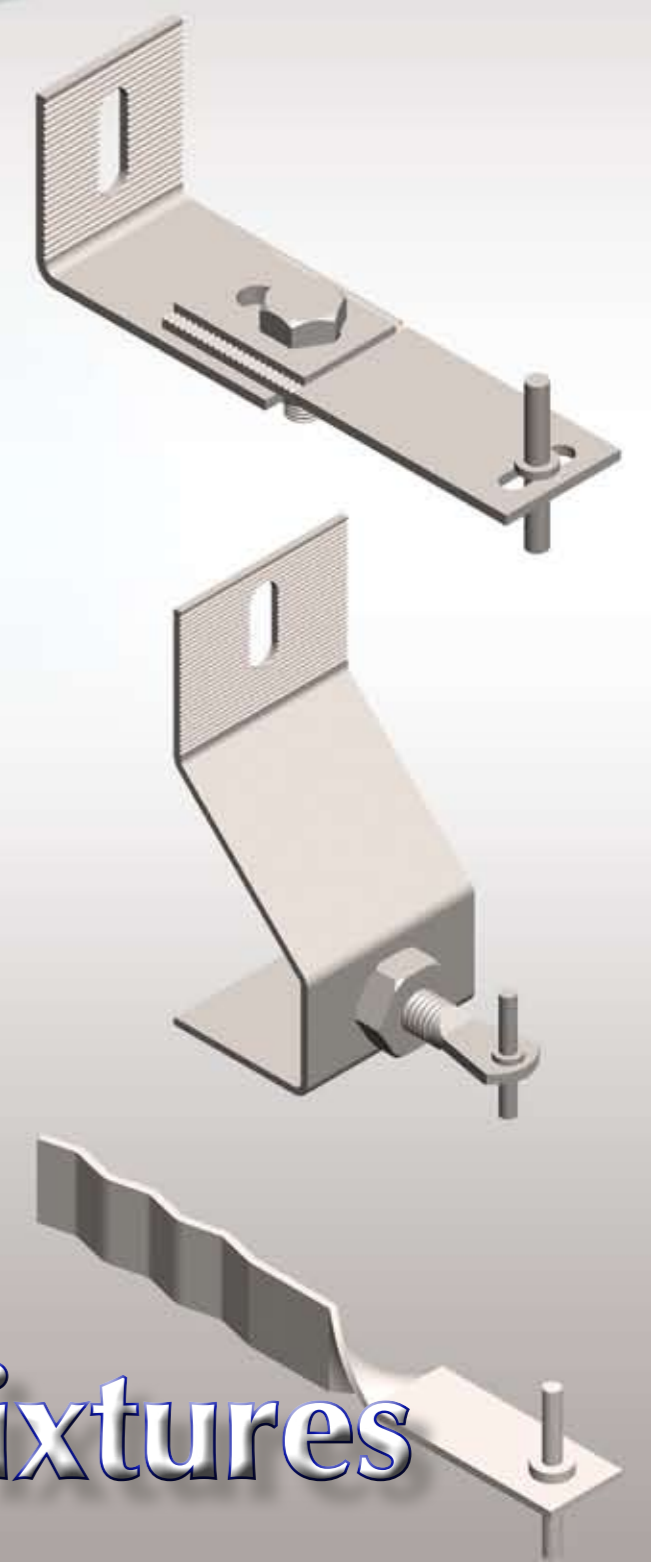
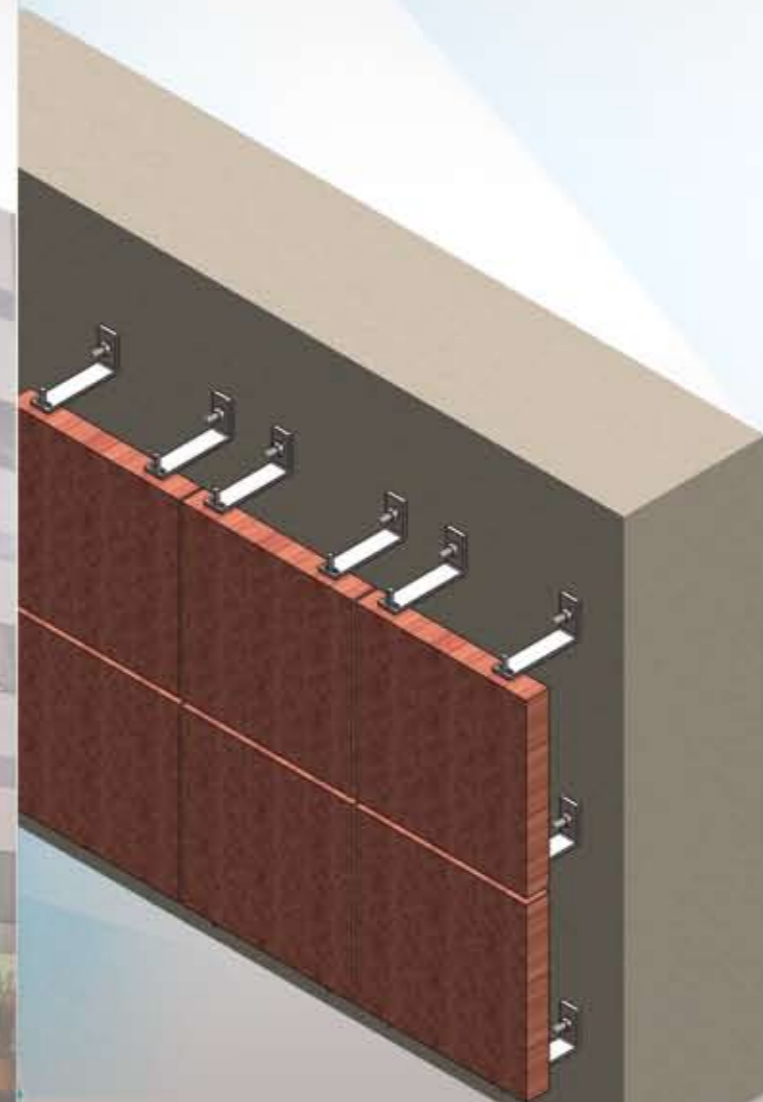




# TMI



## Stone Fixtures



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## Introduction

TMI has been in the business of manufacturing a wide range of steel building accessories and is considered the preferred choice for construction products since 1997. We have proved the high quality and value of our products in the construction market and invested in the continuous development of innovative new items, to provide the right solutions for the construction problems, in accordance with the application of our products.



TMI presents this catalogue "STONE FIXTURES" to its customers as a guide for selection of products and the fixing methodology. This catalogue covers the mechanical fixing systems for stones, the recent innovation in the construction market. These systems have been chosen for its flexibility and time saving during installation.

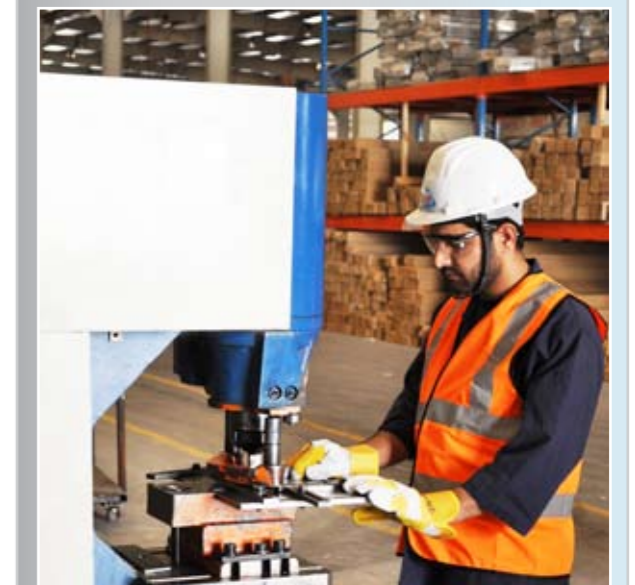
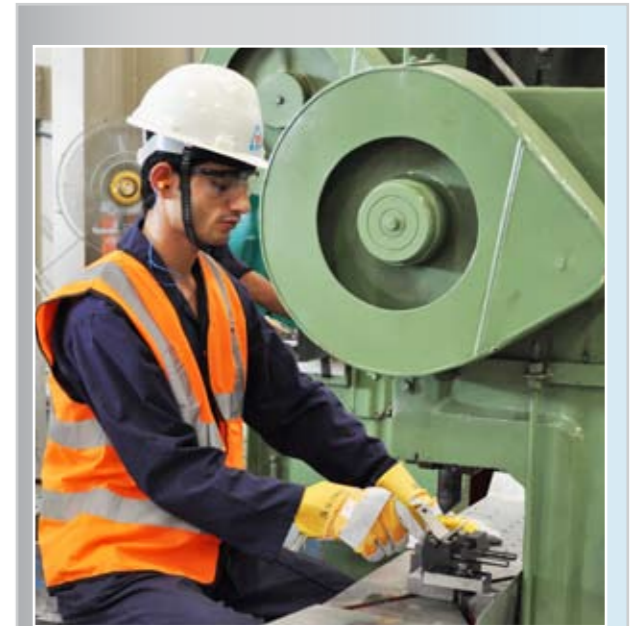
Stone fixing systems have always been a key factor in building construction, even when not visible. Functionality, strength factor, aesthetics, life span, among other factors of the total systems will depend directly on the choice of the fixing systems.

The most recommended material that increases the life span of fixing systems is stainless steel that has properties such as strength, corrosion resistance and no chemical reaction for contact with other material, even in harsh environmental conditions.

TMI is well equipped for manufacturing a wide range of the fixings that suite most applications and meet any engineering challenge.

A dedicated team is available to provide a quick quotation for our standard items upon request, of which we maintain a sufficient stock for prompt deliveries.

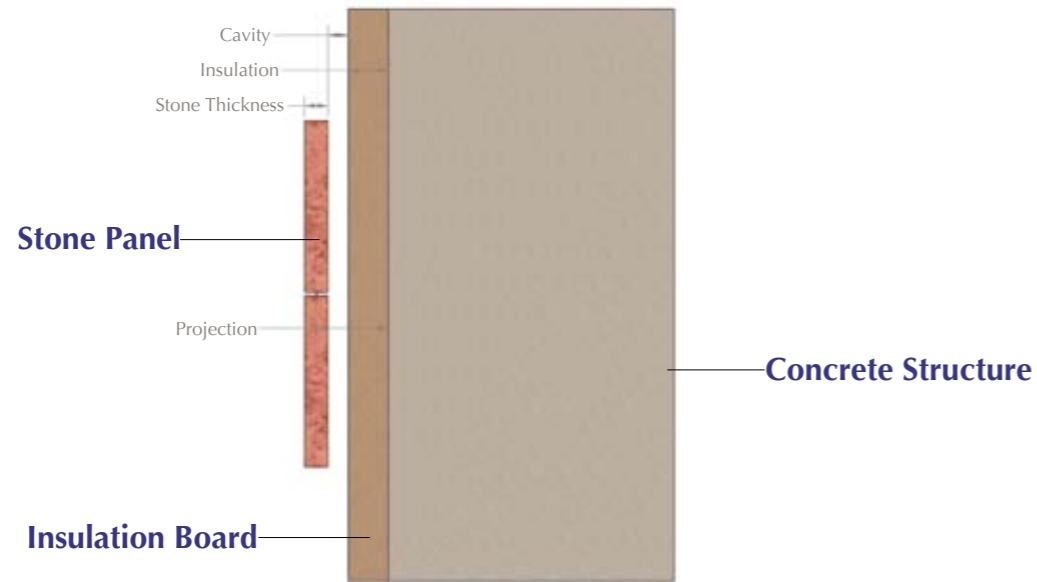
For any custom design items, a submittal of the design specifications is required before proceeding with quotations, manufacturing and deliveries.



## About Stone Fixing System

The Stone Fixing System consists mainly of anchors, expansion bolts, dowels and washers, among other items. Each item has a specific feature in order to bring out the functional requirement of the system.

### Structure



### Fixing

All stone panels are usually held at 4 points and installed from left to right and from the bottom to the top of the buildings.



### Application

The system can be applied in two different orientations, depending on the position of the joints.

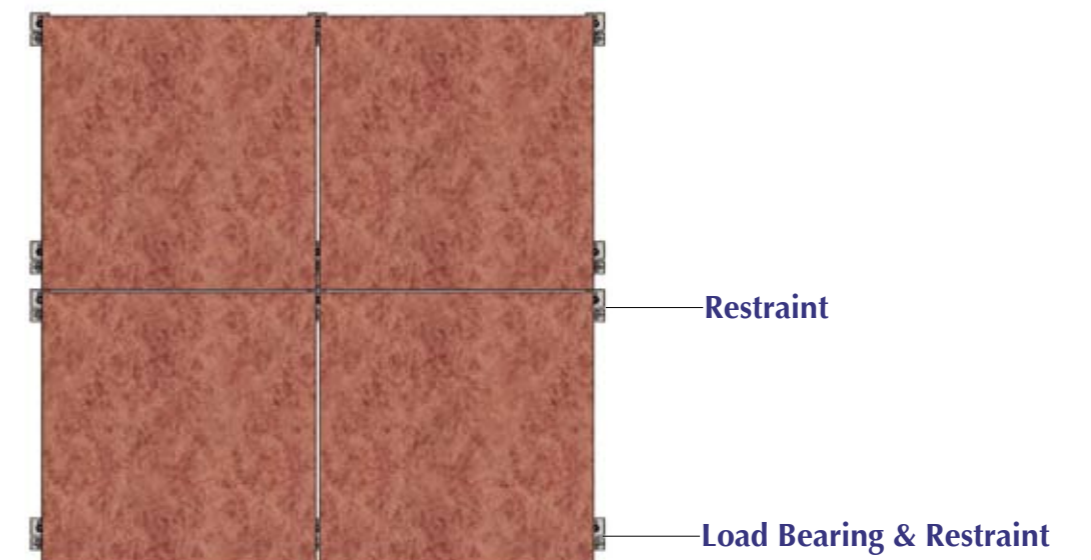
#### Horizontal Joints

When using the Horizontal Joints orientation, the bottom anchor bears the weight of the stone panel, acting as a load bearing and restraint, while the upper anchor holding the stone in place and acting as a restraint against wind force.



