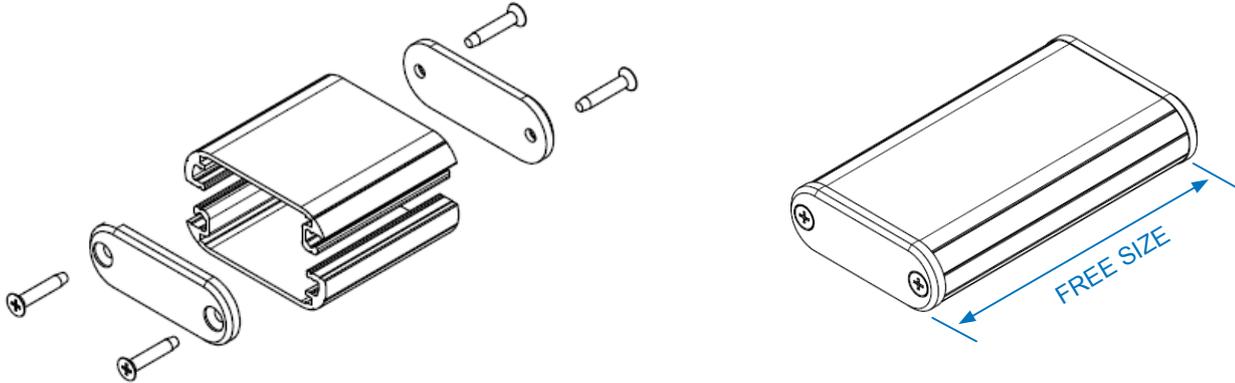


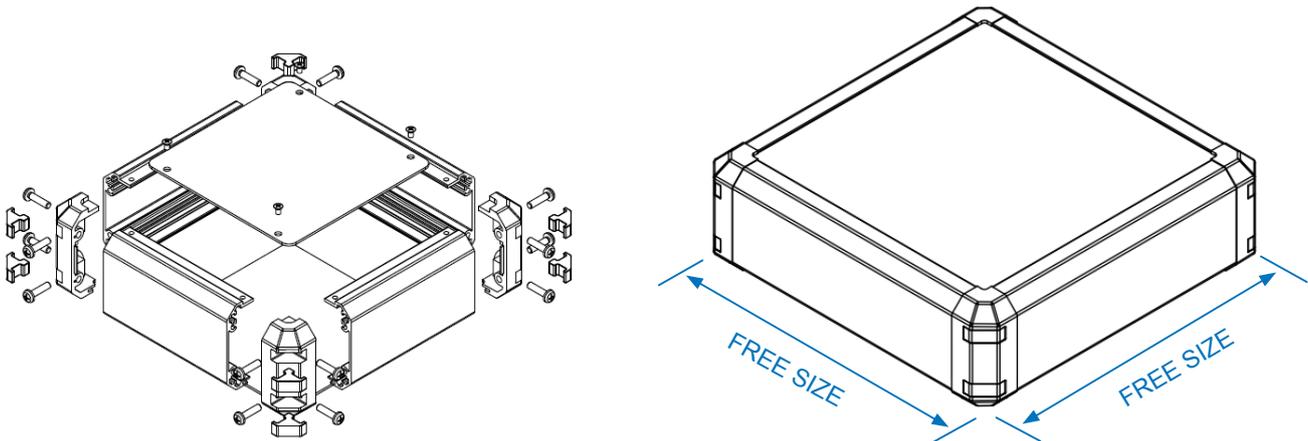
VARIETY OF CUSTOM SIZED ENCLOSURES

Extruded models are adjustable in extrusion length (depth) in 0.1mm or 1.0mm intervals.
Sheet-metal models are adjustable in W/D/H dimensions in 1.0mm intervals.

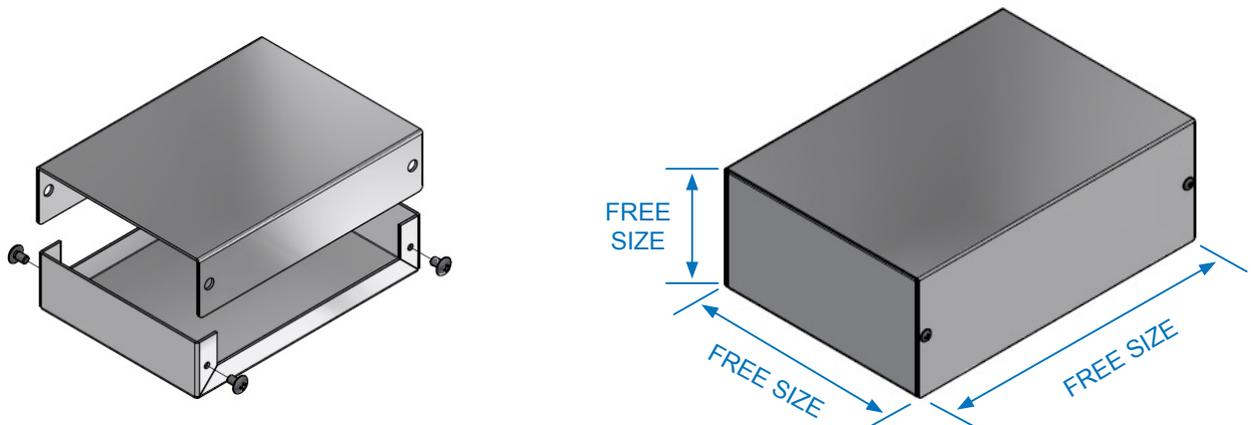
EXTRUDED ALUMINIUM MODEL



4 SIDE-EXTRUDED ALUMINIUM MODEL



SHEET METAL MODEL



More custom sized models are available.

https://www.takachi-enclosure.com/cat/flexible_size

INQUIRING CUSTOM SIZED ENCLOSURES

1 Navigate to the free-size product page you wish to inquire on our website and click on the button indicated by the  arrow.



Custom sized shock-proof design instrument enclosure.
Corner guards are designed to be both aesthetically pleasing, and impact resistant.

Selectable 22 different Width/Height profiles and specified length (depth) from 40 to 500mm in 1mm intervals.
16 different color combinations can be specified.

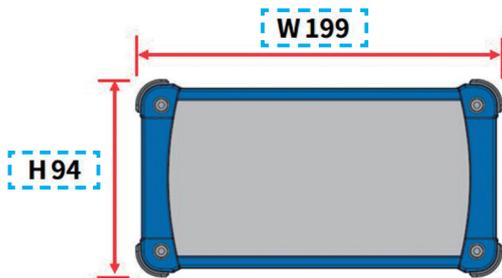
 **CUSTOM SIZE WEB QUOTATION** 3D View - Silver/Navy 3D View - 16 color types

3D View - With tilt legs Exploded view Color code

■ If there is no "WEB QUOTATION" click button, please send us your inquiry from the "INQUIRY FORM" on the CONTACT tab on our website.

2 Go to the CUSTOM SIZE WEB QUOTATION page and enter your preferred dimensions.

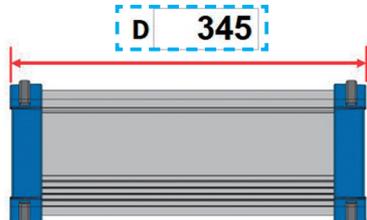
STEP1 Select required width / height.



Select	W	H	Select	W	H
<input type="checkbox"/>	69	34	<input type="checkbox"/>	151	81
<input type="checkbox"/>	69	44	<input type="checkbox"/>	151	101
<input type="checkbox"/>	69	59	<input type="checkbox"/>	199	56
<input type="checkbox"/>	89	39	<input type="checkbox"/>	199	74
<input type="checkbox"/>	89	49	<input checked="" type="checkbox"/>	199	94
<input type="checkbox"/>	89	64	<input type="checkbox"/>	199	119
<input type="checkbox"/>	116	41	<input type="checkbox"/>	244	64
<input type="checkbox"/>	116	56	<input type="checkbox"/>	244	89
<input type="checkbox"/>	116	71	<input type="checkbox"/>	244	114
<input type="checkbox"/>	151	46	<input type="checkbox"/>	300	90
<input type="checkbox"/>	151	61	<input type="checkbox"/>	300	140

STEP2 Specify size D(depth) ... Enter dimensions in 1mm intervals.

Available from 40 to 500mm



***NOTE:** Specified size D(depth) \neq available internal dimension
Available internal dimension = **D dimension - 20mm**
Please take caution when calculating required D dimension.

3 After entering the quantity, click on the button indicated by the → arrow to generate a Product No.

STEP4 **Quantity** ※Quantity can be specified up to 5 slots.

10 pcs

▶Add quantity



▶ **GENERATE PRODUCT NO.**

Product No. **EXPS199 – 94 – 345SN** ※Please use this model number when ordering.

4 After entering your details and the message in our INQUIRY FORM, click on the CONFIRM button.

STEP5 **INQUIRY FORM**

Fill out the inquiry form and send it. We will give you quotation by Email.
Inquiry from the country where the distributor is located will be answered by the distributor.

Fields marked with ★ are required

Product No. EXPS199-94-345SN Quantity ★ 10

E-mail ★ jiro@takachi-el.co.jp

Company ★ TAKACHI ELECTRONICS ENCLOSURE CO., LTD.

Your name ★ Mr. Ms. First name Jiro Last name Takachi

Country ★

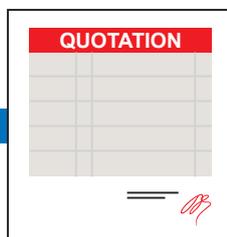
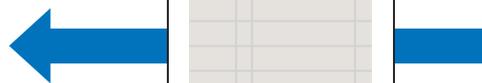
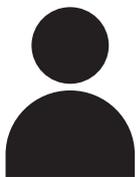
Message
I would like a quote for 10 pieces of EXPS199-94-345SN.



▶ **CONFIRM**

Our privacy policy have been designed to ensure that personal information is not misused or used for purposes other than it is intended for.
[PRIVACY POLICY](#)

5 A TAKACHI sales representative will get in touch with you with a quote via e-mail.



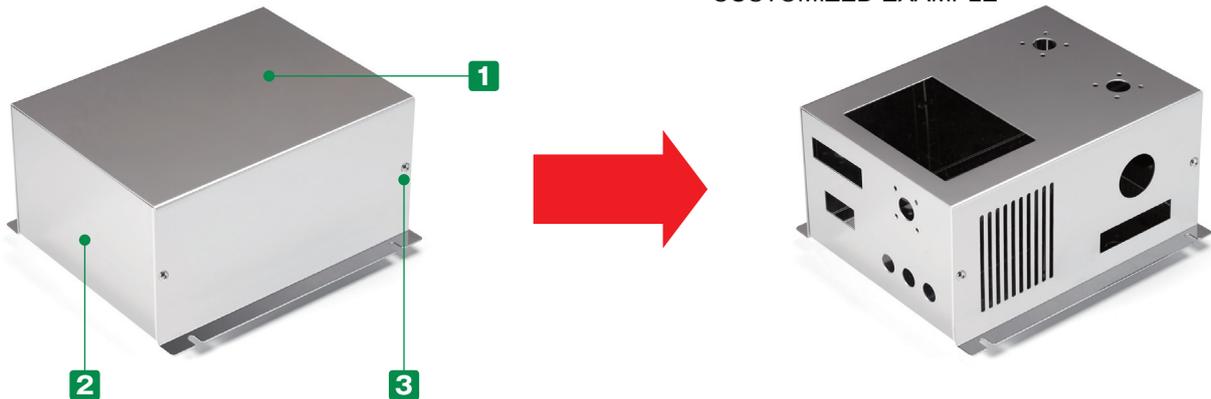
MBSF SERIES

CUSTOM SIZED FLANGED STAINLESS STEEL ENCLOSURE



- Adjustable sizes available in 1mm intervals, with W dimensions from 50 ~ 500mm, D dimensions from 50 ~ 400mm, and H dimensions from 20 ~ 250mm.
- Wall mount flange holes available in 2 models: 2-hole, and 4-hole types.
- SUS304 stainless steel allows the enclosure to be conductive.

