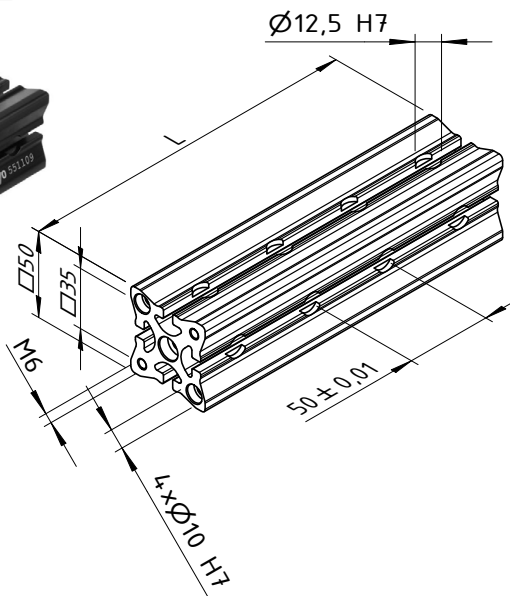
PRODUCT LINES

multiflex<sup>profile</sup> 50mm grid profile

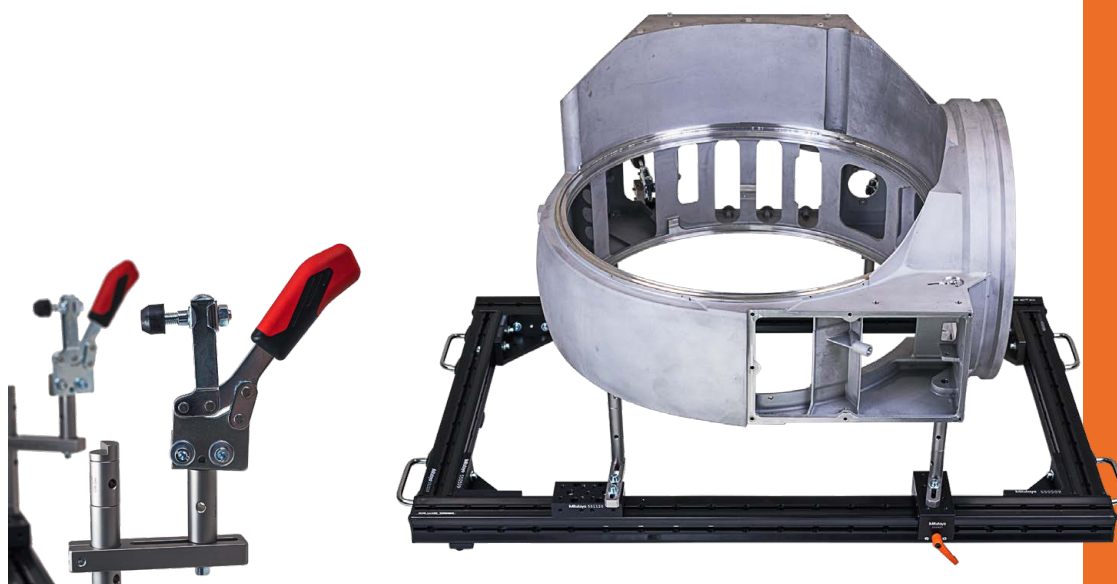
Part No.:	Description	L mm	weight g
K551107	multiflex <sup>profile</sup>	200	780
K551108	multiflex <sup>profile</sup>	250	970
K551109	multiflex <sup>profile</sup>	300	1.550
K551110	multiflex <sup>profile</sup>	500	1.940
K551111	multiflex <sup>profile</sup>	700	2.910
K551112	multiflex <sup>profile</sup>	1.000	3.880
K551113	multiflex <sup>profile</sup>	1.250	4.850
K551155	multiflex <sup>profile</sup>	1.500	5.990
K551156	multiflex <sup>profile</sup>	2.000	7.990
K551114	multiflex <sup>profile</sup>	2.500	9.690

- 4-fold dovetail profile
  - 4-fold T-slot
  - 50 mm grid profile
- For the flexible construction of frames with high stability  
Further sizes on request

multiflex<sup>profile</sup>



Made of durable black anodized aluminium



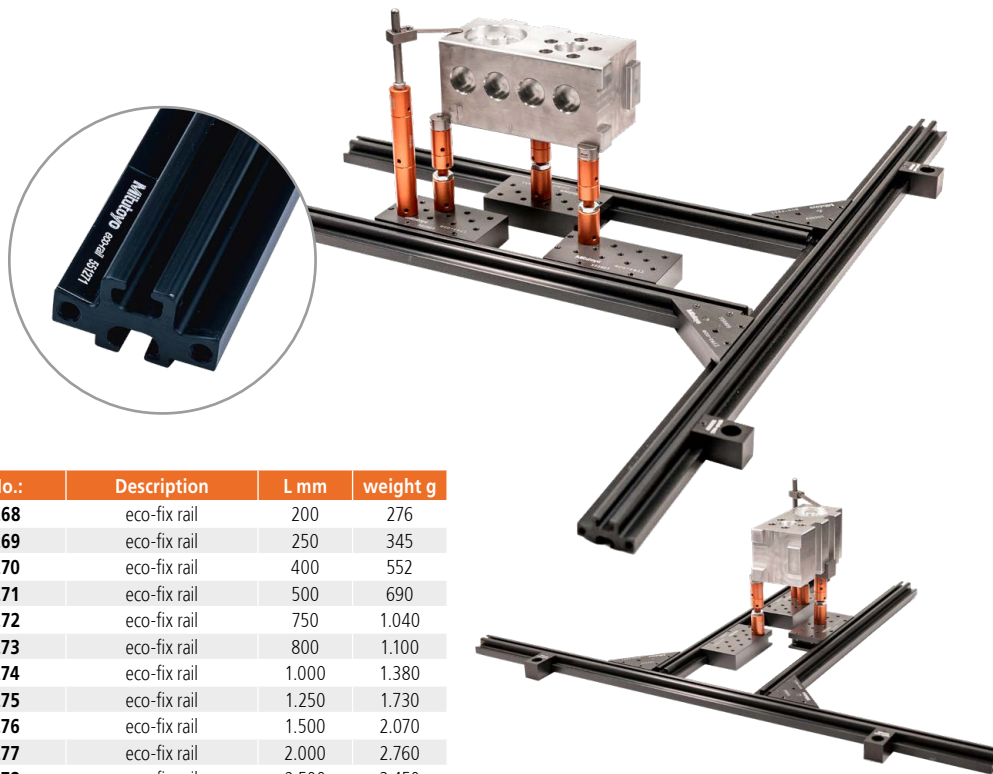
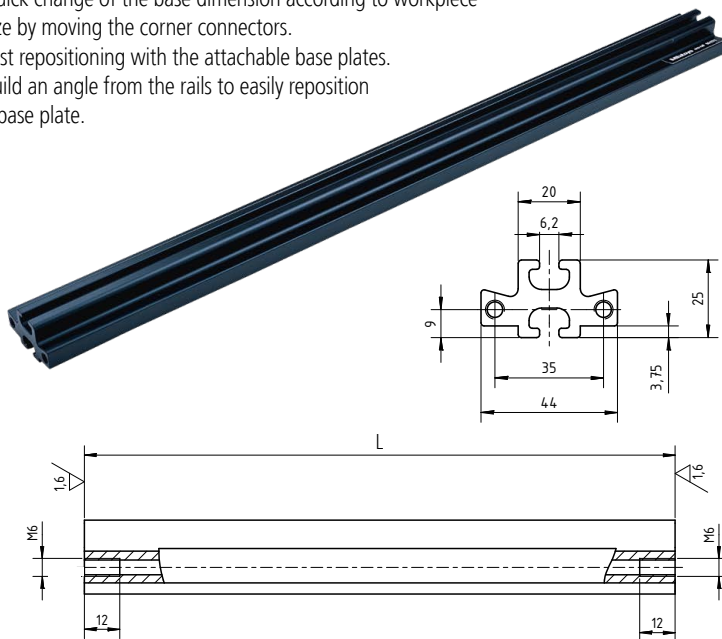
# Base components

## Base profiles

### eco-fix rail

Flexible positioning rail system using eco-fix and eco-fix<sup>plus</sup> components.

- T-slot implied for additional fixturing options.
- Quick change of the base dimension according to workpiece size by moving the corner connectors.
- Fast repositioning with the attachable base plates.
- Build an angle from the rails to easily reposition a base plate.



Part No.:	Description	L mm	weight g
K551268	eco-fix rail	200	276
K551269	eco-fix rail	250	345
K551270	eco-fix rail	400	552
K551271	eco-fix rail	500	690
K551272	eco-fix rail	750	1.040
K551273	eco-fix rail	800	1.100
K551274	eco-fix rail	1.000	1.380
K551275	eco-fix rail	1.250	1.730
K551276	eco-fix rail	1.500	2.070
K551277	eco-fix rail	2.000	2.760
K551278	eco-fix rail	2.500	3.450

APPLICATION

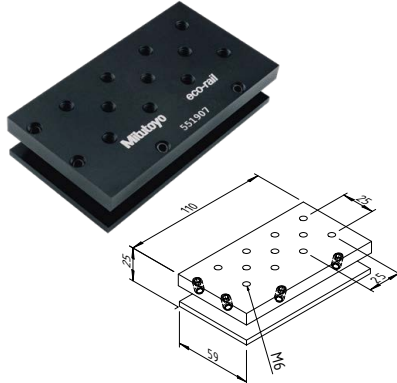
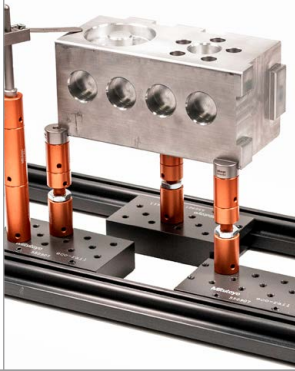
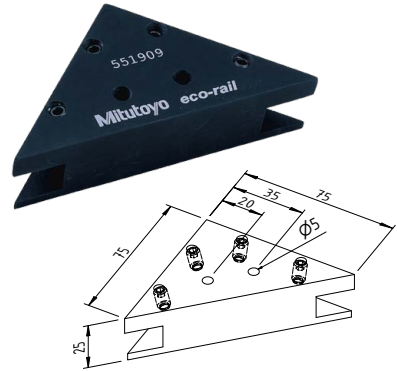

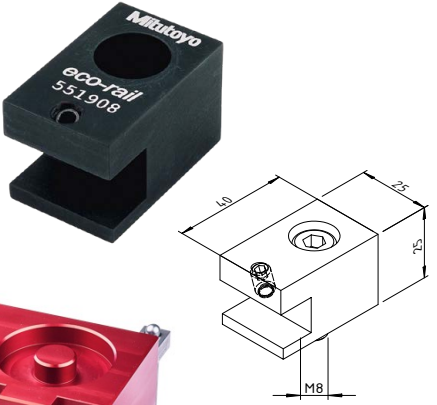
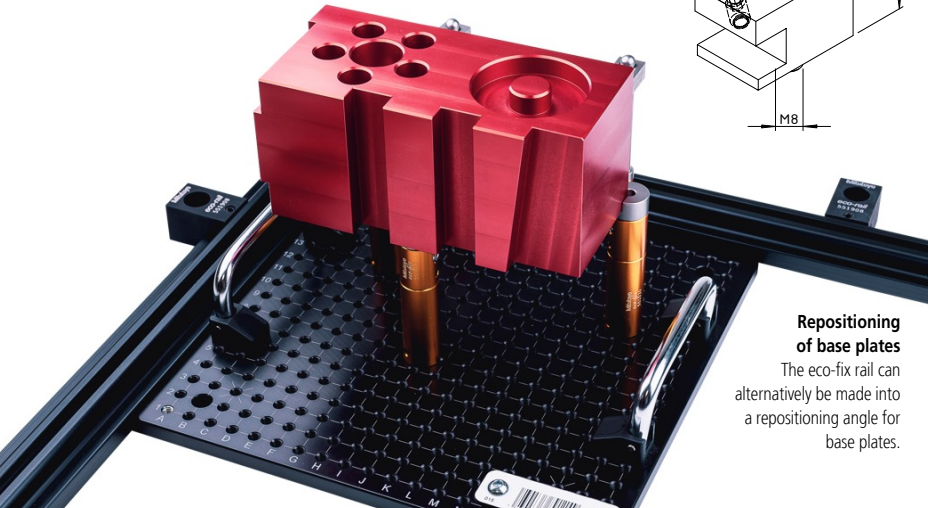

PRODUCT LINES

eco-fix  
eco-fix<sup>plus</sup>



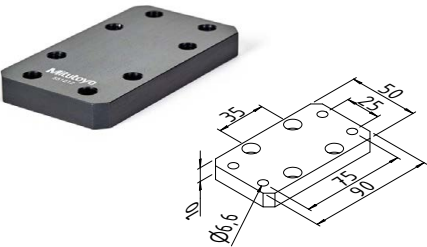
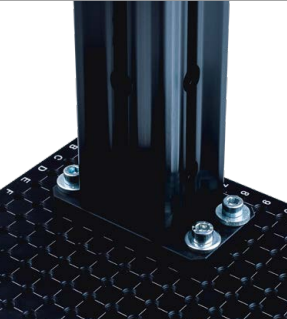
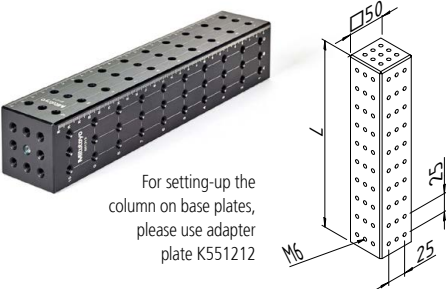
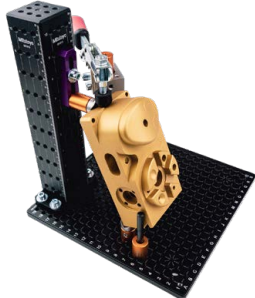
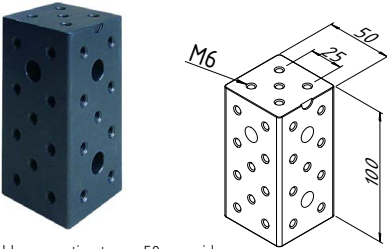

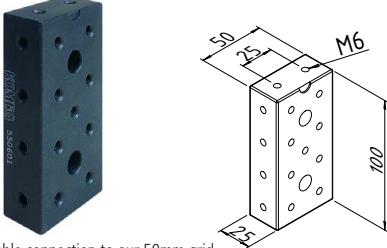

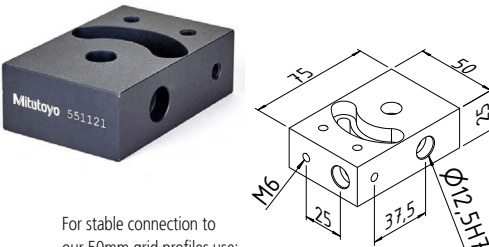

eco-fix · eco-fix<sup>plus</sup>

eco-fix rail

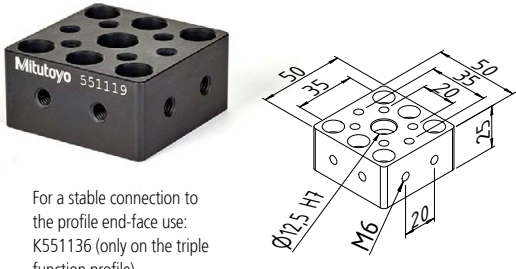

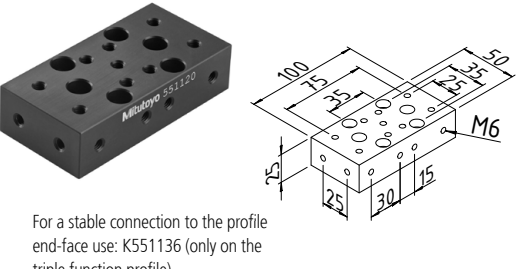

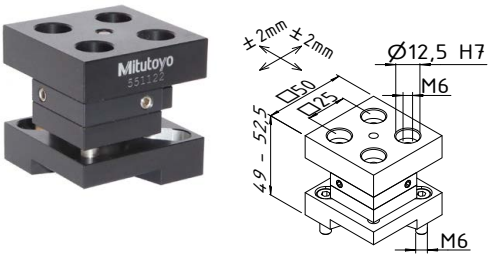

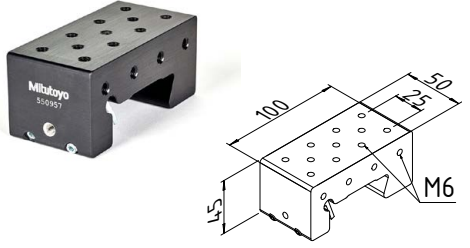

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551907</b> Weight 380 g</p> <p><b>Attachable base plate eco-fix rail</b> The small base plate can change the position on the rail within seconds. Enabling the build-up modules positioned on the plate to suit small and big dimension workpieces.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551909</b> Weight 130 g</p> <p><b>Profile connector eco-fix rail</b> Used to connect the rails and fast change of the base area dimension.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551908</b> Weight 55 g</p> <p><b>Clamping claw eco-fix rail</b> Fast access to the thread positions on the CMM granite.</p>  <p><b>Repositioning of base plates</b> The eco-fix rail can alternatively be made into a repositioning angle for base plates.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>

# Base components

## Attachable bases for build-up module connection

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551212</b> Weight 107 g</p> <p><b>Adapter plate</b> Made of hard-anodised Aluminium. Adapter plate for setting up <b>multiflex<sup>profile</sup></b> and build-up columns K551213 and K551214 on base plates.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551213</b> L=255mm Weight 1600 g</p> <p><b>Part No.: K551214</b> L=505mm Weight 3150 g</p> <p><b>Build up column</b> Made of hard-anodised aluminium, with connecting threads M6.</p>  <p>For setting-up the column on base plates, please use adapter plate K551212</p>		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550597</b> Weight 563 g</p> <p><b>Build-up cuboid</b> For the connection of build-up modules on multiflex profiles and base plates. Can also be used as an alternative to cylindrical build-up columns on the base plate.</p>  <p>For stable connection to our 50mm grid profiles use: K551136 and K551158</p>		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550601</b> Weight 290 g</p> <p><b>Build-up plate</b> For the connection of build-up modules on multiflex profiles and base plates. Can also be used as an alternative to cylindrical build-up columns on the base plate.</p>  <p>For stable connection to our 50mm grid profiles use: K551136 and K551158</p>		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551121</b> Weight 260 g</p> <p><b>Swivel plate for multiflex<sup>profile</sup></b> For the mounting of brackets or columns in any angle in the plane or in the room</p>  <p>For stable connection to our 50mm grid profiles use: 551136 and K551158</p>		<p>eco-fix eco-fix<sup>plus</sup></p>

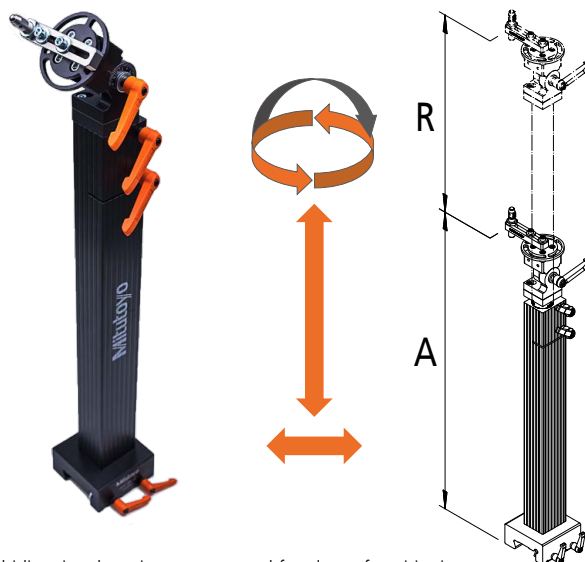
eco-fix · eco-fix<sup>plus</sup> · multiflex<sup>profile</sup>

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551119</b> Weight 130 g</p> <p><b>Terminator 50 for multiflex<sup>profile</sup></b></p> <p>For the front-end connection of build-up modules on multiflex profiles.</p>  <p>For a stable connection to the profile end-face use: K551136 (only on the triple function profile)</p>		<p>multiflex<sup>profile</sup></p> <p>eco-fix</p> <p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551120</b> Weight 290 g</p> <p><b>Terminator 100 for multiflex<sup>profile</sup></b></p> <p>For the front-end connection of build-up modules on multiflex profiles.</p>  <p>For a stable connection to the profile end-face use: K551136 (only on the triple function profile)</p>		<p>multiflex<sup>profile</sup></p> <p>eco-fix</p> <p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551122</b> Weight 563 g</p> <p><b>XYZ adjustment unit for multiflex<sup>profile</sup></b></p> <p>For fine positioning in 3 axes Front end profile mounting.</p> 		<p>multiflex<sup>profile</sup></p> <p>eco-fix</p> <p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550957</b> Weight 450 g</p> <p><b>Slider unit base plate with M6 grid</b></p> <p>For free positioning on multiflex<sup>profile</sup> components, e.g., for the build-up of receiving points.</p> 		<p>multiflex<sup>profile</sup></p> <p>slider element</p> <p>eco-fix</p> <p>eco-fix<sup>plus</sup></p>

# Base components

## Attachable bases for build-up module connection

### ADJUSTABLE BUILD-UP COLUMN vari-fix



Multidirectional motion secures total freedom of positioning.

The unique **vari-fix** head allows for almost unlimited attachment and positioning of build-up modules.

For free and unrestricted orientation of the workpiece in any desired pick-up position and flexible positioning on the multiflex profile.

Part No.:	Description	minimum height mm A	range mm R	adjustable length mm	weight g
K551347	vari-fix column S	427	200	375 - 575	4.200
K551348	vari-fix column M	552	325	500 - 825	5.000
K551349	vari-fix column L	677	450	625 - 1075	5.800

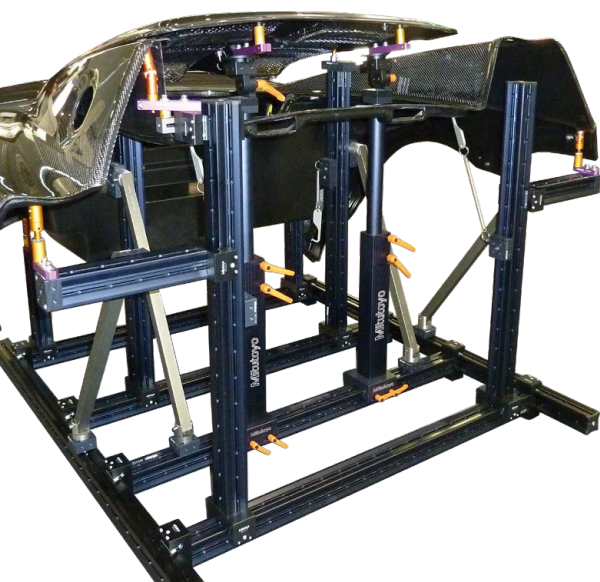
### APPLICATION



### PRODUCT LINES

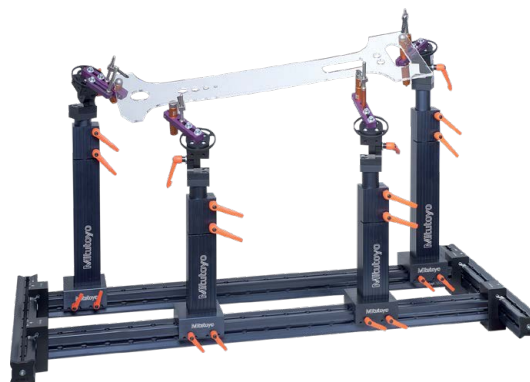
multiflex<sup>profile</sup>  
slider element

eco-fix  
eco-fix<sup>plus</sup>



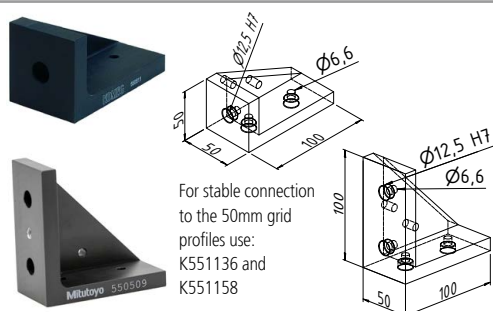

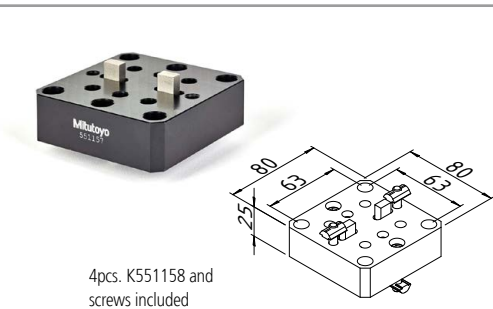

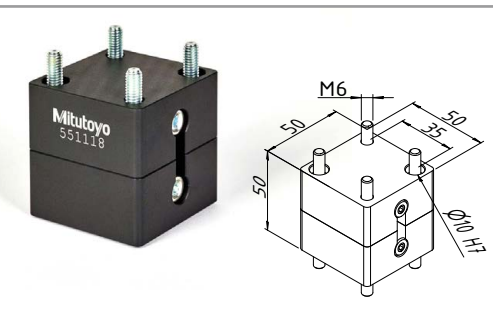

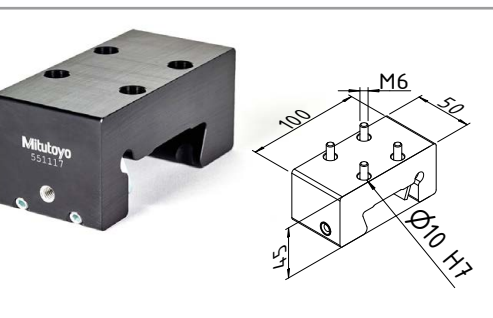

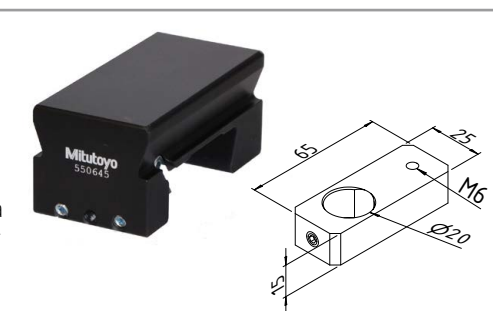

**vari-fix** columns are always custom made, tailored to the needs of the customer! Accessories and various versions available on request.