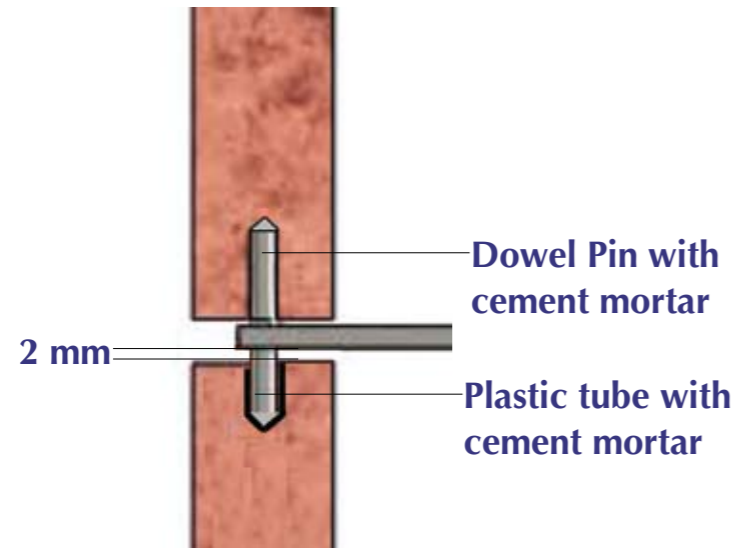
#### Vertical Joints

When using the Vertical Joints orientation, all anchors bear the weight of the stone panel. The right side takes half the weight while the other side takes the other half. At the same time, the bottom anchor bears more of the stone panel's weight, acting as a load bearing and restraint, while the upper anchor holds the stone in place and acts as a restraint against wind force.



### Dowel Pins with Plastic Tube

Dowel Pins are inserted in the drilled holes of the stone panel. It is recommended to drill 3 mm more than the diameter of the dowel pins. A plastic tube is inserted in the bottom stone panel to absorb the wind force.



### Material Specifications

TMI recommends the following material and its specifications for the Stone Fixing Systems.

<b>Anchors</b>	<b>: S304 &amp; S316 In Accordance to BS EN 10088 -2 :2005 ASTM A 240 / A 240 M</b>
<b>Serrated &amp; Plain Square Washers</b>	<b>: S304 &amp; S316 In Accordance to BS EN 10088 -2 :2005 ASTM A 240 / A 240 M</b>
<b>Extension Arm</b>	<b>: Stainless Steel</b>
<b>Dowel</b>	<b>: Stainless Steel</b>
<b>Anchor Bolt</b>	<b>: Stainless Steel</b>
<b>Hexagonal Bolt &amp; Nut</b>	<b>: Stainless Steel</b>

### L-Anchor Fixing System

L-Anchor Fixing Systems are easy ways of fixing the stone panel directly to the concrete by using an anchor bolt or indirectly by using a Channel Fixing System. This system is economic and flexible.

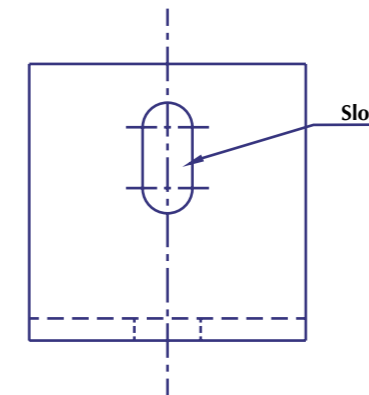
#### Key Features

- Installation for Horizontal Joints.
- Vertical/Horizontal/Lateral adjustability.
- Acts as a load bearing and restraint.
- Projection sizes from 24 mm and up to 273 mm.

#### Adjustability

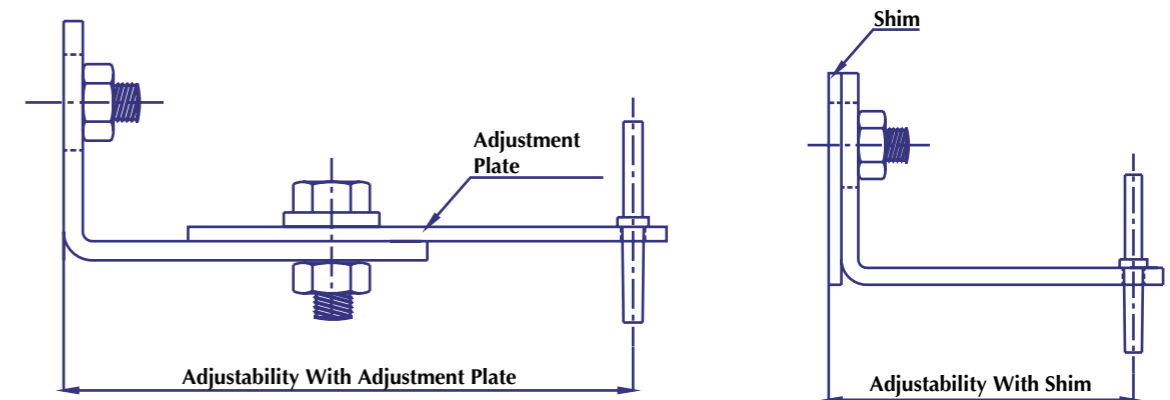
##### Vertical Adjustment

Vertical adjustment can be made by adjusting the anchor bolt which is placed through a slot that is provided in the anchor.



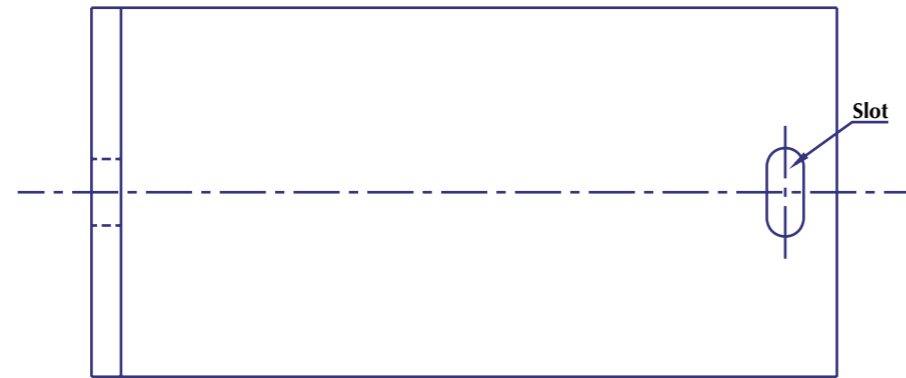
##### Horizontal Adjustment

Horizontal adjustment can be made by either providing an Adjustment Plate in the front side or a shim provided at the back side of the anchor.

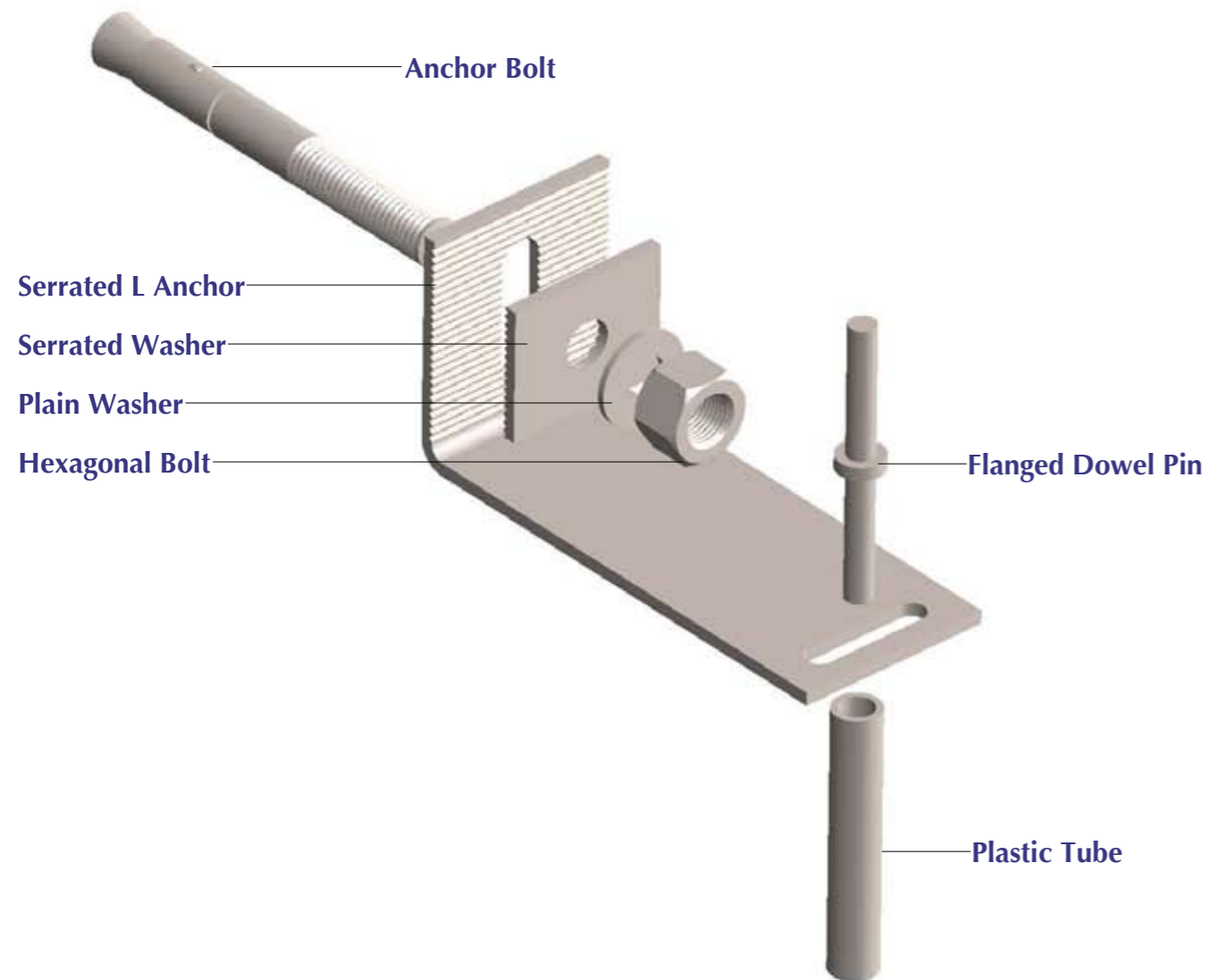


**Lateral Adjustment**

Lateral adjustment can be made by adjusting the position of the Flanged Dowel Pin in the slot provided in the anchor.

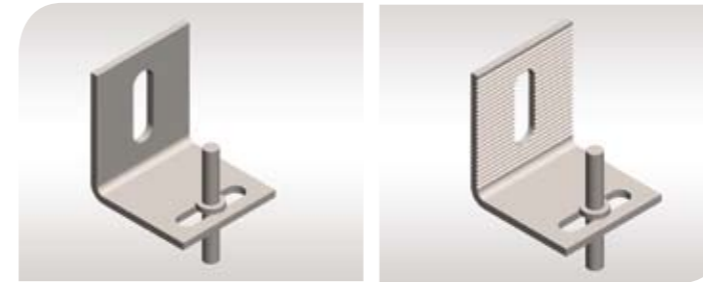


**Fixing**



**L-Anchor Fixings**

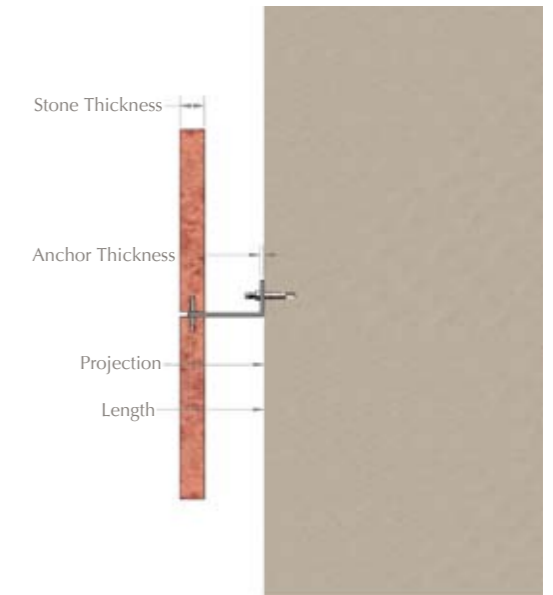
**L-Anchor Type A**



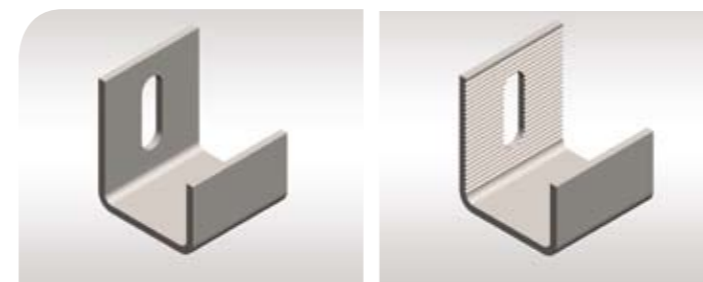
Reference	Projection mm	Length mm	Thickness mm	Dowel Size mm	Bolt Size mm
LA A242	24	30	2	4	M6/M8/M10
LA A292	29	35	2	4	M6/M8/M10
LA A392	39	45	2	4	M6/M8/M10
LA A243	24	30	3	4	M6/M8/M10
LA A293	29	35	3	4	M6/M8/M10
LA A393	39	45	3	4	M6/M8/M10
LA A284	28	35	4	5	M6/M8/M10
LA A334	33	40	4	5	M6/M8/M10
LA A434	43	50	4	5	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.