CUSTOMIZED EXAMPLE

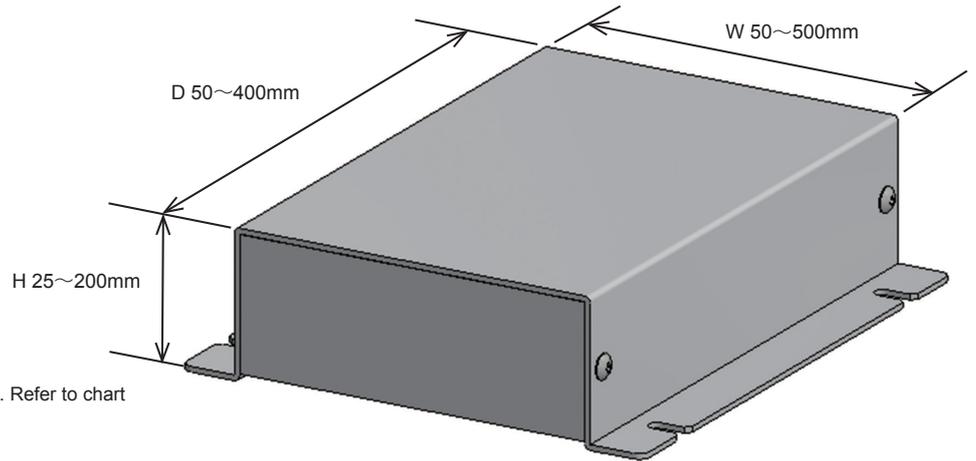


Components

No.	Part name	Pcs	Material	Color / Finish
1	Cover	1	Stainless steel SUS304	Bright annealed (BA)
2	Base	1	Stainless steel SUS304	Bright annealed (BA)
3	Screw (Truss M3-5)	4 or 6	Stainless steel	Unfinished

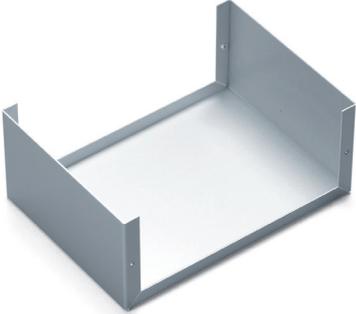
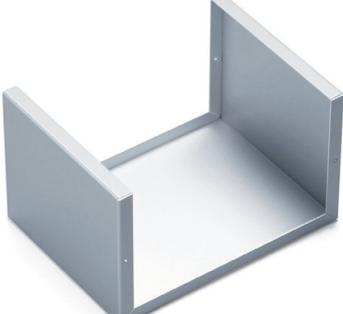
1 Specify Dimensions

Specify dimensions in 1mm intervals.



Caution : Not all size combinations are possible. Refer to chart for more information.

- Panel thickness and base types vary by W / H / D dimensions. Refer to the chart on page MBS-3 for A08, B10 or B12 type selection by W, H & D dimensions.

Base Type A	Base Type B	
[A10] Type	[B10] Type	[B12] Type
W : 200 • H : 100 • D : 400 or smaller Type A : Standard • Panel thickness : 1.0mm	W : 300 • H : 200 • D : 400 or smaller Type B : Reinforced • Panel thickness : 1.0mm	W : 500 • H : 200 • D : 400 or smaller Type B : Reinforced • Panel thickness : 1.2mm
		

2 Select Flange-hole Type



2 (1 on each side)



4 (2 on each side)

Confirm Product No.

Confirm an assigned product number in the following order format as below.

Product no. MBSF 155 - 80 - 200 A 10 - 4

W
H
D
Base type
Panel thickness
Flange hole

Example : W = 155 mm, H = 80 mm, D = 200 mm, A base type in panel thickness of 1.0mm, 4 flange holes

Lead time

Custom Size Only 9 business days (1 ~ 3 pcs)
 Custom Size + Hole Milling 10 business days (1 ~ 3 pcs)

Order Inquiry

For more information, contact us here at sales@takachi-el.co.jp

MBSF Type Chart

Refer to the below chart for A10, B10 or B12 type selection by W, H & D dimensions.

[A10] Type	Standard • Panel thickness : 1.0mm
[B10] Type	Reinforced • Panel thickness : 1.0mm
[B12] Type	Reinforced • Panel thickness : 1.2mm

■ [-] sizes are not available.

W	H	D	4x fixing screw points										6x fixing screw points			
			50~74	75~99	100~125	126~150	151~175	176~200	201~225	226~250	251~275	276~300	301~325	326~350	351~375	376~400
50~99	25~35	36~50	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10
		25~29	-	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10
100~150	30~50	51~75	-	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	
		76~100	-	-	-	A10	A10	A10								
		25~29	-	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	
		30~50	-	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	
151~200	51~75	76~100	-	-	-	B10	B10									
		101~125	-	-	-	-	B10	B10								
		126~150	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10		
		25~29	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10		
201~250	30~50	51~75	-	-	-	B10	B10									
		76~100	-	-	-	-	B10	B10								
		101~125	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10		
		126~150	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10		
		151~175	-	-	-	-	-	-	B10	B10	B10	B10	B10	B10		
		176~200	-	-	-	-	-	-	-	B10	B10	B10	B10	B10		
251~300	30~50	51~75	-	-	-	B10	B10									
		76~100	-	-	-	-	B10	B10								
		101~125	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10		
		126~150	-	-	-	-	-	-	B10	B10	B10	B10	B10	B10		
		151~175	-	-	-	-	-	-	-	B10	B10	B10	B10	B10		
		176~200	-	-	-	-	-	-	-	-	B10	B10	B10	B10		
301~350	30~50	51~75	-	-	-	-	B12	B12								
		76~100	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12		
		101~125	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12		
		126~150	-	-	-	-	-	-	-	B12	B12	B12	B12	B12		
		151~175	-	-	-	-	-	-	-	-	B12	B12	B12	B12		
		176~200	-	-	-	-	-	-	-	-	-	B12	B12	B12		
351~400	30~50	51~75	-	-	-	-	B12	B12								
		76~100	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12		
		101~125	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12		
		126~150	-	-	-	-	-	-	-	B12	B12	B12	B12	B12		
		151~175	-	-	-	-	-	-	-	-	B12	B12	B12	B12		
		176~200	-	-	-	-	-	-	-	-	-	B12	B12	B12		
401~450	30~50	51~75	-	-	-	-	B12	B12								
		76~100	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12		
		101~125	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12		
		126~150	-	-	-	-	-	-	-	B12	B12	B12	B12	B12		
		151~175	-	-	-	-	-	-	-	-	B12	B12	B12	B12		
		176~200	-	-	-	-	-	-	-	-	-	B12	B12	B12		
451~500	30~50	51~75	-	-	-	-	B12	B12								
		76~100	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12		
		101~125	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12		
		126~150	-	-	-	-	-	-	-	B12	B12	B12	B12	B12		
		151~175	-	-	-	-	-	-	-	-	B12	B12	B12	B12		
		176~200	-	-	-	-	-	-	-	-	-	B12	B12	B12		

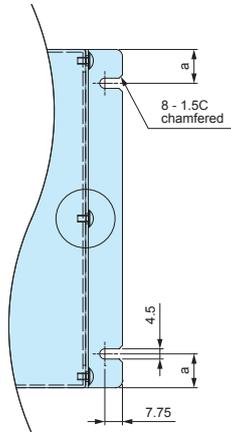
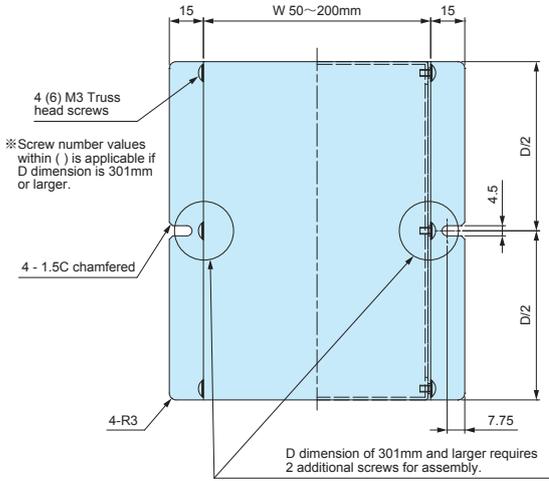
MBSF dimensions

[A10] Type

Standard • Panel thickness : 1.0mm

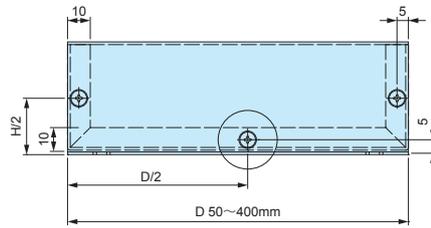
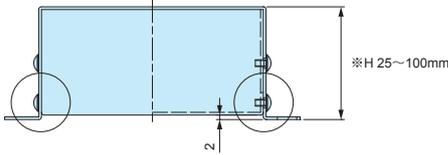
2-hole flange type

4-hole flange type



D dimension	a
50 ~ 60	10
61 ~ 140	15
141 ~ 240	20
241 ~ 400	30

Caution : Refer to the available dimensions on the chart.



[B10] Type

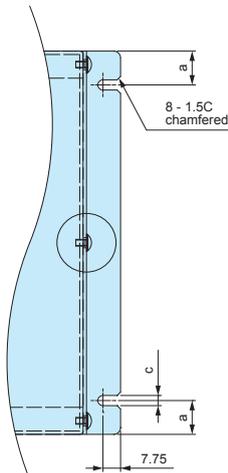
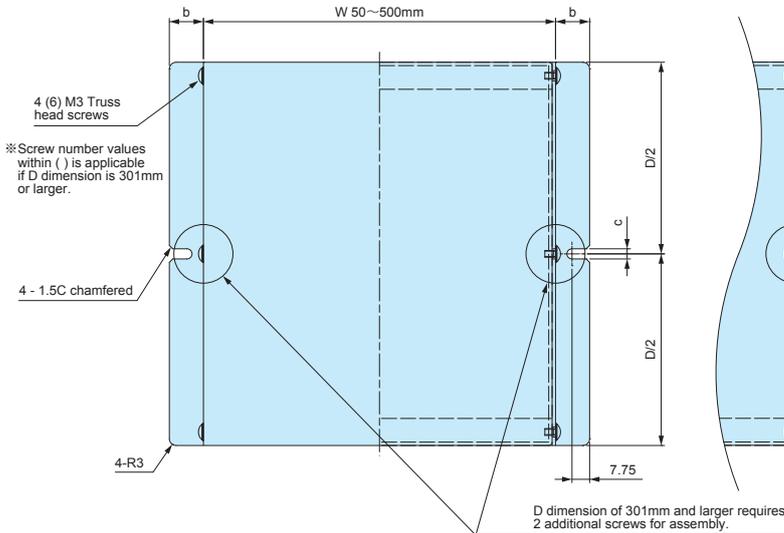
Reinforced • Panel thickness : 1.0mm

[B12] Type

Reinforced • Panel thickness : 1.2mm

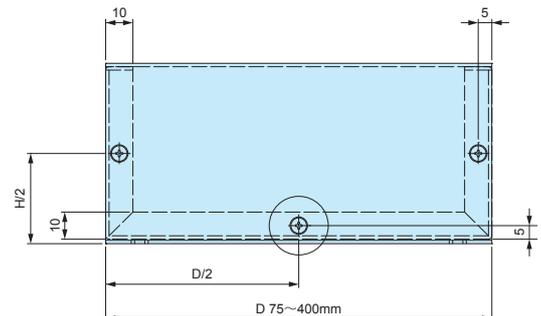
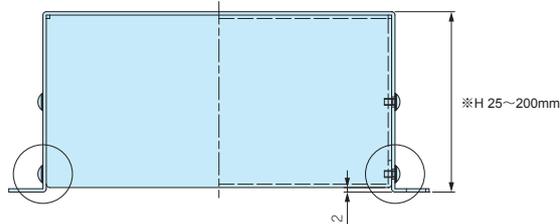
2-hole flange type

4-hole flange type



D dimension	a	b	c
50 ~ 60	10	15	4.5
61 ~ 140	15	15	4.5
141 ~ 240	20	15	4.5
241 ~ 400	30	20	5.5

Caution : Refer to the available dimensions on the chart.