The application examples shows multiflex profile frames, that have been enhanced using vari-fix columns to easily set-up complex structured workpieces.



# Base components

## Profile connectors

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550511-10</b> Weight 260 g <b>Angle 100/50</b></p> <p><b>Part No.: K550509-10</b> Weight 420 g <b>Angle 100/100</b></p> <p>For the rectangular connection of profiles and for setting up profiles on base plates.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p> <p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551157</b> Weight 290 g</p> <p><b>Cross connector for multiflex<sup>profile</sup></b></p> <p>For the composition of frames or sideways mounting on profile components. Also, for the diagonal profile connection.</p> 		<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551118</b> Weight 563 g</p> <p><b>Connector set for multiflex<sup>profile</sup></b></p> <p>For the front-end connection of multiflex profiles.</p> 		<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551117</b> Weight 445 g</p> <p><b>Slider unit for multiflex<sup>profile</sup></b></p> <p>For free positioning on multiflex<sup>profile</sup> components, for e.g., the connection of multiflex-profile components.</p> 		<p>multiflex<sup>profile</sup> slider element</p>
<p><b>Part No.: K550645</b> Weight 445 g</p> <p><b>Slider element dovetail for multiflex<sup>profile</sup></b></p> <p>For setting up of adjustable cross connections. Also, to be used as a stopper, for repositioning of slider components such as the vari-fix columns.</p> 		<p>multiflex<sup>profile</sup> slider element</p>

# Base components

## Accessories for multiflex<sup>profile</sup>

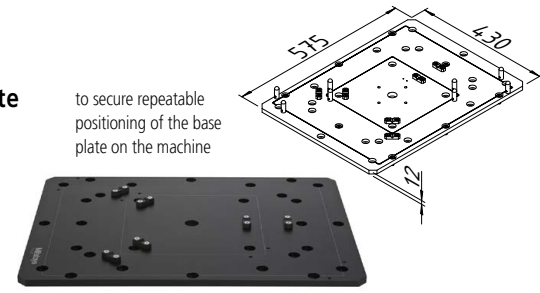
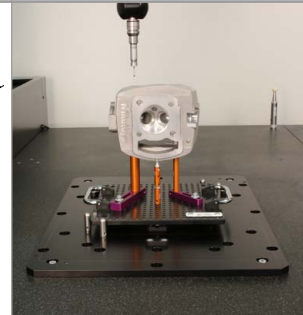
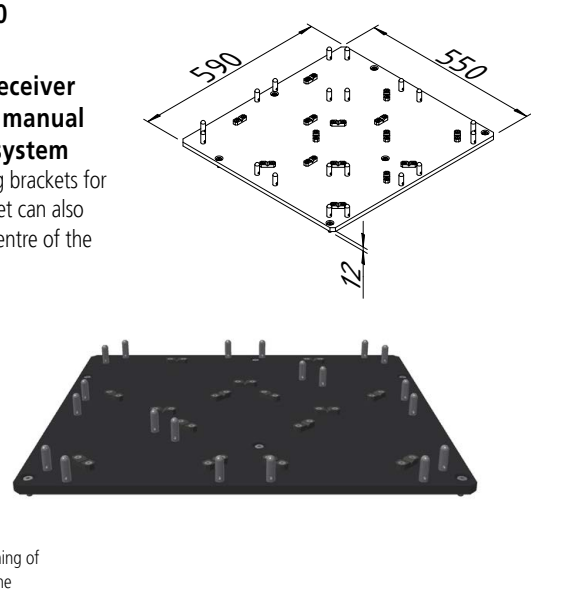

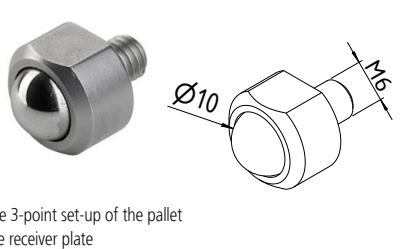

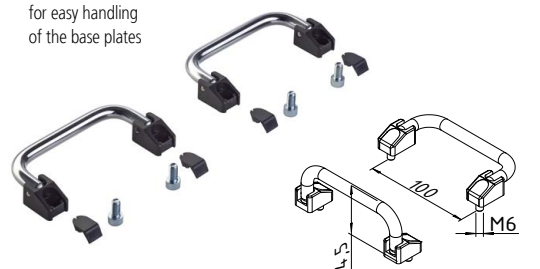

		APPLICATION	PRODUCT LINES
<p><b>Part No.: K551158</b> Weight 5 g</p> <p><b>T-slot nut M6 multiflex<sup>profile</sup></b> For fixing items to the T-slot of multiflex profiles.</p>			<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K550461-10</b> Weight 7 g</p> <p><b>Positioning bushing 12,5 mm multiflex<sup>profile</sup></b> For the stabilization of built-up components on the 50mm grid of the profile.</p> <p>requires the use of K551158</p>			<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551136</b> Weight 5 g</p> <p><b>Positioning bushing 10 mm multiflex<sup>profile</sup></b> For the fixed positioning of slider components or end-face base components when mounted at the profile end-face. Insert in countersink-drill.</p>			<p>multiflex<sup>profile</sup></p> <p>stabilization of profile end-face connections</p>
<p><b>Part No.: K551116</b> Weight 10 g</p> <p><b>Distance piece multiflex<sup>profile</sup></b> Can be used when additional profile strength is required. Complete with T-slot nut and screw.</p>			<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551115</b> Weight 10 g</p> <p><b>End cover for multiflex<sup>profile</sup></b> To protect the profile ends from damage.</p>			<p>multiflex<sup>profile</sup></p>

## multiflex<sup>profile</sup>

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K502620</b> Weight 18 g</p> <p><b>Clamp lever for slider components</b></p> 		<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551337</b> Weight 280 g</p> <p><b>Mounting bracket for multiflex<sup>profile</sup></b> For mounting multiflex profiles on the measuring table.</p> 		<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551280</b> Weight 90 g</p> <p><b>Fixed foot for multiflex<sup>profile</sup></b> To make up a 3-point contact and prevent falling over. T-slot nut K551158 included.</p> 		<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K551281</b> Weight 110 g</p> <p><b>Adjustable foot for multiflex<sup>profile</sup></b> to make up a 3-point contact. T-slot nut K551158 included.</p> 		<p>multiflex<sup>profile</sup></p>
<p><b>Part No.: K550602</b> Weight 320 g</p> <p><b>Foot component for multiflex<sup>profile</sup></b> To be used as a foot element on profile frames.</p>  <p>for stable connection to our 50mm grid profiles use: K551136 and K551158</p>		<p>multiflex<sup>profile</sup></p>

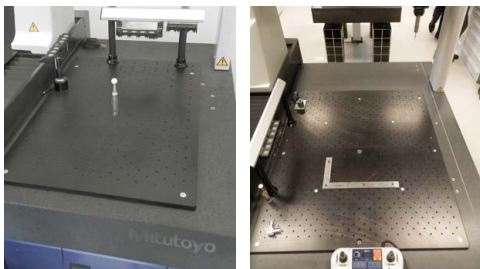
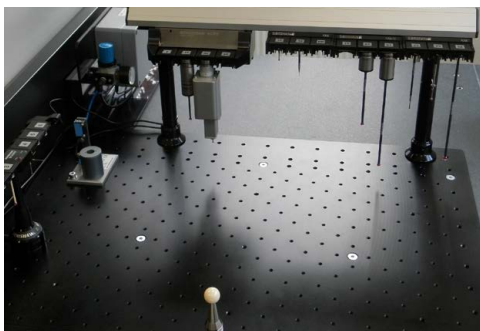
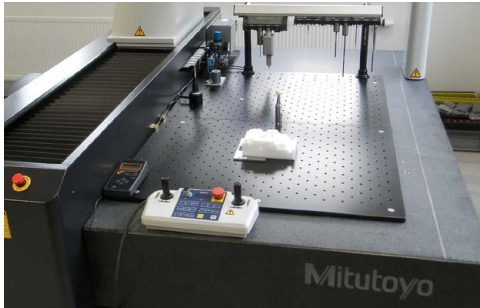
# Base components

## Accessories for the Pallet Receiver System PRS

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551220</b> Weight 8070 g</p> <p><b>Loading receiver plate for manual eco-fix loading system</b> With pallet positioning brackets.</p> <p>to secure repeatable positioning of the base plate on the machine</p> 		<p>eco-fix PRS</p>
<p><b>Part No.: K551330</b> Weight 11500 g</p> <p><b>4-fold Loading receiver plate MiStar for manual eco-fix loading system</b> With pallet positioning brackets for 4 pallets. A single pallet can also be positioned in the centre of the receiver plate.</p> <p>to secure repeatable positioning of the base plate on the machine</p> 		<p>eco-fix PRS</p>
<p><b>Part No.: K551221</b> 1pc., Weight 30 g</p> <p><b>Part No.: K551920 3pc.</b> 3pc., Weight 90 g</p> <p><b>Ball screws for manual eco-fix loading system</b> Positioning spheres with connecting thread M6.</p> <p>for the 3-point set-up of the pallet on the receiver plate</p> 		<p>eco-fix PRS</p>
<p><b>Part No.: K551199</b> Weight 300 g</p> <p><b>Pair of handles for eco-fix base plates</b> Handles with connecting screws and screw covers.</p> <p>for stable connection to our 50mm grid profiles use: K551136 and K551158</p> <p>for easy handling of the base plates</p> 		<p>eco-fix PRS</p> <p>eco-fix<sup>plus</sup> multiflex<sup>profile</sup></p>



# Special base plates for Mitutoyo CMM



The base plates provide multiple possibilities for fixing fixtures and accessories or even the direct construction of jigs on the CMM.

They are available in different sizes, in the layout specially adapted to the respective Mitutoyo CMM. Depending on the design, the base plates are supplied in 1 to 4 handy segments, which make mounting on the CMM much easier. The basic base plates are designed for direct mounting on the granite tables of the Mitutoyo CMMs. They are precision machined from a high-quality aluminium alloy and provided with a surface finish that makes the base plates extremely durable.

They also protect the valuable granite base of the CMM. The base plates are equipped with fixing threads M6 in a 25mm / 50mm grid to directly position and build-up fixtures for e.g., with the elements from the Mitutoyo modular clamping systems eco-fix and eco-fix<sup>plus</sup> or also for fixing aids such as chucks, positioning angle or the like. In addition, threads M8 are used to attach CMM accessories such as Measuring balls or stylus rack which are located in the edge area on the base plates.

The MRS fixing plates can be used to mount the stylus rack outside of the base plate area.

Part No.	Measuring range		Plate dimension L x W x D	CMM	Number of elements
	X	Y			
<b>K515432</b>			120 x 415 x 15	Fixing plate for MRS-400	1
<b>K515433</b>			100 x 730 x 15	Fixing plate for MRS-600	1
<b>K551186</b>	500	400	570 x 540 x 15	CRYSTA-Apex S 544	1
<b>K551307</b>	500	400	600 x 670 x 15	MiStar 555	1
<b>K551187</b>	500	700	605 x 840 x 15	CRYSTA-Apex S 574	1
<b>K551190</b>	700	700	830 x 840 x 15	CRYSTA-Apex S 776	2
<b>K551191</b>	700	1000	815 x 1140 x 15	CRYSTA-Apex S 7106	2
<b>K551192</b>	900	1000	970 x 1140 x 15	CRYSTA-Apex S 9106/9108	2
<b>K551193</b>	900	1600	970 x 1740 x 15	CRYSTA-Apex S 9166/9168	3
<b>K551194</b>	900	2000	970 x 2140 x 15	CRYSTA-Apex S 9206/9208	4

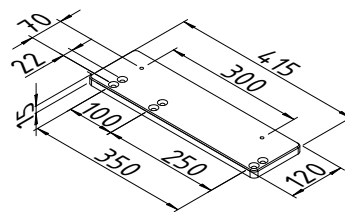
**Part No.: K551350**

Weight 1950 g

**Fixing plate for MRS-400**

570 mm x 540 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M8, grid distance 22/100/250 mm



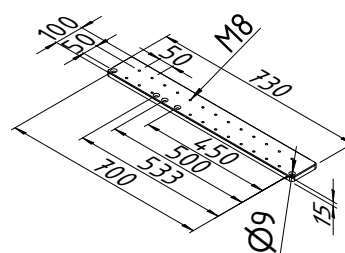
**Part No.: K551351**

Weight 2850 g

**Fixing plate for MRS-600**

730 mm x 700 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M8, grid distance 50 mm



# Special base plates for Mitutoyo CMM

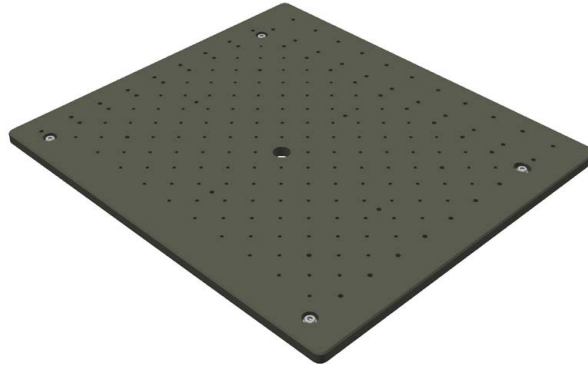
**Part No.: K551186**

Weight 12770 g

**Base plate Christa-Apex 544**

570 mm x 540 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



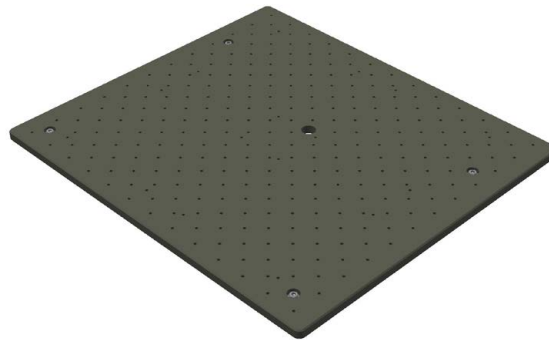
**Part No.: K551307**

Weight 15800 g

**Base plate MiStar 555**

600 mm x 670 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



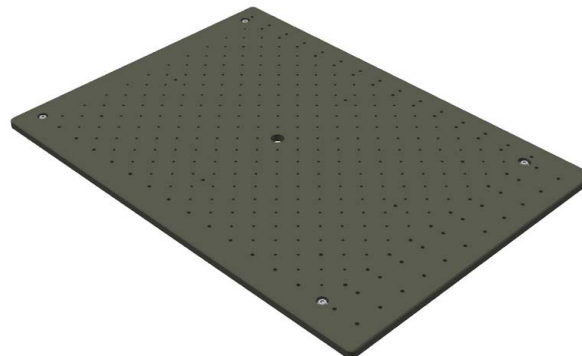
**Part No.: K551187**

Weight 19900 g

**Base plate Christa-Apex 574**

605 mm x 840 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



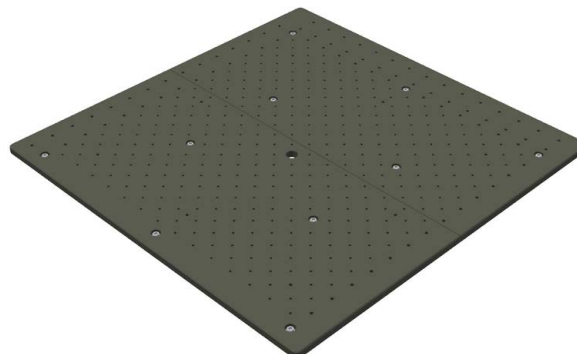
**Part No.: K551190**

Weight 27400 g

**Base plate Christa-Apex 776**

830 mm x 840 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



		PRODUCT LINES
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>1 plate element</p>
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>1 plate element</p>
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>1 plate element</p>
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>2 plate elements</p>

# Special base plates for Mitutoyo CMM

**Part No.: K551191**

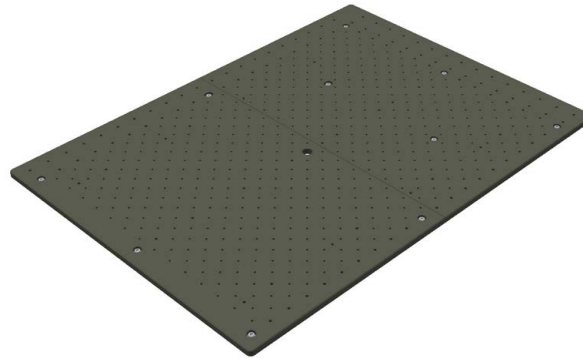
Weight 36500 g

**Base plate**

**Christa-Apex 7106**

815 mm x 1140 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



**Part No.: K551192**

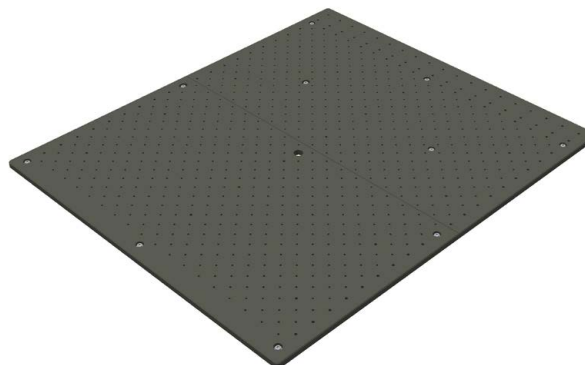
Weight 43400 g

**Base plate**

**Christa-Apex 9106/9108**

970 mm x 1140 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



**Part No.: K551193**

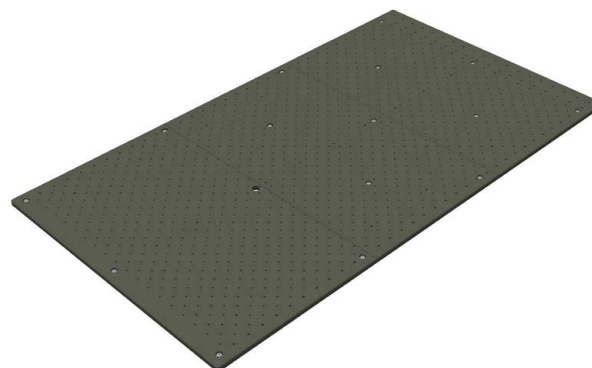
Weight 66300 g

**Base plate**

**Christa-Apex 9106/9108**

970 mm x 1740 mm x 15mm

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



**Part No.: K551194**

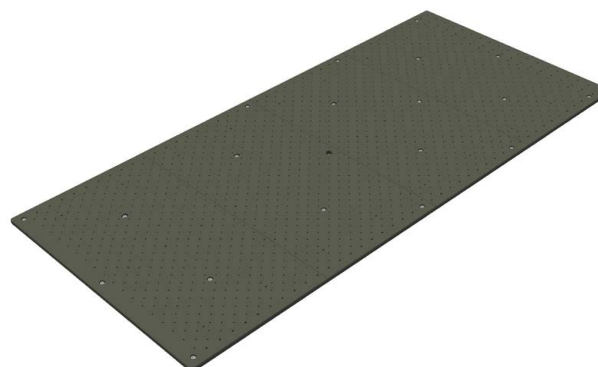
Weight 81500 g

**Base plate**

**Christa-Apex 9206/9208**

970 mm x 2140 mm x 15mm

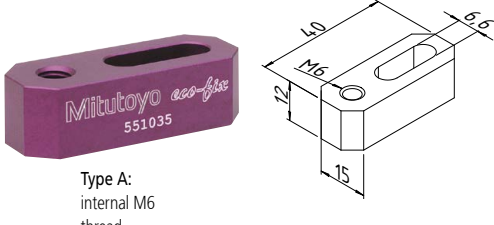
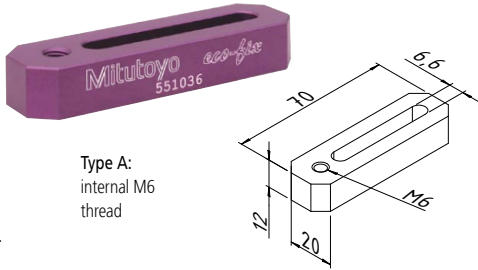

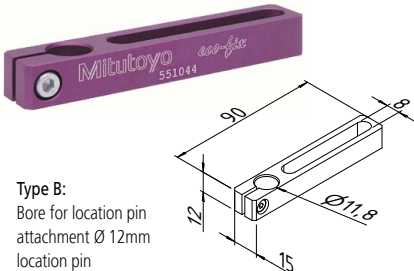

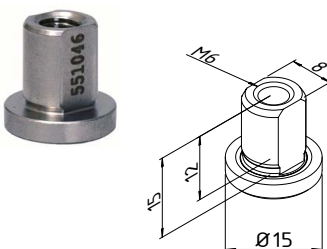
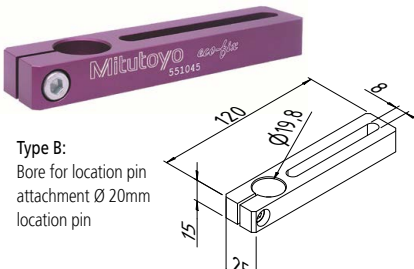

Made of hard-anodised aluminium, with connecting thread M6, grid distance 25 mm / 50 mm



		PRODUCT LINES
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>2 plate elements</p>
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>2 plate elements</p>
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>3 plate elements</p>
		<p>eco-fix eco-fix<sup>plus</sup></p> <p>4 plate elements</p>