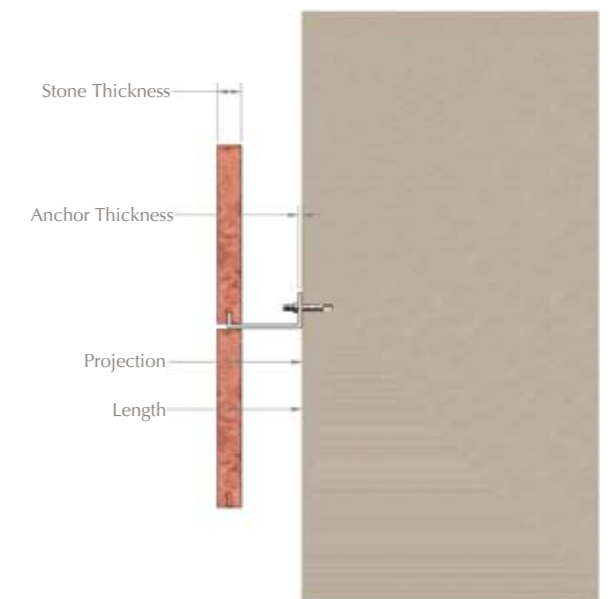
**L-Anchor Type B**



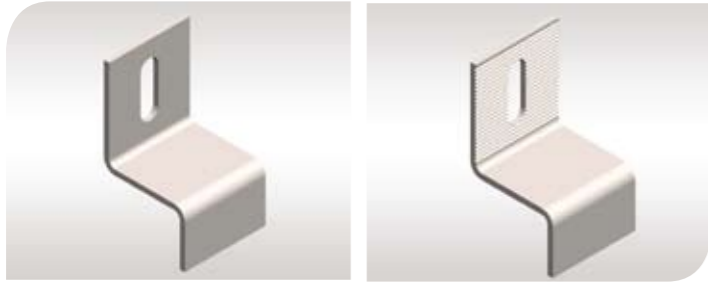
Reference	Projection mm	Length mm	Thickness mm	Bolt Size mm
LA B292	29	30	2	M6/M8/M10
LA B342	34	35	2	M6/M8/M10
LA B442	44	45	2	M6/M8/M10
LA B293	29	30	3	M6/M8/M10
LA B343	34	35	3	M6/M8/M10
LA B443	44	45	3	M6/M8/M10
LA B334	33	35	4	M6/M8/M10
LA B384	38	40	4	M6/M8/M10
LA B484	48	50	4	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.



### L-Anchor Type C

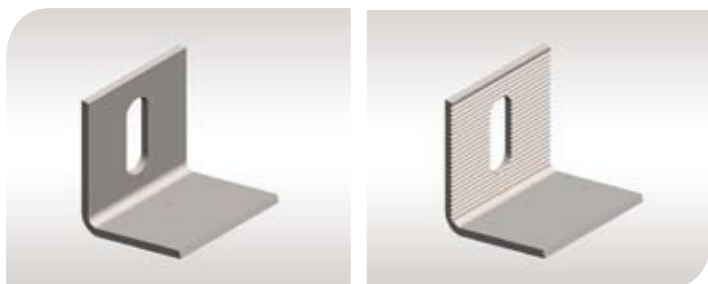


Reference	Projection mm	Length mm	Thickness mm	Bolt Size mm
LA C292	29	30	2	M6/M8/M10
LA C342	34	35	2	M6/M8/M10
LA C442	44	45	2	M6/M8/M10
LA C293	29	30	3	M6/M8/M10
LA C343	34	35	3	M6/M8/M10
LA C443	44	45	3	M6/M8/M10
LA C334	33	35	4	M6/M8/M10
LA C384	38	40	4	M6/M8/M10
LA C484	48	50	4	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### L-Anchor Type D

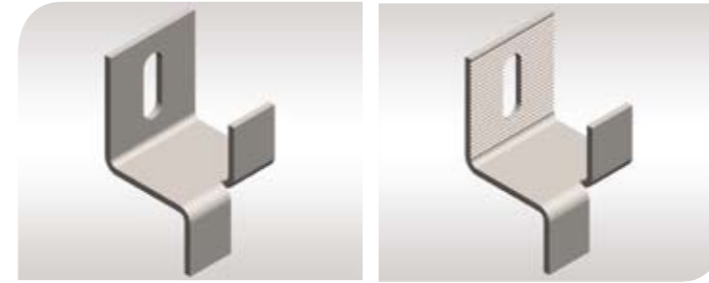


Reference	Length mm	Thickness mm	Bolt Size mm
LA D302	30	2	M6/M8/M10
LA D352	35	2	M6/M8/M10
LA D452	45	2	M6/M8/M10
LA D303	30	3	M6/M8/M10
LA D353	35	3	M6/M8/M10
LA D453	45	3	M6/M8/M10
LA D354	35	4	M6/M8/M10
LA D404	40	4	M6/M8/M10
LA D504	50	4	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### L-Anchor Type E

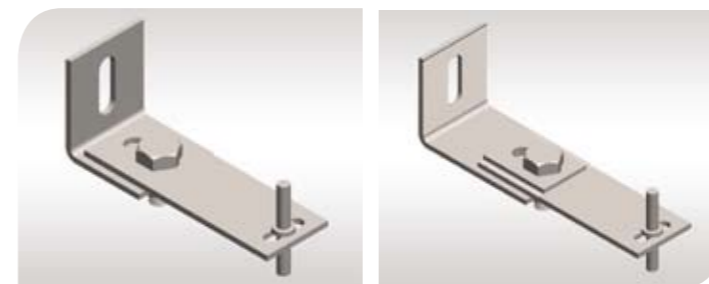


Reference	Projection mm	Length mm	Thickness mm	Bolt Size mm
LA E292	29	30	2	M6/M8/M10
LA E342	34	35	2	M6/M8/M10
LA E442	44	45	2	M6/M8/M10
LA E293	29	30	3	M6/M8/M10
LA E343	34	35	3	M6/M8/M10
LA E443	44	45	3	M6/M8/M10
LA E334	33	35	4	M6/M8/M10
LA E384	38	40	4	M6/M8/M10
LA E484	48	50	4	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

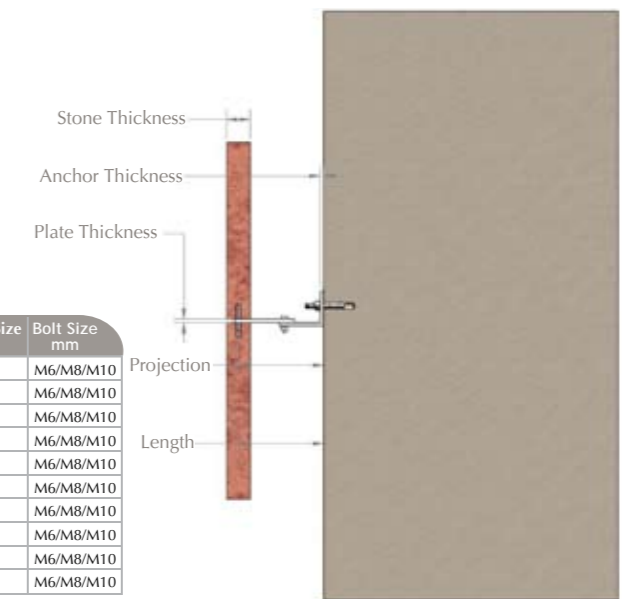
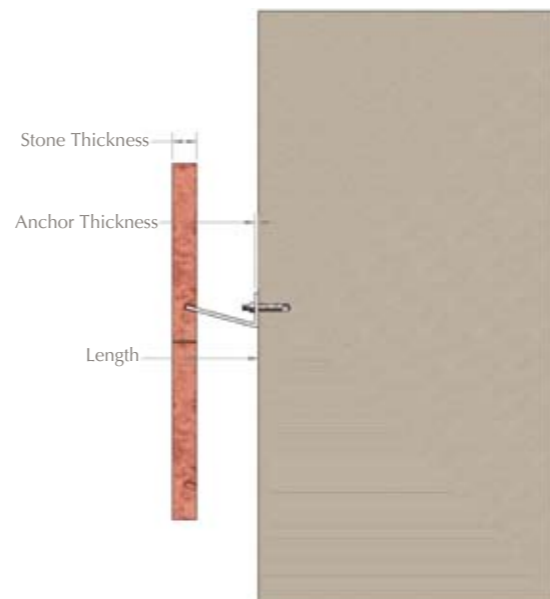
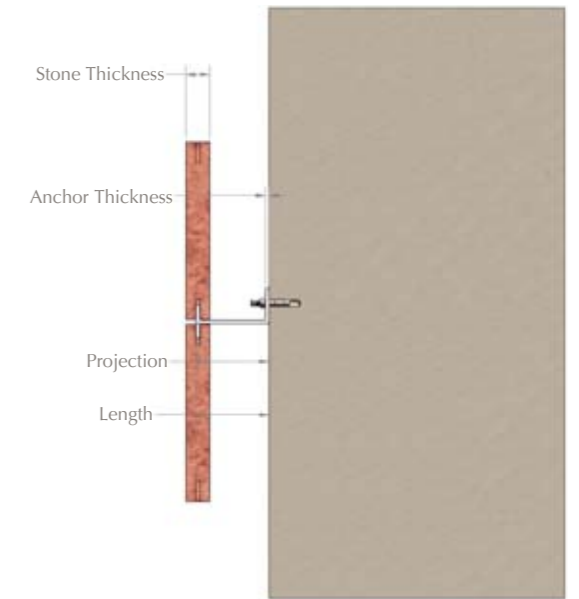
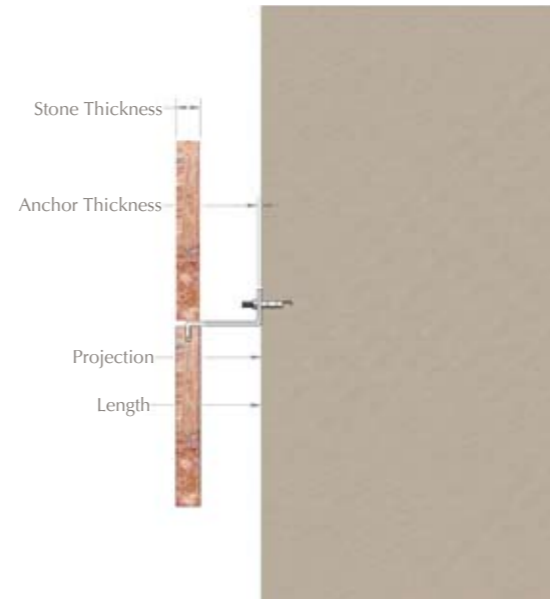
### L-Anchor Type F



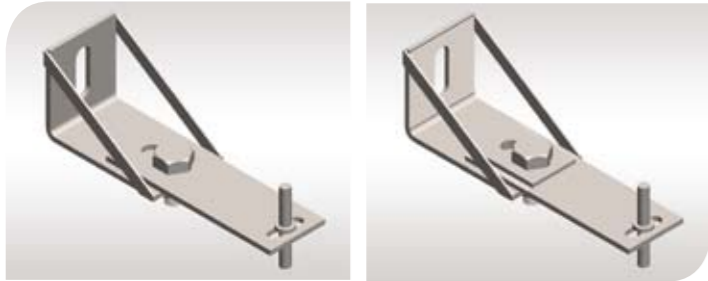
Reference	Projection mm	Length mm	Anchor Length mm	Adjustability mm	Anchor Thickness mm	Plate Thickness mm	Dowel Size mm	Bolt Size mm
LA F934	93	100	70	±15	4	3	5	M6/M8/M10
LA F1134	113	120	90	±15	4	3	5	M6/M8/M10
LA F1334	133	140	110	±15	4	3	5	M6/M8/M10
LA F1534	153	160	130	±15	4	3	5	M6/M8/M10
LA F1734	173	180	150	±15	4	3	5	M6/M8/M10
LA F935	93	100	70	±15	5	4	5	M6/M8/M10
LA F1135	113	120	90	±15	5	4	5	M6/M8/M10
LA F1335	133	140	110	±15	5	4	5	M6/M8/M10
LA F1535	153	160	130	±15	5	4	5	M6/M8/M10
LA F1735	173	180	150	±15	5	4	5	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.



### L-Anchor Type G

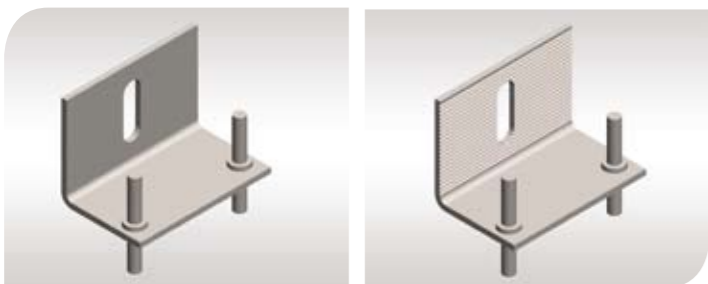


Reference	Projection mm	Length mm	Anchor Length mm	Adjustability mm	Anchor Thickness mm	Plate Thickness mm	Dowel Size mm	Bolt Size mm
LA G1934	193	200	170	±15	4	3	5	M6/M8/M10
LA G2134	213	220	190	±15	4	3	5	M6/M8/M10
LA G2334	233	240	210	±15	4	3	5	M6/M8/M10
LA G25304	253	260	230	±15	4	3	5	M6/M8/M10
LA G2734	273	280	250	±15	4	3	5	M6/M8/M10
LA G1935	193	200	170	±15	5	4	5	M6/M8/M10
LA G2135	213	220	190	±15	5	4	5	M6/M8/M10
LA G2335	233	240	210	±15	5	4	5	M6/M8/M10
LA G2535	253	260	230	±15	5	4	5	M6/M8/M10
LA G2735	273	280	250	±15	5	4	5	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