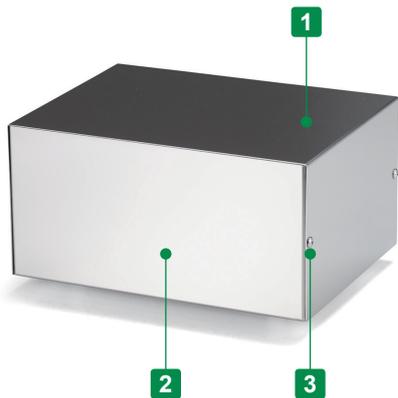


MBS SERIES

CUSTOM SIZED STAINLESS STEEL ENCLOSURE



- Adjustable sizes available in 1mm intervals, with W dimensions from 50 ~ 500mm, D dimensions from 50 ~ 500mm, and H dimensions from 20 ~ 250mm.
- SUS304 stainless steel allows the enclosure to be conductive.



CUSTOMIZED EXAMPLE

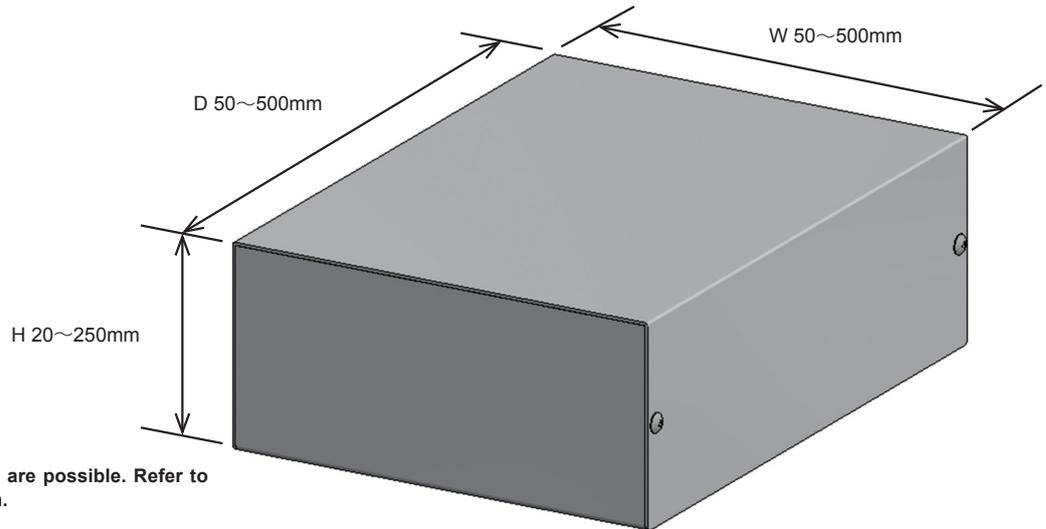


Components

No.	Part name	Pcs	Material	Color / Finish
1	Cover	1	Stainless steel SUS304	Bright annealed (BA)
2	Base	1	Stainless steel SUS304	Bright annealed (BA)
3	Screw (Truss M3-5)	4 or 6	Stainless steel	Unfinished

1 Specify Dimensions

Specify dimensions in 1mm intervals.



Caution : Not all size combinations are possible. Refer to chart for more information.

■ Panel thickness and base types vary by W / H / D dimensions.
Refer to the chart on page MBS-3 for A08, B10 or B12 type selection by W, H & D dimensions.

Base Type A	Base Type B	
[A08] Type	[B10] Type	[B12] Type
W : 200 • H : 100 • D : 500 or smaller Type A : Standard • Panel thickness : 0.8mm	W : 300 • H : 225 • D : 400 or smaller Type B : Reinforced • Panel thickness : 1.0mm	W : 500 • H : 250 • D : 500 or smaller Type B : Reinforced • Panel thickness : 1.2mm

Confirm Product No.

Confirm an assigned product number in the following order format as below.

Product no. MBS



Example : W = 122 mm, H = 70 mm, D = 130 mm, A base type in panel thickness of 0.8mm.

Lead time

Custom Size Only	9 business days (1 ~ 3 pcs)
Custom Size + Hole Milling	10 business days (1 ~ 3 pcs)

Order Inquiry

For more information, contact us here at sales@takachi-el.co.jp

MBS Type Chart

Refer to the below chart for A08, B10 or B12 type selection by W, H & D dimensions.

[A08] Type	Standard • Panel thickness : 0.8mm
[B10] Type	Reinforced • Panel thickness : 1.0mm
[B12] Type	Reinforced • Panel thickness : 1.2mm

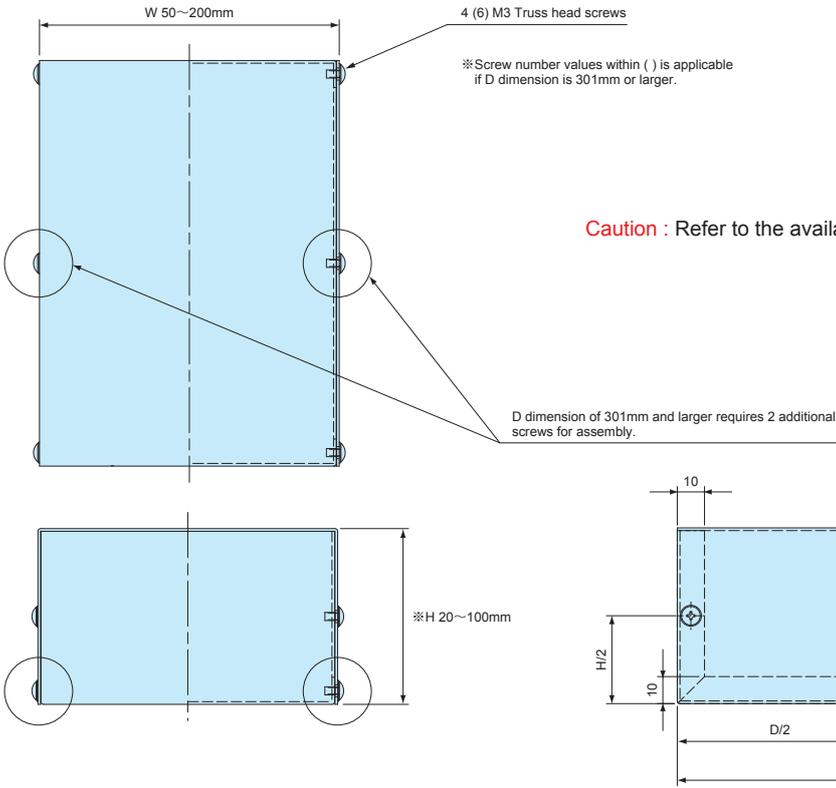
■ [-] sizes are not available.

W	H	D	4 screw fixing points										6 screw fixing points							
			50~79	80~99	100~125	126~150	151~175	176~200	201~225	226~250	251~275	276~300	301~325	326~350	351~375	376~400	401~425	426~450	451~475	476~500
50~99	20~35	35	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08
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100~150	20~50	50	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08	A08
		51~75	-	-	A08	A08	A08	A08	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		76~100	-	-	-	A08	A08	A08	A08	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
151~200	20~50	50	-	A08	A08	A08	A08	A08	A08	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		51~75	-	-	A08	A08	A08	A08	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		76~100	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10						
		101~125	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		126~150	-	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
201~250	20~50	50	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		51~75	-	-	B10	B10	B10	B10	B10	B10	B10	B10								
		76~100	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10							
		101~125	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10						
		126~150	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		151~175	-	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
251~300	20~50	50	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		51~75	-	-	B10	B10	B10	B10	B10	B10	B10	B10								
		76~100	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10							
		101~125	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10						
		126~150	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		151~175	-	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
		176~200	-	-	-	-	-	-	-	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10
301~350	20~50	50	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		51~75	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		76~100	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		101~125	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		126~150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		151~175	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		176~200	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		201~225	-	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	
351~400	20~50	50	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		51~75	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		76~100	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		101~125	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		126~150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		151~175	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		176~200	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		201~225	-	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		226~250	-	-	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	
401~450	20~50	50	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		51~75	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		76~100	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		101~125	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		126~150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		151~175	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		176~200	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		201~225	-	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	
451~500	20~50	50	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		51~75	-	-	-	B12	B12	B12	B12	B12	B12	B12								
		76~100	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		101~125	-	-	-	-	B12	B12	B12	B12	B12	B12	B12							
		126~150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		151~175	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
		176~200	-	-	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	