# Build-up components

## Location pins, receiver brackets and other build-up components

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551035</b> Weight 14 g</p> <p><b>Receiving bracket eco-fix Small</b> L=40mm, M6 width 15 mm</p> <p>To reach any receiving position between the connecting threads.</p>  <p>Type A: internal M6 thread</p>		<p>eco-fix</p>
<p><b>Part No.: K551036</b> Weight 34 g</p> <p><b>Receiving bracket eco-fix Large</b> L=70mm, M6 width 20 mm</p> <p>To reach any receiving position between the connecting threads.</p>  <p>Type A: internal M6 thread</p>		<p>eco-fix</p>
<p><b>Part No.: K551044</b> Weight 26 g</p> <p><b>Receiving bracket eco-fix</b> L = 90 mm, <math>\varnothing</math> 12 mm</p> <p>For mounting on location pins, to reach any position, e.g., for positioning of clamping elements directly on receiving points.</p>  <p>Type B: Bore for location pin attachment <math>\varnothing</math> 12mm location pin</p>		<p>eco-fix</p> <p>K551046</p>
<p><b>Part No.: K551046</b> Weight 8 g</p> <p><b>M6 Slot nut h = 12 mm eco-fix</b></p> <p>Use with Type B receiver bracket for 12mm location pins K551044, for mounting e.g., location pins on the receiving bracket, to reach any position in space, e.g., for positioning of clamping elements directly on receiving points.</p> 		<p>eco-fix</p> <p>K551044</p>
<p><b>Part No.: K551045</b> Weight 88 g</p> <p><b>Receiving bracket eco-fix</b> L = 120 mm, <math>\varnothing</math> 20 mm</p> <p>For mounting on location pins, to reach any position, e.g., for positioning of clamping elements directly on receiving points.</p>  <p>Type B: Bore for location pin attachment <math>\varnothing</math> 20mm location pin</p>		<p>eco-fix</p> <p>K551047</p>

eco-fix · eco-fix<sup>plus</sup>

	APPLICATION	PRODUCT LINES																
<p><b>Part No.: K551047</b> Weight 9 g</p> <p><b>M6 Slot nut h = 15 mm eco-fix</b> Use with Type B receiver brackets for 20mm location pins, for mounting e.g., location pins on the receiving bracket, to reach any position in space, e.g., for positioning of clamping elements directly on receiving points.</p>  <table border="1" data-bbox="558 683 1037 795"> <thead> <tr> <th>Part No.:</th> <th colspan="3">Compatible receiver brackets</th> </tr> </thead> <tbody> <tr> <td>K551045</td> <td>Receiving bracket eco-fix</td> <td>L = 120 mm</td> <td>Type B</td> </tr> <tr> <td>K551247</td> <td>Receiver bracket eco-fix<sup>plus</sup></td> <td>L = 120 mm</td> <td>Type B</td> </tr> <tr> <td>K551248</td> <td>Receiver bracket eco-fix<sup>plus</sup></td> <td>L = 170 mm</td> <td>Type B</td> </tr> </tbody> </table>	Part No.:	Compatible receiver brackets			K551045	Receiving bracket eco-fix	L = 120 mm	Type B	K551247	Receiver bracket eco-fix <sup>plus</sup>	L = 120 mm	Type B	K551248	Receiver bracket eco-fix <sup>plus</sup>	L = 170 mm	Type B		<p>eco-fix eco-fix<sup>plus</sup></p>
Part No.:	Compatible receiver brackets																	
K551045	Receiving bracket eco-fix	L = 120 mm	Type B															
K551247	Receiver bracket eco-fix <sup>plus</sup>	L = 120 mm	Type B															
K551248	Receiver bracket eco-fix <sup>plus</sup>	L = 170 mm	Type B															
<p><b>Part No.: K551227</b> Weight 14 g</p> <p><b>Receiving bracket M6</b> To reach any receiving position between the connecting threads.</p> 		<p>eco-fix</p>																
<p><b>Location pin ø 20 mm</b> For the adjustment of the required height of the fixture</p> <table border="1" data-bbox="151 1288 478 1422"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr> <td>K551028</td> <td>13</td> <td>10</td> </tr> <tr> <td>K551029</td> <td>25</td> <td>19</td> </tr> <tr> <td>K551030</td> <td>50</td> <td>39</td> </tr> <tr> <td>K551031</td> <td>100</td> <td>83</td> </tr> </tbody> </table> 	Part No.:	L mm	weight g	K551028	13	10	K551029	25	19	K551030	50	39	K551031	100	83		<p>eco-fix</p>	
Part No.:	L mm	weight g																
K551028	13	10																
K551029	25	19																
K551030	50	39																
K551031	100	83																
<p><b>Part No.: K551043</b> L = 25mm Weight 19 g</p> <p><b>Location pin ø 20 mm</b> With bore ø 8 mm for connecting of elements with 6 mm connecting pin.</p> 		<p>eco-fix</p>																
<p><b>Part No.: K551040</b> Weight 44 g</p> <p><b>Adjustable location pin ø 20 mm</b> For the adjustment of the required height of receiving positions.</p> 		<p>eco-fix</p>																

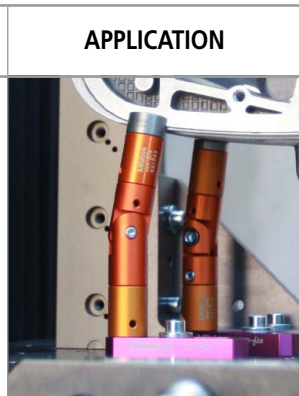
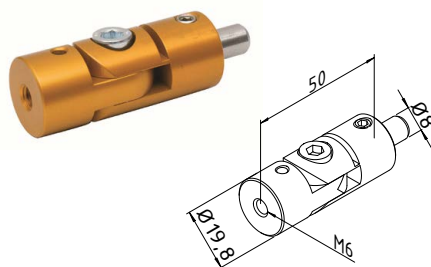
# Build-up components

**Part No.: K551076**

L = 50mm Weight 49 g

**Turn-swivel joint  
ø 20 mm**

To reach any position in space.  
ø 8mm connection pin  
M6 connection thread.



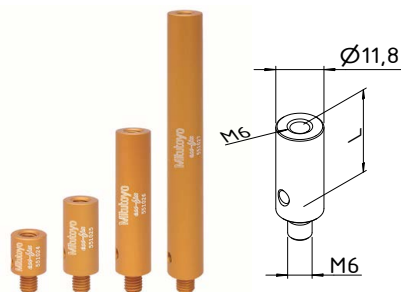
**PRODUCT LINES**

eco-fix

**Location pin ø 12 mm**

For the adjustment of the required height of the fixture.

Part No.:	L mm	weight g
K551024	13	3
K551025	25	6
K551026	50	13
K551027	100	27



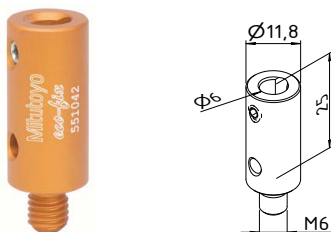
eco-fix

**Part No.: K551042**

L = 25mm Weight 7 g

**Location pin ø 12 mm**

With bore ø 8 mm for connecting of elements with 6 mm connecting pin.



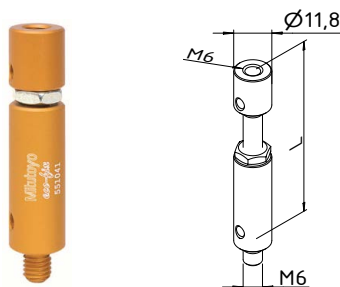
eco-fix

**Part No.: K551041**

Weight 15 g

**Adjustable location pin  
ø 12 mm**

For the adjustment of the required height of receiving positions.



eco-fix

**Part No.: K551075**

L = 40mm Weight 15 g

**Turn-swivel joint  
ø 12 mm**


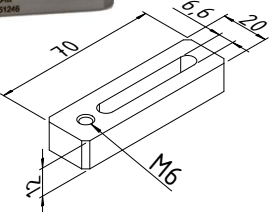


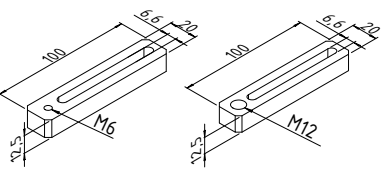


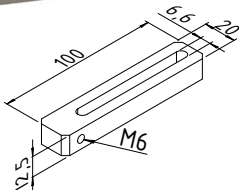


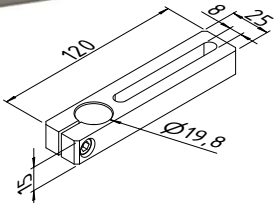


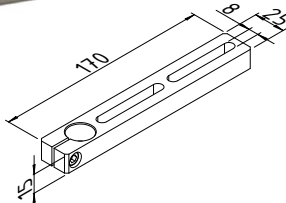

L = 120 mm, ø 12 mm  
To reach any position in space.  
ø 6mm connection pin  
M6 connection thread.



eco-fix




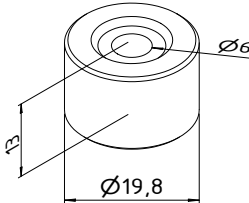


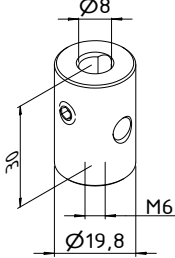


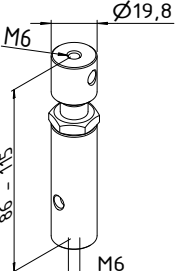


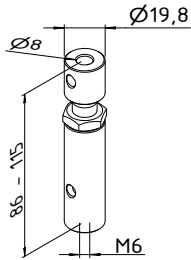


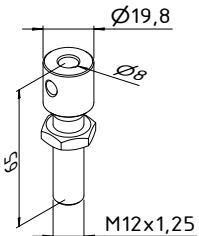

eco-fix · eco-fix<sup>plus</sup>

		APPLICATION	PRODUCT LINES												
<p><b>Part No.: K551246</b> Weight 97 g</p> <p><b>Receiver bracket M6 eco-fix<sup>plus</sup></b> L = 70 mm</p> <p>For creating any receiving positions in a cantilever design.</p>  <p>Type A: internal M6 thread</p> 			eco-fix <sup>plus</sup>												
<p><b>Bracket with threadhole eco-fix<sup>plus</sup></b> L = 100 mm</p> <p>For creating any receiving positions in a cantilever design.</p> <table border="1"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> <th>D</th> <th>weight g</th> </tr> </thead> <tbody> <tr> <td>K550345-10</td> <td>100</td> <td>M6</td> <td>150</td> </tr> <tr> <td>K550342-10</td> <td>100</td> <td>M12</td> <td>150</td> </tr> </tbody> </table>  <p>Type A: internal thread</p> 	Part No.:	L mm	D	weight g	K550345-10	100	M6	150	K550342-10	100	M12	150			eco-fix <sup>plus</sup>
Part No.:	L mm	D	weight g												
K550345-10	100	M6	150												
K550342-10	100	M12	150												
<p><b>Part No.: K550939-10</b> Weight 140 g</p> <p><b>Receiver bracket cross hole M6 eco-fix<sup>plus</sup></b> L = 100 mm</p> <p>For creating any mounting positions and angles in cantilever design in the room for direct connection using an M6 threaded pin.</p>  <p>Type A: internal M6 thread</p> 			eco-fix <sup>plus</sup>												
<p><b>Part No.: K551247</b> Weight 240 g</p> <p><b>Receiver bracket eco-fix<sup>plus</sup></b> L = 120 mm, Ø 20 mm</p> <p>For mounting on location pins, to reach any position, e.g., for positioning of clamping elements directly on receiving points.</p>  <p>Type B: Bore for location pin attachment Ø 20mm location pin</p> 			eco-fix <sup>plus</sup>  K551047												
<p><b>Part No.: K551248</b> Weight 200 g</p> <p><b>Receiver bracket eco-fix<sup>plus</sup></b> L = 170 mm, Ø 20 mm</p> <p>For mounting on location pins, to reach any position, e.g., for positioning of clamping elements directly on receiving points.</p>  <p>Type B: Bore for location pin attachment Ø 20mm location pin</p> 			eco-fix <sup>plus</sup>  K551047												



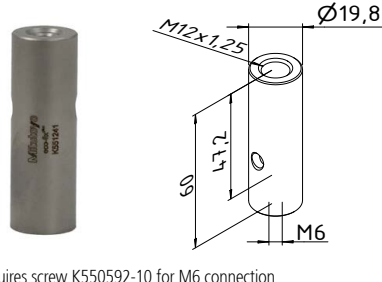

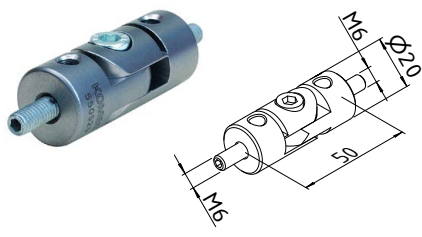
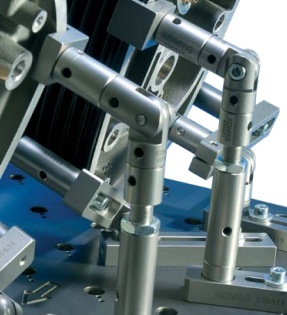

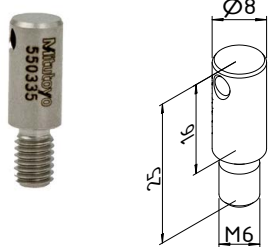

# Build-up components

	APPLICATION	PRODUCT LINES												
<p><b>Part No.: K550634-10</b> Weight 155 g</p> <p><b>Receiver bracket for spring clip eco-fix<sup>plus</sup></b> L = 65mm, Ø 20 mm</p> <p>For setting up a spring clip directly on the locating pin.</p>  <p>Type C: Bore for location pin attachment Ø 20mm location pin</p>		<p>eco-fix<sup>plus</sup></p>												
<p><b>Part No.: K550598-10</b> Weight 140 g</p> <p><b>Receiver bracket with pinhole 8 mm eco-fix<sup>plus</sup></b> L = 100 mm</p> <p>For creating any mounting positions and angles in a cantilever design in the plane, as well as for mounting cylindrical pins and other elements with 8 mm connecting pins.</p>  <p>Type D: Bore for pin attachment Ø 8 mm pin</p>		<p>eco-fix<sup>plus</sup></p>												
<p><b>Part No.: K550630-10</b> Weight 145 g</p> <p><b>Receiver bracket cross hole 8 mm eco-fix<sup>plus</sup></b> L = 100 mm</p> <p>To create any mounting positions and angles in a cantilever design for connecting elements with 8 mm connecting pins.</p>  <p>Type D: Bore for pin attachment Ø 8 mm pin</p>		<p>eco-fix<sup>plus</sup></p>												
<p><b>Part No.: K550605-10</b> Weight 125 g</p> <p><b>Bracket M6 eco-fix<sup>plus</sup></b></p> <p>To create additional fastening threads for twist-proof screwing of e.g., mounting brackets or as an additional option for mounting points.</p> 		<p>eco-fix<sup>plus</sup></p>												
<p><b>Location pin Ø 20 mm eco-fix<sup>plus</sup></b></p> <p>For the adjustment of the required height of the fixture. 2x M6.</p> <table border="1" data-bbox="151 1904 478 2027"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr> <td>K551237</td> <td>25</td> <td>52</td> </tr> <tr> <td>K551238</td> <td>50</td> <td>110</td> </tr> <tr> <td>K551239</td> <td>100</td> <td>231</td> </tr> </tbody> </table>  <p>*Requires screw K550592-10 for M6 connection</p>	Part No.:	L mm	weight g	K551237	25	52	K551238	50	110	K551239	100	231		<p>eco-fix<sup>plus</sup></p>
Part No.:	L mm	weight g												
K551237	25	52												
K551238	50	110												
K551239	100	231												


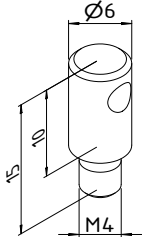


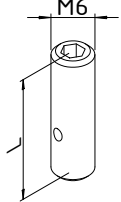



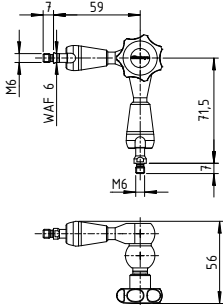


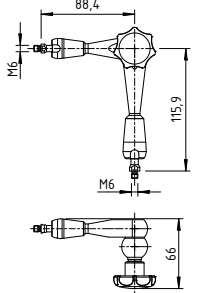


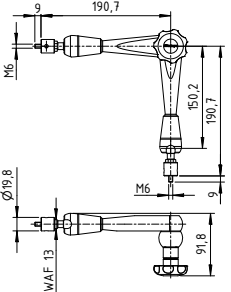
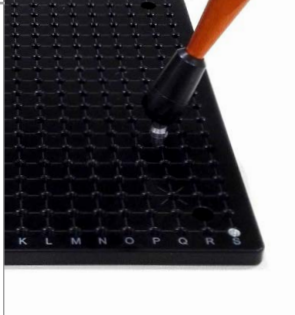
eco-fix · eco-fix<sup>plus</sup>

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551236</b>                      L = 13 mm, Weight 27 g  <b>Location pin ø 20 mm eco-fix<sup>plus</sup></b>                      For the adjustment of the required height of the fixture. ø 6mm through-hole. To be used as an extension for location pins.</p>   <p>*Requires screw K550557-10 for M6 connection</p>		<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551240</b>                      L = 30 mm, Weight 15 g  <b>Location pin ø 20 mm ø 8H7 eco-fix<sup>plus</sup></b>                      With bore ø 8 mm for connecting of elements with 8mm connecting pin.                      With M6 connecting thread.</p>   <p>*Requires screw K550592-10 for M6 connection</p>		<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551249</b>                      Weight 190 g  <b>Adjustable location pin M6 eco-fix<sup>plus</sup></b>                      For the adjustment of the required height of receiving positions.                      With M6 connecting thread.</p>   <p>*Requires screw K550592-10 for M6 connection</p>		<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551061</b>                      Weight 190 g  <b>Adjustable location pin ø 8H7 eco-fix<sup>plus</sup></b>                      For the adjustment of the required height of receiving positions.                      With ø 8 mm bore for connecting of elements with 8mm connecting pin.</p>   <p>*Requires screw K550592-10 for M6 connection</p>		<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551252</b>                      Weight 200 g  <b>Adjustable location pin top w. ø 8H7 bore eco-fix<sup>plus</sup></b>                      For the adjustment of the required height of receiving positions.                      With ø 8 mm bore for connecting of elements with 8mm connecting pin.</p>   <p>To be used with K551241</p>		<p>eco-fix<sup>plus</sup></p>

# Build-up components

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551253</b>                      Weight 90 g  <b>Adjustable location pin top M6 eco-fix<sup>plus</sup></b>                      For the adjustment of the required height of receiving positions.                      With M6 thread</p>  <p>To be used with K551241</p>		<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551241</b>                      Weight 107 g  <b>Adjustable location pin bottom eco-fix<sup>plus</sup></b>                      For the adjustment of the required height of receiving positions.</p>  <p>*Requires screw K550592-10 for M6 connection</p>		<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550529-10</b>                      L = 50 mm Weight 110 g  <b>Turn-swivel joint ø 20 mm eco-fix<sup>plus</sup></b>                      To create free positions in space.                      ø 8mm connection pin                      M6 connection thread.</p> 		<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550521-10</b>                      L = 25mm Weight 105 g  <b>Cube eco-fix<sup>plus</sup></b>                      For the rectangular change of direction in the room                      ø 6mm through hole                      M6 connection thread.</p>  <p>Can be attached with M6 screw K550564 or pin connectors.</p>		<p>eco-fix                      eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550335-10</b>                      Weight 25 g  <b>Pin connector ø 8 mm eco-fix<sup>plus</sup></b>                      For e.g., as a rotating joint in connection with ø 20 mm location pin K551043.</p> 		<p>eco-fix                      eco-fix<sup>plus</sup></p>

eco-fix · eco-fix<sup>plus</sup>


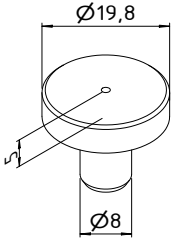


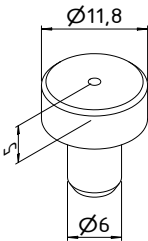


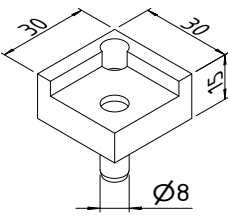


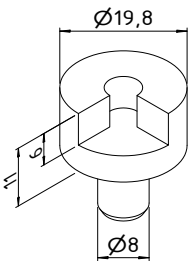


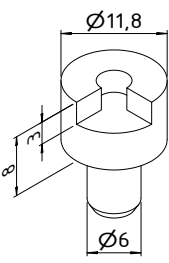

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550422-10</b> Weight 20 g</p> <p><b>Pin connector ø 6 mm</b> <b>eco-fix<sup>plus</sup></b></p> <p>For e.g., as a rotating joint in connection with ø 12 mm location pin K551042.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.:</b> <b>K550592-10</b> L = 20 mm, Weight 5 g <b>K550557-10</b> L = 25 mm, Weight 6 g</p> <p><b>Threaded bolt M6 eco-fix<sup>plus</sup></b></p> <p>For the connection of threaded eco-fix<sup>plus</sup> location pins.</p>  	<p>K550557-10</p>  <p>K550592-10</p> 	<p>eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551332</b> Weight 150 g</p> <p><b>Articulated stand S</b></p> <p>In connection with clamping hand K551336 or mounting brackets for quick and easy positioning of workpieces in the measuring volume of the CMM.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551303</b> Weight 460 g</p> <p><b>Articulated stand M</b></p> <p>In connection with clamping hand K551336 or mounting brackets for quick and easy positioning of workpieces in the measuring volume of the CMM.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551335</b> Weight 980 g</p> <p><b>Articulated stand L</b></p> <p>Directly mount M6 components or use mounting bracket K551045 for quick and easy positioning of workpieces in the measuring volume of the CMM.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>

# Positioning components


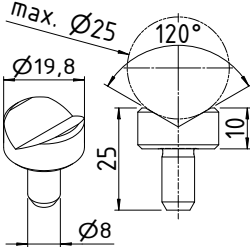


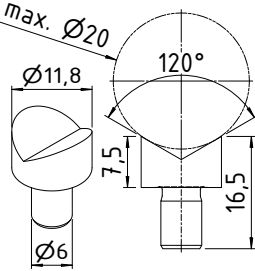


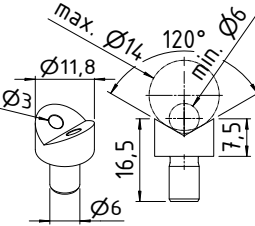


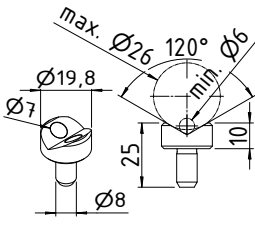


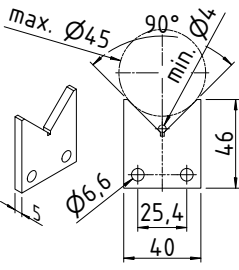

## Pins, spherical contact points, prisms and other positioning components

		APPLICATION	PRODUCT LINES														
<p><b>Part No.: K550982</b> Weight 25 g</p> <p><b>Stopper element <math>\varnothing 20</math> mm</b> For receiving a workpiece in a defined position.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>															
<p><b>Part No.: K550250</b> Weight 8 g</p> <p><b>Stopper element <math>\varnothing 12</math> mm</b> For receiving a workpiece in a defined position.</p> 		<p>eco-fix</p>															
<p><b>Part No.: K550249</b> Weight 77 g</p> <p><b>Stopper element 25 x 25 mm</b> For location-defined workpiece mounting.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>															
<p><b>Straight pin <math>\varnothing 6</math> mm</b> To be used as stopper element together with positioning pins with a <math>\varnothing 6</math> mm hole.</p> <table border="1" data-bbox="151 1601 478 1724"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr> <td>K550888</td> <td>20</td> <td>4</td> </tr> <tr> <td>K550889</td> <td>30</td> <td>7</td> </tr> <tr> <td>K550890</td> <td>40</td> <td>12</td> </tr> </tbody> </table> 	Part No.:	L mm	weight g	K550888	20	4	K550889	30	7	K550890	40	12		<p>eco-fix</p>			
Part No.:	L mm	weight g															
K550888	20	4															
K550889	30	7															
K550890	40	12															
<p><b>Straight pin <math>\varnothing 8</math> mm</b> To be used as stopper element together with positioning pins with a <math>\varnothing 8</math> mm hole.</p> <table border="1" data-bbox="151 1926 478 2072"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr> <td>K550000</td> <td>30</td> <td>12</td> </tr> <tr> <td>K550001</td> <td>50</td> <td>19</td> </tr> <tr> <td>K550002</td> <td>65</td> <td>25</td> </tr> <tr> <td>K550003</td> <td>85</td> <td>30</td> </tr> </tbody> </table> 	Part No.:	L mm	weight g	K550000	30	12	K550001	50	19	K550002	65	25	K550003	85	30		<p>eco-fix eco-fix<sup>plus</sup></p>
Part No.:	L mm	weight g															
K550000	30	12															
K550001	50	19															
K550002	65	25															
K550003	85	30															

eco-fix · eco-fix<sup>plus</sup>


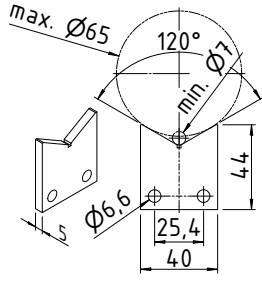
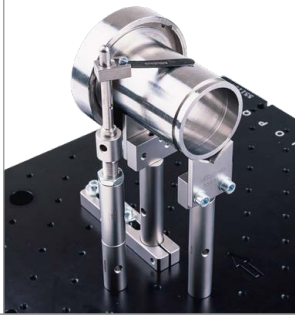