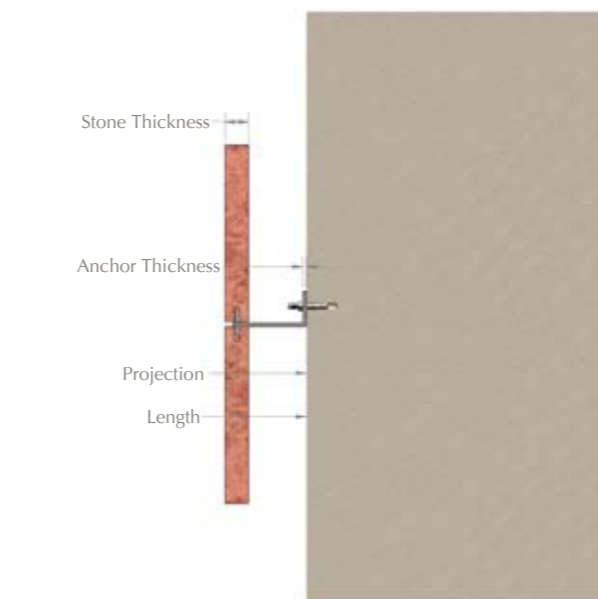
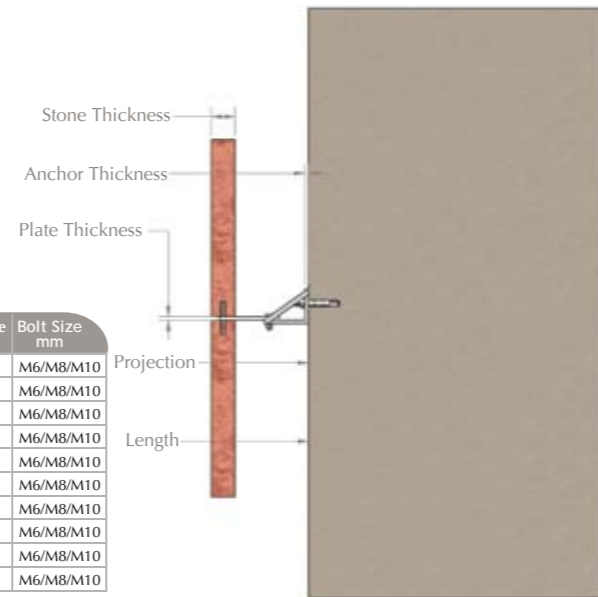
### L-Anchor Type F



Reference	Projection mm	Length mm	Thickness mm	Dowel Size mm	Bolt Size mm
LA H242	24	30	2	4	M6/M8/M10
LA H292	29	35	2	4	M6/M8/M10
LA H392	39	45	2	4	M6/M8/M10
LA H243	24	30	3	4	M6/M8/M10
LA H293	29	35	3	4	M6/M8/M10
LA H393	39	45	3	4	M6/M8/M10
LA H284	28	35	4	5	M6/M8/M10
LA H334	33	40	4	5	M6/M8/M10
LA H434	43	50	4	5	M6/M8/M10

**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.



## Z-Anchor Fixing System

Z-Anchor Fixing Systems are easy way of fixing the stone panel directly to the concrete by using an anchor bolt or indirectly by using a Channel Fixing. These systems have a three dimensional adjustability, which allows for quick and easy fixing.

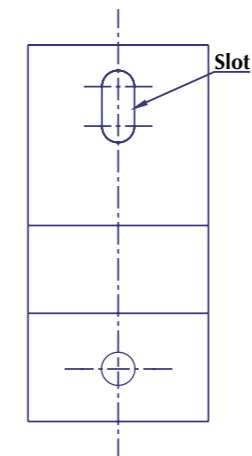
### Key Features

- Installation for both Horizontal Joints and Vertical Joints.
- Three dimensional adjustability.
- Acts as a load bearing and restraint.
- Projection sizes from 50 mm and up to 95 mm.

### Adjustability

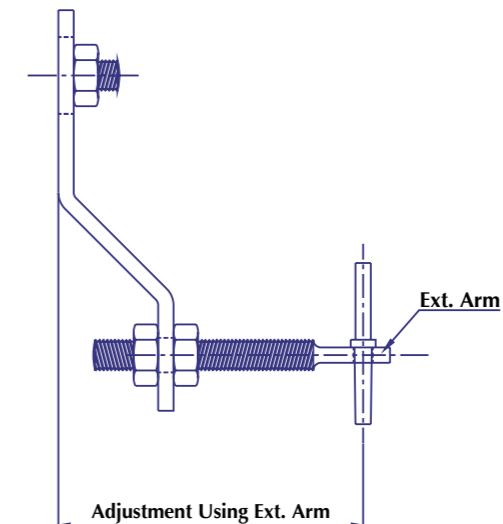
#### Vertical Adjustment

Vertical adjustment can be made by adjusting the anchor bolt which is placed through a slot provided in the anchor.



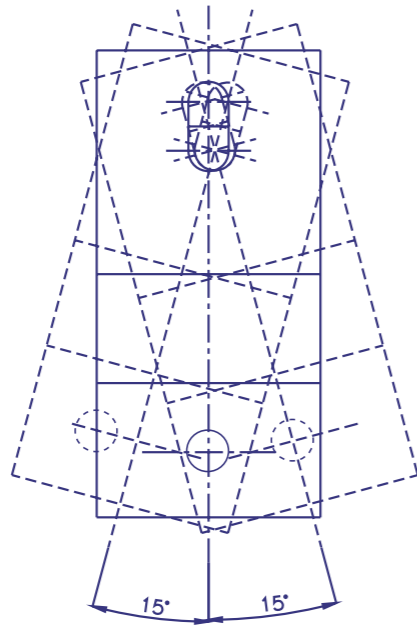
#### Horizontal Adjustment

Horizontal adjustment can be made by adjusting the extension arm which is fixed in the anchor by hexagonal nut.

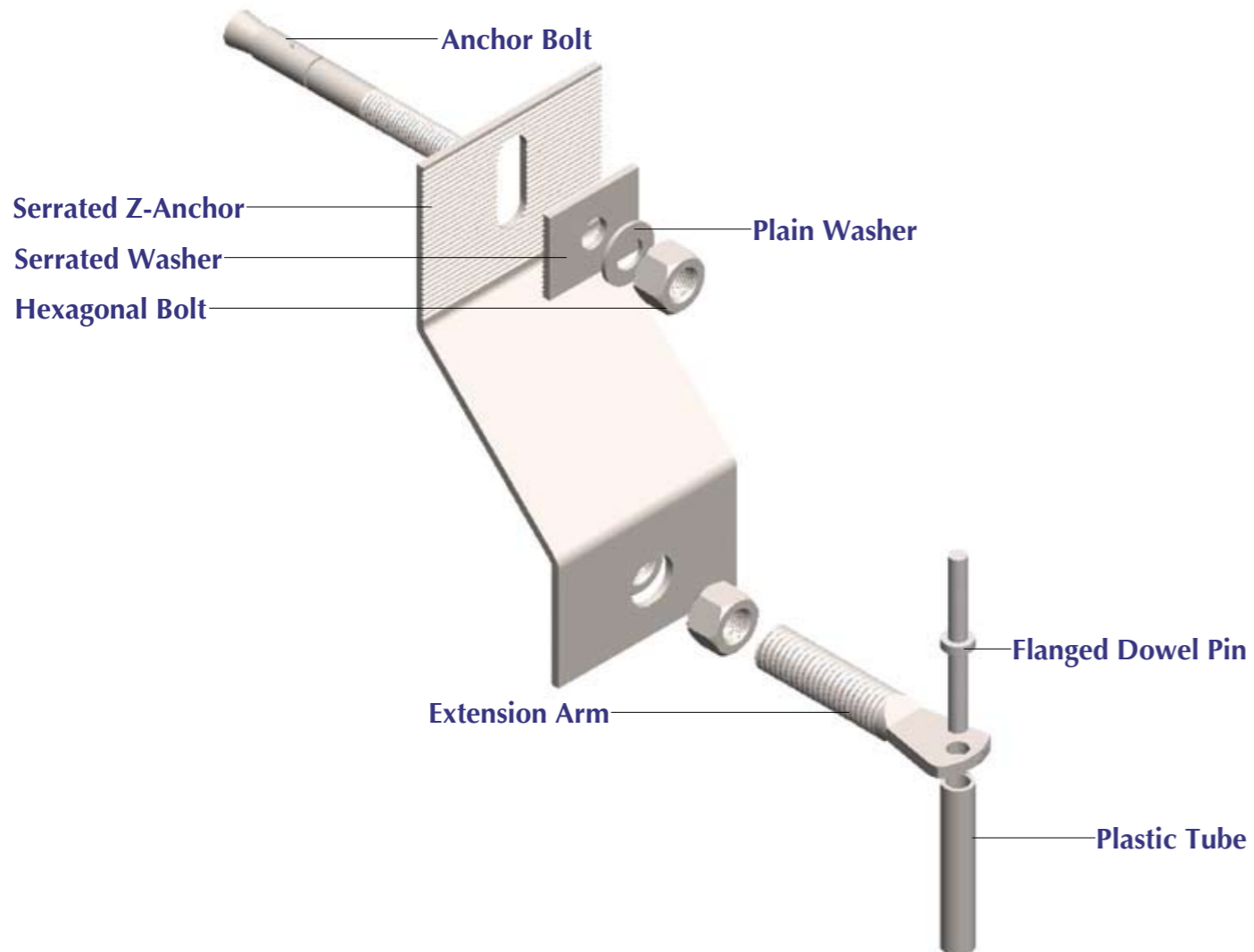


**Sliding Adjustment**

Sliding adjustment can be made up to 15° by rotating the body of anchor.

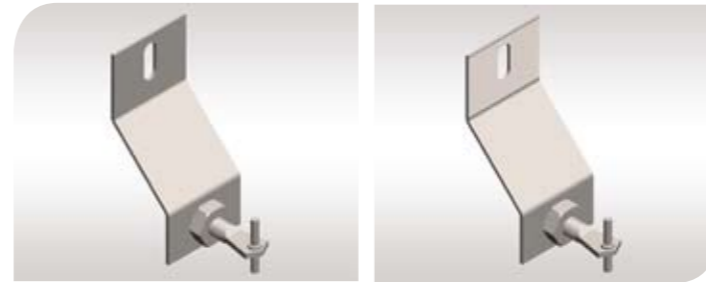


**Fixing**

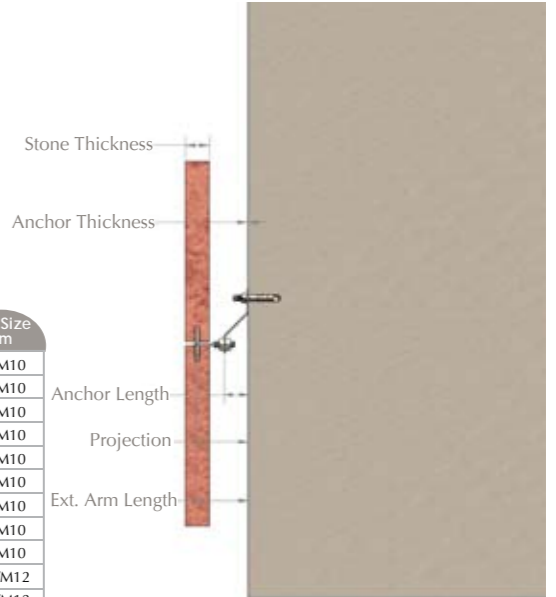


**Z-Anchor Fixings**

**Z-Anchor Type A**



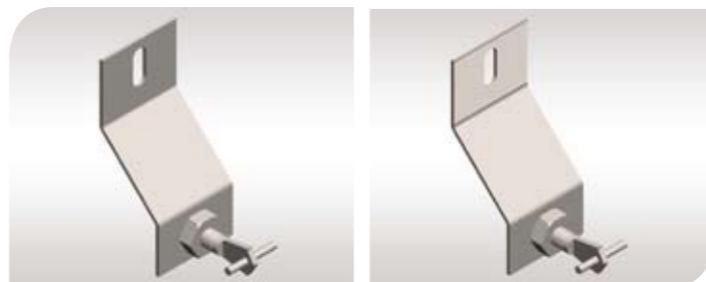
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA A503	50	±10	20	3	60	M8	5	M8/M10
ZA A603	60	±10	20	3	70	M8	5	M8/M10
ZA A504	50	±10	20	4	60	M10	5	M8/M10
ZA A604	60	±10	20	4	70	M10	5	M8/M10
ZA A754	75	±15	40	4	70	M10	5	M8/M10
ZA A505	50	±10	20	5	60	M10	5	M8/M10
ZA A605	60	±10	20	5	70	M10	5	M8/M10
ZA A755	75	±15	40	5	70	M10	5	M8/M10
ZA A955	95	±15	60	5	70	M10	5	M8/M10
ZA A756	75	±15	40	6	70	M12	5	M10/M12
ZA A956	95	±15	60	6	70	M12	5	M10/M12



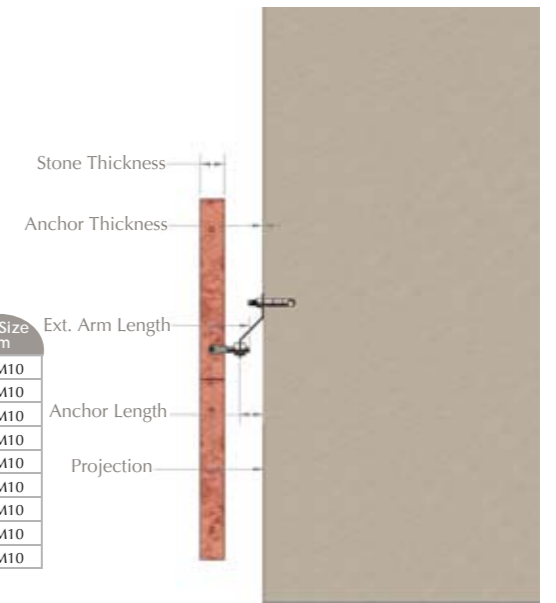
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

**Z-Anchor Type B**



Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA B503	50	±10	20	3	60	M8	5	M8/M10
ZA B603	60	±10	20	3	70	M8	5	M8/M10
ZA B504	50	±10	20	4	60	M10	5	M8/M10
ZA B604	60	±10	20	4	70	M10	5	M8/M10
ZA B754	75	±15	40	4	70	M10	5	M8/M10
ZA B505	50	±10	20	5	60	M10	5	M8/M10
ZA B605	60	±10	20	5	70	M10	5	M8/M10
ZA B755	75	±15	40	5	70	M10	5	M8/M10
ZA B955	95	±15	60	5	70	M10	5	M8/M10