MBS dimensions

[A08] Type

Standard • Panel thickness : 0.8mm

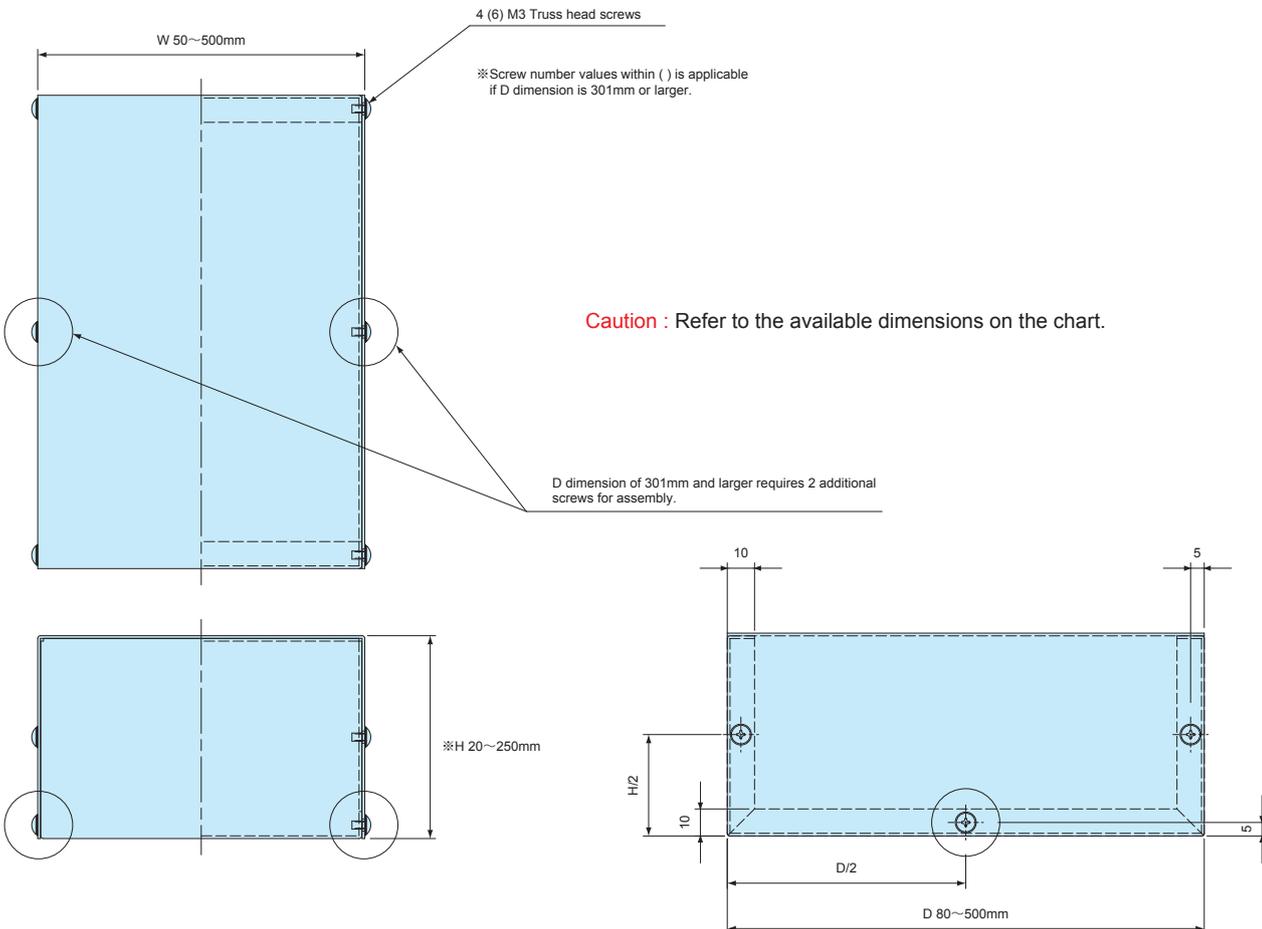


[B10] Type

Reinforced • Panel thickness : 1.0mm

[B12] Type

Reinforced • Panel thickness : 1.2mm

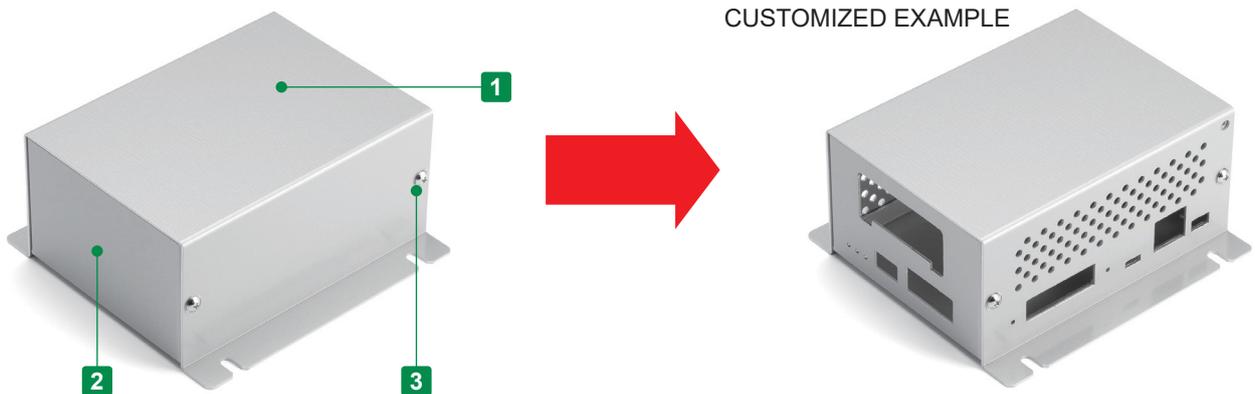


MBCF SERIES

CUSTOM SIZED EXTRUDED ALUMINIUM ENCLOSURE



- Adjustable sizes available in 1mm intervals, with W dimensions from 50 ~ 500mm, D dimensions from 50 ~ 400mm, and H dimensions from 25 ~ 200mm.
- Wall mount flange holes available in 2 models: 2-hole, and 4-hole types.
- A conductive coating is applied onto the internal surface, making earthing possible.

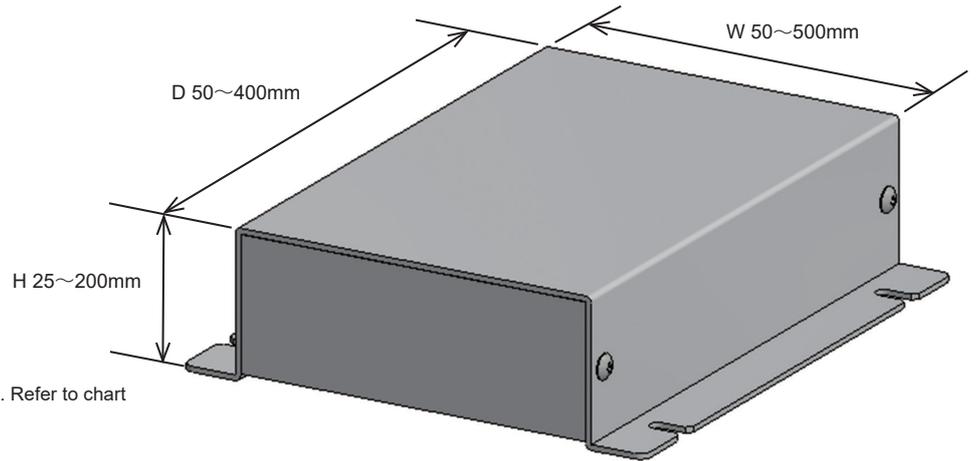


Components

No.	Part name	Pcs	Material	Color / Finish
1	Cover	1	Aluminium A1100P	Metallic silver / Painted : Conductive coated internal surface
2	Base	1	Aluminium A1100P	Metallic silver / Painted : Conductive coated internal surface
3	Screw (Truss M3-5)	4 or 6	Brass	Nickel plated

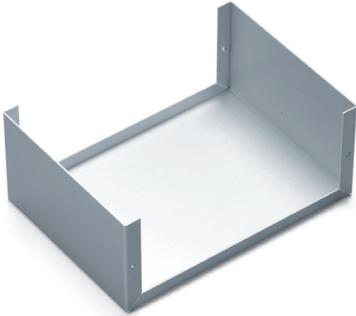
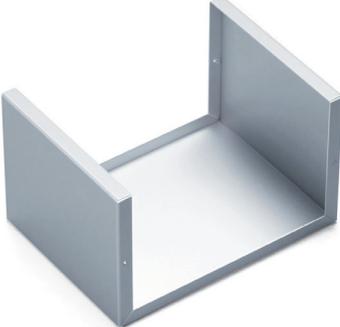
1 Specify Dimensions

Specify dimensions in 1mm intervals.



Caution : Not all size combinations are possible. Refer to chart for more information.

- Panel thickness and base types vary by W / H / D dimensions. Refer to the chart on page MBCF-3 for A12, B12 or B15 type selection by W, H & D dimensions.

Base Type A	Base Type B	
[A12] Type	[B12] Type	[B15] Type
W : 200 • H : 100 • D : 400 or smaller Type A : Standard • Panel thickness : 1.2mm	W : 300 • H : 200 • D : 400 or smaller Type B : Reinforced • Panel thickness : 1.2mm	W : 500 • H : 200 • D : 400 or smaller Type B : Reinforced • Panel thickness : 1.5mm
		

2 Select Flange-hole Type



Confirm Product No.

Confirm an assigned product number in the following order format as below.

Product no. MBCF	155	-	80	-	200	Base type	12	-	4
	W		H		D	Base type	Panel thickness		Flange hole

Example : W = 155 mm, H = 80 mm, D = 200 mm, B base type in panel thickness of 1.2mm, 4 flange holes

Lead time

Custom Size Only	5 business days (1 ~ 3 pcs)
Custom Size + Hole Milling	8 business days (1 ~ 3 pcs)

Order Inquiry

For more information, contact us here at sales@takachi-el.co.jp

MBCF Type Chart

Refer to the below chart for A12, B12 or B15 type selection by W, H & D dimensions.

[A12] Type	Standard • Panel thickness : 1.2mm
[B12] Type	Reinforced • Panel thickness : 1.2mm
[B15] Type	Reinforced • Panel thickness : 1.5mm

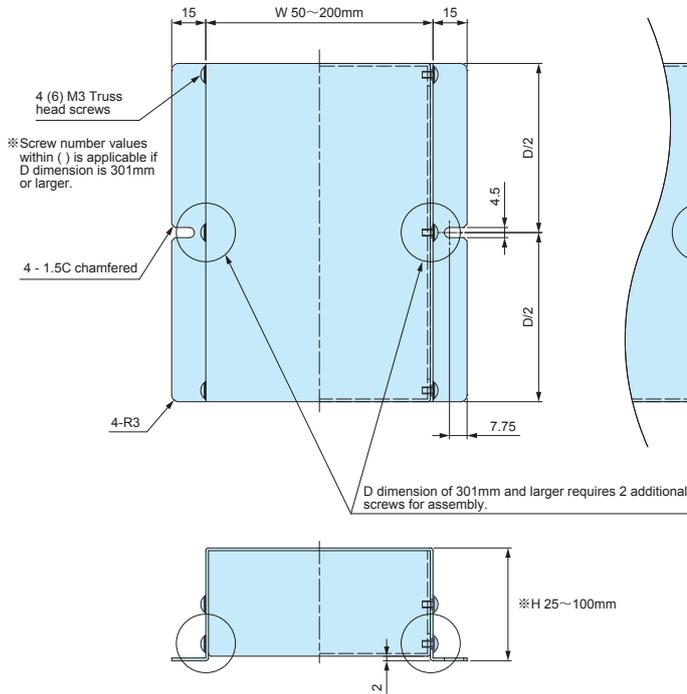
■ [-] sizes are not available.