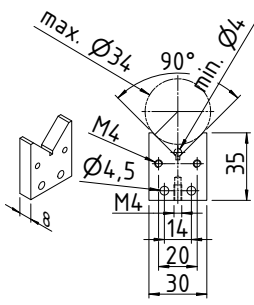


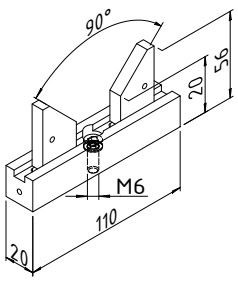


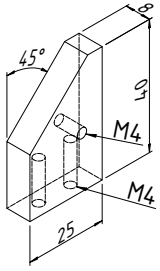


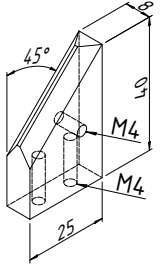

			APPLICATION	PRODUCT LINES
<p><b>Part No.: K551070</b> Weight 17 g <b>Flat top ø 20 mm</b> For direct workpiece support.</p>				<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551069</b> Weight 6 g <b>Flat top ø 12 mm</b> For direct workpiece support.</p>				<p>eco-fix</p>
<p><b>Part No.: K550042</b> Weight 104 g <b>Back square 30 x 30 mm</b> For receiving a workpiece in a defined position.</p>				<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550248</b> Weight 27 g <b>Back square ø 20 mm</b> For receiving a workpiece in a defined position.</p>				<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550247</b> Weight 25 g <b>Back square ø 12 mm</b> For receiving a workpiece in a defined position.</p>				<p>eco-fix</p>

# Positioning components

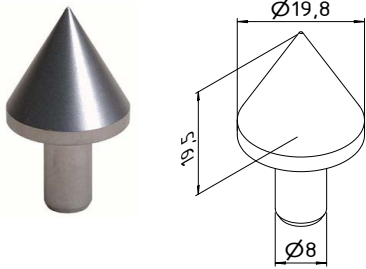

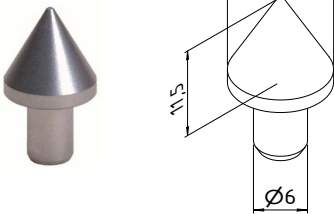

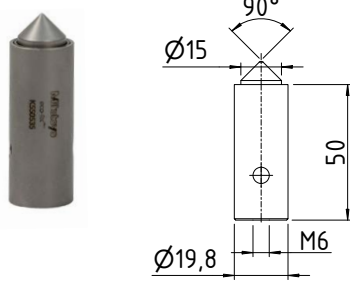

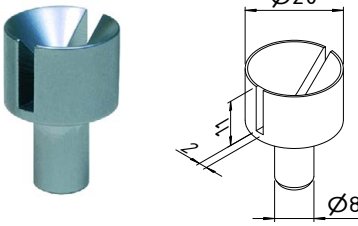

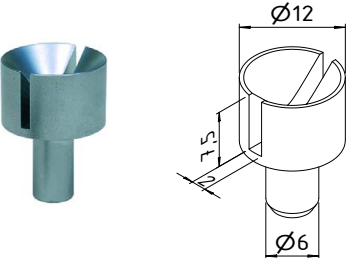

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550058</b> Weight 24 g</p> <p><b>V-block ø 20 mm</b> For receiving of e.g. rotationally symmetrical parts in a defined position.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550262</b> Weight 7 g</p> <p><b>V-block ø 12 mm</b> For receiving of e.g. rotationally symmetrical parts in a defined position.</p>  		<p>eco-fix</p>
<p><b>Part No.: K551251</b> Weight 100 g</p> <p><b>Magnetic V-block ø 12 mm</b> For receiving and magnet clamping of e.g. rotationally symmetrical parts in a defined position.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551250</b> Weight 100 g</p> <p><b>Magnetic V-block ø 20 mm</b> For receiving and magnet clamping of e.g. rotationally symmetrical parts in a defined position.</p>  		<p>eco-fix</p>
<p><b>Part No.: K550340</b> Weight 65 g</p> <p><b>Support prism 90°</b> For receiving of e.g. rotationally symmetrical parts in a defined position.</p>   <p>*Connect with fastening element K550522-10</p>		<p>eco-fix eco-fix<sup>plus</sup></p>



eco-fix · eco-fix<sup>plus</sup>

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550341</b> Weight 65 g</p> <p><b>Support prism 120°</b> For receiving of e.g. rotationally symmetrical parts in a defined position.</p>   <p>*Connect with fastening element K550522-10</p>		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550436</b> Weight 20 g</p> <p><b>Support prism 90°, small</b> For receiving of e.g. rotationally symmetrical parts in a defined position.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550523</b> Weight 330 g</p> <p><b>Universal prism</b> For receiving of e.g. rotationally symmetrical parts in a defined position Ø 2 - 125 mm.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550343</b> Weight 8 g</p> <p><b>Exchangeable prism wing for universal prism</b></p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550355</b> Weight 8 g</p> <p><b>Exchangeable knife edge prism wing for universal prism</b></p>  		<p>eco-fix eco-fix<sup>plus</sup></p>

# Positioning components

		APPLICATION	PRODUCT LINES
<p><b>Part No.: K550365</b> Weight 26 g <b>Cone receiver ø 20 mm</b> For receiving parts in bores or centerings etc.</p>			<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550261</b> Weight 6 g <b>Cone receiver ø 12 mm</b> For receiving parts in bores or centerings etc.</p>			<p>eco-fix</p>
<p><b>Part No.: K551323</b> Weight 90 g <b>Spring-loaded cone support</b> Used as a centering surface support in bores drilling and center holes.</p>			<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550996</b> Weight 26 g <b>Center mount ø 20 mm</b> For receiving e.g., rotationally symmetrical components without center hole.</p>			<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550995</b> Weight 7 g <b>Center mount ø 12 mm</b> For receiving e.g., rotationally symmetrical components without center hole.</p>			<p>eco-fix</p>

eco-fix · eco-fix<sup>plus</sup>

		APPLICATION	PRODUCT LINES																																
<p><b>Part No.: K551072</b> Weight 28 g <b>Sphere top ø 20 mm</b> For direct workpiece support on non-regular surfaces.</p>			<p>eco-fix eco-fix<sup>plus</sup></p>																																
<p><b>Part No.: K551071</b> Weight 11 g <b>Sphere top ø 12 mm</b> For direct workpiece support on non-regular surfaces.</p>			<p>eco-fix</p>																																
<p><b>Part No.: K550759-10</b> Weight 57 g <b>Ball screw M12</b> For the precise height adjustment of a receiving point. To be used with adjustable receiving pin bottom K551241 or M12 bracket K550342-10.</p>			<p>eco-fix</p>																																
<p><b>Cylinder pin insert</b> For workpiece receiving in bores.</p> <table border="1"> <thead> <tr> <th>Part No.:</th> <th>d mm</th> <th>D mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr> <td>K550059</td> <td>4</td> <td>10</td> <td>25</td> </tr> <tr> <td>K550060</td> <td>4,5</td> <td>10</td> <td>25</td> </tr> <tr> <td>K550061</td> <td>5</td> <td>10</td> <td>25</td> </tr> <tr> <td>K550062</td> <td>5,5</td> <td>10</td> <td>26</td> </tr> <tr> <td>K550063</td> <td>6</td> <td>10</td> <td>26</td> </tr> <tr> <td>K550064</td> <td>6,6</td> <td>20</td> <td>26</td> </tr> <tr> <td>K550065</td> <td>8</td> <td>20</td> <td>27</td> </tr> </tbody> </table> <p>further dimensions on request</p>	Part No.:	d mm	D mm	weight g	K550059	4	10	25	K550060	4,5	10	25	K550061	5	10	25	K550062	5,5	10	26	K550063	6	10	26	K550064	6,6	20	26	K550065	8	20	27			<p>eco-fix eco-fix<sup>plus</sup></p>
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K550064	6,6	20	26																																
K550065	8	20	27																																
<p><b>Blade pin insert</b> For workpiece receiving in bores.</p> <table border="1"> <thead> <tr> <th>Part No.:</th> <th>d mm</th> <th>D mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr> <td>K550081</td> <td>4</td> <td>10</td> <td>25</td> </tr> <tr> <td>K550082</td> <td>4,5</td> <td>10</td> <td>25</td> </tr> <tr> <td>K550083</td> <td>5</td> <td>10</td> <td>25</td> </tr> <tr> <td>K550084</td> <td>5,5</td> <td>10</td> <td>26</td> </tr> <tr> <td>K550085</td> <td>6</td> <td>10</td> <td>26</td> </tr> <tr> <td>K550086</td> <td>6,6</td> <td>20</td> <td>26</td> </tr> <tr> <td>K550087</td> <td>8</td> <td>20</td> <td>27</td> </tr> </tbody> </table> <p>further dimensions on request</p>	Part No.:	d mm	D mm	weight g	K550081	4	10	25	K550082	4,5	10	25	K550083	5	10	25	K550084	5,5	10	26	K550085	6	10	26	K550086	6,6	20	26	K550087	8	20	27			<p>eco-fix eco-fix<sup>plus</sup></p>
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K550081	4	10	25																																
K550082	4,5	10	25																																
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K550084	5,5	10	26																																
K550085	6	10	26																																
K550086	6,6	20	26																																
K550087	8	20	27																																

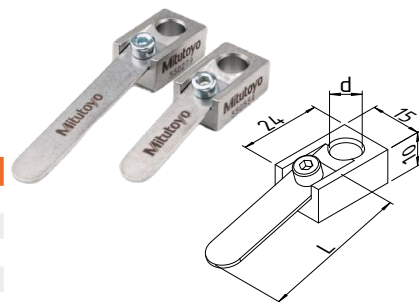
# Clamping components

Spring clamps, vices, toggle clamps, magnetic clamps and accessories

## Spring clip standard type

For simple and quick clamping of parts.

Part No.:	L mm	d mm	weight g
K550554	40	8	25
K550279	60	8	27
K550278	40	6	27
K550292	60	6	29



APPLICATION

PRODUCT LINES

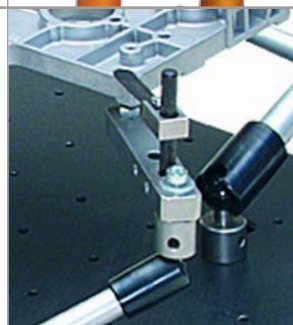
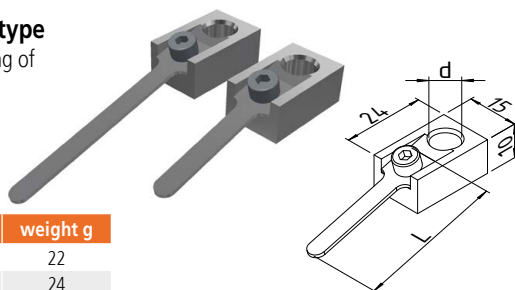


eco-fix  
eco-fix<sup>plus</sup>

## Spring clip 8 mm slim type

For simple and quick clamping of parts in confined spaces.

Part No.:	L mm	d mm	weight g
K551327	40	8	22
K551329	60	8	24

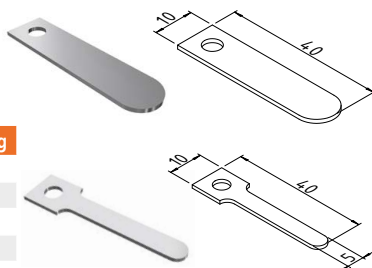


eco-fix  
eco-fix<sup>plus</sup>

## Spring for spring clip

For the exchange of springs in the spring clips

Part No.:	L mm	d mm	width	weight g
K550320	40	8	10	5
K550321	60	8	10	5
K550738-10	80	8	10	53
K551326	40	8	5	3
K551328	60	8	5	4



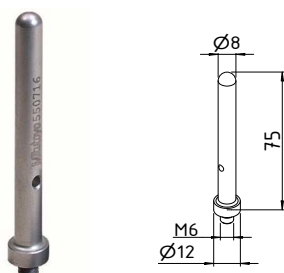
eco-fix  
eco-fix<sup>plus</sup>

## Part No.: K550716

Weight 32 g

### Straight pin with thread

For receiving of spring clip, d = 8 mm, directly on base plates or assembly elements.



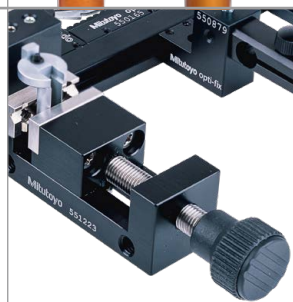
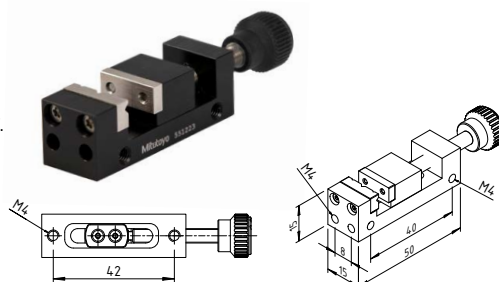
eco-fix  
eco-fix<sup>plus</sup>

## Part No.: K551334

Weight 40 g

### opti-vice M4

One flat and one prismatic jaw. Clamping range 0-14 mm.



eco-fix  
eco-fix<sup>plus</sup>  
opti-fix

Connect with  
M4 straight pin  
K550891  
K551017

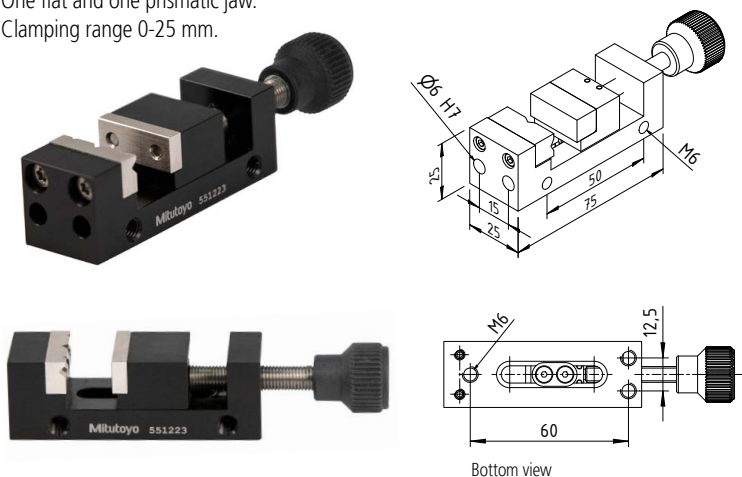
eco-fix · eco-fix<sup>plus</sup>

**Part No.: K551223**

Weight 122 g

**eco-vice M6**

One flat and one prismatic jaw.  
Clamping range 0-25 mm.



APPLICATION

PRODUCT LINES

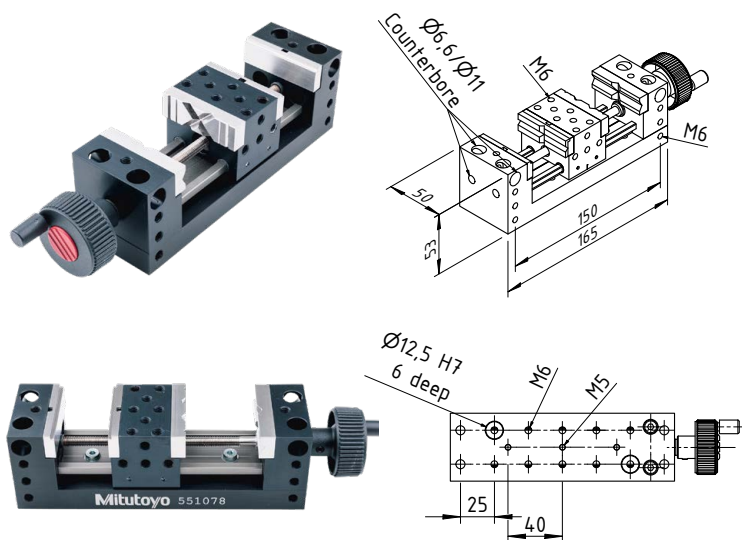
eco-fix  
eco-fix<sup>plus</sup>

**Part No.: K551078**

Weight 920 g


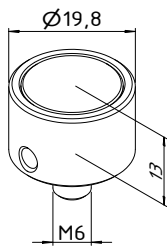


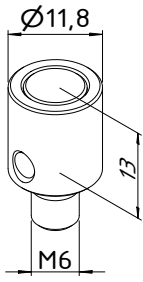
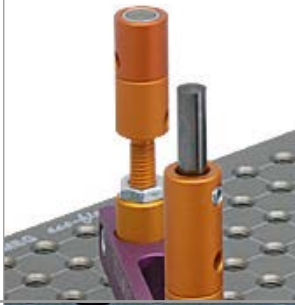

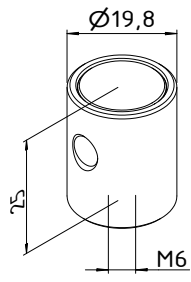
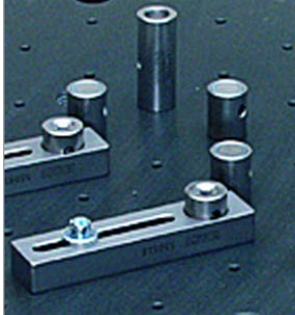
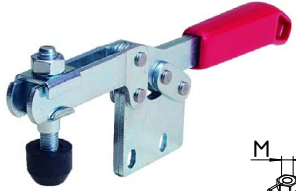
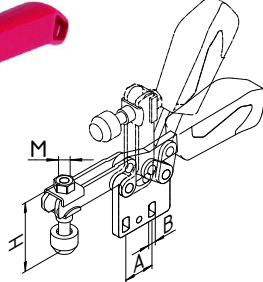


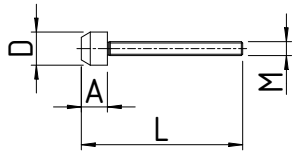
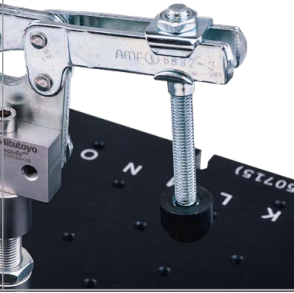
**eco-vice M6 Large**

Clamping jaws equipped with prisms and surfaces can be changed and combined. By reason of the two-way double function, a very flexible fixation is possible. Connecting threads on the top of the jaws, allows e.g., in combination with pins the internal fixation of e.g., turning workpieces. Clamping range 0-68 mm.



eco-fix


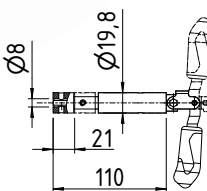
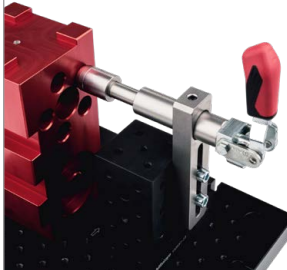
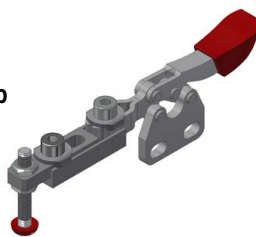
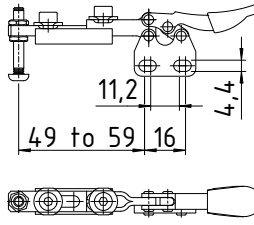


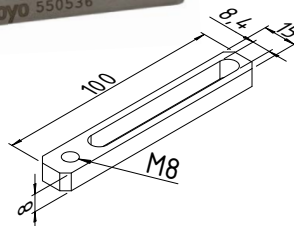
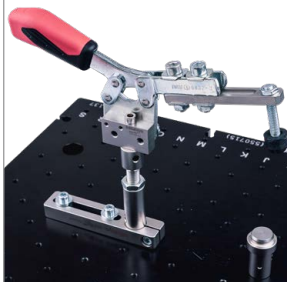

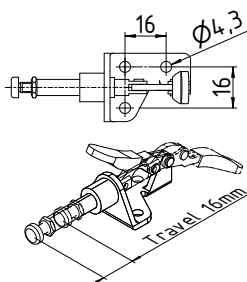


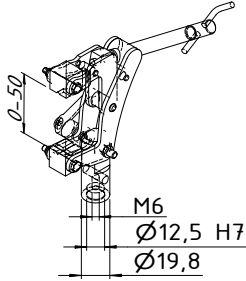
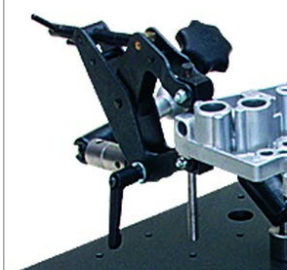
# Clamping components

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551074</b> Weight 15 g</p> <p><b>Magnetic receiver ø 20 mm eco-fix</b> For quick and easy magnetic clamping of workpieces.</p>  		<p>eco-fix</p>
<p><b>Part No.: K551073</b> Weight 5 g</p> <p><b>Magnetic receiver ø 12 mm eco-fix</b> For quick and easy magnetic clamping of workpieces.</p>  		<p>eco-fix</p>
<p><b>Part No.: K551242</b> Weight 47 g</p> <p><b>Magnetic receiver ø 20 mm eco-fix<sup>plus</sup></b> For receiving a workpiece in a defined position.</p>  		<p>eco-fix<sup>plus</sup></p>
<p><b>Toggle clamp with pressure spindle</b> For simple and quick clamping of parts.</p> <p>*Connect with fastening element K550522-10</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Special pressure spindle for toggle clamp</b> Extends the range of the toggle clamps.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>

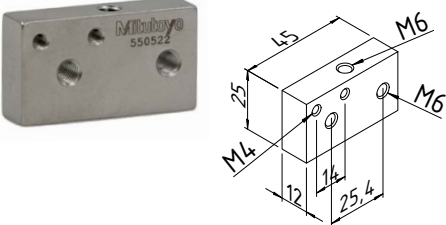

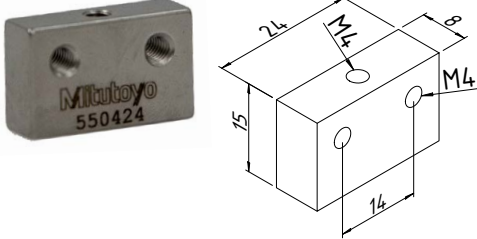

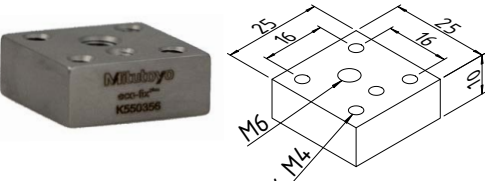

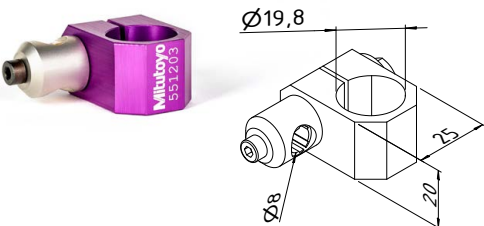

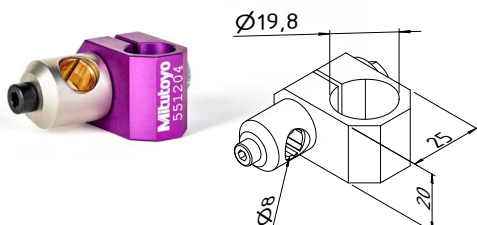

Part No.:	M	H	A	B	Weight g
K550009-10	M8	58	25,5	6,5	337
K550010-10	M4	32	13,6	4,6	26