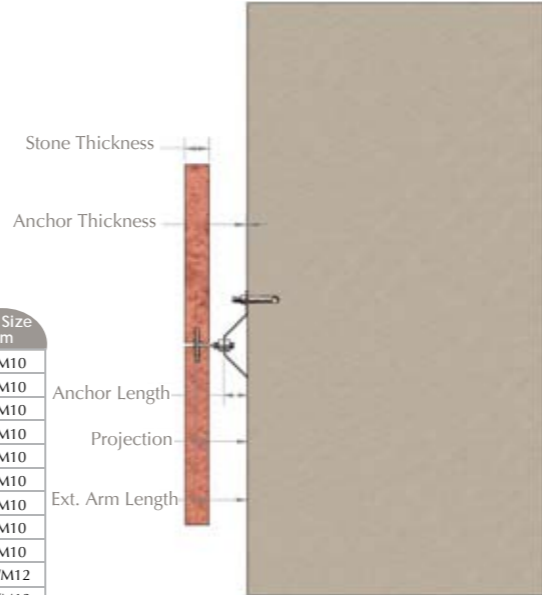
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type C



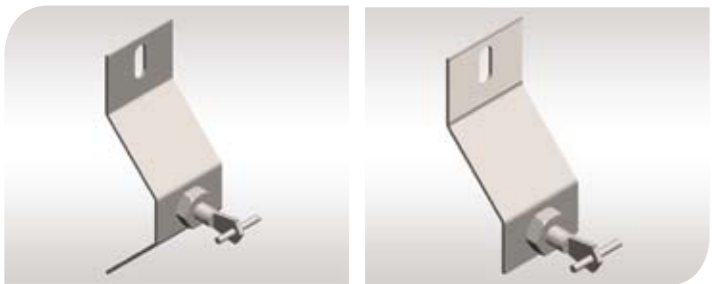
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA C503	50	±10	20	3	60	M8	5	M8/M10
ZA C603	60	±10	20	3	70	M8	5	M8/M10
ZA C504	50	±10	20	4	60	M10	5	M8/M10
ZA C604	60	±10	20	4	70	M10	5	M8/M10
ZA C754	75	±15	40	4	70	M10	5	M8/M10
ZA C505	50	±10	20	5	60	M10	5	M8/M10
ZA C605	60	±10	20	5	70	M10	5	M8/M10
ZA C755	75	±15	40	5	70	M10	5	M8/M10
ZA C955	95	±15	60	5	70	M10	5	M8/M10
ZA C756	75	±15	40	6	70	M12	5	M10/M12
ZA C956	95	±15	60	6	70	M12	5	M10/M12



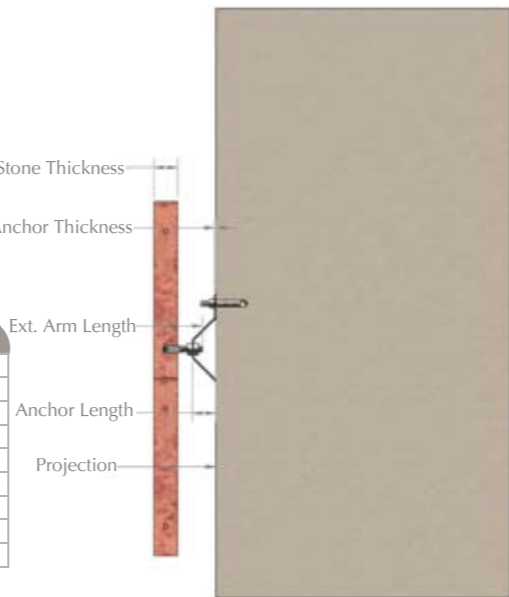
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type D



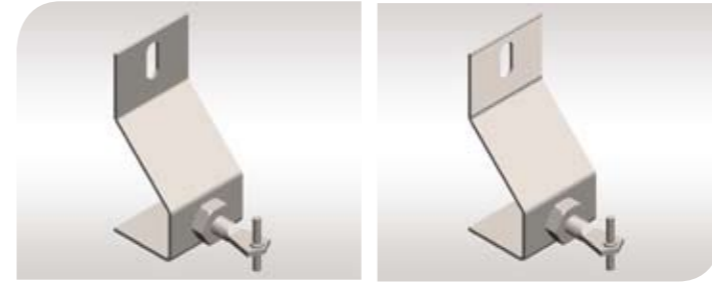
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA D503	50	±10	20	3	60	M8	5	M8/M10
ZA D603	60	±10	20	3	70	M8	5	M8/M10
ZA D504	50	±10	20	4	60	M10	5	M8/M10
ZA D604	60	±10	20	4	70	M10	5	M8/M10
ZA D754	75	±15	40	4	70	M10	5	M8/M10
ZA D505	50	±10	20	5	60	M10	5	M8/M10
ZA D605	60	±10	20	5	70	M10	5	M8/M10
ZA D755	75	±15	40	5	70	M10	5	M8/M10
ZA D955	95	±15	60	5	70	M10	5	M8/M10



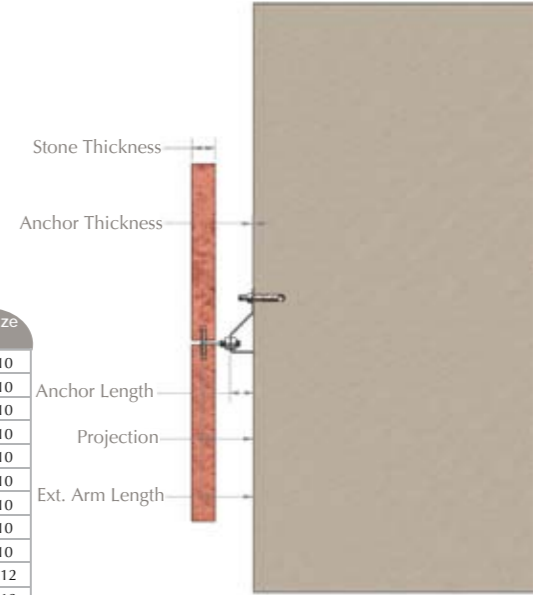
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type E



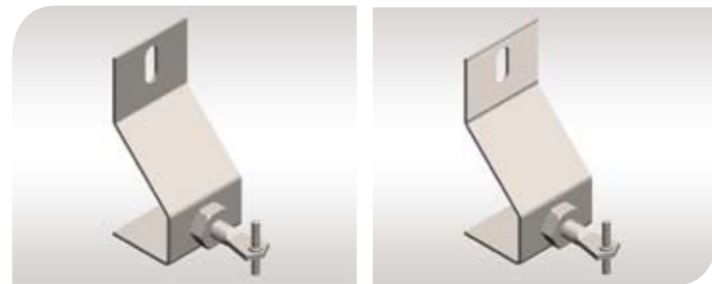
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA E503	50	±10	20	3	60	M8	5	M8/M10
ZA E603	60	±10	20	3	70	M8	5	M8/M10
ZA E504	50	±10	20	4	60	M10	5	M8/M10
ZA E604	60	±10	20	4	70	M10	5	M8/M10
ZA E754	75	±15	40	4	70	M10	5	M8/M10
ZA E505	50	±10	20	5	60	M10	5	M8/M10
ZA E605	60	±10	20	5	70	M10	5	M8/M10
ZA E755	75	±15	40	5	70	M10	5	M8/M10
ZA E955	95	±15	60	5	70	M10	5	M8/M10
ZA E756	75	±15	40	6	70	M12	5	M10/M12
ZA E956	95	±15	60	6	70	M12	5	M10/M12



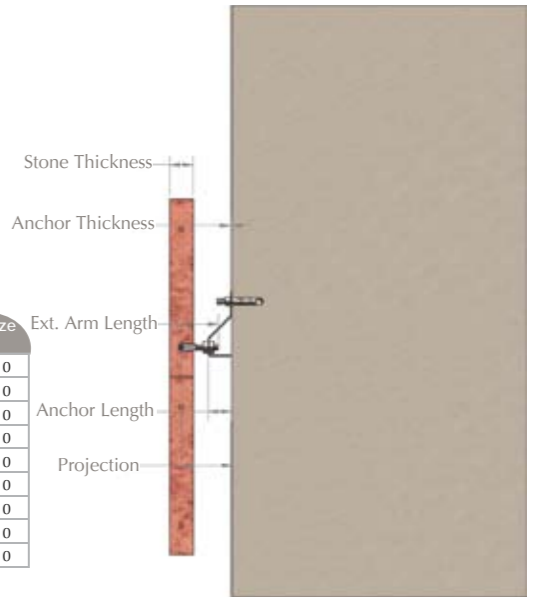
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type F



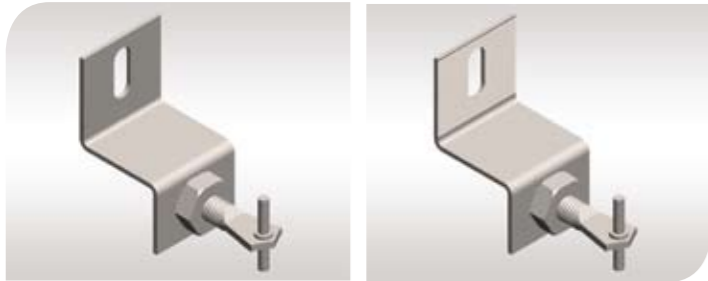
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA F503	50	±10	20	3	60	M8	5	M8/M10
ZA F603	60	±10	20	3	70	M8	5	M8/M10
ZA F504	50	±10	20	4	60	M10	5	M8/M10
ZA F604	60	±10	20	4	70	M10	5	M8/M10
ZA F754	75	±15	40	4	70	M10	5	M8/M10
ZA F505	50	±10	20	5	60	M10	5	M8/M10
ZA F605	60	±10	20	5	70	M10	5	M8/M10
ZA F755	75	±15	40	5	70	M10	5	M8/M10
ZA F955	95	±15	60	5	70	M10	5	M8/M10



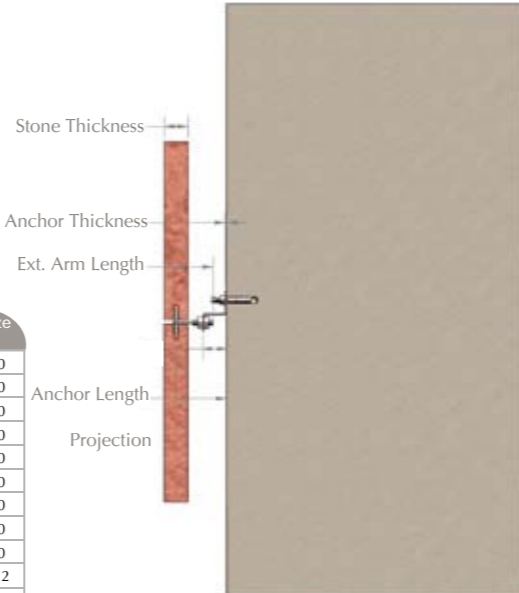
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type G



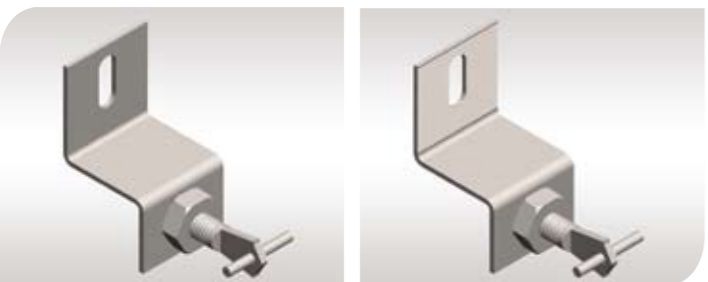
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA G503	50	±10	20	3	60	M8	5	M8/M10
ZA G603	60	±10	20	3	70	M8	5	M8/M10
ZA G504	50	±10	20	4	60	M10	5	M8/M10
ZA G604	60	±10	20	4	70	M10	5	M8/M10
ZA G754	75	±15	40	4	70	M10	5	M8/M10
ZA G505	50	±10	20	5	60	M10	5	M8/M10
ZA G605	60	±10	20	5	70	M10	5	M8/M10
ZA G755	75	±15	40	5	70	M10	5	M8/M10
ZA G955	95	±15	60	5	70	M10	5	M8/M10
ZA G756	75	±15	40	6	70	M12	5	M10/M12
ZA G956	95	±15	60	6	70	M12	5	M10/M12



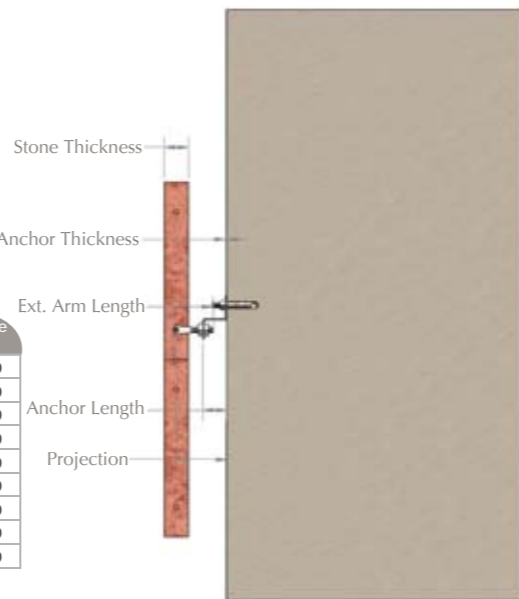
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type H