W	H	D	4x fixing screw points										6x fixing screw points				
			50~74	75~99	100~125	126~150	151~175	176~200	201~225	226~250	251~275	276~300	301~325	326~350	351~375	376~400	
50~99		25~35	A12	A12	A12	A12	A12	A12	A12	A12	A12	A12	A12	A12	A12	A12	
		36~50	-	A12	A12	A12	A12	A12	A12	A12	A12	A12	A12	B12	B12	B12	B12
100~150		25~29	-	A12	A12	A12	A12	A12	A12	B12	B12	B12	B12	-	-	-	-
		30~50	-	A12	A12	A12	A12	A12	A12	B12	B12	B12	B12	B15	B15	B15	B15
		51~75	-	-	A12	A12	A12	A12	A12	B12	B12	B12	B12	B15	B15	B15	B15
		76~100	-	-	-	A12	A12	A12	A12	B12	B12	B12	B12	B15	B15	B15	B15
151~200		25~29	-	A12	A12	A12	A12	A12	A12	B12	B12	B12	B12	-	-	-	-
		30~50	-	A12	A12	A12	A12	A12	A12	B12	B12	B12	B12	B15	B15	B15	B15
		51~75	-	-	B12	B15	B15	B15	B15								
		76~100	-	-	-	B12	B15	B15	B15	B15							
		101~125	-	-	-	-	B12	B15	B15	B15	B15						
201~250		126~150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15
		25~29	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	-	-	-	-
		30~50	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15
		51~75	-	-	B12	B15	B15	B15	B15								
		76~100	-	-	-	B12	B15	B15	B15	B15							
		101~125	-	-	-	-	B12	B15	B15	B15	B15						
		126~150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15
251~300		151~175	-	-	-	-	-	-	B12	B12	B12	B12	B12	B15	B15	B15	B15
		176~200	-	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15	B15	B15
		25~29	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	-	-	-	-
		30~50	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15
		51~75	-	-	B12	B15	B15	B15	B15								
		76~100	-	-	-	B12	B15	B15	B15	B15							
		101~125	-	-	-	-	B12	B15	B15	B15	B15						
301~350		126~150	-	-	-	-	-	B12	B12	B12	B12	B12	B15	B15	B15	B15	
		151~175	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15	B15	B15	
		176~200	-	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15	B15	B15
		25~29	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	-	-	-	-
		30~50	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15
		51~75	-	-	B12	B15	B15	B15	B15								
		76~100	-	-	-	B12	B15	B15	B15	B15							
351~400		101~125	-	-	-	-	-	B12	B12	B12	B12	B12	B15	B15	B15	B15	
		126~150	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15	B15	B15	
		151~175	-	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15	B15	B15
		176~200	-	-	-	-	-	-	-	-	B12	B12	B12	B15	B15	B15	B15
		25~29	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	-	-	-	-
		30~50	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15
		51~75	-	-	B12	B15	B15	B15	B15								
401~450		76~100	-	-	-	-	-	B12	B12	B12	B12	B12	B15	B15	B15	B15	
		101~125	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15	B15	B15	
		126~150	-	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15	B15	B15
		151~175	-	-	-	-	-	-	-	-	B12	B12	B12	B15	B15	B15	B15
		176~200	-	-	-	-	-	-	-	-	-	B12	B12	B15	B15	B15	B15
		25~29	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	-	-	-	-
		30~50	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15
451~500		51~75	-	-	-	-	-	-	-	B12	B12	B12	B15	B15	B15	B15	
		76~100	-	-	-	-	-	-	-	-	B12	B12	B12	B15	B15	B15	B15
		101~125	-	-	-	-	-	-	-	-	B12	B12	B12	B15	B15	B15	B15
		126~150	-	-	-	-	-	-	-	-	-	B12	B12	B15	B15	B15	B15
		151~175	-	-	-	-	-	-	-	-	-	-	B12	B15	B15	B15	B15
		176~200	-	-	-	-	-	-	-	-	-	-	-	B12	B15	B15	B15
		25~29	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	-	-	-	-

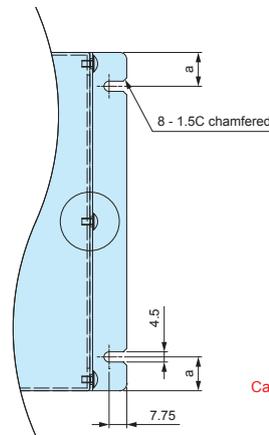
MBCF dimensions

[A12] Type Standard • Panel thickness : 1.2mm

2-hole flange type

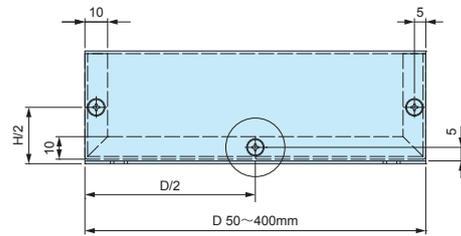


4-hole flange type



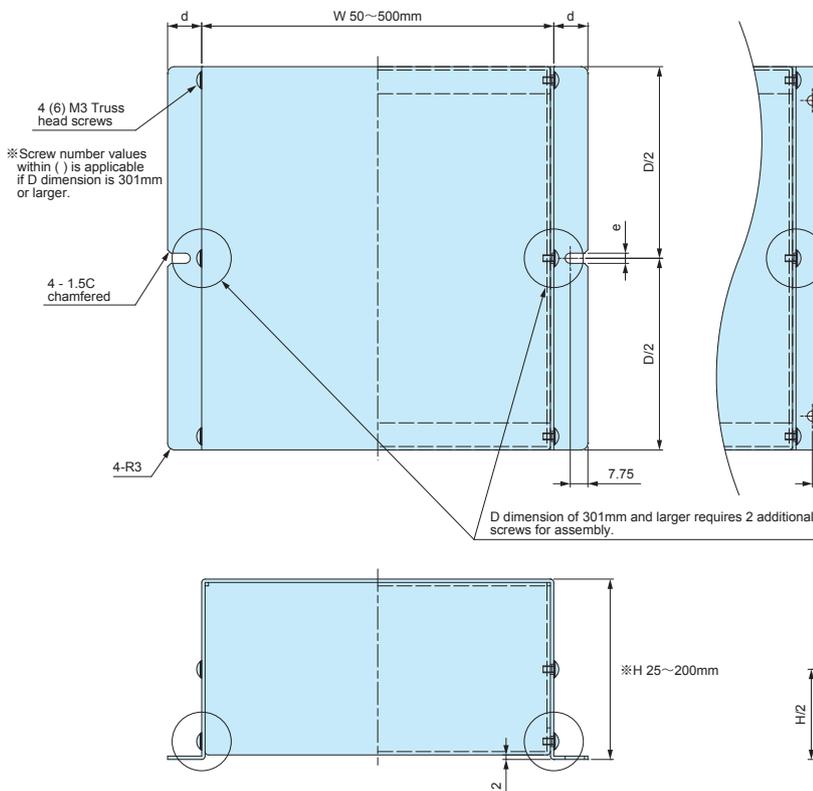
D dimension	a
50 ~ 60	10
61 ~ 140	15
141 ~ 240	20
241 ~ 400	30

Caution : Refer to the available dimensions on the chart.

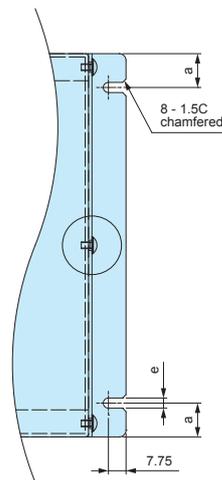


[B12] Type Reinforced • Panel thickness : 1.2mm

2-hole flange type



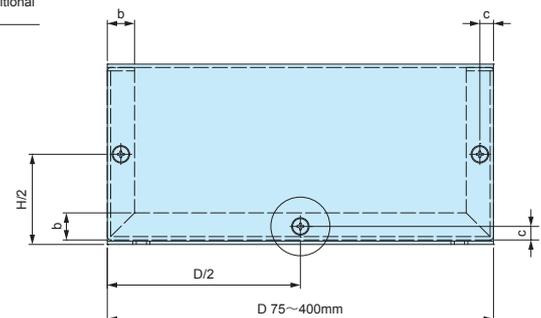
4-hole flange type

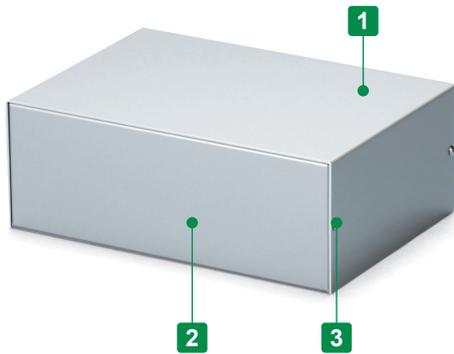
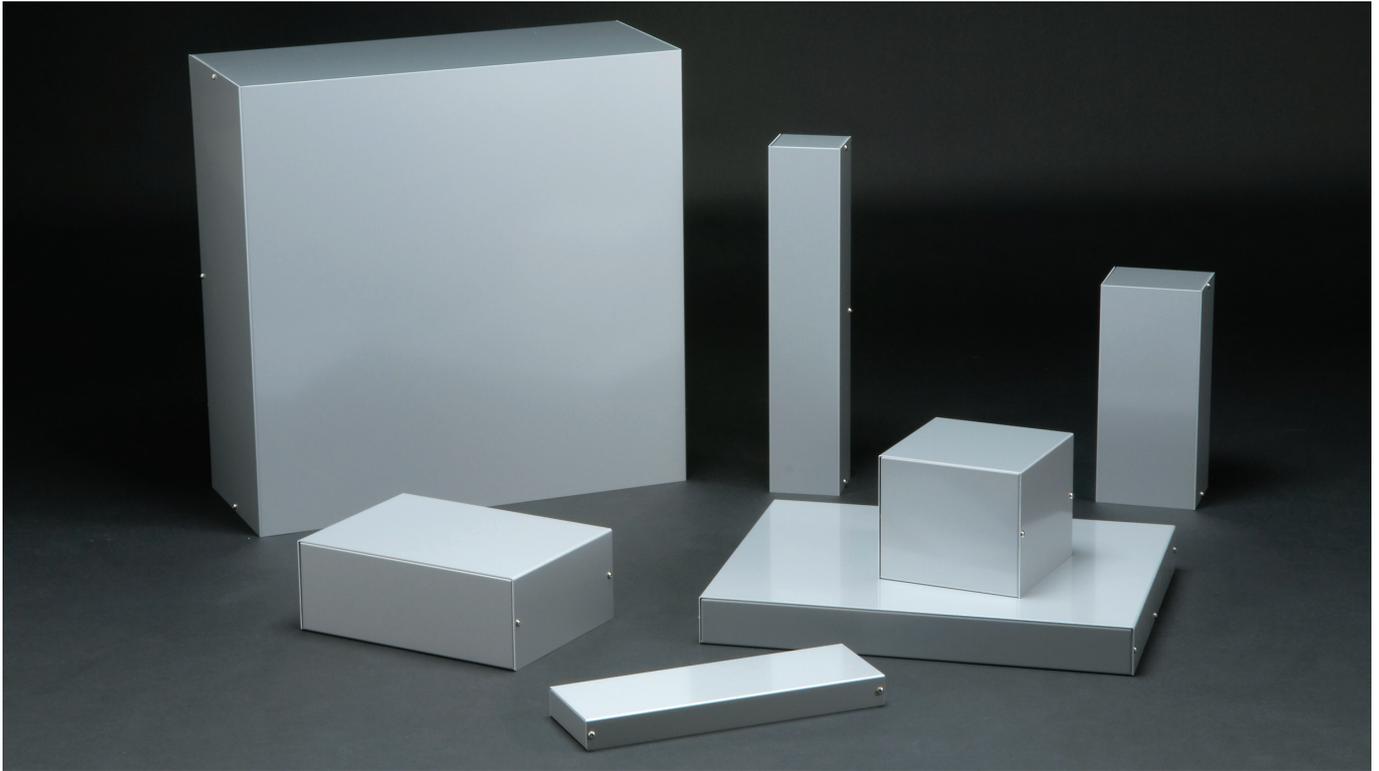


D dimension	a
50 ~ 60	10
61 ~ 140	15
141 ~ 240	20
241 ~ 400	30

Base Type	b	c	d	e
[B12]	10	5	15	4.5
[B15]	12	6	20	5.5

Caution : Refer to the available dimensions on the chart.





CUSTOMIZED EXAMPLE



- Adjustable sizes available in 1mm intervals, with W and D dimensions from 50 ~ 500mm, and H dimension from 20 ~ 250mm.
- A conductive coating is applied onto the internal surface, allowing for easy earthing.
- Customization services are available (relevant drawings and data will be required).
- Standard size MB series is also available. See MB series product pages for more information.