Part No.:	M	L	A	D	Weight g
K550012-10	M8	92,8	15	19	32
K550013-10	M4	46,3	8,5	11	7

eco-fix · eco-fix<sup>plus</sup>

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551325</b> Weight 297 g</p> <p><b>Axially adjustable center mount</b> For holding workpieces in bores that must be cleared again for measurement.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550277-10</b> Weight 42 g</p> <p><b>Adjustable toggle clamp</b> Toggle clamp with slidable adjustment of the clamping position.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550536-10</b> Weight 536 g</p> <p><b>Clamping extension M8</b> To extend the range of toggle clamp K550277-10 with pressure spindle M8.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K550492-10</b> Weight 40 g</p> <p><b>Vertical push rod clamp</b> For clamping workpieces in vertical position.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551336</b> Weight 450 g</p> <p><b>Clamping hand</b> For quick and easy clamping of workpieces.</p>  		<p>eco-fix eco-fix<sup>plus</sup></p>

# Clamping components

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550522-10</b> Weight 95 g</p> <p><b>Fastening element toggle clamps receiving prisms</b> For connecting the toggle clamps and mounting prisms.</p> 		<p><b>eco-fix</b> <b>eco-fix<sup>plus</sup></b></p> <p>K550009-10 K550010-10 K550277-10 K550340 K550341 K550436</p>
<p><b>Part No.: K550424-10</b> Weight 20 g</p> <p><b>Receiving cuboid, small</b> For fastening the toggle clamps with an M4 threaded connection.</p> 		<p><b>eco-fix</b> <b>eco-fix<sup>plus</sup></b></p> <p>K550010-10 K550277-10</p>
<p><b>Part No.: K550356-10</b> Weight 43 g</p> <p><b>Mounting plate 25</b> For holding the push rod clamps vertically and horizontally M4.</p> 		<p><b>eco-fix</b> <b>eco-fix<sup>plus</sup></b></p> <p>K550492-10</p>
<p><b>Part No.: K551203</b> Weight 60 g</p> <p><b>Indicator holder for eco-fix ø 20 mm</b> Joint for connecting dial gauges and indicators.</p> 		<p><b>eco-fix</b> <b>eco-fix<sup>plus</sup></b></p>
<p><b>Part No.: K551204</b> Weight 60 g</p> <p><b>Indicator holder for eco-fix ø 12 mm</b> Joint for connecting dial gauges and indicators.</p> 		<p><b>eco-fix</b></p>


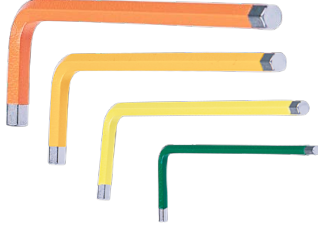





# Adapters

Combine components from different product lines

	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551153</b> Weight 20 g</p> <p><b>Adapting bolt for master ball</b> For connecting master balls to eco-fix base plates.</p> 		<p>master balls</p>
<p><b>Part No.: K551067</b> Weight 20 g</p> <p><b>Adaption eco-fix to repro-fix Ø 20 mm</b> For connecting the Ø 20mm eco-fix location pins on repro-fix base plates or profiles, or for connecting Ø20mm eco-fix and repro-fix location pins.</p> 		<p>repro-fix eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551066</b> Weight 20 g</p> <p><b>Adaption eco-fix to repro-fix Ø 12 mm</b> For connecting the Ø 12mm eco-fix location pins on repro-fix base plates or profiles, or for connecting Ø12mm eco-fix and Ø 20mm repro-fix location pins.</p> 		<p>repro-fix eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551211</b> Weight 15 g</p> <p><b>Adaption eco-fix to repro-fix Ø 12 mm</b> For connecting eco-fix and repro-fix mini location pins.</p> 		<p>repro-fix eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551189</b> Weight 15 g</p> <p><b>Adaption eco-fix to opti-fix Ø 6 mm</b> For connecting the eco-fix components to opti-fix components.</p> 		<p>opti-fix eco-fix eco-fix<sup>plus</sup></p>
<p><b>Part No.: K551065</b> Weight 30 g</p> <p><b>Adapting bolt M6 M8</b> For connecting eco-fix components to M8 threads.</p> 		<p>eco-fix eco-fix<sup>plus</sup></p>

# Screws and tools

					PRODUCT LINES																																
<b>Part No.: K551288 eco-fix tool kit</b>					eco-fix eco-fix <sup>plus</sup>																																
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<b>Open-end spanners for eco-fix</b>					eco-fix eco-fix <sup>plus</sup>																																
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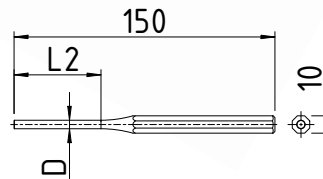
eco-fix · eco-fix<sup>plus</sup>

PRODUCT LINES

**Location pin mounting key**

For the assembly and disassembling of location pins.

Part No.:	Tip Ø mm	L2 mm	For location pin Ø
K550368	2,9	40	12
K550123	4,9	50	20

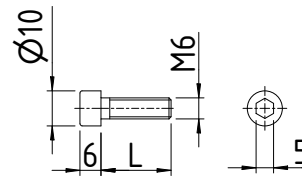


eco-fix  
eco-fix<sup>plus</sup>

**Cylinder head screw M6 eco-fix**

For the connection of eco-fix components.

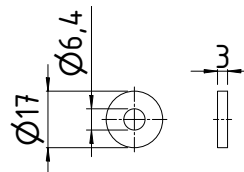
Part No.:	Type	Thread	Length
K550110	Cylinder head screw	M6	20 mm
K550563	Cylinder head screw	M6	25 mm
K550564	Cylinder head screw	M6	30 mm



eco-fix  
eco-fix<sup>plus</sup>

**Washer M6 eco-fix**

Part No.:	Type	Hole ø	Total ø
K550591	Washer M6	6,4 mm	17 mm

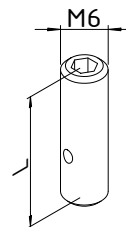


eco-fix  
eco-fix<sup>plus</sup>

**Threaded bolt M6 eco-fix<sup>plus</sup>**

For the connection of threaded eco-fix<sup>plus</sup> location pins.

Part No.:	Type	Thread	Length
K550592-10	Threaded bolt	M6	20
K550557-10	Threaded bolt	M6	25



eco-fix<sup>plus</sup>

# Modular Fixturing Systems

## Mitutoyo opti-fix

The modular clamping system opti-fix has been developed especially for optical coordinate measuring systems, but it also suits applications for microscopes and profile projectors.

Mitutoyo opti-fix guarantees safe part fixture during measurement and consequently, ensures a permanent error-free transfer of measured values. This functional configuration makes also serial measurements considerably easier.

To reduce disturbing reflections of lighting systems and ambient light to a minimum, all important construction elements are anodised in a matte black finish.

For the mounting of the basic elements onto the CMM table there are different fastening types available.

- Magnet clamp connection for exchangeable modules. The base blocks are fixed to the thread positions of the XY frame. Recommended for optical CMM use.
- Direct connection by means of vacuum clamping plates, independent from the existing connecting threads at the sides of XY stage.
- Connection by means of fastening brackets using the connecting threads at the sides of the XY stage. This method is recommended for microscopes and profile projectors.



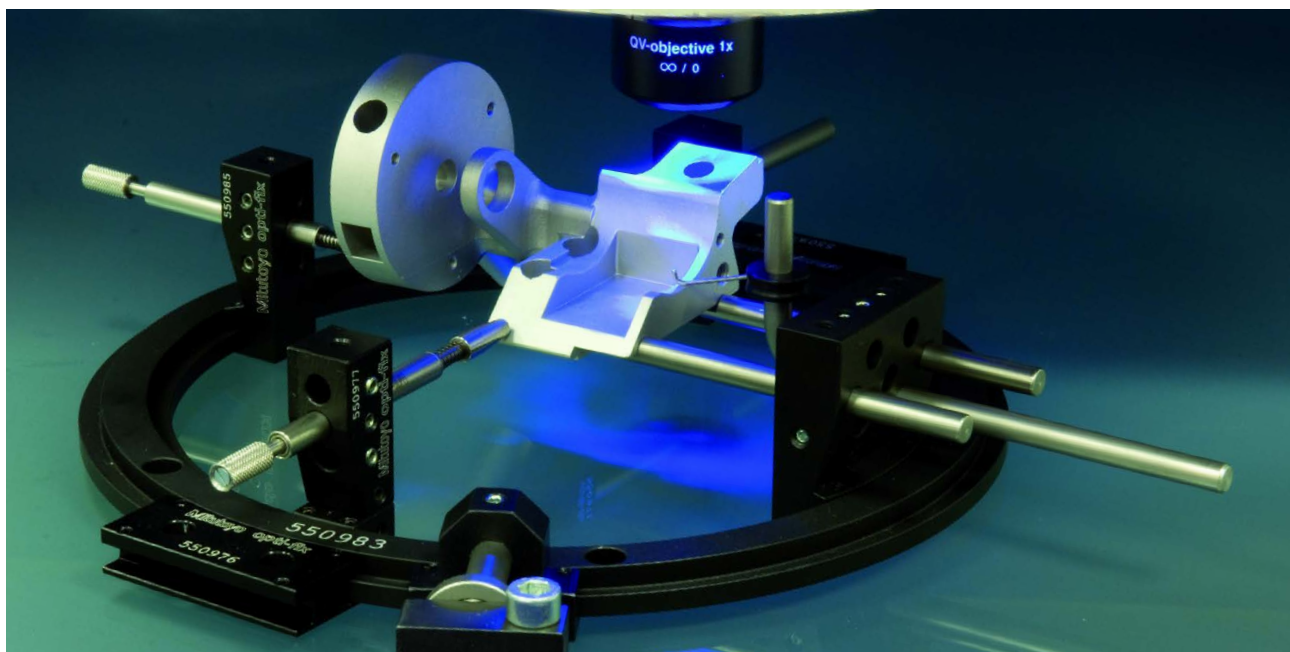
# The Mitutoyo vision system fixturing system opti-fix

The opti-fix system allows the quick and safe solution of very different tasks using only a few components. In case of measuring methods using reflected as well as transmitted light for measurement of cubic, rotationally symmetrical, and especially flat workpieces, the use of opti-fix is a practical solution. Furthermore, the spring clips and centering pins of different design which are integrated in the system allows also tactile measuring. Mitutoyo opti-fix offers the user a large number of possibilities for part fixing, from clamping tweezers for miniature test specimens to precision vices for large parts.

## Mitutoyo opti-round

The innovative, "Mitutoyo opti-fix round" frame allows by its circular design an infinitely variable adjustment of 360° in horizontal level as well as in space and additionally, the "pin fixing" at the sides ensures a user-friendly access to the workpiece.

Mitutoyo opti-fix round has been developed especially for workpieces with an exceptional geometry which could not be placed functionally within the measuring volume by means of the existing standard methods. The combination of the two system types Mitutoyo opti-fix and opti-round allows the user professional part clamping for the whole parts range which needs optical/tactile measuring methods. No more improvisation in the field of optical coordinate measuring systems.



# Modular Fixturing Systems

## Base components – base plates and profiles

Flexible mounting on a solid frame or base plates the key to successful fixturing. Mitutoyo offers a wide range of profiles, that can be customized on request.

COMPONENT TYPE		MATERIAL							
<p><b>eco-fix opti-fix base plates</b>                      M6 threaded grid, 12,5mm grid pattern. Fully compatible to eco-fix components. opti-fix components can be combined by using adapter K551189. Glass insert 160 mm.</p>  <p>Other sizes on request.</p> <table border="1"> <thead> <tr> <th>Available sizes</th> <th>Thickness</th> <th>Thread</th> <th>Thread grid pattern spacing</th> </tr> </thead> <tbody> <tr> <td>250 x 250 mm</td> <td>15 mm</td> <td>M6</td> <td>12,5 x 12,5 mm</td> </tr> </tbody> </table>	Available sizes	Thickness	Thread	Thread grid pattern spacing	250 x 250 mm	15 mm	M6	12,5 x 12,5 mm	Hard-coated aluminium
Available sizes	Thickness	Thread	Thread grid pattern spacing						
250 x 250 mm	15 mm	M6	12,5 x 12,5 mm						
<p><b>Clamping profile rail – Connector groove</b>                      With front connector groove for construction of basic frames                      Dual dovetail for component connection.</p> <table border="1"> <thead> <tr> <th>Available sizes</th> </tr> </thead> <tbody> <tr><td>100 mm</td></tr> <tr><td>200 mm</td></tr> <tr><td>240 mm</td></tr> <tr><td>250 mm</td></tr> <tr><td>310 mm</td></tr> <tr><td>400 mm</td></tr> <tr><td>500 mm</td></tr> </tbody> </table>  <p>Other sizes on request.</p>	Available sizes	100 mm	200 mm	240 mm	250 mm	310 mm	400 mm	500 mm	Hard-coated aluminium
Available sizes									
100 mm									
200 mm									
240 mm									
250 mm									
310 mm									
400 mm									
500 mm									
<p><b>Clamping profile rail – Solid front</b>                      Solid front, for construction of basic frames                      Dual dovetail for component connection.</p> <table border="1"> <thead> <tr> <th>Available sizes</th> </tr> </thead> <tbody> <tr><td>100 mm</td></tr> <tr><td>200 mm</td></tr> <tr><td>250 mm</td></tr> <tr><td>310 mm</td></tr> <tr><td>400 mm</td></tr> <tr><td>500 mm</td></tr> </tbody> </table>  <p>Other sizes on request.</p>	Available sizes	100 mm	200 mm	250 mm	310 mm	400 mm	500 mm	Hard-coated aluminium	
Available sizes									
100 mm									
200 mm									
250 mm									
310 mm									
400 mm									
500 mm									
<p><b>Circular clamping profile rail opti-round</b>                      As base for build-up elements of opti-round type                      Dual dovetail for component connection.</p> <table border="1"> <thead> <tr> <th>Outer Ø</th> <th>Inner Ø</th> </tr> </thead> <tbody> <tr> <td>190 mm</td> <td>170 mm</td> </tr> </tbody> </table> 	Outer Ø	Inner Ø	190 mm	170 mm	Hard-coated aluminium				
Outer Ø	Inner Ø								
190 mm	170 mm								





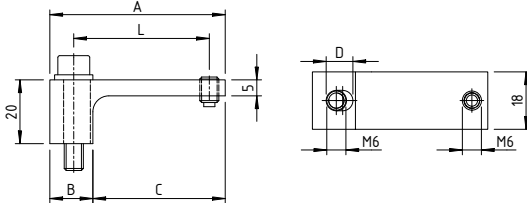

# The Mitutoyo vision system fixturing system opti-fix

	APPLICATION	PRODUCT LINES
		<p>opti-fix</p>
		<p>opti-fix</p>
		<p>opti-fix</p>
 <p data-bbox="464 1749 592 1832">Clamping block detail for opti-round</p>		<p>opti-fix</p>

# Modular Fixturing Systems

## Base components – connectors and fasteners

The already stable profile frames can be reinforced by mounting corner connector elements. The frame can be fixed to the machine table by using several options for clamping.

COMPONENT TYPE	MATERIAL															
<p><b>Connector with connector grooves</b> For rectangular connection of profile rails, respectively for reinforcement of profile connections.</p> 	Hard-coated aluminium															
<p><b>Connector with dovetail connector</b> E.g., for front end connection to profile rails with connector groove. That way, rectangular connection of profiles with connector groove can be achieved, but also build-up components can be connected.</p> 	Hard-coated aluminium															
<p><b>Magnet holder Mag</b> For quick and easy mounting of opti-fix systems to the machine frames by magnets. Adjustable to the table dimension of the measuring devices. The magnet holder are recommended for the use with Optical-CMM.</p> <table border="1" data-bbox="151 1086 395 1220"> <thead> <tr> <th>Pin lengths</th> <th>Block heights</th> </tr> </thead> <tbody> <tr> <td>20mm</td> <td>27,5mm</td> </tr> <tr> <td>25mm</td> <td>41,5mm</td> </tr> <tr> <td>35mm</td> <td></td> </tr> </tbody> </table>  <p>Other sizes on request.</p>	Pin lengths	Block heights	20mm	27,5mm	25mm	41,5mm	35mm		Hard-coated aluminium							
Pin lengths	Block heights															
20mm	27,5mm															
25mm	41,5mm															
35mm																
<p><b>Fastening bracket</b> For mounting of basic profiles or frames on measuring devices. The brackets are usually used with profile projectors and similar optical systems.</p>   <table border="1" data-bbox="630 1525 1166 1675"> <tbody> <tr> <td>Clamping range</td> <td>L</td> <td>20,0 - 87,5 mm depending on model</td> </tr> <tr> <td>Total length</td> <td>A</td> <td>35,0 - 98,0 mm depending on model</td> </tr> <tr> <td>Base length</td> <td>B</td> <td>13,5 - 62,0 mm depending on model</td> </tr> <tr> <td>Free length</td> <td>C</td> <td>21,5 - 36,0 mm depending on model</td> </tr> <tr> <td>Long hole</td> <td>D</td> <td>5,0 or 8,0 mm depending on model</td> </tr> </tbody> </table>	Clamping range	L	20,0 - 87,5 mm depending on model	Total length	A	35,0 - 98,0 mm depending on model	Base length	B	13,5 - 62,0 mm depending on model	Free length	C	21,5 - 36,0 mm depending on model	Long hole	D	5,0 or 8,0 mm depending on model	
Clamping range	L	20,0 - 87,5 mm depending on model														
Total length	A	35,0 - 98,0 mm depending on model														
Base length	B	13,5 - 62,0 mm depending on model														
Free length	C	21,5 - 36,0 mm depending on model														
Long hole	D	5,0 or 8,0 mm depending on model														
<p><b>Vacuum plate</b> For easy mounting of profiles or of the circular clamping profile directly on the glass plate of the measuring device.</p> 																



# The Mitutoyo vision system fixturing system opti-fix

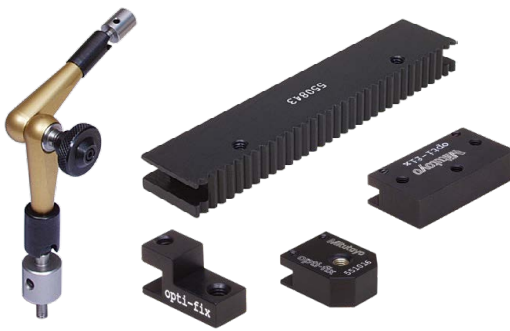
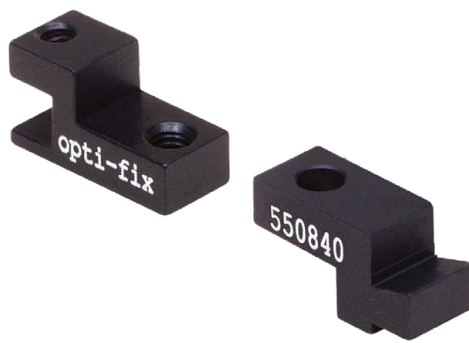
	APPLICATION	PRODUCT LINES
		opti-fix
		opti-fix
<p>Recommended minimum quantity 3pcs. Depending on frame size.</p> <p>Different lengths of the holder pins make sure, that the pin is never protruding the measuring range. (Applies for Mitutoyo machines). Two holder block heights available to adjust to different glass heights.</p>		opti-fix
<p>Recommended minimum quantity 3pcs. Depending on frame size</p>		opti-fix
<p>Recommended minimum quantity 2pcs. Depending on frame size</p>		opti-fix

# Modular Fixturing Systems

## Build-up components

In order to ensure the most flexible positioning of receiving and clamping components, a full range of build-up components is available.

COMPONENT TYPE	MATERIAL
<p><b>Clamping blocks</b> For mounting of the positioning components such as e.g. receiver pins or pins to mount spring clamps on.</p> <p><b>There are three different types:</b></p> <ul style="list-style-type: none"> <li>· Clamping block small (3 receiver positions)</li> <li>· Clamping block small rotatable (3 receiver positions)</li> <li>· Clamping block large (7 receiver positions)</li> </ul> <p>All three are available for <b>straight profile frames</b> and for <b>opti-round</b></p>	<p>Hard-coated Aluminium</p> <p>fixed</p> <p>rotatable</p>
<p><b>Knuckle joint with dovetail</b> In connection with clamping fixture M4 K550853 for the construction of any angle.</p>	<p>Hard-coated aluminium</p>
<p><b>Telescope extension</b> In order to reach remote positions, the telescope extension can help to set up a spring clip far off the reach of the profile. This requires the use of a straight pin <math>\varnothing</math> 6 mm for the telescope connection and a M4 pin to set up the spring clamp.</p>	<p>Hard-coated aluminium</p>
<p><b>M4 connectivity</b> A variety of components with one or more M4 thread holes, ensures the ability to set up e.g., a M4 threaded pin for a spring clip, wherever it is required.</p>	<p>Hard-coated aluminium</p>



# The Mitutoyo vision system fixturing system opti-fix

	APPLICATION	PRODUCT LINES
 <p>The rotatable clamping block is to be used, when the fixed clamping block is not suitable.</p>		<p>opti-fix</p>
		<p>opti-fix</p>
 <p><b>Straight pin ø 6 mm</b> As connecting element e.g., for telescope fixture or spring clips.</p>		<p>opti-fix</p>
		<p>opti-fix</p>

# Modular Fixturing Systems

## Positioning components

Positioning and stopper components are used for accurately defining the position and to reposition the part. These components come in a wide range of choice.

COMPONENT TYPE	MATERIAL
<p><b>Toothed fixtures</b></p> <p>The teeth of these components allow to measure points on the part contour in transmitted light application, while providing a stable positioning. They are available in 40mm and 100mm length, in standard and fine teeth versions and are clamped on the rail base.</p> 	<p>Hard-coated Aluminium</p>
<p><b>Swivel receivers</b></p> <p>Swivel receivers are usually used for 3-point positioning. They give away a maximum of the part contour while ensuring a stable repositioning. Blade and round type available. <math>\varnothing</math> 6 mm pin required.</p> 	
<p><b>Receiver components</b></p> <p>These receiver components are to be mounted on the clamping blocks. The eccentric positioning of the receiving disc makes K550970 and K550972 easy to height adjust. Depending on the type they can be used to receive flat or round shaped parts.</p> 	
<p><b>Receiver pins</b></p> <p>The receiver pins feature different tips. They are chosen depending on the part size and work as stopper components for locating and repositioning of the part. Also available with a magnet insert at the tip for direct magnet clamping of the workpiece.</p> 	




# The Mitutoyo vision system fixturing system opti-fix

	APPLICATION	PRODUCT LINES
		<p>opti-fix</p>
		<p>opti-fix</p>
		<p>opti-fix</p>
		<p>opti-fix</p>

# Modular Fixturing Systems

## Clamping components

Repeatable fixturing relies on a secure clamping of the to be measured component. Therefore, a wide selection of clamping components is available.

COMPONENT TYPE	MATERIAL
<p><b>Spring clamps</b> Available in different lengths and clamping angles. They can be set up on <math>\varnothing 6</math> mm straight- or rectangular receiver pins.</p> 	<p>Hard-coated Aluminium</p>
<p><b>Clamping vises</b> Different vises ensure flexible clamping of different part shapes.</p> 	<p>Hard-coated Aluminium</p>
<p><b>Tailstock clamping</b> Rotationally symmetric and other parts, are easily clamped by using tailstocks. Different tailstock centres are available to suit a multitude of part shapes.</p> 	<p>Hard-coated Aluminium</p>
<p><b>Clamping tweezers with exchangeable tips</b> For the clamping of small and smallest specimen. The tweezers can be mounted in e.g., rotatable and swivel receiver, tailstock, clamping blocks or articulated arm. The use of different exchangeable tips allows extension of the clamping ranges at a reasonable price.</p> 	<p>Hard-coated Aluminium</p>

# The Mitutoyo vision system fixturing system opti-fix

	APPLICATION	PRODUCT LINES
		<p>opti-fix</p>
		<p>opti-fix</p>
		<p>opti-fix</p>
		<p>opti-fix</p>

# Kit opti-set Start



**Part No.: K551056**

Part No.	Qty.	Part name
<b>Base Components</b>		
K550838	1	Connector clamp. profile rail; L = 100 mm
K550854	1	Clamping profile rail without slot L = 250 mm
K550842	1	Connector with connector grooves
<b>Build-up Components</b>		
K550853	3	Clamping fixture (with thread M4)
<b>Positioning Components</b>		
K550845	2	Toothed fixture L = 40 mm
K550843	1	Toothed fixture L = 100 mm
<b>Clamping Components</b>		
K550978	1	Spring clip 30° short
K550980	1	Spring clip 30° long
K550979	1	Spring clip 15° short
K550891	3	Straight pin for holding-down devices L = 30 mm
<b>Tools</b>		
K551020	1	Allen key 1.5 mm
<b>Total</b>	16	

Smallest kit, consisting of 16 parts, for construction of a simple rail system with a length of 250 mm, for fixing parts with a simple part geometry.