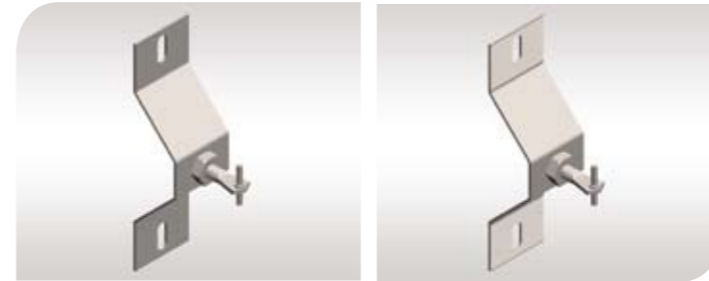
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA H503	50	±10	20	3	60	M8	5	M8/M10
ZA H603	60	±10	20	3	70	M8	5	M8/M10
ZA H504	50	±10	20	4	60	M10	5	M8/M10
ZA H604	60	±10	20	4	70	M10	5	M8/M10
ZA H754	75	±15	40	4	70	M10	5	M8/M10
ZA H505	50	±10	20	5	60	M10	5	M8/M10
ZA H605	60	±10	20	5	70	M10	5	M8/M10
ZA H755	75	±15	40	5	70	M10	5	M8/M10
ZA H955	95	±15	60	5	70	M10	5	M8/M10



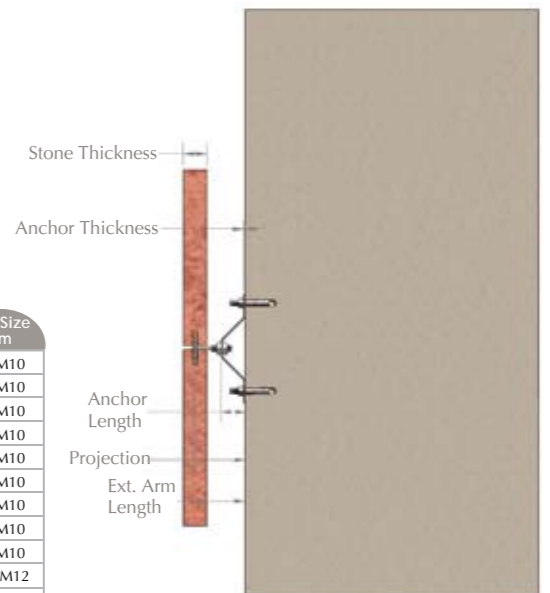
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type J



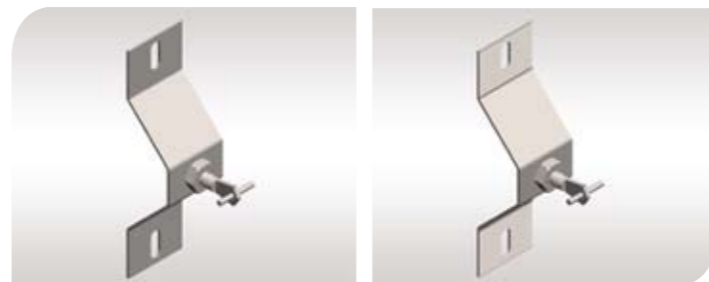
Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA J503	50	±10	20	3	60	M8	5	M8/M10
ZA J603	60	±10	20	3	70	M8	5	M8/M10
ZA J504	50	±10	20	4	60	M10	5	M8/M10
ZA J604	60	±10	20	4	70	M10	5	M8/M10
ZA J754	75	±15	40	4	70	M10	5	M8/M10
ZA J505	50	±10	20	5	60	M10	5	M8/M10
ZA J605	60	±10	20	5	70	M10	5	M8/M10
ZA J755	75	±15	40	5	70	M10	5	M8/M10
ZA J955	95	±15	60	5	70	M10	5	M8/M10
ZA J756	75	±15	40	6	70	M12	5	M10/M12
ZA J956	95	±15	60	6	70	M12	5	M10/M12



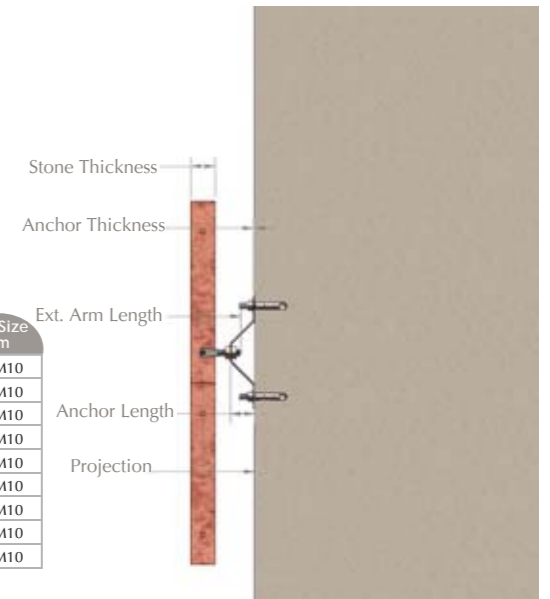
**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

### Z-Anchor Type K



Reference	Projection mm	Adjustability mm	Anchor Forming Length mm	Anchor Thickness mm	Extens Arm Length mm	Extension Arm metric size	Dowel Size mm	Bolt Size mm
ZA K503	50	±10	20	3	60	M8	5	M8/M10
ZA K603	60	±10	20	3	70	M8	5	M8/M10
ZA K504	50	±10	20	4	60	M10	5	M8/M10
ZA K604	60	±10	20	4	70	M10	5	M8/M10
ZA K754	75	±15	40	4	70	M10	5	M8/M10
ZA K505	50	±10	20	5	60	M10	5	M8/M10
ZA K605	60	±10	20	5	70	M10	5	M8/M10
ZA K755	75	±15	40	5	70	M10	5	M8/M10
ZA K955	95	±15	60	5	70	M10	5	M8/M10



**Remarks**

- \* Available in plain and serrated types.
- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Bolt size.

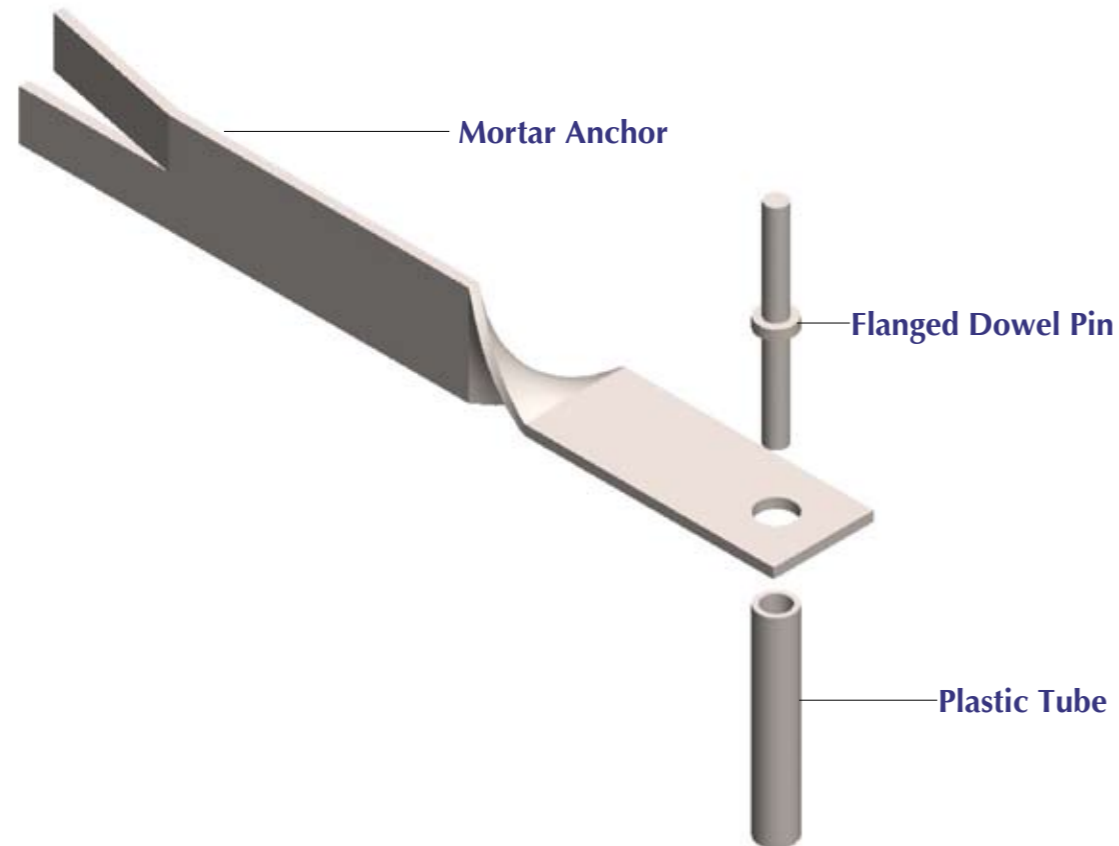
## Mortar Anchor Fixing System

Mortar Anchor Fixing System is a way of directly fixing the products to concrete or masonry walls with mortar. It is an economic and easy fix.

### Key Features

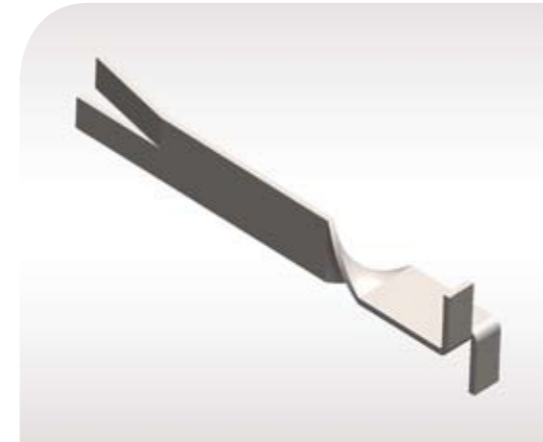
- Installation for both Horizontal Joints and Vertical Joints.
- Acts as a load bearing and restraint.
- Projection sizes from 39 mm and up to 104 mm.

### Fixing



## Mortar Anchor Fixings

### Mortar Anchor Type A

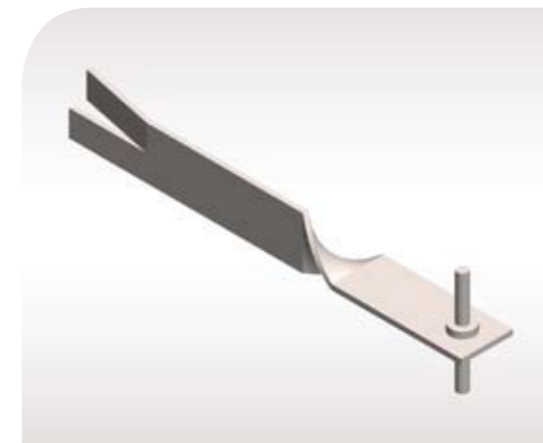


Reference	Projection mm	Length mm	Width mm	Thickness mm
MA A442	44	120	25 / 20	2
MA A742	74	150	25 / 20	2
MA A1042	104	180	25 / 20	2
MA A443	44	120	25 / 20	3
MA A743	74	150	25 / 20	3
MA A1043	104	180	25 / 20	3

#### Remarks

- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Width.

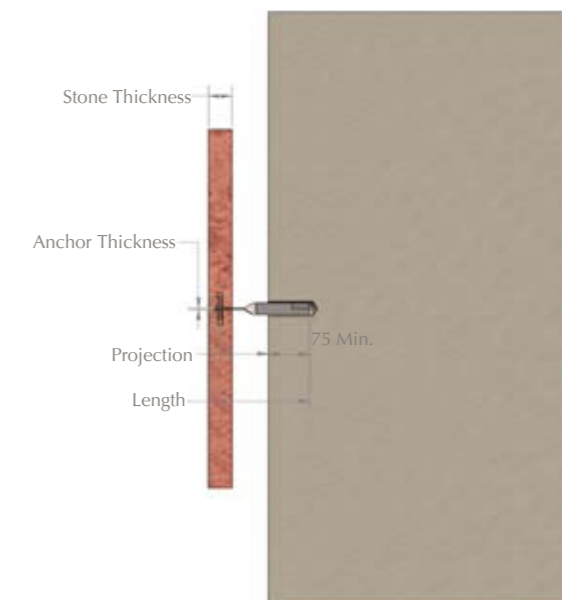
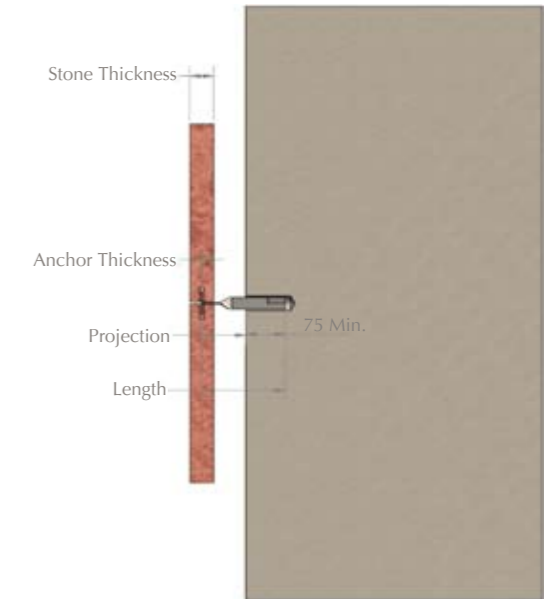
### Mortar Anchor Type B



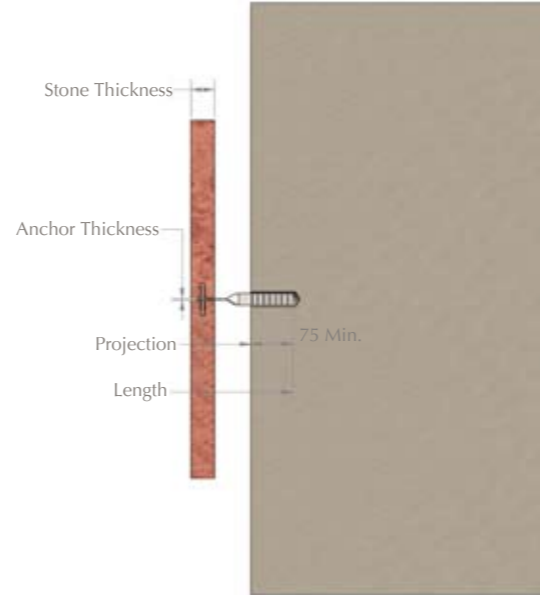
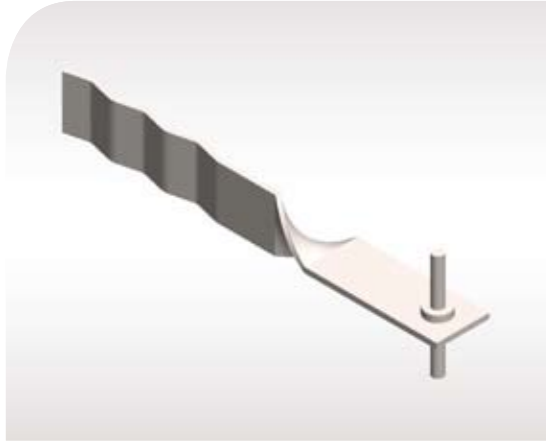
Reference	Projection mm	Length mm	Width mm	Thickness mm	Dowel Size mm
MA B392	39	120	25 / 20	2	4
MA B692	69	150	25 / 20	2	4
MA B992	99	180	25 / 20	2	4
MA B383	38	120	25 / 20	3	5
MA B683	68	150	25 / 20	3	5
MA B983	98	180	25 / 20	3	5

#### Remarks

- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Width.