Components

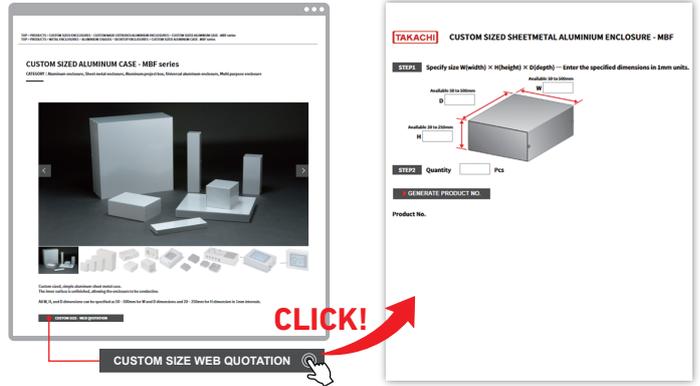
No.	Part name	Pcs	Material	Color / Finish
1	Cover	1	Aluminium A1100P	Metallic silver / Painted : Conductive coated internal surface
2	Base	1	Aluminium A1100P	Metallic silver / Painted : Conductive coated internal surface
3	Screw (Truss head M3-5)	4 or 6	Steel	Nickel plated

■ Cover • Base are covered with a protective film on one side.

CUSTOM SIZE WEB QUOTATION

Send your inquiry via our online form now!

Visit the MBF product page on our website, click on the "CUSTOM SIZE WEB QUOTATION" button, and fill in the required details. The product number will be generated, and once your information have been filled in, simply click on SUBMIT and await for our sales team's contact!



MBF Type Chart

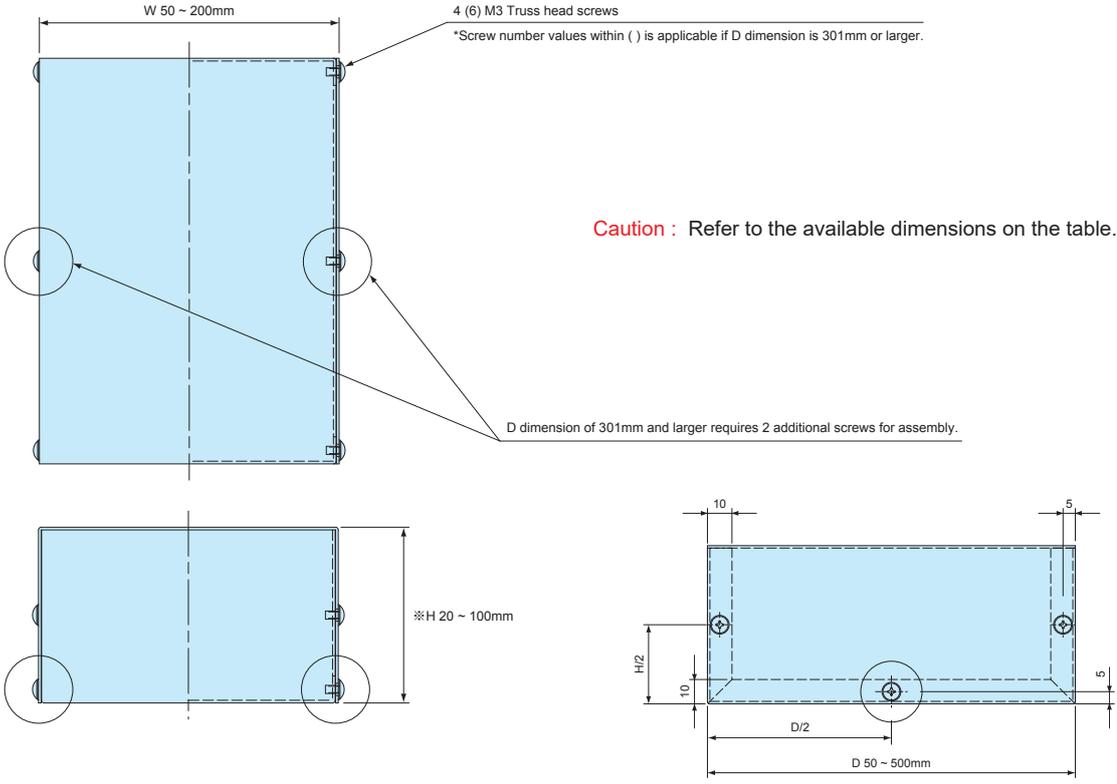
Refer to the below chart for A10, B12 or B15 type selection by W, H & D dimensions.

[A10] Type	Standard • Panel thickness : 1.0mm
[B12] Type	Reinforced • Panel thickness : 1.2mm
[B15] Type	Reinforced • Panel thickness : 1.5mm

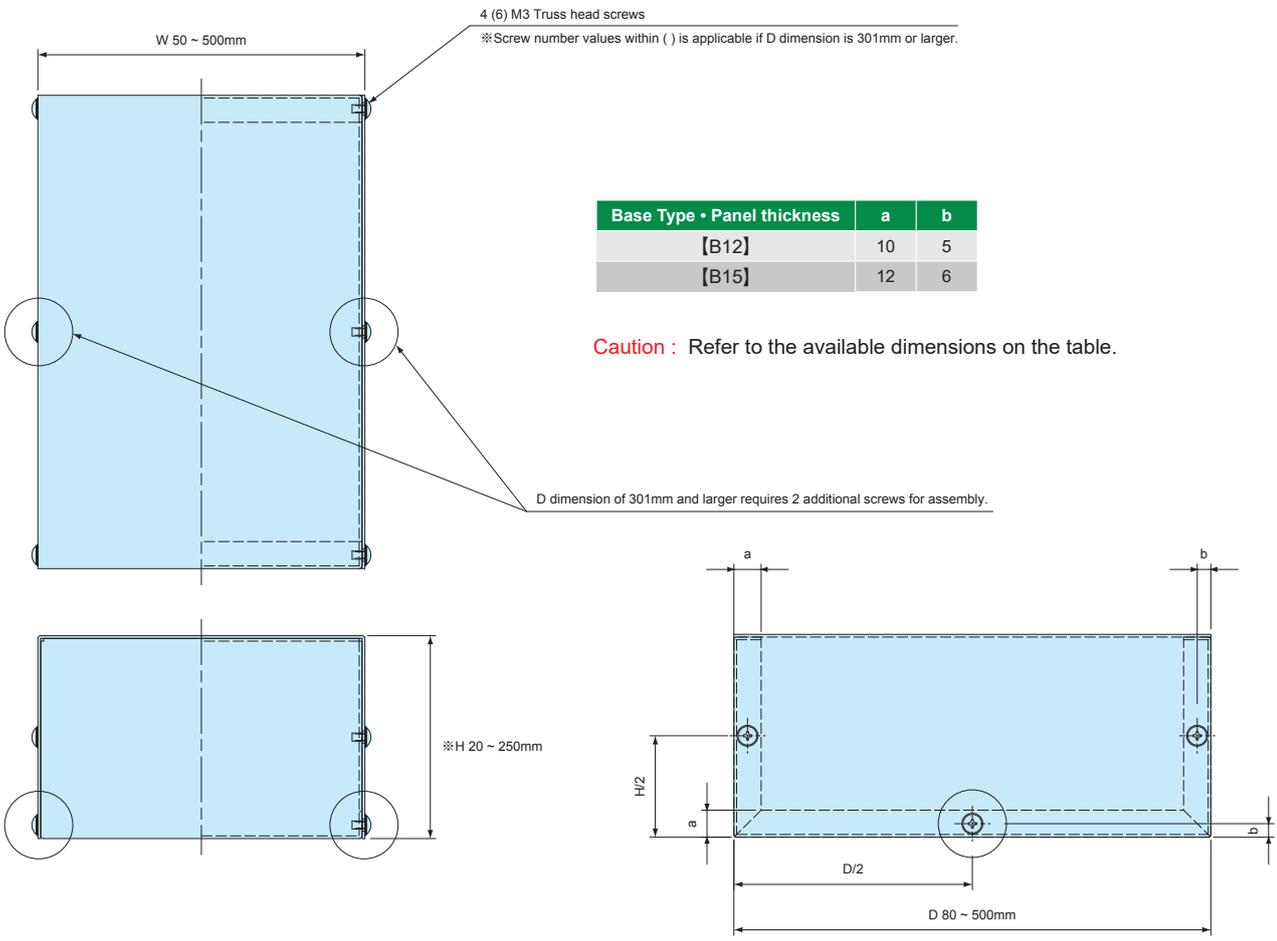
■ [-] sizes are not available.

W	D	4x fixing screw points										6x fixing screw points									
		50 ~ 79	80 ~ 99	100 ~ 125	126 ~ 150	151 ~ 175	176 ~ 200	201 ~ 225	226 ~ 250	251 ~ 275	276 ~ 300	301 ~ 325	326 ~ 350	351 ~ 375	376 ~ 400	401 ~ 425	426 ~ 450	451 ~ 475	476 ~ 500		
50 ~ 99	20 ~ 35	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	
	36 ~ 50	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	A10	
	51 ~ 75	-	A10	A10	A10	A10	A10	A10	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15	B15	B15	
100 ~ 150	20 ~ 50	A10	A10	A10	A10	A10	A10	A10	B12	B12	B12	B12	B15	B15							
	51 ~ 75	-	A10	A10	A10	A10	A10	A10	B12	B12	B12	B12	B15	B15							
	76 ~ 100	-	A10	A10	A10	A10	A10	A10	B12	B12	B12	B12	B15	B15							
151 ~ 200	20 ~ 50	A10	A10	A10	A10	A10	A10	A10	B12	B12	B12	B12	B15	B15							
	51 ~ 75	-	-	A10	A10	A10	A10	A10	B12	B12	B12	B12	B15	B15							
	76 ~ 100	-	-	-	B12	B15	B15														
	101 ~ 125	-	-	-	-	B12	B15	B15													
201 ~ 250	126 ~ 150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B15	B15							
	20 ~ 50	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15							
	51 ~ 75	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15							
	76 ~ 100	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15							
	101 ~ 125	-	-	-	-	B12	B15	B15													
	126 ~ 150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B15	B15							
	151 ~ 175	-	-	-	-	-	-	B12	B12	B12	B12	B12	B15	B15							
251 ~ 300	176 ~ 200	-	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15							
	20 ~ 50	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15							
	51 ~ 75	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15							
	76 ~ 100	-	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B15	B15							
	101 ~ 125	-	-	-	-	B12	B15	B15													
	126 ~ 150	-	-	-	-	-	B12	B12	B12	B12	B12	B12	B15	B15							
	151 ~ 175	-	-	-	-	-	-	B12	B12	B12	B12	B12	B15	B15							
301 ~ 350	176 ~ 200	-	-	-	-	-	-	-	B12	B12	B12	B12	B15	B15							
	201 ~ 225	-	-	-	-	-	-	-	-	B12	B12	B12	B15	B15							
	226 ~ 250	-	-	-	-	-	-	-	-	-	B12	B12	B15	B15							
	20 ~ 50	-	B12	B12	B15	B15	B15	B15	B15	B15	B15	B15	B15								
	51 ~ 75	-	B12	B12	B15	B15	B15	B15	B15	B15	B15	B15	B15								
	76 ~ 100	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	101 ~ 125	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15							
351 ~ 400	126 ~ 150	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	151 ~ 175	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	176 ~ 200	-	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	201 ~ 225	-	-	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	226 ~ 250	-	-	-	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	20 ~ 50	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	51 ~ 75	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
401 ~ 450	76 ~ 100	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	101 ~ 125	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15							
	126 ~ 150	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	151 ~ 175	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	176 ~ 200	-	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	201 ~ 225	-	-	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	226 ~ 250	-	-	-	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
451 ~ 500	20 ~ 50	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	51 ~ 75	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	76 ~ 100	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	101 ~ 125	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15							
	126 ~ 150	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	151 ~ 175	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	
	176 ~ 200	-	-	-	-	-	-	-	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	

[A10] Type Standard • Panel thickness : 1.0mm



[B12] Type Reinforced • Panel thickness : 1.2mm **[B15] Type** Reinforced • Panel thickness : 1.5mm



AST series

INSERT NUT ADHESIVE STANDOFF

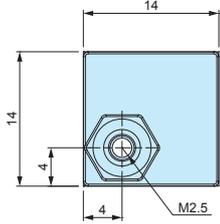


- Double-sided adhesive tape allows the standoff to be mounted quickly and easily; allows PCB mounting in non-boss enclosures.
- Convenient for installing PCBs into enclosures without the need for customization.
- Please ensure that surface is cleaned and grease-free before adhering.
- Once removed, it cannot be adhered on again.