Frame shape	Application
<b>L-shaped frame 250 x 100mm</b>	Clamping of parts on the machine glass

For mounting options, to fix the clamping system on the measuring machine, please check the table on page 139-141. To be ordered separately.

Required parts	Type	Page
Attachment parts depending on the machine frame	Vacuum plate	139
	Magnetic frame clamps	140
	Frame clamping brackets	141





# Kit opti-set Basic



**Part No.: K551057**

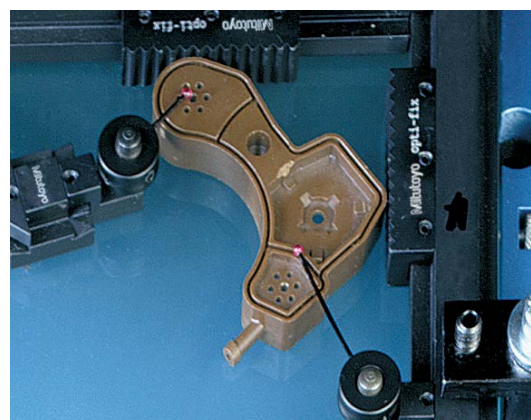
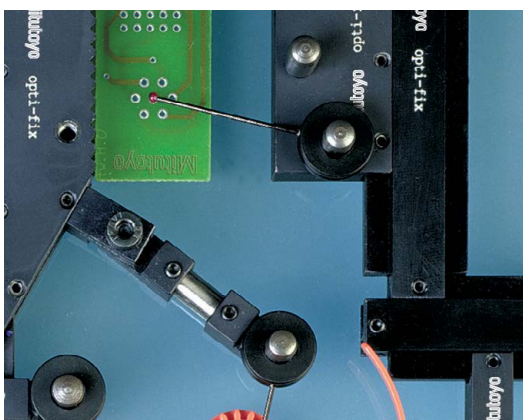
Part No.	Qty.	Part name
<b>Base Components</b>		
K550838	3	Connector clamp. profile rail; L = 100 mm
K550857	2	Clamping profile rail without slot L = 200 mm
<b>Build-up Components</b>		
K550853	4	Clamping fixture (with thread M4)
<b>Positioning Components</b>		
K550845	4	Toothed fixture L = 40 mm
<b>Clamping Components</b>		
K550978	2	Spring clip 30° short
K550980	2	Spring clip 30° long
K550979	2	Spring clip 15° short
K550981	2	Spring clip 15° long
K550891	4	Straight pin for holding-down devices L = 30 mm
<b>Tools</b>		
K551020	1	Allen key 1.5 mm
<b>Total</b>	<b>26</b>	

Kit, consisting of 26 parts, for construction of a basic frame with the dimensions of 200 mm x 100 mm, for fixing parts with complex part geometry.

Frame	Application
<b>Rectangle shaped frame one cross-link 200 x 200 mm</b>	Clamping of parts on the machine glass

For mounting options, to fix the clamping system on the measuring machine, please check the table on page 139-141. To be ordered separately.

Required parts	Type	Page
Attachment parts depending on the machine frame	Vacuum plate	139
	Magnetic frame clamps	140
	Frame clamping brackets	141



# Kit opti-set Rotation



**Part No.: K551058**

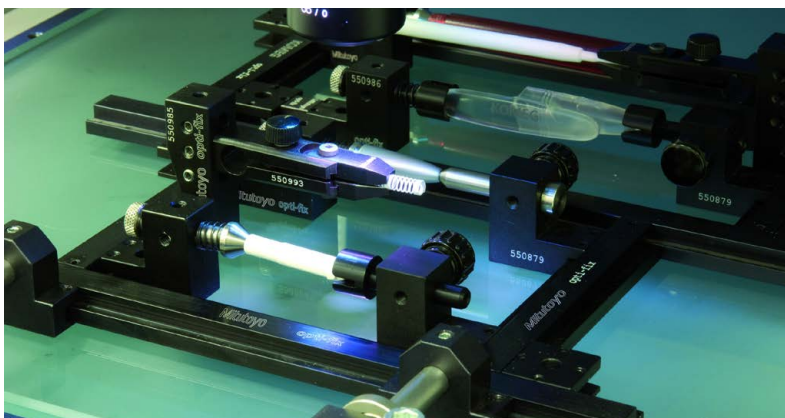
Part No.	Qty.	Part name
<b>Base Components</b>		
K550854	2	Clamping profile rail; L = 250 mm
K550859	2	Clamping profile rail; L = 200 mm
K550842	4	Connector with connector grooves
<b>Build-up Components</b>		
K550984	1	Clamping block GG
K550985	2	Clamping block GK
<b>Positioning Components</b>		
K550972	1	Prismatic eccentric receiver
K551062	2	Shaft 6 mm x 100 mm
K550303	2	Receiver pin stepped 100 mm
<b>Clamping Components</b>		
K550879	1	Tailstock with centre
K550986	1	Tailstock with spring-loaded centre
K550994	2	Centring receiver
K551018	1	Prism 120° compl. with spring clip
<b>Tools</b>		
K551020	1	Allen key 1.5 mm
K551021	1	Allen key 2 mm
<b>Total</b>	<b>23</b>	

Kit, consisting of 23 parts, for construction of a basic frame with the dimensions of 250 mm x 200 mm, for fixing parts with rotationally symmetrical parts with and without centre holes.

Frame	Application
<b>Rectangle shaped frame 250 x 200 mm</b>	Clamping of rotationally symmetric parts

For mounting options, to fix the clamping system on the measuring machine, please check the table on page 139-141. To be ordered separately.

Required parts	Type	Page
Attachment parts depending on the machine frame	Vacuum plate	139
	Magnetic frame clamps	140
	Frame clamping brackets	141



# Kit opti-set Advanced



Part No.: K551059

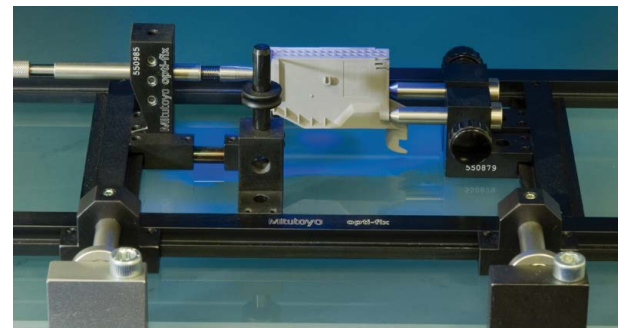
Part No.	Qty.	Part name
<b>Base Components</b>		
K550210	2	Clamping profile rail; L = 400 mm
K550836	3	Clamping profile rail; L = 250 mm
K550838	1	Clamping profile rail; L = 100 mm
K550842	6	Connector with connector grooves
<b>Build-up Components</b>		
K550984	2	Clamping block GG
K550985	1	Clamping block GK
K550213	1	Clamping block GKD, rotatable
<b>Positioning Components</b>		
K550858	1	Toothed fixture L = 100 mm
K550845	2	Toothed fixture L = 40 mm
K550970	1	Eccentric receiver
K550971	1	Prismatic receiver / locator
K550304	1	Receiver plane
K550301	3	Receiver pin stepped L = 60 mm
K550302	3	Receiver pin stepped L = 80 mm
K550303	3	Receiver pin stepped L = 100 mm
<b>Clamping Components</b>		
K551012	1	Spring-loaded clamping rod
K550978	3	Spring clip with bent tip, short L = 30°
K550979	3	Spring clip with bent tip, short L = 15°
K550980	3	Spring clip with bent tip, long L = 30°
K550981	3	Spring clip with bent tip, long L = 15°
K550323	2	Rectangular receiver pin L = 25 mm
K550990	3	Rectangular receiver pin L = 50 mm
<b>Tools</b>		
K551020	1	Allen key 1.5 mm
K551021	1	Allen key 2 mm
<b>Total</b>	51	

Kit, consisting of 51 parts, for construction of a basic frame with the dimensions of 400 mm x 250 mm, for fixing parts with complex part geometry.

Frame	Application
<b>Rectangle shaped frame one cross-link 400 x 250 mm</b>	Clamping of parts on the machine glass Clamping of e.g., flat parts above the glass

For mounting options, to fix the clamping system on the measuring machine, please check the table on page 139-141. To be ordered separately.

Required parts	Type	Page
Attachment parts depending on the machine frame	Vacuum plate	139
	Magnetic frame clamps	140
	Frame clamping brackets	141



# Kit opti-set Professional



## Part No.: K551060

Very complex kit, consisting of 115 parts, for construction of a basic frame with the dimensions of 400 mm x 250 mm, for fixing parts with very complex part geometry. The fixing of parts with a rotational symmetrical part geometry can also be realized.

Frame	Application
<b>Rectangle shaped frame with two intermediate cross-links 400 x 250 mm</b>	Clamping of parts on the machine glass
	Clamping of e.g., flat parts above the glass
	Clamping of rotationally symmetric parts
	Clamping parts of complex geometry

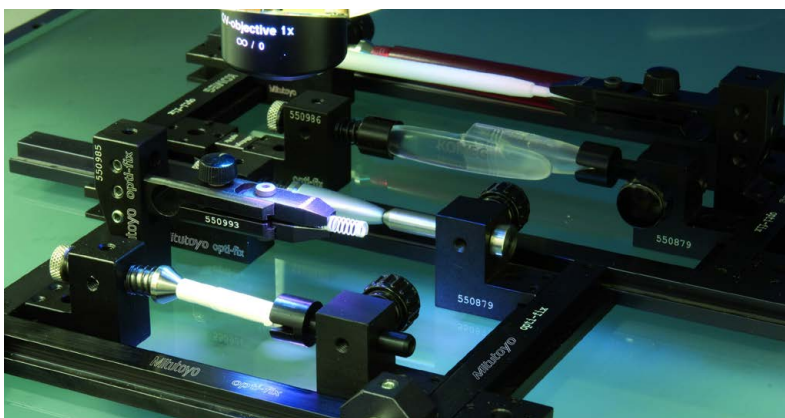
For mounting options, to fix the clamping system on the measuring machine, please check the table on page 139-141. To be ordered separately.

Required parts	Type	Page
Attachment parts depending on the machine frame	Vacuum plate	139
	Magnetic frame clamps	140
	Frame clamping brackets	141

Part No.	Qty.	Part name
<b>Base Components</b>		
K550210	2	Clamping profile rail; L = 400 mm
K550836	4	Clamping profile rail; L = 250 mm
K550842	8	Connector with connector grooves
K550838	2	Clamping profile rail; L = 100 mm
<b>Build-up Components</b>		
K550984	2	Clamping block GG
K550985	2	Clamping block GK
K550213	2	Clamping block GKD, rotatable
K550853	8	Clamping fixture (with thread M4)
K550840	2	Knuckle joint with dovetail
K550839	4	Telescope fixture slider
K550852	4	Telescope fixture end piece
K551016	1	Adaptor plate M4
<b>Positioning Components</b>		
K550165	3	Toothed fixture flat L = 40 mm
K550324	2	Toothed fixture flat L = 100 mm
K550845	1	Toothed fixture flat L = 40 mm
K551013	2	Toothed fixture flat with fine teeth L = 40 mm
K550970	2	Eccentric receiver
K550972	2	Prismatic eccentric receiver
K550971	2	Prismatic receiver / locator
K550304	1	Receiver plane
K550887	4	Straight pin 6 x 10 mm
K550888	4	Straight pin 6 x 20 mm
K550889	4	Straight pin 6 x 30 mm
K550890	4	Straight pin 6 x 40 mm
K550851	2	Swivel receiver with knife edge
K550847	2	Swivel receiver with straight pin



Part No.	Qty.	Part name
<b>Clamping Components</b>		
K550978	2	Spring clip with bent tip, short 30°
K550979	2	Spring clip with bent tip, short 15°
K550980	2	Spring clip with bent tip, long 30°
K550981	2	Spring clip with bent tip, long 15°
K550990	3	Rectangular receiver pin L = 50 mm
K550323	3	Rectangular receiver pin L = 25 mm
K550891	4	Straight pin for holding-down devices L = 30 mm
K551017	4	Straight pin for holding-down devices L = 12 mm
K551018	1	Prism 120° compl. with spring clip
K551014	1	Precision quick chuck 0-4 mm
K550301	3	Receiver pin stepped L = 60 mm
K550302	3	Receiver pin stepped L = 80 mm
K550303	3	Receiver pin stepped L = 100 mm
K551012	2	Spring-loaded clamping rod
K550879	1	Tailstock with centre
K550986	1	Tailstock with spring-loaded centre
<b>Tools</b>		
K551020	1	Allen key 1.5 mm
K551021	1	Allen key 2 mm
<b>Total</b>	115	



# Kit opti-set Round



Part No.: K550298

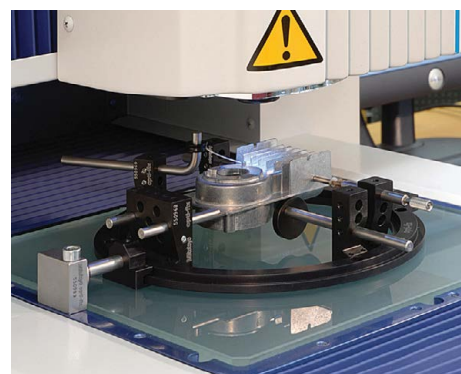
Part No.	Qty.	Part name
<b>Base Components</b>		
K550983	1	Circular clamping profile
<b>Build-up Components</b>		
K550977	1	Clamping block RKD; small, rotatable
K550969	1	Clamping block RK; small
K550968	2	Clamping block RG; large
<b>Positioning Components</b>		
K550302	3	Receiver pin 80 mm
K550970	1	Eccentric receiver
<b>Clamping Components</b>		
K550870	1	Spring clip 15° short
K550849	1	Spring clip 15° long
K550990	2	Rectangular receiver pin
K551012	1	Spring-loaded clamping rod
<b>Adapters</b>		
K550976	2	Adaptor plate
<b>Tools</b>		
K551020	1	Allen key 1.5 mm
K551021	1	Allen key 2 mm
<b>Total</b>	<b>18</b>	

Kit consisting of 18 parts, with locating and clamping elements, incl. adaptor plates for adaptation to e.g., basic frame of the rail system Mitutoyo opti-fix.

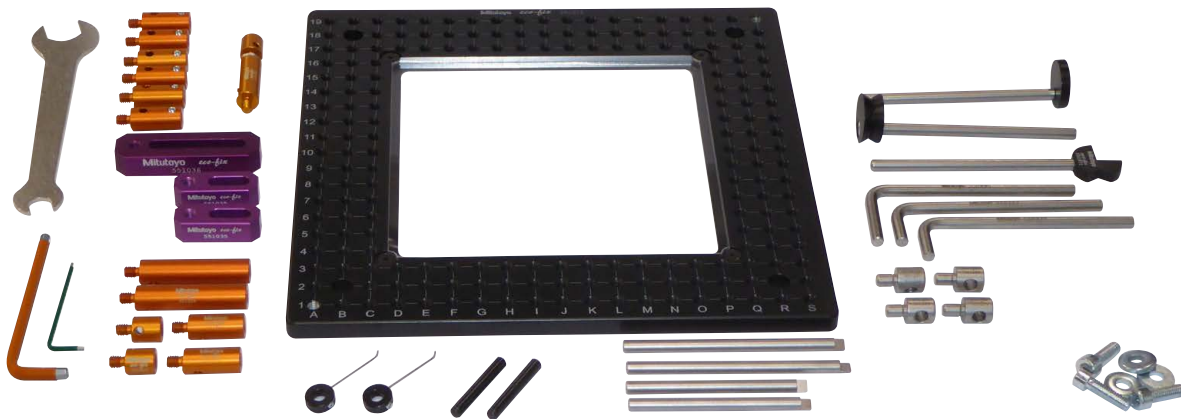
Frame	Application
<b>Circular frame Ø190 mm</b>	Clamping of e.g., flat parts above the glass

For mounting options, to fix the clamping system on the measuring machine, please check the table on page 139-141. To be ordered separately.

Required parts	Type	Page
Attachment parts depending on the machine frame	Vacuum plate	139
	Magnetic frame clamps	140
	Frame clamping brackets	141



# eco-fix opti-kit S



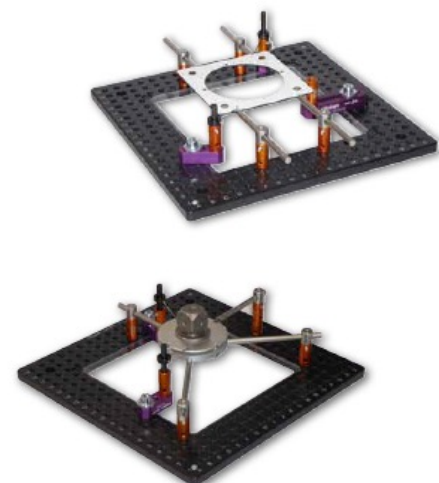
**Part No.: K551233**

Part No.	Qty.	Part name
<b>Base Components</b>		
K551215	1	Base plate eco-fix/opti-fix for transmitted light measurement 250 mm x 250 mm
<b>Build-up Components</b>		
<b>Columns</b>		
K551024	2	Location pin $\varnothing$ 12 mm x 13 mm
K551025	2	Location pin $\varnothing$ 12 mm x 25 mm
K551026	2	Location pin $\varnothing$ 12 mm x 50 mm
K551041	1	Adjustable location pin $\varnothing$ 12 mm
K551042	6	Location pin $\varnothing$ 12 mm with bore 6 mm
<b>Brackets</b>		
K551035	2	Receiver bracket small
K551036	1	Receiver bracket large
<b>Positioning Components</b>		
K550302	2	Receiver pin stepped L = 80 mm
K550303	2	Receiver pin stepped L = 100 mm
K550971	1	Prismatic receiver / locator
K550972	1	Prismatic eccentric receiver
K550970	1	Eccentric receiver
K550889	1	Straight pin 6 x 30 mm
K550890	2	Straight pin $\varnothing$ 6 mm x 40mm
<b>Clamping Components</b>		
K550980	2	Spring clip large 30°
K550990	1	Rectangular receiver pin L = 50 mm
K550323	2	Rectangular receiver pin L = 25 mm
<b>Adapters</b>		
K551189	4	Adapter eco/opti-fix $\varnothing$ 6 mm
<b>Screws and Washers</b>		
K550563	3	Cylinder head screw M6 x 25 mm
K550591	3	Washer $\varnothing$ 6.4 mm x $\varnothing$ 17 mm
<b>Tools</b>		
K551050	1	Allen key 2 mm
K551053	1	Allen key 5 mm
K551054	1	Double open-ended spanner 10-17
<b>Total qty.</b>	<b>45</b>	

Fast loading kit, consisting of 45 parts, with location pins for free set-up on the base plate. By means of adapters that can be mounted on the eco-fix location pins, opti-fix positioning and clamping components can be incorporated in the fixture. The glass centered base plate allows for transmitted light measurement.

Frame	Application
<b>Square base plate with glass insert 250 x 250 mm</b>	Clamping of e.g., flat parts above the glass
	Clamping parts of complex geometry

For positioning on the stage glass of an optical CMM or similar. please prepare a repositioning angle from opti-fix parts.



# Kit opti-set 202 302



Part No.: K551340

Part No.	Qty.	Part name
<b>Base Components frame</b>		
K550834	1	Clamping profile rail 310 mm with groove
K550835	2	Clamping profile rail 240 mm with groove
K550838	2	Clamping profile rail 100 mm with groove
K550842	2	Connector with connector grooves
<b>Build-up Components</b>		
K550853	4	Clamping fixture with M4 thread
<b>Positioning Components</b>		
K550165	2	Toothed fixture flat, L=40 mm
K550845	3	Toothed fixture, 40x10x10 mm
<b>Clamping Components</b>		
K550986	1	Tailstock with spring-loaded centre
K550879	1	Tailstock with centre
K550994	1	Centering Unit Opti-fix
K550980	2	Spring clip with bent tip, A=30° L=33 mm
K550981	2	Spring clip with bent tip, A=15° L=37 mm
K550891	4	Straight pin 6 mm, M4 L=10 mm
K551334	1	opti-vise M4 clamping range 0-14 mm
<b>Tools</b>		
K551020	1	Allen key 1.5 mm
<b>Total</b>	<b>29</b>	

Kit consisting of 29 parts, with part for building a profile angle with a second, freely positionable rail in X direction. Clamp rotationally symmetrical parts using the tailstock or clamp items directly on the glass of the machine. The toothed rails allow measurements with transmitted light.

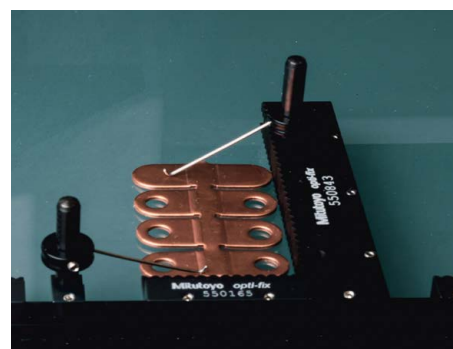
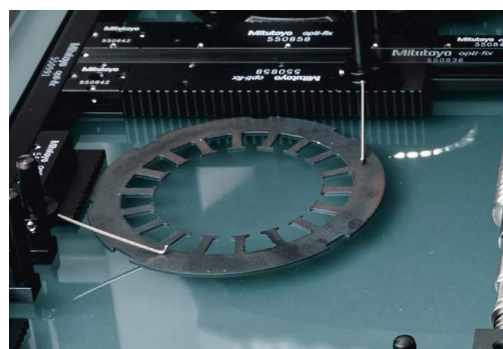
The opti-fix vise is included for further clamping options.

Concepted to suit the 202 and 302 model frames of Mitutoyo optical CMM.

Frame	Application
e.g., C- shaped frame with two intermediate cross-links 310 x 240 mm	Clamping of parts on the machine glass
	Clamping of rotationally symetric parts

For the correct magnet holders to fix the kit to the machine frame, please check the table on page 140.

Required parts	Type	Page
Attachment parts depending on the machine frame	Magnetic frame clamps	140





# Kit opti-set 404



Part No.: K551341

Part No.	Qty.	Part name
<b>Base Components</b>		
K550210	1	Clamping profile rail, L=400 mm
K550991	1	Clamping profile rail 400 mm with groove
K550836	2	Clamping profile rail 250 mm with groove
K550842	4	Connector with connector grooves
<b>Build-up Components</b>		
K550853	6	Clamping fixture with M4 thread
K550890	2	Straight pin stopper $\varnothing$ 6 mm L = 40 mm
<b>Positioning Components</b>		
K550165	4	Toothed fixture flat, L=40 mm
K550858	2	Toothed fixture, 100x20x10 mm
K550843	2	Toothed fixture, 100x20x10 mm
K550845	4	Toothed fixture, 40x10x10 mm
<b>Clamping Components</b>		
K550980	3	Spring clip with bent tip, A=30° L=33 mm
K550981	3	Spring clip with bent tip, A=15° L=37 mm
K550891	6	Straight pin 6 mm, M4 L=10 mm
K550986	1	Tailstock with spring-loaded centre
K550879	1	Tailstock with centre
K550994	1	Centering Unit Opti-fix
K551339	1	Prism 120° with spring clip and integrated holder K551338
K551334	1	opti-vise M4 clamping range 0-14 mm
K551010	1	Precision vice for in/outside clamping
<b>Tools</b>		
K551020	1	Allen key 1,5 mm
K551021	1	Allen key 2 mm
<b>Total</b>	<b>49</b>	

Kit consisting of 49 parts, with part for building a profile angle with a second, freely positionable rail in X direction. Clamp rotationally symmetrical parts using the tailstock or clamp items directly on the glass of the machine. The toothed rails allow measurements with transmitted light.