### Mortar Anchor Type C

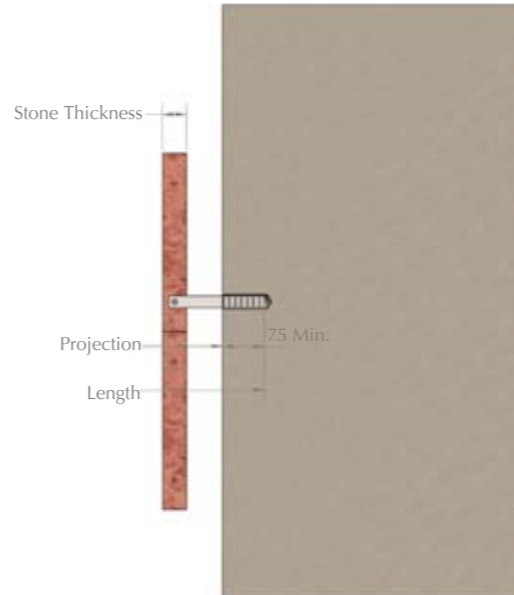
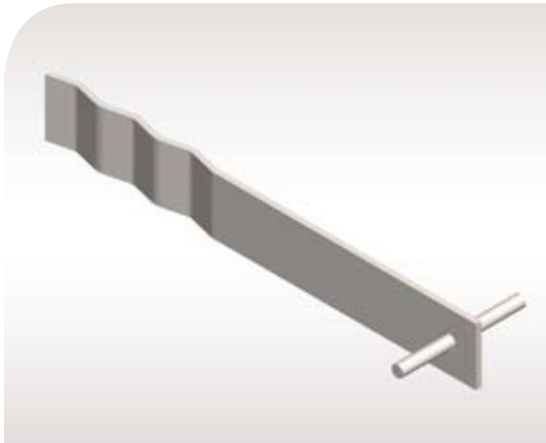


Reference	Projection mm	Length mm	Width mm		
MA C392	39	120	25 / 20	2	4
MA C692	69	150	25 / 20	2	4
MA C992	99	180	25 / 20	2	4
MA C383	38	120	25 / 20	3	5
MA C683	68	150	25 / 20	3	5
MA C983	98	180	25 / 20	3	5

**Remarks**

- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Width.

### Mortar Anchor Type D

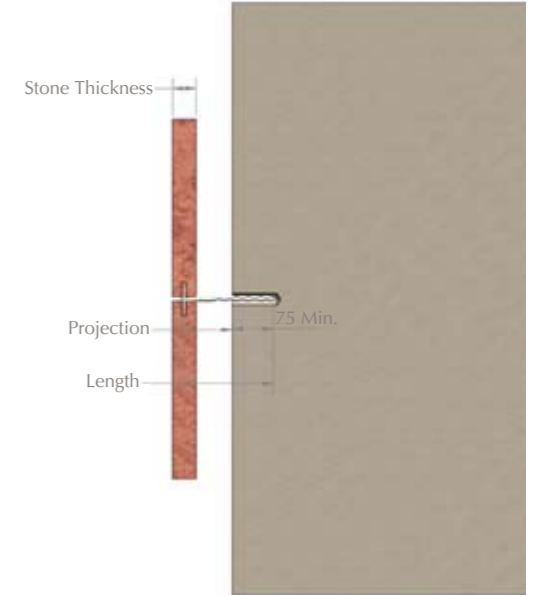
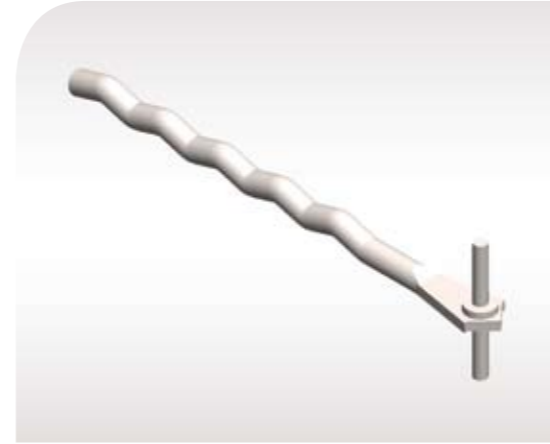


Reference	Projection mm	Length mm	Width mm		
MA D392	39	120	25 / 20	2	4
MA D692	69	150	25 / 20	2	4
MA D992	99	180	25 / 20	2	4
MA D383	38	120	25 / 20	3	5
MA D683	68	150	25 / 20	3	5
MA D983	98	180	25 / 20	3	5

**Remarks**

- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Width.

### Mortar Anchor Type E

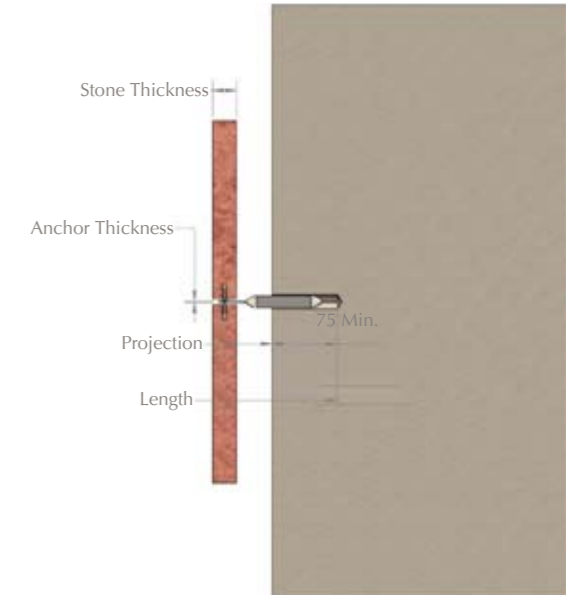
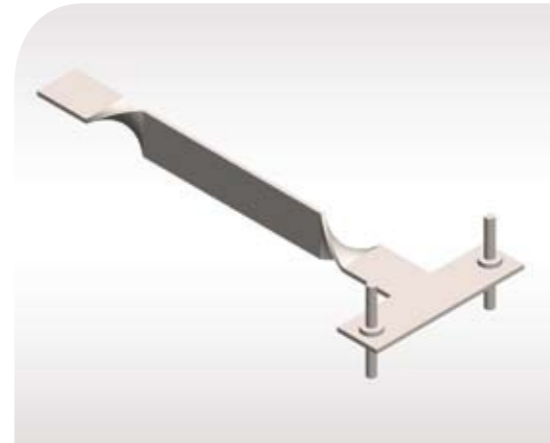


Reference	Projection mm	Length mm	Diameter mm	Dowel Size mm
MA E39	39	120	5	4
MA E69	69	150	5	4
MA E99	99	180	5	4
MA E38	38	120	6	5
MA E68	68	150	6	5
MA E98	98	180	6	5

**Remarks**

- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code.

### Mortar Anchor Type F



Reference	Projection mm	Length mm	Width mm	Thickness mm	Dowel Size mm
MA F392	39	120	25 / 20	2	4
MA F692	69	150	25 / 20	2	4
MA F992	99	180	25 / 20	2	4
MA F383	38	120	25 / 20	3	5
MA F683	68	150	25 / 20	3	5
MA F983	98	180	25 / 20	3	5

**Remarks**

- \* Custom designed sizes will be manufactured upon request.
- \* For ordering, please specify the releavent Reference code and the Width.

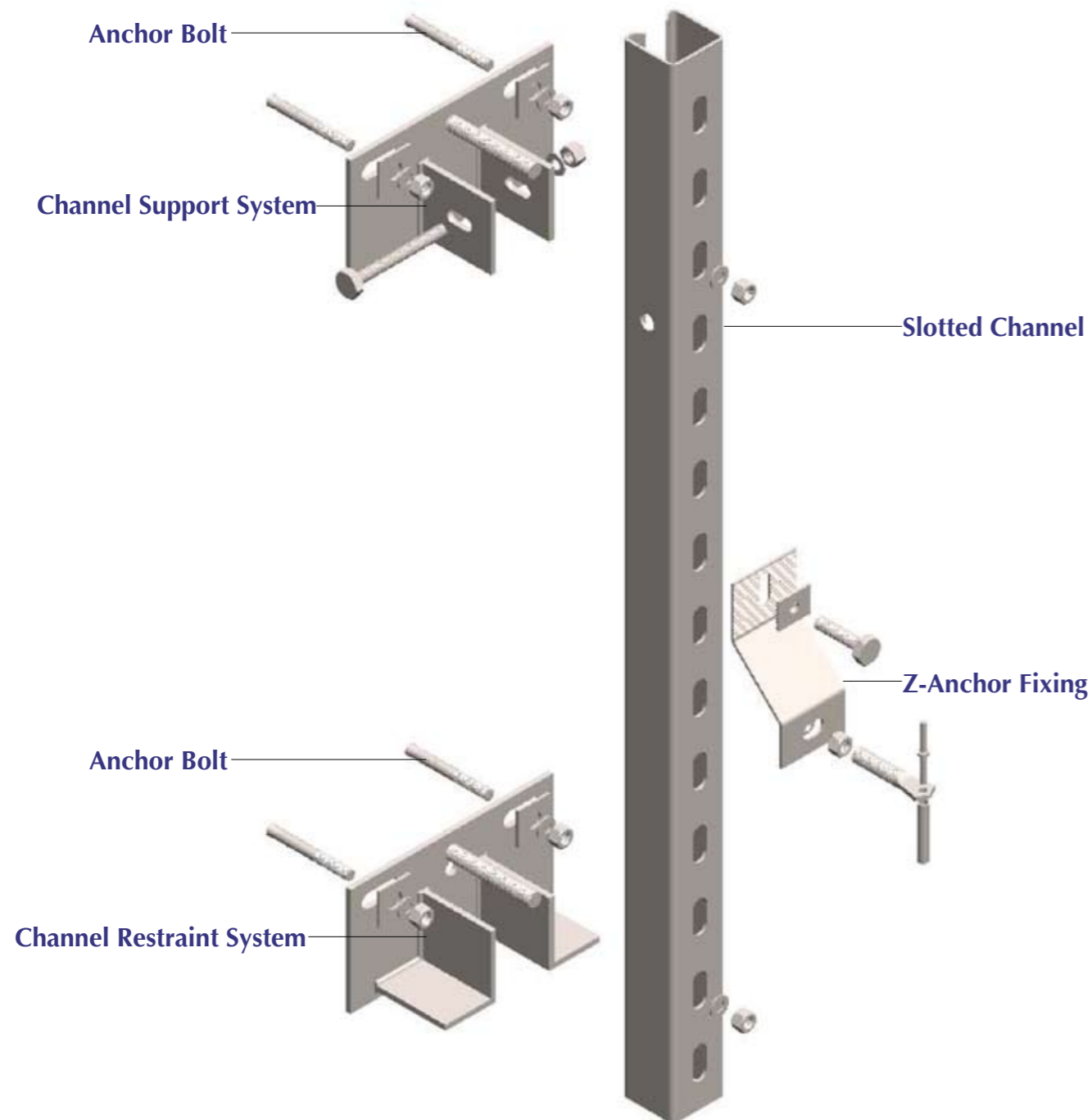
## Channel Fixing Systems

Channel Fixing System is an indirect fixing of stones through great adjustable capacity and easy assembly features. This system has channels supported with L or Z Anchors, Channel Support and Channel Restraint as elements. It is a quick and an easy way of fixing as it has less drilling points.

### Key Features

- Installation for both Horizontal Joints and Vertical Joints.
- Larger projection with less deflection.

### Fixing



## Channels

### C-Channel



Reference	Width mm	Height mm	Thickness mm	Length mm
CS CC4141	41	41	2.5/3	3000
CS CC4121	41	21	2.5/3	3000

#### Remarks

\* For ordering, please specify the releavent Reference code and the Thickness.

\* Available material Galvanized Steel & Stainless Steel.

### C-Channel With Flange



Reference	Width mm	Height mm	Thickness mm	Length mm
CS CCF2815	28	15	2.5/3	3000
CS CCF3817	38	17	2.5/3	3000
CS CCF4121	41	21	2.5/3	3000

#### Remarks

\* For ordering, please specify the releavent Reference code and the Thickness.

\* Available material Galvanized Steel & Stainless Steel.