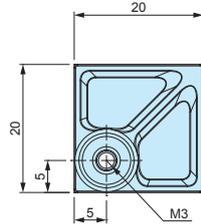
AST dimensions

■ DXF/DWG/PDF/STP drawings available on our website.

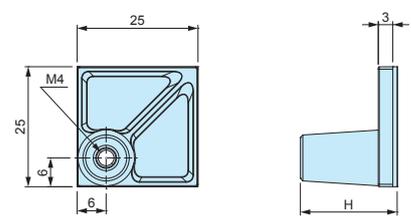
AST2.5-□



AST3-□



AST4-□



Product no. / Details

Bulk package

Product no	H dimension	Included screw	Recommended PCB thickness (mm)	Recommended torque (N • m)	Weight (g)	Pack of	Product no	Pack of
AST2.5-5B	5	M2.5-5 pan head	1.0 ~ 2.0	0.3	0.6 (1 piece)	4	AST2.5-5B-P	100
AST2.5-10B	10	M2.5-5 pan head	1.0 ~ 2.0	0.3	0.8 (1 piece)	4	AST2.5-10B-P	100
AST3-6B	6	M3-6 pan head	1.0 ~ 3.0	0.4	1.5 (1 piece)	4	AST3-6B-P	100
AST3-10B	10	M3-6 pan head	1.0 ~ 3.0	0.4	1.6 (1 piece)	4	AST3-10B-P	100
AST3-15B	15	M3-6 pan head	1.0 ~ 3.0	0.4	1.8 (1 piece)	4	AST3-15B-P	100
AST3-20B	20	M3-6 pan head	1.0 ~ 3.0	0.4	2.1 (1 piece)	4	AST3-20B-P	100
AST4-10.5B	10.5	M4-8 pan head	1.0 ~ 3.5	0.8	2.6 (1 piece)	4	AST4-10.5B-P	50
AST4-20B	20	M4-8 pan head	1.0 ~ 3.5	0.8	3.2 (1 piece)	4	AST4-20B-P	50

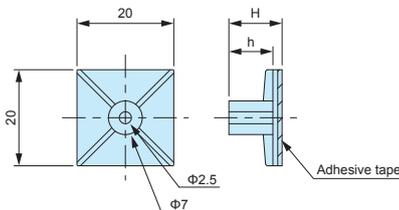
- Base material / color : Nylon 66 (UL94V-2) / Black
- Nut • screw material / finish : Steel / Trivalent chromate

- Bulk packaging is available. See "Bulk package" column above.
- Screws are not included for bulk packages.

ASR series

ADHESIVE PCB STANDOFF

ASR dimensions



■ DXF/DWG/PDF drawings available on our website.

Technical Data
Recommended torque : 0.4N • m

- M3 tapping screw use adhesive standoff. Recommended to be used with EM-3 or EM-3-6 self-tapping screws (See page 398).
- Please ensure that surface is cleaned and grease-free before adhering.
- Once removed, it cannot be adhered on again.

Product no. / Details

■ Material / Color: Nylon 66 (UL94V-2) / Natural

Product no	H	h	Weight (g)	Pack of
ASR- 5	5.1	3.1	0.9 (1 piece)	10
ASR- 6	6.4	4.4	1.0 (1 piece)	10
ASR- 7	7.2	5.1	0.9 (1 piece)	10
ASR- 8	8.1	6.3	0.9 (1 piece)	10
ASR- 9	9	7	1.0 (1 piece)	10
ASR-11	11	9	1.0 (1 piece)	10
ASR-13	12.7	10.7	1.2 (1 piece)	10
ASR-14.5	14.7	12.8	1.1 (1 piece)	10
ASR-16	15.9	13.9	1.3 (1 piece)	10
ASR-19	19.1	17.1	1.4 (1 piece)	10

Clinching Fastener

Self-clinching Standoff / Stud / Nut

Easy attaching of self-clinching fasteners into simple through-holes.

Need standoffs for mounting PCB/ Components in metallic enclosures.



Using threaded standoffs.



Self-clinching standoffs reduces assembly processes.

Need studs in/on aluminium enclosures.



A screw fastened with a nut and used as a stud.



Self-clinching stud makes for a flat and beautiful finish.

Need tough thread hole(s) on 1.0mm thick aluminium.



Using burred holes.



Self-clinching nuts provide tougher thread holes.

● A wide variety of self-clinching fasteners are available for selection.



ST · STS series

Self-clinching Standoffs
(Through-hole type)



SB · SBS series

Self-clinching Standoffs
(Blind type)



NM · NS series

Self-clinching nuts
(Round type)



NR series

Self-clinching nuts
(Hex type)



CS series

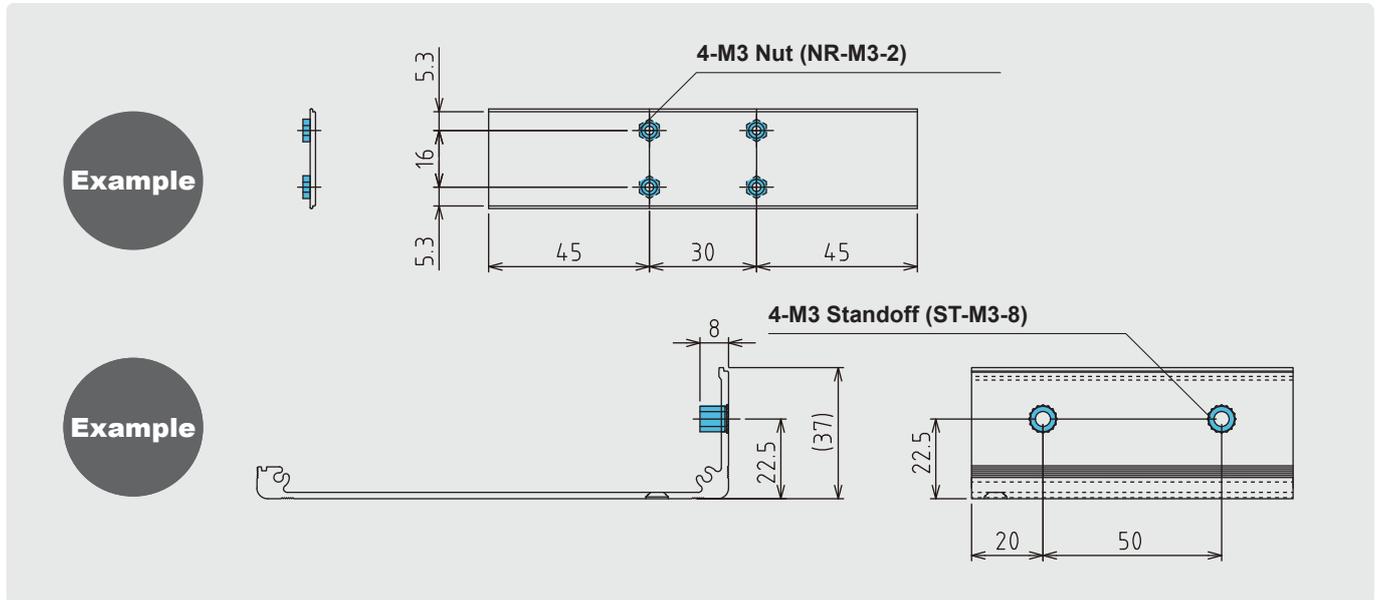
Self-clinching studs



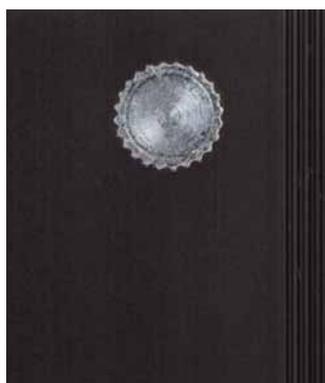
BN series

Self-clinching nuts
(Blind type)

● See "Thread and length size chart" on page clinching-3 to clinching-6. Kindly specify and put the relevant "Part #" in your drawings.



EXAMPLE



ST · STS Through-hole type

SB · SBS Blind type



Thread and length size chart

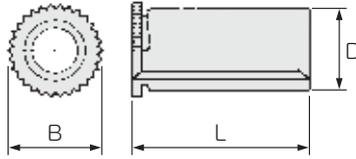


ST·STS series

Standoffs (Through-hole type)



Drawing



Material : Steel / Trivalent zinc plated
Stainless steel / Passivated

For length (L) up to 12mm, it will be fully threaded.
For length (L) 13mm or longer, threading is only up to 10mm.

Stainless steel models are BTO (built-to-order) . New sizes.

All dimensions are in mm

Part # (Steel)	Part # (Stainless steel) for use with panel thickness t=1.0mm+	Part # (Stainless steel) for use with panel thickness t=0.8mm	Thread code	Thread pitch	D -0.08	B +/-0.2	L +/-0.1	Minimum sheet thickness	Hole size +0.08 / -0	*Minimum distance
ST-M2-6			M2	0.4	4.18	5.2	6	1.0	4.2	6.0
ST-M2-8							8			
ST-M2-10							10			
ST-M2-12							12			
ST-M2.5-6			M2.5	0.45	4.18	5.2	6	1.0	4.2	6.0
ST-M2.5-8							8			
ST-M2.5-10							10			
ST-M2.5-12							12			
ST-M3-3	STS-M3-3		M3	0.5	6.18	7.2	3	0.8-1.0	6.2	7.0
ST-M3-4	STS-M3-4						4			
ST-M3-5	STS-M3-5						5			
ST-M3-6	STS-M3-6	STS-M3-6-0.8					6			
ST-M3-7	STS-M3-7						7			
ST-M3-8	STS-M3-8	STS-M3-8-0.8					8			
ST-M3-9	STS-M3-9						9			
ST-M3-10	STS-M3-10	STS-M3-10-0.8					10			
ST-M3-11	STS-M3-11						11			
ST-M3-12	STS-M3-12	STS-M3-12-0.8					12			
ST-M3-13							13			
ST-M3-14							14			
ST-M3-15							15			
ST-M3-16							16			
ST-M3-17			17							
ST-M3-18			18							
ST-M3-20			20							
ST-M4-6	STS-M4-6		M4	0.7	7.18	8.2	6	1.0	7.2	8.0
ST-M4-7							7			
ST-M4-8	STS-M4-8						8			
ST-M4-9	STS-M4-9						9			
ST-M4-10	STS-M4-10						10			
ST-M4-12							12			
ST-M4-14							14			
ST-M4-16			16							
ST-M5-6			M5	0.8	7.18	8.2	6	1.0	7.2	8.0
ST-M5-8							8			
ST-M5-10							10			
ST-M5-12							12			

*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary.
Only available together with installation services. Not available separately.