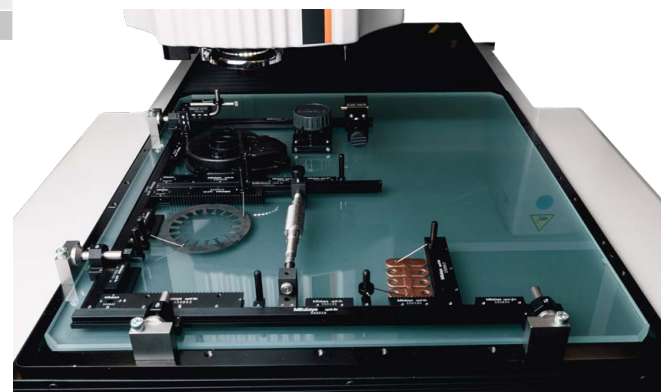
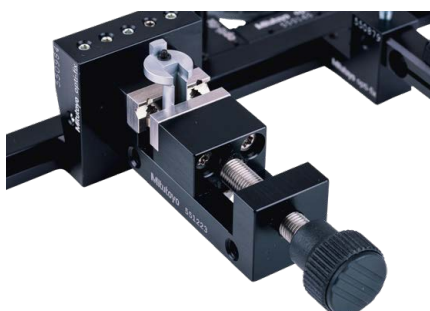
The opti-fix vise is included for further clamping options.

Concepted to suit the 404 model frames of Mitutoyo optical CMM.

Frame	Application
<b>e.g., L-shaped frame with two intermediate cross-links 400 x 400 mm</b>	Clamping of parts on the machine glass
	Clamping of rotationally symmetric parts
	Clamping with vises

For the correct magnet holders to fix the kit to the machine frame, please check the table on page 140.

Required parts	Type	Page
Attachment parts depending on the machine frame	Magnetic frame clamps	140



# Base components

## Base plates, profiles and other base components

BASE PLATES AND PROFILES	APPLICATION	PRODUCT LINES																								
<p><b>Part No.: K551215</b>  <b>Base plate eco- and opti-fix for contour illumination</b>                      250 mm x 250 mm                      Made of hard-anodised aluminium, with connecting thread M6, grid distance 12.5 mm, contour illumination glass.</p> 		<p>opti-fix</p>																								
<p><b>Clamping profile rail</b>                      With front connector groove for construction of basic frames                      Further lengths available on demand.</p> <table border="1" data-bbox="151 1198 518 1422"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr><td>K550838</td><td>100</td><td>45</td></tr> <tr><td>K550859</td><td>200</td><td>85</td></tr> <tr><td>K550835</td><td>240</td><td>105</td></tr> <tr><td>K550836</td><td>250</td><td>110</td></tr> <tr><td>K551208</td><td>310</td><td>125</td></tr> <tr><td>K550991</td><td>400</td><td>190</td></tr> <tr><td>K550920</td><td>500</td><td>230</td></tr> </tbody> </table> 	Part No.:	L mm	weight g	K550838	100	45	K550859	200	85	K550835	240	105	K550836	250	110	K551208	310	125	K550991	400	190	K550920	500	230		<p>opti-fix</p>
Part No.:	L mm	weight g																								
K550838	100	45																								
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K550836	250	110																								
K551208	310	125																								
K550991	400	190																								
K550920	500	230																								
<p><b>Clamping profile rail</b>                      Solid front, for construction of basic frames                      Further lengths available on demand.</p> <table border="1" data-bbox="151 1736 518 1937"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> <th>weight g</th> </tr> </thead> <tbody> <tr><td>K550861</td><td>100</td><td>45</td></tr> <tr><td>K550857</td><td>200</td><td>110</td></tr> <tr><td>K550854</td><td>250</td><td>165</td></tr> <tr><td>K550834</td><td>310</td><td>125</td></tr> <tr><td>K550210</td><td>400</td><td>205</td></tr> <tr><td>K550992</td><td>500</td><td>220</td></tr> </tbody> </table> 	Part No.:	L mm	weight g	K550861	100	45	K550857	200	110	K550854	250	165	K550834	310	125	K550210	400	205	K550992	500	220		<p>opti-fix</p>			
Part No.:	L mm	weight g																								
K550861	100	45																								
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K550992	500	220																								

opti-fix

CONNECTORS, OPTI-ROUND AND VACUUM FRAME-CLAMP	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550842</b>  <b>Connector with connector grooves</b>                      20 mm x 20 mm                      For rectangular connection of profile rails, respectively for reinforcement of profile connections.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550841</b>  <b>Connector with dovetail connector</b>                      20 mm x 20 mm                      E.g., for front connection to profile rails with connector groove.</p> 		<p>opti-fix</p>
<p><b>opti-round</b>  <b>Part No.: K550983</b>  <b>Basic circular clamping profile opti-round</b>                      As base for receiving elements of "opti-round" type.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550975</b>  <b>Vacuum plate</b>                      60 mm x 60 mm                      For easy mounting of profiles or of the circular clamping profile directly on the glass plate of the measuring device.                      Recommended minimum quantity 2pcs.</p> 		<p>opti-fix</p>

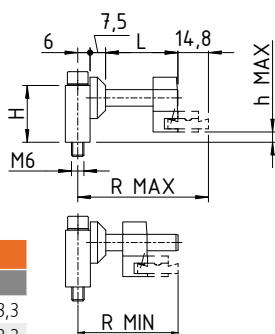
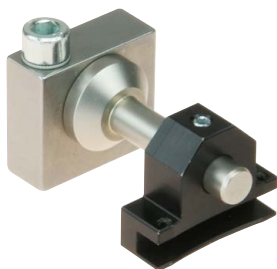
# Base components

## Base plates, profiles and other base components

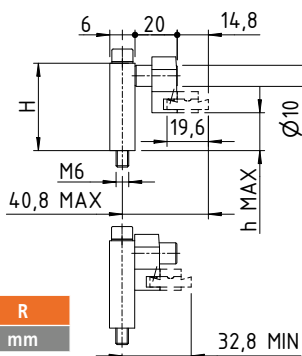
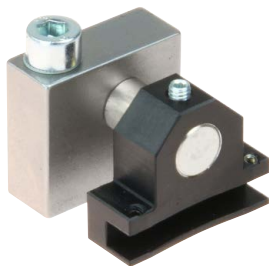
### MAGNETIC FRAME-CLAMPS

#### Magnetic holder Mag

For quick and easy mounting of opti-fix systems by magnets.  
Easy removing or mounting of complete opti-fix fixtures.  
Adjustable to the table dimension of the measuring devices.



Part No.:	L	H	h	R
	mm	mm	mm	mm
K550989	35	27,5	5	48,5 - 63,3
K551296	35	41,5	18	48,5 - 63,3
K551063	25	27,5	5	40,3 - 53,3
K551297	25	41,5	18	40,3 - 53,3



Part No.:	L	H	h	R
	mm	mm	mm	mm
K551316	20	27,5	5	32,8 40,8
K550325	20	41,5	18	32,8 40,8

Application of magnet clamps according to model.

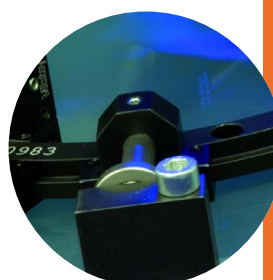
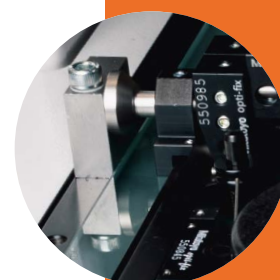
Model	XY stage	Part No.:	qty.	Part No.:	qty.
		X		Y	
QV-A 202	250x200mm	K551316	2	K551063	2
QV 302	300x200mm	K550989	2	K551063	2
MVS-302	300x200mm	K550989	2	K551063	2
QV WLI 302	300x200mm	K551296	2	K551297	2
QV-A 404	400x400mm	K551063	2	K551316	2
QV 404	400x400mm	K550989	2	K550989	2
MVS-404	400x400mm	K550989	2	K550989	2
QV WLI 404	400x400mm	K551296	2	K551296	2
Ultra QV 404	400x400mm	K551296	2	K551296	2
QV 606	600x650mm	K551296	2	K551296	2
QV WLI 606	600x650mm	K551296	2	K551297	2

The quantity is based on a safe and stable connection of the profile from 200mm of length.

### APPLICATION

### PRODUCT LINES

opti-fix

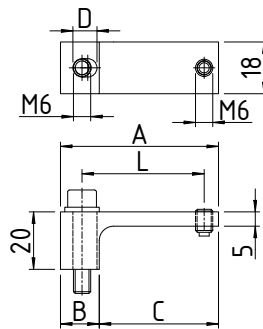


opti-fix

FRAME CLAMPING-BRACKETS

**Fastening brackets**

For mounting of basic profiles or frames on measuring devices.



Delivered with M6 screw

In case of application in t-groove, use K551352

Part No.:	Clamping range		Total length		Base length	Free length	Long hole	Long hole
	L min.	L max.	A	B				
K550886	20,5	22,5	35,0	13,5	21,5	5,0	21,5	5,0
K550860	23,5	26,5	39,0	13,5	25,5	5,0	25,5	5,0
K550185	33,5	35,5	48,0	13,5	34,5	5,0	34,5	5,0
K550881	37,0	39,0	52,0	14,0	38,0	5,0	38,0	5,0
K550882	40,5	42,5	55,0	14,0	41,0	5,0	41,0	5,0
K550884	44,5	49,5	60,0	14,5	45,5	8,0	45,5	8,0
K550883	62,5	67,5	78,0	42,0	36,0	8,0	36,0	8,0
K550885	82,5	87,5	98,0	62,0	36,0	8,0	36,0	8,0

APPLICATION

PRODUCT LINES

opti-fix




Application of fastening brackets according to model.

Model	XY stage	Part No.:	qty.	Part No.:	qty.	Part No.:	qty.
		Bracket X		Bracket Y		T-groove nut	
PV-5110	200x100mm	K550886	2	K550886	1		
PJ-Plus PJ-A 3000	100x100mm			K550185	3	K550963	3
PJ-A 3000	150x50mm	K550886	2	K550886	1	K550963	2
PJ-Plus	200x100mm	K550881	2	K550860	1		
PJ-A 3000	200x100mm	K550886	2	K550886	1		
PJ H30A	100x100mm			K550886	3	K550963	3
PJ H30A	200x100mm	K550886	2	K550886	1		
PJ H30A	200x170mm	K550884	2	K550185	1		
PJ H30A	300x170mm	K550884	2	K550185	1		
QS-L2010	200x100mm	K550881	2	K550860	1		
QS-L3017	300x170mm	K550884	2	K550185	1		
QS-L4020	400x200mm	K550881	2	K550185	1		
QI-AB1010	100x100mm	K550860	2	K550860	1		
QI-AB2010	200x100mm	K550881	2	K550860	1		
QI-AB2017	200x170mm	K550881	2	K550860	1		
QI-AB3017	300x170mm	K550884	2	K550185	1		
QI-AB4020	400x200mm	K550881	2	K550185	1		
QI-C2010D	200x100mm	K550881	2	K550860	1		
QI-C2017D	200x170mm	K550884	2	K550185	1		
QI-C3017D	300x170mm	K550884	2	K550185	1		

# Build-up components

## Build-up Components for the attachments of receiver pins and threaded pins

CLAMPING BLOCKS FOR STRAIGHT FRAME PROFILES	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550985</b>  <b>Clamping block small</b>  <b>Straight frame</b>                      15 mm x 15 mm x 45 mm                      For receiving of the system components such as e.g. receiver pin or eccentric receiver.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550984</b>  <b>Clamping block large</b>  <b>Straight frame</b>                      45 mm x 15 mm x 45 mm                      For receiving of the system components such as e.g. receiver pin or eccentric receiver.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550213</b>  <b>Clamping block small rotatable</b>  <b>Straight frame</b>                      15 mm x 15 mm x 45 mm                      For receiving of the system components such as e.g. receiver pin or eccentric receiver                      Base rotatable for e.g., diagonal positioning.</p> 		<p>opti-fix</p>
<p><b>Part No.: K551338</b>  <b>Clamping block for prism 120° K551018</b>                      15 mm x 20 mm x 25 mm                      For attachment to base frame.</p> 		<p>opti-fix</p>

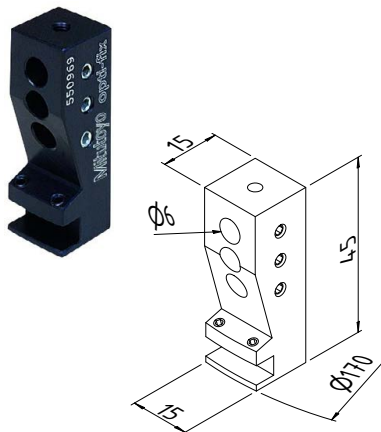
opti-fix

CLAMPING BLOCKS FOR OPTI-ROUND

APPLICATION

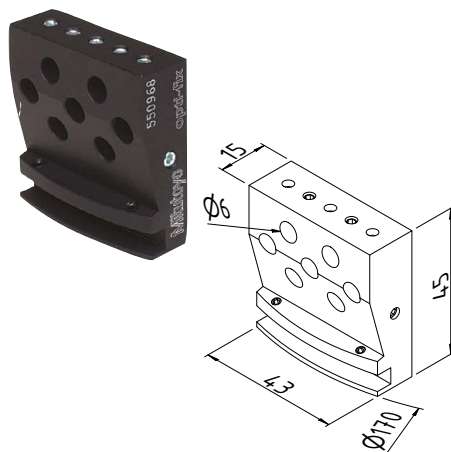
PRODUCT LINES

**Part No.: K550969**  
**Clamping block small**  
**opti-round**  
 15 mm x 15 mm x 45 mm  
 For receiving of the system components such as e.g. receiver pin or eccentric receiver.

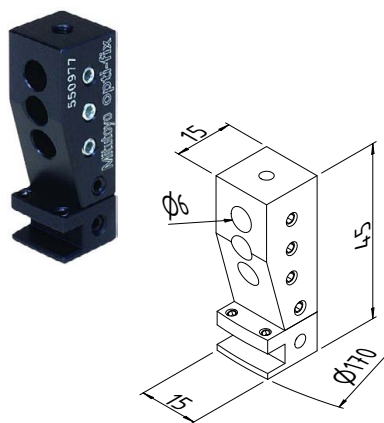


opti-fix

**Part No.: K550968**  
**Clamping block large**  
**opti-round**  
 45 mm x 15 mm x 45 mm  
 For receiving of the system components such as e.g. receiver pin or eccentric receiver.



**Part No.: K550977**  
**Clamping block small rotatable**  
**opti-round**  
 15 mm x 15 mm x 45 mm  
 For receiving of the system components such as e.g. receiver pin or eccentric receiver. Base rotatable for e.g., diagonal positioning.



# Build-up components

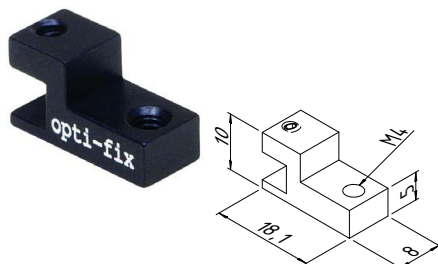
## Build-up Components for the attachments of receiver pins and threaded pins

### BUILD-UP COMPONENTS FOR THE ATTACHMENTS OF RECEIVER PINS AND THREADED PINS

Part No.: K550853

**Clamping fixture with M4 thread**

18 mm x 8 mm x 10 mm  
For receiving of e.g., spring clip or location pin. Can be also used as locating element.

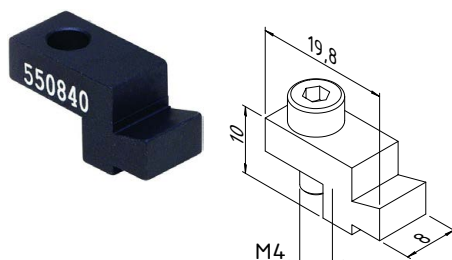


APPLICATION  
PRODUCT LINES  
opti-fix

Part No.: K550840

**Knuckle joint with dovetail**

18 mm x 8 mm x 10 mm  
In connection with clamping fixture K550853 for the construction of any angle.

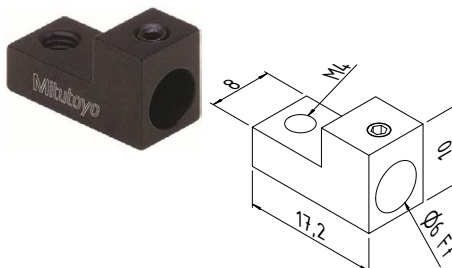


APPLICATION  
PRODUCT LINES  
opti-fix

Part No.: K550839

**Telescope fixture slider**

17 mm x 8 mm x 10 mm  
In connection with end piece K550852 and straight pin  $\varnothing$  6 mm for positioning of e.g., spring clip or location pin.

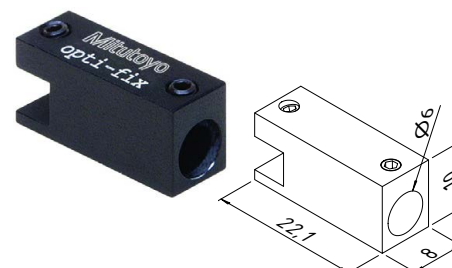


APPLICATION  
PRODUCT LINES  
opti-fix

Part No.: K550852

**Telescope fixture end piece**

22 mm x 8 mm x 10 mm  
In connection with slider K550839 and straight pin  $\varnothing$  6 mm for positioning of e.g., spring clip or location pin.



APPLICATION  
PRODUCT LINES  
opti-fix

**Straight pin  $\varnothing$  6 mm**

As connecting element for telescope fixture.

Part No.:	L mm
K550887	10
K550888	20
K550889	30
K550890	40



APPLICATION  
PRODUCT LINES  
opti-fix



opti-fix

BUILD-UP COMPONENTS FOR THE ATTACHMENTS OF RECEIVER PINS AND THREADED PINS	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551183</b>  <b>Holder 90°</b>                      22 mm x 15 mm x 15 mm                      e.g., for attaching a spring clip directly to a workpiece support.</p> 		<p>opti-fix</p>
<p><b>Part No.: K551083</b>  <b>Clamping knuckle</b>                      For creating of free angles, e.g., with the spring loaded clamping rod K551012.</p> 		<p>opti-fix</p>
<p><b>Part No.: K551016</b>  <b>Holder for spring clip 1x M4</b>                      25 mm x 20 mm x 10 mm                      Receiving block for receiving of e.g., spring clip or other elements with M4 thread.</p> 		<p>opti-fix M4 connectivity</p>
<p><b>Part No.: K550850</b>  <b>Holder for spring clip 3x M4</b>                      42 mm x 22 mm x 10 mm                      Receiving block for receiving of e.g., spring clip or other elements with M4 thread.</p> 		<p>opti-fix M4 connectivity</p>
<p><b>Part No.: K551333</b>  <b>Articulated stand</b>                      Directly mount M4 components or use mounting bracket K551044 to mount M6 eco-fix components.</p> 		<p>opti-fix</p>

# Positioning components

## Toothed fixtures, pins and other positioning components

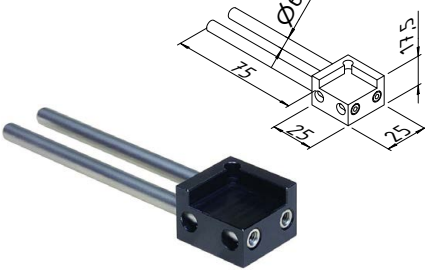

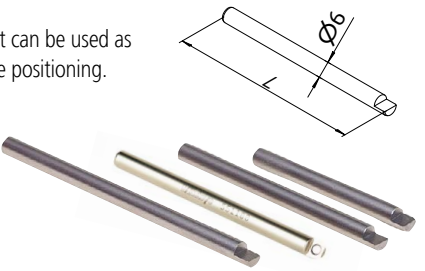
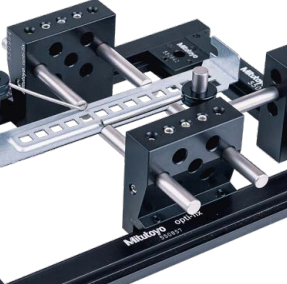
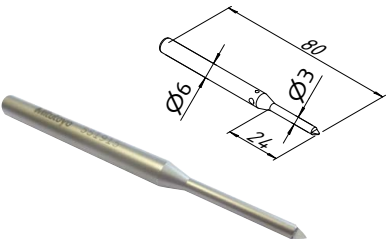

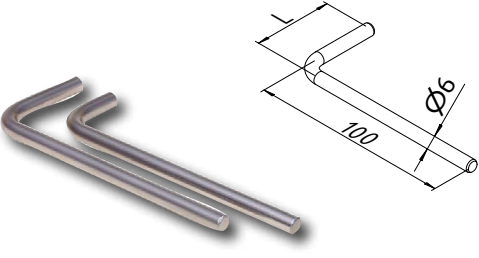

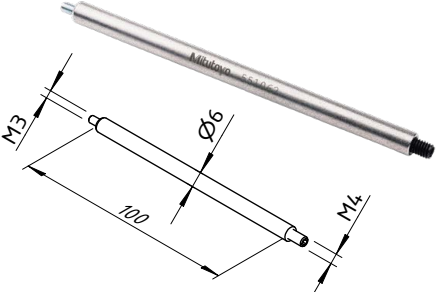

TOOTHED FIXTURES	APPLICATION	PRODUCT LINES						
<p><b>Part No.: K550843</b>  <b>Toothed fixture</b>                      With longitudinal connector grooves and connector grooves at both ends as well as with M4 receiving thread for e.g., spring clips.</p> 		<p>opti-fix</p> <p>M4 connectivity</p>						
<p><b>Part No.: K550858</b>  <b>Toothed fixture</b>                      With longitudinal connector groove, as well as with M4 receiving thread for e.g., spring clips.</p> 		<p>opti-fix</p> <p>M4 connectivity</p>						
<p><b>Part No.: K550845</b>  <b>Toothed fixture 40</b>                      40 mm x 10 mm x 10 mm                      As direct workpiece locating element.</p> 		<p>opti-fix</p>						
<p><b>Toothed fixture flat</b>                      As direct workpiece locating element.</p> <table border="1" data-bbox="153 1592 368 1675"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> </tr> </thead> <tbody> <tr> <td>K550165</td> <td>40</td> </tr> <tr> <td>K550324</td> <td>100</td> </tr> </tbody> </table> 	Part No.:	L mm	K550165	40	K550324	100		<p>opti-fix</p>
Part No.:	L mm							
K550165	40							
K550324	100							
<p><b>Part No.: K551013</b>  <b>Toothed fixture flat with fine teeth</b>                      40 mm x 20 mm x 10 mm                      As direct workpiece locating element.</p> 		<p>opti-fix</p>						

opti-fix

RECEIVER PINS	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550847</b>  <b>Swivel receiver with straight pin</b>                      Receiving <math>\varnothing</math> 6 mm /                      Locating <math>\varnothing</math> 3 mm                      As workpiece locating element for direct positioning.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550851</b>  <b>Swivel receiver with knife edge</b>                      Receiving <math>\varnothing</math> 6 mm                      As workpiece locating element for direct positioning.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550970</b>  <b>Eccentric receiver</b>                      L = 100 mm  <math>\varnothing</math> = 25 mm                      As height-adjustable workpiece receiving element for mounting in the clamping blocks.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550972</b>  <b>Prismatic eccentric Receiver</b>                      L = 100 mm                      Prism = 120°                      As height-adjustable workpiece receiving element for mounting in the clamping blocks.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550971</b>  <b>Prismatic receiver/ Locator</b>                      L = 100 mm                      25 mm x 25 mm                      As workpiece receiving element for mounting in the clamping blocks.</p> 		<p>opti-fix</p>

# Positioning components

## Toothed fixtures, pins and other positioning components

RECEIVER PINS	APPLICATION	PRODUCT LINES															
<p><b>Part No.: K550304</b></p> <p><b>Receiver plane</b>                      L = 100 mm/                      25 mm x 25 mm                      In connection with the clamping blocks, it can be used as direct workpiece locating element for free positioning.</p> 		<p>opti-fix</p>															
<p><b>Receiver pin stepped</b>                      In connection with the clamping blocks, it can be used as direct workpiece locating element for free positioning.</p> <table border="1" data-bbox="156 972 466 1106"> <thead> <tr> <th>Part No.:</th> <th></th> <th>L mm</th> </tr> </thead> <tbody> <tr> <td>K550301</td> <td></td> <td>60</td> </tr> <tr> <td>K550302</td> <td></td> <td>80</td> </tr> <tr> <td>K551188</td> <td>magnet tip</td> <td>80</td> </tr> <tr> <td>K550303</td> <td></td> <td>100</td> </tr> </tbody> </table> 	Part No.:		L mm	K550301		60	K550302		80	K551188	magnet tip	80	K550303		100		<p>opti-fix</p>
Part No.:		L mm															
K550301		60															
K550302		80															
K551188	magnet tip	80															
K550303		100															
<p><b>Part No.: K551915</b></p> <p><b>Receiver pin stepped small</b>                      D 1 = 6 mm / D2 = 3 mm                      L = 80 mm / L1 = 25 mm                      In connection with the clamping blocks, it can be used as direct workpiece locating element for free positioning of very small workpieces.</p> 		<p>opti-fix</p>															
<p><b>Rectangular receiver pin</b>                      As receiving element,                      also for spring clips.</p> <table border="1" data-bbox="156 1599 370 1684"> <thead> <tr> <th>Part No.:</th> <th>L mm</th> </tr> </thead> <tbody> <tr> <td>K550990</td> <td>50</td> </tr> <tr> <td>K550323</td> <td>25</td> </tr> </tbody> </table> 	Part No.:	L mm	K550990	50	K550323	25		<p>opti-fix</p>									
Part No.:	L mm																
K550990	50																
K550323	25																
<p><b>Part No.: K551062</b></p> <p><b>Shaft 6 mm x 100 mm</b>                      In connection with the clamping blocks, it can be used as direct workpiece locating element for free positioning of very small workpieces.</p> 		<p>opti-fix</p>															

# Clamping components

## Spring clamps, vices, etc.

### SPRING CLAMPS, SPRING CLAMP PINS, PRISMS

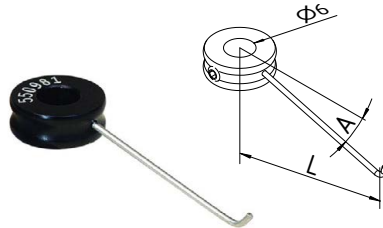
### APPLICATION

### PRODUCT LINES

#### Spring clip with bent tip

For clamping of workpieces.