### U-Channel

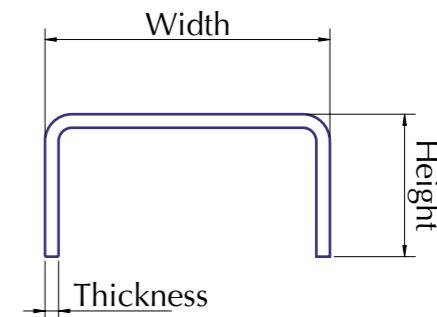
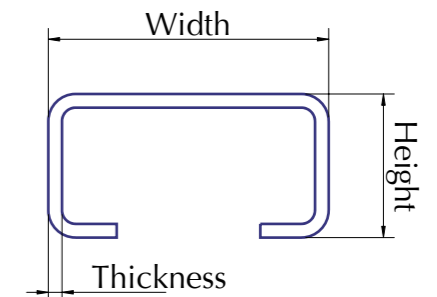
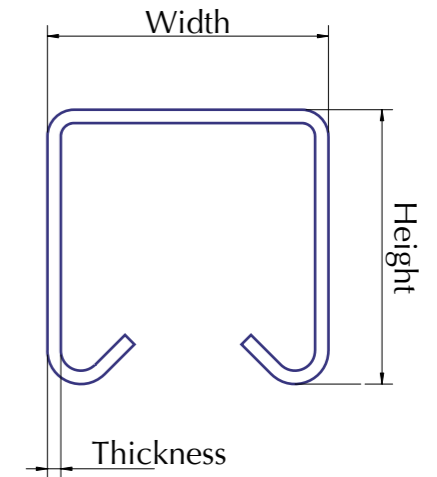


Reference	Width mm	Height mm	Thickness mm	Length mm
CS UC3535	35	35	2.5/3	3000
CS UC4030	40	30	2.5/3	3000
CS UC4040	40	40	2.5/3	3000
CS UC5040	50	40	2.5/3	3000
CS UC5050	50	50	2.5/3	3000

#### Remarks

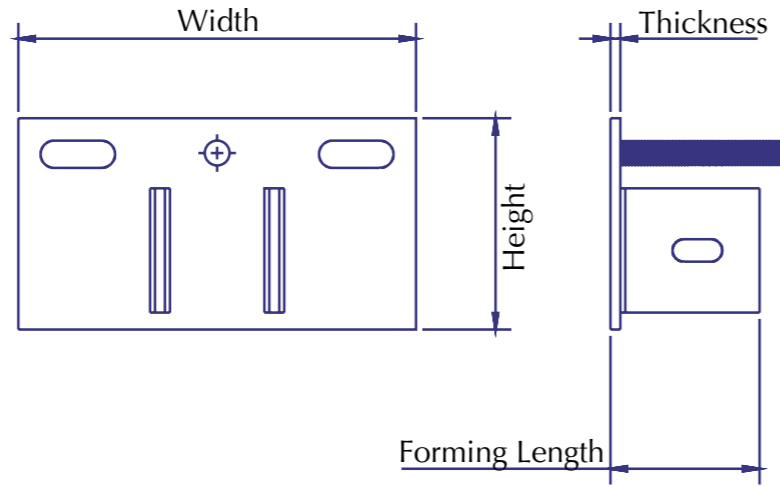
\* For ordering, please specify the releavent Reference code and the Thickness.

\* Available material Galvanized Steel & Stainless Steel.



## Channel Supports

### Channel Support 1

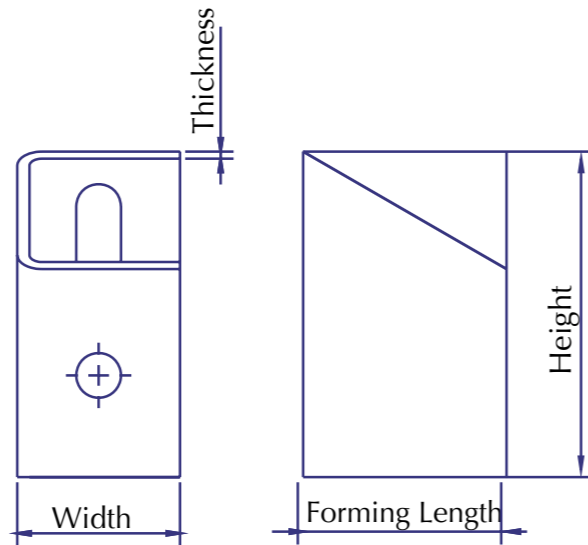


Reference	Forming Length mm	Width mm	Height mm	Thickness mm
CS CS140	40	160	85	4
CS CS160	60	160	85	4
CS CS180	80	160	85	4
CS CS1100	100	160	85	4
CS CS1120	120	160	85	5
CS CS1140	140	160	85	5

**Remarks**

\* For ordering, please specify the releavent Reference code.

### Channel Support 2

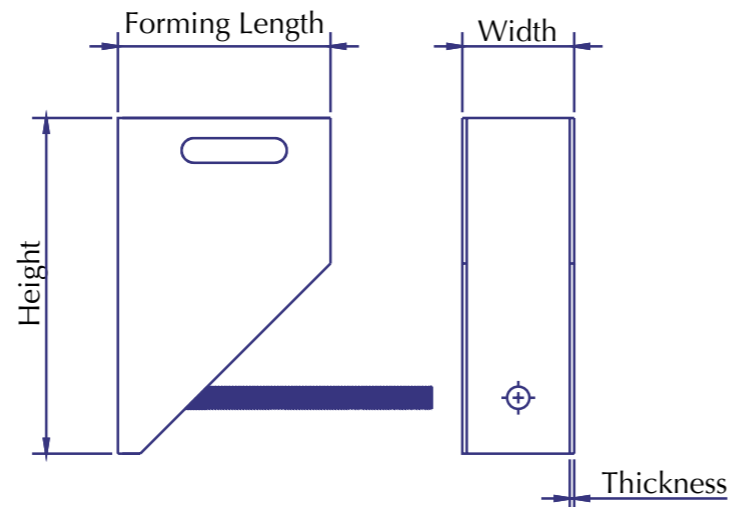


Reference	Forming Length mm	Width mm	Height mm	Thickness mm
CS CS250	50	50	80	4
CS CS260	60	60	90	4
CS CS270	70	70	100	5
CS CS280	80	80	100	5
CS CS290	90	90	100	5
CS CS2100	100	100	100	5

**Remarks**

\* For ordering, please specify the releavent Reference code.

### Channel Support 3



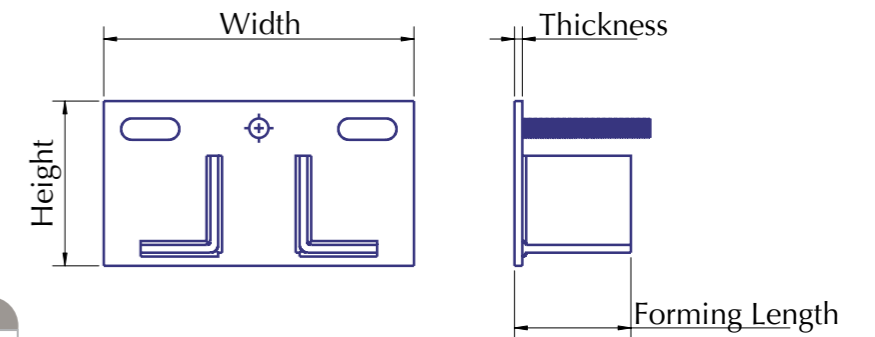
Reference	Forming Length mm	Width mm	Height mm	Thickness mm
CS CS395	95	50	200	2.5
CS CS3115	115	50	200	2.5
CS CS3135	135	50	200	2.5
CS CS3155	155	50	200	3
CS CS3175	175	50	200	3
CS CS3195	195	50	200	3

**Remarks**

\* For ordering, please specify the releavent Reference code.

## Channel Restraints

### Channel Restraint 1

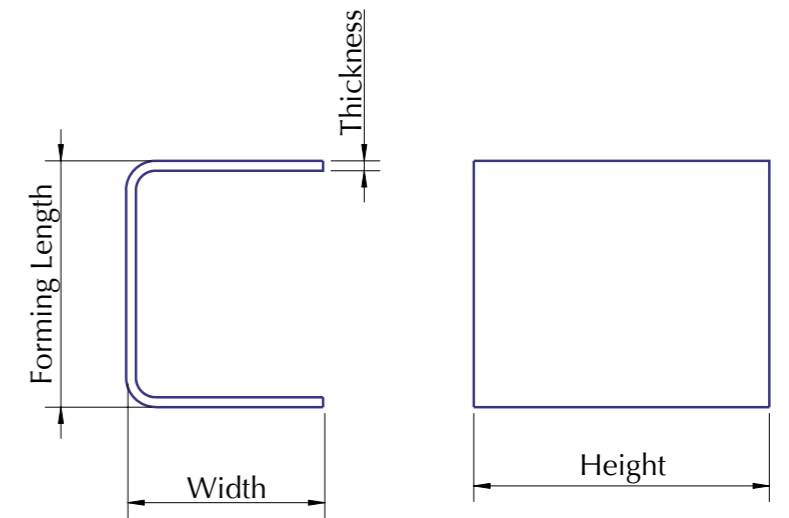


Reference	Forming Length mm	Width mm	Height mm	Thickness mm
CS CR140	40	160	85	3
CS CR160	60	160	85	3
CS CR180	80	160	85	3
CS CR1100	100	160	85	3
CS CR1120	120	160	85	3
CS CR1140	140	160	85	3

**Remarks**

\* For ordering, please specify the releavent Reference code.

### Channel Restraint 2

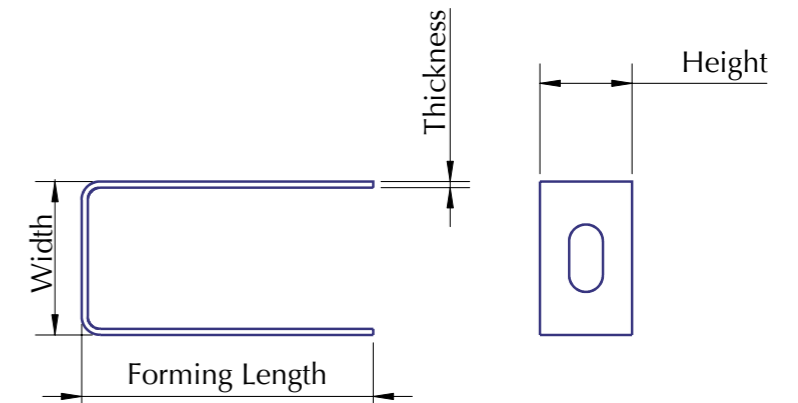


Reference	Forming Length mm	Width mm	Height mm	Thickness mm
CS CR250	50	40	60	2.5
CS CR260	60	40	60	2.5
CS CR270	70	40	60	3
CS CR280	80	40	60	3
CS CR290	90	40	60	3
CS CR2100	100	40	60	3

**Remarks**

\* For ordering, please specify the releavent Reference code.

### Channel Restraint 3



Reference	Forming Length mm	Width mm	Height mm	Thickness mm
CS CR395	95	50	30	2.5
CS CR3115	115	50	30	2.5
CS CR3135	135	50	30	2.5
CS CR3155	155	50	30	2.5
CS CR3175	175	50	30	2.5
CS CR3195	195	50	30	2.5

**Remarks**

\* For ordering, please specify the releavent Reference code.

# Accessories

TMI is proud to offer complete accessories along with anchors to suit your requirements.

## Serrated Square Washer



Reference	Size mm	Hole Diameter mm	Thickness mm
A SSW 25	25x25	7/9/11/13	3
A SSW 30	30x30	7/9/11/13	3
A SSW 40	40x40	7/9/11/13	4

## Plain Square Washer



Reference	Size mm	Hole Diameter mm	Thickness mm
A PSW 25	25x25	7/9/11/13	2/3
A PSW 30	30x30	7/9/11/13	2/3
A PSW 40	40x40	7/9/11/13	4

## Shim



Reference	Size mm	Slot Size mm	Thickness mm
A SH6	30x40	7x20	2
A SH8	30x50	9x25	2
A SH10	40x55	11x25	3
A SH12	50x60	13x30	4

## Extension Arm



Reference	Size mm	Length mm	Hole Diameter mm
A EA 8x60	M8	60	6
A EA 8x70	M8	70	6
A EA 10x60	M10	60	6
A EA 10x70	M10	70	6
A EA 12x70	M12	70	6

\* Mention the stone thickness while ordering

## Expansion Bolt



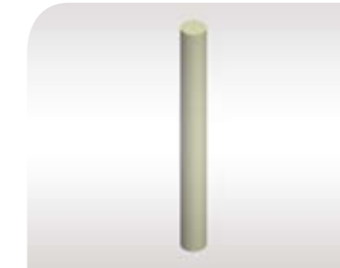
Reference	Bolt Size mm	Bolt Length mm	Fixture Thick. mm	Drill Hole size mm	Minimum Embedment mm
A EB6x65	M6	65	10	Dia. 7x60	50
A EB6x85	M6	85	30	Dia. 7x60	50
A EB8x75	M8	75	10	Dia. 9x65	55
A EB8x85	M8	85	20	Dia. 9x65	55
A EB8x110	M8	110	45	Dia. 9x65	55
A EB10x80	M10	80	10	Dia. 11x70	60
A EB10x90	M10	90	20	Dia. 11x70	60
A EB10x120	M10	120	50	Dia. 11x70	60
A EB10x120	M12	120	30	Dia. 13x90	80

## Flanged Dowel



Reference	Dowel Diameter mm	Flange Diameter mm	Length mm
A FD4	4	5.5	50
A FD5	5	6.5	60
A FD6	6	7.5	70

## Dowel



Reference	Diameter mm	Length mm
A D4	4	50
A D5	5	60
A D6	6	70

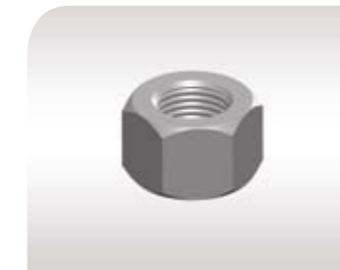
## Hexagonal Bolt



Reference	Diameter mm	Length mm
A HB6	M6	50/60/70
A HB8	M8	50/60/80/100
A HB10	M10	80/100/120
A HB12	M12	80/100/120

\* Mention the length while ordering

## Hexagonal Nut



Reference	Nut Size mm
A HN6	M6
A HN8	M8
A HN10	M10
A HN12	M12

## Flat Washer



Reference	Nut Size mm
A FW6	M6
A FW8	M8
A FW10	M10
A FW12	M12

## Plastic Tube



Reference	Inner Diameter mm	Outer Diameter mm	Length mm
A PT4	4.5	6	30
A PT5	5.5	7	40
A PT6	6.5	8	40