Part No.:	A	L mm
K550978	30°	19
K550979	15°	20
K550980	30°	33
K550981	15°	37

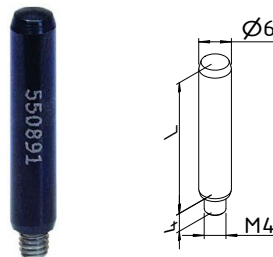


opti-fix

#### M4 Straight pin Ø 6 mm

With M4 thread, as receiving element for spring clips.

Part No.:	L mm
K550891	30
K551017	12



opti-fix

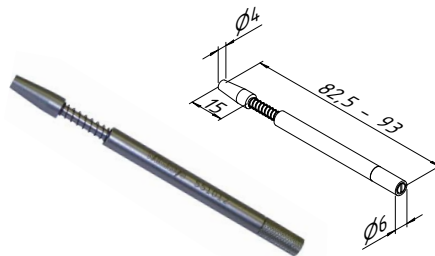
M4 connectivity

#### Part No.: K551012

#### Spring-loaded clamping rod

Ø 6 mm x 93 mm

For pressing specimens against e.g., locating element.



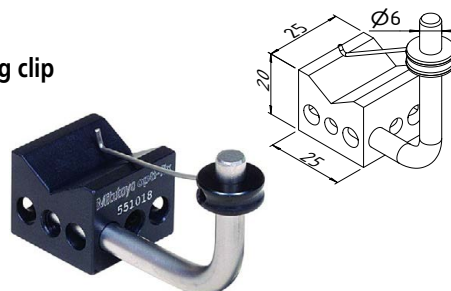
opti-fix

#### Part No.: K551018

#### Prism 120° compl. with spring clip

20 mm x 25 mm

For attachment to e.g., articulated arms or clamping blocks, for receiving of specimens ranging from Ø 2 mm to Ø 25 mm.



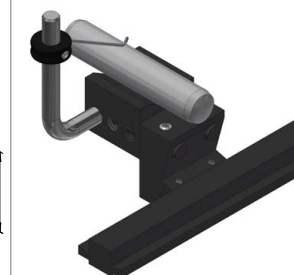
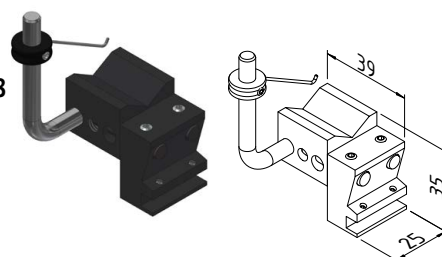
opti-fix

#### Part No.: K551339

#### Prism 120° compl. with spring clip and holder K551338

20 mm x 25 mm

For attachment to e.g., articulated arms or clamping blocks, for receiving of specimens ranging from Ø 2 mm to Ø 25 mm.



# Clamping components

## Spring clamps, vices, etc.

### CHUCK, VISES AND OTHER COMPONENTS

### APPLICATION

### PRODUCT LINES

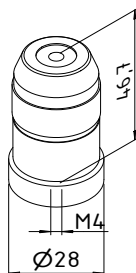
**Part No.: K551014**

**Precision quick chuck**

Clamp. range: 0 - 4 mm  
 Total length: 47 mm  
 With M4 receiving thread,  
 for mounting of e.g., adaptor  
 K551016 or other elements with  
 M4 connecting thread.



Extension of the clamping range can be realized by exchange of the guiding columns



opti-fix

Application configuration:  
 K551014 Chuck  
 K551011 Ratchet spanner  
 K550422-10 Pin connector  
 6mm

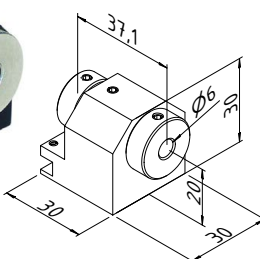
**Part No.: K551011**

**Ratchet spanner**

Tip height: 15 mm  
 Circular positioning  
 For receiving of e.g., clamping  
 tweezers, miniature precision  
 chucks and all clamping elements  
 with receiving diameter 6 mm.



Ratchet grid: 24 x 15°

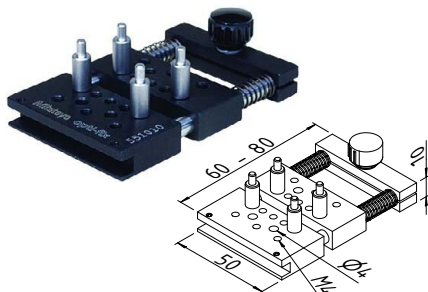


opti-fix

**Part No.: K551010**

**Precision vice for inside and outside clamping**

One flat and one prismatic jaw.  
 Clamping range 0 - 15 mm.



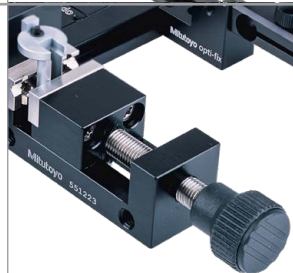
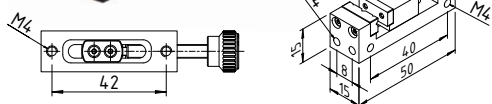
opti-fix

**Part No.: K551334**

Weight 80  
**eco-opti-vice M4**  
 One flat and one prismatic jaw.  
 Clamping range 0-14 mm.



Further vices on page 105



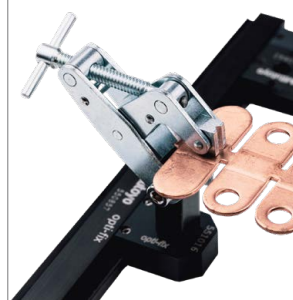
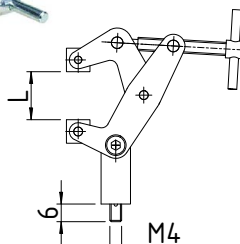
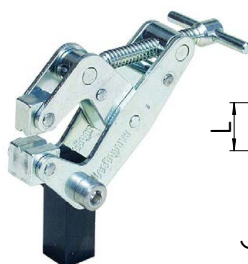
opti-fix  
 eco-fix

Connect with  
 M4 straight pin  
 K550891  
 K551017

**Part No.: K550707**

**Clamping unit small**

Clamp. range: 0 mm - 25 mm  
 With M4 connecting thread,  
 for mounting to e.g., articulated  
 arm or M4 adaptor (551016)



opti-fix

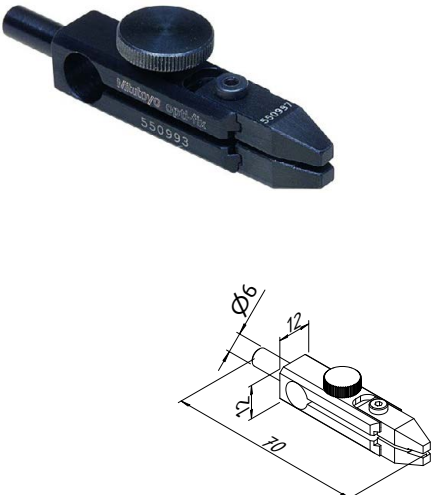
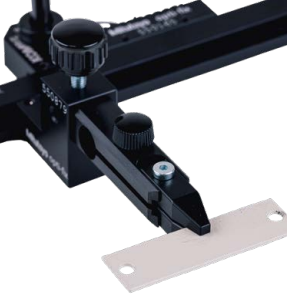
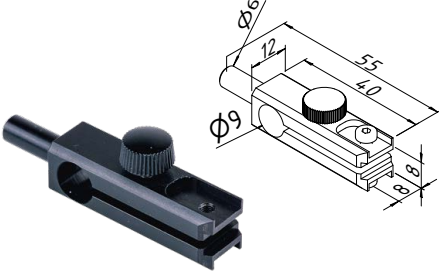

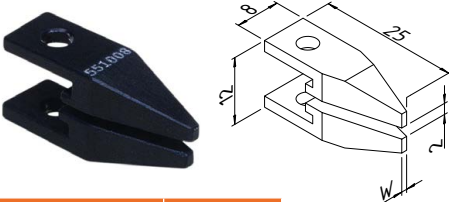

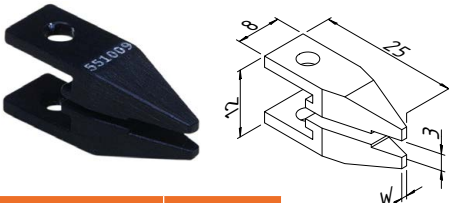

M4 connectivity

opti-fix

TAILSTOCKS AND ACCESSORIES	APPLICATION	PRODUCT LINES
<p><b>Part No.: K550879</b>  <b>Tailstock with centre</b>                      Tip height: 20 mm                      Adjust. range: 16 mm                      For receiving of specimens between the tips.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550333</b>  <b>Tailstock centre stepped for tailstock (K550879)</b>                      Tip: <math>\varnothing 6</math> mm                      The step at the tip makes length scanning easier, especially in case of the transmitted light method.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550986</b>  <b>Tailstock with spring-loaded centre</b>                      Tip height: 20 mm                      Stroke: 8 mm                      In combination with part No. 550879 for easy and quick receiving of the specimens between the tips.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550334</b>  <b>Tailstock centre stepped for tailstock with spring-loaded centre (K550986)</b>                      Tip: <math>\varnothing 10</math> mm                      The step at the tip makes length scanning easier, especially in case of the transmitted light method.</p> 		<p>opti-fix</p>
<p><b>Part No.: K550994</b>  <b>Centering unit</b>                      For centering of parts without centre hole.</p> 		<p>opti-fix</p>

# Clamping components

## Spring clamps, vices, etc.

CLAMPING TWEEZERS	APPLICATION	PRODUCT LINES												
<p><b>Part No.: K551019</b>  <b>Clamping tweezers set consisting of:</b>  <b>Base K550993</b>  <b>Tweezer tips K550997</b>                      Clamp. range: 0,5 mm - 1,5 mm                      Clamp. width: 3 mm</p> <p>For clamping of small and smallest specimens, receiving of the clamping tweezers in e.g., rotatable and swivel receiver, tailstock, clamping blocks or articulated arm. The use of different exchangeable tips allows extension of the clamping ranges at a reasonable price.</p> 		<p>opti-fix</p>												
<p><b>Part No.: K550993</b>  <b>Base for exchangeable tweezer tips</b>                      The exchangeable tips allow the extension of the clamping ranges at a reasonable price.</p> 		<p>opti-fix</p>												
<p><b>Pair of exchangeable tips for clamping tweezers</b>                      For clamping of small and smallest rotationally symmetrical specimens.                      • flat clamping surface</p>  <table border="1" data-bbox="151 1668 742 1747"> <thead> <tr> <th>Part No.:</th> <th>Clamping range</th> <th>Clamping width W</th> <th>Weight g</th> </tr> </thead> <tbody> <tr> <td>K551008</td> <td>0 mm - 2 mm</td> <td>1 mm</td> <td>5</td> </tr> <tr> <td>K550997</td> <td>0,5 mm - 1,5 mm</td> <td>3 mm</td> <td>5</td> </tr> </tbody> </table>	Part No.:	Clamping range	Clamping width W	Weight g	K551008	0 mm - 2 mm	1 mm	5	K550997	0,5 mm - 1,5 mm	3 mm	5		<p>opti-fix</p>
Part No.:	Clamping range	Clamping width W	Weight g											
K551008	0 mm - 2 mm	1 mm	5											
K550997	0,5 mm - 1,5 mm	3 mm	5											
<p><b>Pair of exchangeable tips for clamping tweezers</b>                      For clamping of small and smallest rotationally symmetrical specimens.                      • offset clamping surface</p>  <table border="1" data-bbox="151 1982 742 2060"> <thead> <tr> <th>Part No.:</th> <th>Clamping range</th> <th>Clamping width W</th> <th>Weight g</th> </tr> </thead> <tbody> <tr> <td>K551009</td> <td>1 mm - 3 mm</td> <td>1 mm</td> <td>5</td> </tr> <tr> <td>K551007</td> <td>1 mm - 3 mm</td> <td>3 mm</td> <td>5</td> </tr> </tbody> </table>	Part No.:	Clamping range	Clamping width W	Weight g	K551009	1 mm - 3 mm	1 mm	5	K551007	1 mm - 3 mm	3 mm	5		<p>opti-fix</p>
Part No.:	Clamping range	Clamping width W	Weight g											
K551009	1 mm - 3 mm	1 mm	5											
K551007	1 mm - 3 mm	3 mm	5											

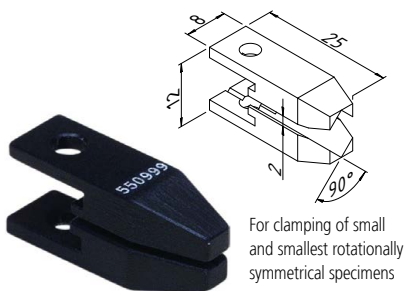


opti-fix

EXCHANGABLE TWEEZER TIPS

Pair of exchangeable prismatic tips for clamping tweezers

Part No.:	Clamping range	Weight g
K550999	∅ 0,5 mm - ∅ 2 mm	5
K551003	∅ 2 mm - ∅ 3 mm	5
K551004	∅ 3 mm - ∅ 4 mm	5
K551005	∅ 4 mm - ∅ 5 mm	5
K551006	∅ 5 mm - ∅ 6 mm	5



For clamping of small and smallest rotationally symmetrical specimens

APPLICATION

PRODUCT LINES

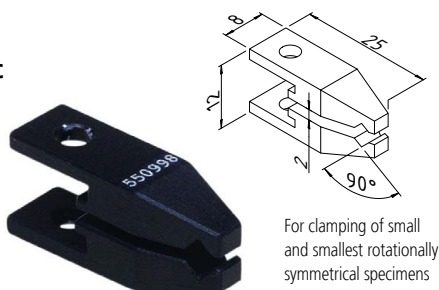
opti-fix



Part No.: K550998

Pair of exchangeable prismatic tips for clamping tweezers

Clamping range: ∅ 4 mm - ∅ 5 mm  
90° clamping angle.

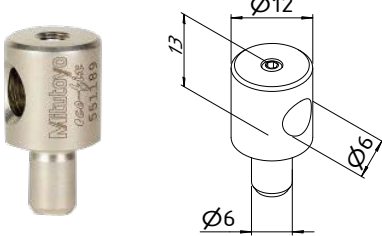
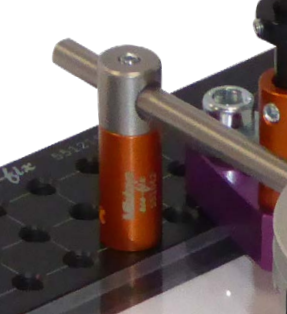
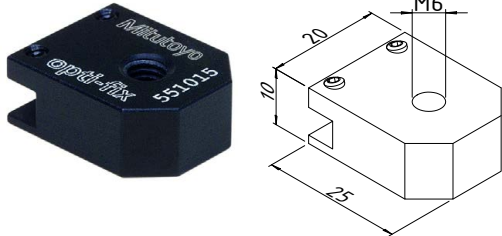

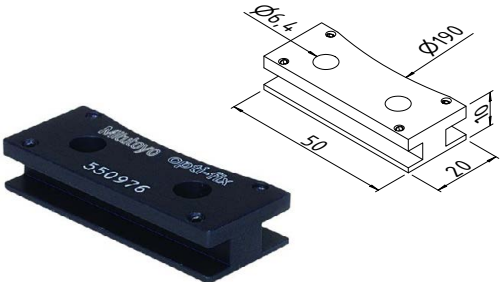

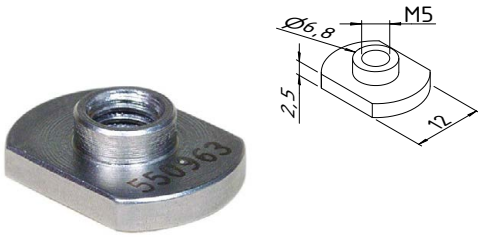
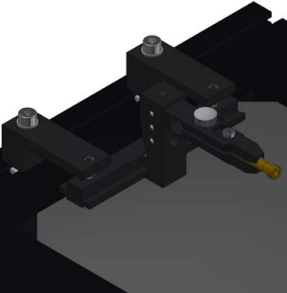


For clamping of small and smallest rotationally symmetrical specimens

opti-fix



# Adapters, tools, and accessories

ADAPTERS AND ACCESSORIES	APPLICATION	PRODUCT LINES
<p><b>Part No.: K551189</b>  <b>Adaption eco-fix to opti-fix</b>  <b>Ø 6 mm</b>                      For connecting the eco-fix components to opti-fix Components.                      Connects to ø12,0 mm Type-B location pins with 6,0 mm bore.</p> 		<p>opti-fix</p>
<p><b>Part No.: K551015</b>  <b>Adaptor plate M6</b>                      25 mm x 20 mm x 10 mm                      For receiving of all elements with M6 connecting thread, e.g., eco fix location pins.</p> 		<p>opti-fix</p> <p>M6 connectivity</p>
<p><b>Part No.: K550976</b>  <b>Adapter plate</b>                      50 mm x 20 mm x 10 mm                      As adapter between the straight profile rails and the basic circular clamping profile "opti-round".</p> 		<p>opti-fix</p>
<p><b>Part No.: K550963</b>  <b>T-slot nut M5</b>                      12 mm x 2,5 mm                      For mounting of opti-fix systems to e.g., projectors or microscopes.</p> 		<p>opti-fix</p>

Use with K551352 M5x25

opti-fix

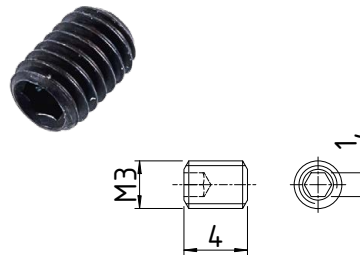
SCREWS AND TOOLS

PRODUCT LINES

**Threaded bolt M3 opti-fix**

Replacement screws for the connection of profiles and build-up components.

Part No.:	Thread	Thread	Length
K905142	Headless screw 10pcs.	M3	4 mm

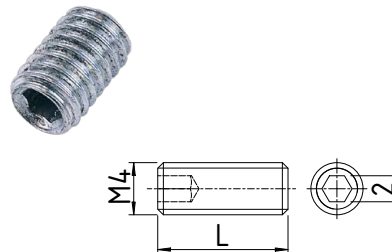


opti-fix

**Threaded bolt M4 opti-fix**

Replacement for clamping block screws.

Part No.:	Thread	Thread	Length
K908809	Headless screw 10pcs.	M4	4 mm
K901805	Headless screw 10pcs.	M4	10 mm

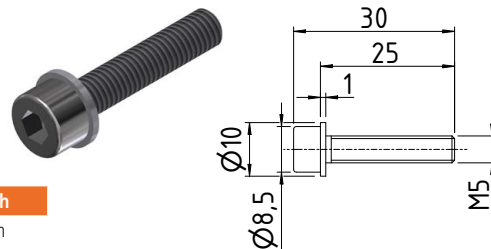


opti-fix

**Cylinder head screw M5 opti-fix**

For fixing the brackets to the T-slot nut M5 K550963.

Part No.:	Type	Thread	Length
K551352	Cylinder head screw	M5	25 mm



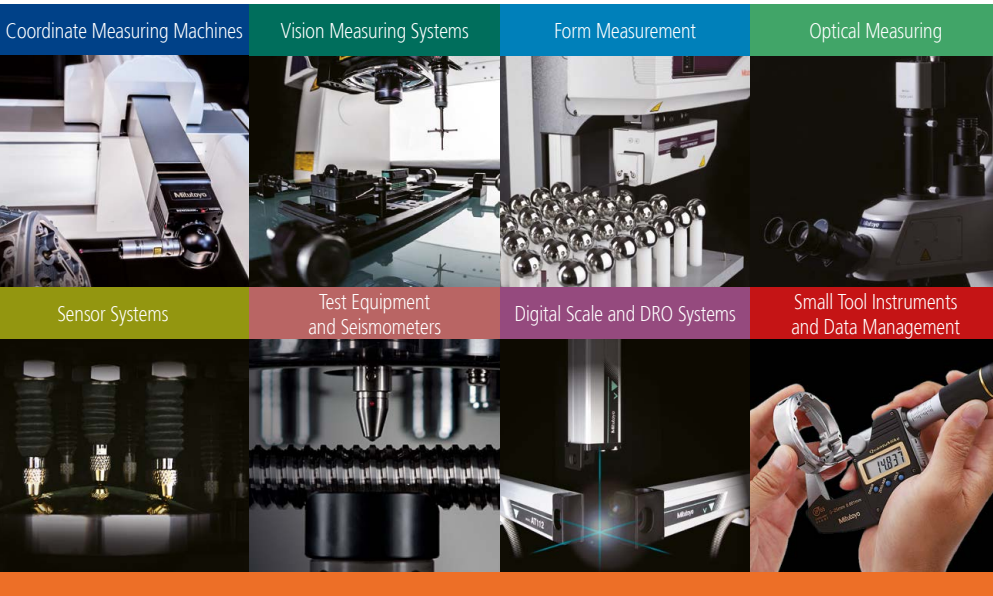
opti-fix

**Allen keys for opti-fix**

Part No.:	Type	Size
K551020	Allen key with handle	1,5 mm
K551021	Allen key with handle	2 mm



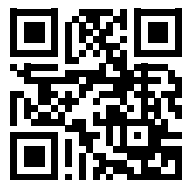
opti-fix



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**Mitutoyo**

**Mitutoyo Europe GmbH**  
 Borsigstraße 8-10  
 41469 Neuss  
 Tel. +49 (0) 2137-102-0  
[info@mitutoyo.eu](mailto:info@mitutoyo.eu)  
[www.mitutoyo.eu](http://www.mitutoyo.eu)