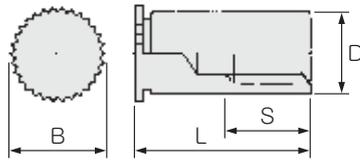
Thread and length size chart

SB·SBS series

Standoffs (Blind type)



Drawing



Material : Steel / Trivalent zinc plated
Stainless steel / Passivated

All dimensions are in mm

Part # (Steel)	Part # (Stainless steel)	Thread code	Thread pitch	D -0.08	B +/-0.2	L +/-0.1	Minimum S	Min. sheet thickness	Hole size +0.08 / -0	*Minimum distance
SB-M2-6		M2	0.4	4.18	5.2	6	3	1.0	4.2	6.0
SB-M2-8	8					4				
SB-M2-10	10					4				
SB-M2-12	12					5				
SB-M2.5-6		M2.5	0.45	4.18	5.2	6	3	1.0	4.2	6.0
SB-M2.5-8	8					4				
SB-M2.5-10	10					4				
SB-M2.5-12	12					5				
SB-M3-6	SBS-M3-6	M3	0.5	6.18	7.2	6	3	1.0	6.2	7.0
SB-M3-7	SBS-M3-7					7	3			
SB-M3-8	SBS-M3-8					8	4			
SB-M3-9	SBS-M3-9					9	4			
SB-M3-10	SBS-M3-10					10	4			
SB-M3-11						11	4			
SB-M3-12	SBS-M3-12					12	5			
SB-M3-13						13	5			
SB-M3-14	SBS-M3-14					14	6.5			
SB-M3-15						15	6.5			
SB-M3-16	SBS-M3-16					16	6.5			
SB-M3-17						17	6.5			
SB-M3-18						18	9.5			
SB-M3-20						20	9.5			
SB-M4-6	SBS-M4-6	M4	0.7	7.18	8.2	6	3	1.0	7.2	8.0
SB-M4-7						7	3			
SB-M4-8	SBS-M4-8					8	4			
SB-M4-9						9	4			
SB-M4-10	SBS-M4-10					10	4			
SB-M4-12						12	5			
SB-M4-14						14	6.5			
SB-M4-16						16	6.5			
SB-M5-8		M5	0.8	7.18	8.2	8	4	1.0	7.2	8.0
SB-M5-10						10	4			
SB-M5-12						12	5			

*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary. Only available together with installation services. Not available separately.

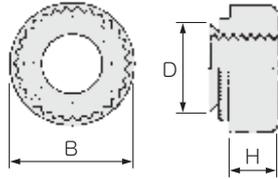
Thread and length size chart

NM·NS series

Nuts (Round through-hole type)



Drawing



Material : Steel / Trivalent zinc plated
Stainless steel / Passivated

All dimensions are in mm

Part # (Steel)	Part # (Stainless steel)	Thread code	Thread pitch	Maximum D	B +/-0.2	H +/-0.1	Min. sheet thickness	Hole size +0.08 / -0	*Minimum distance
NM-M2-1		M2	0.4	4.22	6.3	1.5	1.0	4.25	4.8
NM-M2.5-1		M 2.5	0.45	4.22	6.3	1.5	1.0	4.25	4.8
NM-M2.5-2	1.4								
NM-M3-1	NS-M3-1	M3	0.5	4.22	6.3	1.5	1.0	4.25	4.8
NM-M3-2							1.4		
NM-M4-1	NS-M4-1	M4	0.7	5.38	7.9	2.0	1.0	5.4	6.9
NM-M4-2							1.4		
NM-M5-1	NS-M5-1	M5	0.8	6.38	8.7	2.0	1.0	6.4	7.1
NM-M5-2							1.4		

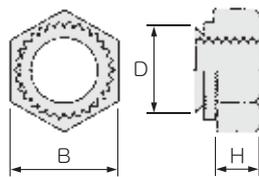
*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary.
Only available together with installation services. Not available separately.

NR series

Nuts (Hex through-hole type)



Drawing



Material : Steel / Trivalent zinc plated

All dimensions are in mm

Part #	Thread code	Thread pitch	Maximum D	B -0.2	H +/-0.1	Min. sheet thickness	Hole size +0.08 / -0	*Minimum distance
NR-M2-1	M2	0.4	4.45	5.5	2.0	1.0	4.5	4.5
NR-M2.5-1	M 2.5	0.45	4.45	5.5	2.0	1.0	4.5	4.5
NR-M3-1	M3	0.5	4.45	5.5	2.0	1.0	4.5	4.5
NR-M3-2						1.4		
NR-M4-1	M4	0.7	5.45	7.0	2.2	1.0	5.5	5.5
NR-M4-2						1.4		
NR-M5-1	M5	0.8	6.45	8.0	3.0	1.0	6.5	6.5
NR-M5-2						1.4		

*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary.
Only available together with installation services. Not available separately.

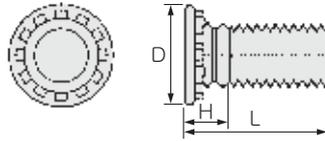
Thread and length size chart

CS series

Studs (Flush-head type)



Drawing



Material : Steel / Trivalent zinc plated

All dimensions are in mm

Part #	Thread code	Thread pitch	D +/-0.4	Maximum H	L +/-0.4	Min. sheet thickness	Hole size +0.08 / -0	*Minimum distance
CS-M3-8	M3	0.5	4.6	2.1	8	t1.0	3.0	5.6
CS-M3-10					10			
CS-M3-12					12			
CS-M3-15					15			
CS-M4-8	M4	0.7	5.9	2.4	8	t1.0	4.0	7.2
CS-M4-10					10			
CS-M4-12					12			
CS-M4-15					15			

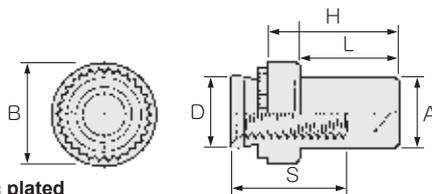
*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary. Only available together with installation services. Not available separately.

BN series

Nuts (Blind type)



Drawing



Material : Steel / Trivalent zinc plated



A specialized press machine for clinching is utilized to ensure that the standoffs / studs / nuts are securely attached.

All dimensions are in mm

Part #	Thread code	Thread pitch	Maximum D	Maximum A	B +/-0.25	Minimum S	H +/-0.25	Min. sheet thickness	Hole size +0.08 / -0	*Minimum distance
BN-M3-1	M3	0.5	4.22	3.8	6.35	5.3	9.6	1.0	4.25	4.8
BN-M3-2								1.4		
BN-M4-1	M4	0.7	5.38	5.2	7.95	6.8	11.2	1.0	5.4	6.9
BN-M4-2								1.4		

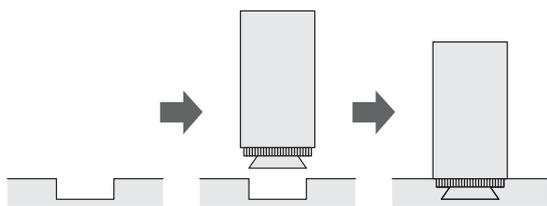
*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary. Only available together with installation services. Not available separately.

Clinching fastener

Concealed-head Self-clinching Standoffs (Non-through-hole type)

Installed into recessed pockets so that one side of the panel remains unmarred. Standoffs can be mounted onto 1.5mm or thicker material without requiring a through-hole to be milled.

Concealed-head standoffs/studs ensure that the IP rating (if the enclosure is a waterproof series) is maintained.



Concealed-head standoffs/studs give an aesthetically better finish on the enclosure. A recess cut is made on the internal side, and the standoffs are press-inserted in.

Mounting Mark Visibility

板厚	取付跡	
	M3	M4
1.5mm	△	×
2.0mm	◎	○
2.5mm	◎	◎
3.0mm~	◎	◎



Example : Clinching M4 standoff on 1.5mm thick material.
Mounting is possible on 1.5mm thick material. Mounting mark would be almost invisible on 2.5mm or thicker material.

- ◎ Almost invisible
- Barely visible
- △ Somewhat visible
- × Very visible

All dimensions are in mm

MK series Concealed-head Clinching Standoffs

Drawing

Material : Steel / Nickel plated

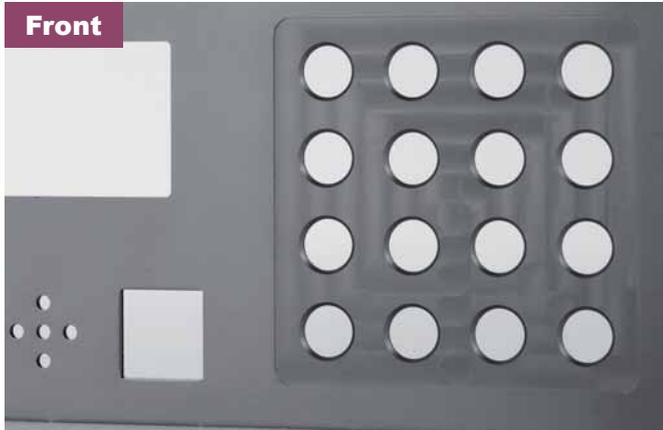
Part #	Thread code	Thread pitch	Maximum D	B +/-0.1	H +0 -0.1	L +/-0.1	Min. sheet thickness	Hole size +0.08 / -0	*Minimum distance								
MK-M3-3	M 3	0.5	4.45	6.0	0.95	3	1.5	4.5	4.5								
MK-M3-4						4											
MK-M3-5						5											
MK-M3-6						6											
MK-M3-7						7											
MK-M3-8						8											
MK-M3-9						9											
MK-M3-10						10											
MK-M3-11						11											
MK-M3-12						12											
MK-M4-3						M 4				0.7	5.45	8.0	0.95	3	1.5	5.5	5.5
MK-M4-4														4			
MK-M4-5	5																
MK-M4-6	6																
MK-M4-7	7																
MK-M4-8	8																
MK-M4-10	10																
MK-M4-12	12																
MK-M4-14	14																

*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary. Only available together with installation services. Not available separately.

Aluminium stud welding

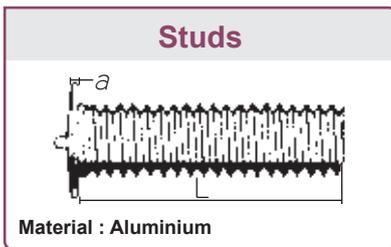
Welded Fasteners

Welded fasteners on aluminium objects.
Standoffs and studs with little surface weld marks can be achieved.



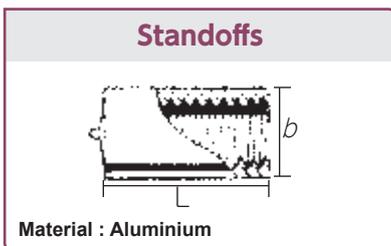
Weld marks may be more visible on plates thinner than 2.0mm.

All dimensions are in mm



Part #	Thread code	Thread pitch	a	L +/-0.2	*Minimum distance
AMS-M3-8	M3	0.5	0.8 ± 0.1	8	7.0
AMS-M3-10				10	
AMS-M3-12				12	
AMS-M3-15				15	
AMS-M4-8	M4	0.7	0.8 ± 0.1	8	7.0
AMS-M4-10				10	
AMS-M4-12				12	
AMS-M4-15				15	

*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary.



Part #	Thread code	Thread pitch	b	L +/-0.2	Available screw length	*Minimum distance
AFS-M3-5	M3	0.5	6	5	2.0	7.0
AFS-M3-6				6	2.5	
AFS-M3-7				7	3.5	
AFS-M3-8				8	4.5	
AFS-M3-9				9	5.5	
AFS-M4-8	M4	0.7	8	8	3.5	7.0
AFS-M4-10				10	5.5	
AFS-M4-12				12	7.5	

*Minimum distance = Minimum distance from hole center to edge. Installation requirements vary.

Welding



Example



Stainless steel and steel weld fasteners are also available. Please inquire for more details.

Only available together with installation services. Not available separately.

Insert Nuts and Heliserts (for plastic)

Inserts for plastic

Simple and easy way for stable fastening.
Simply insert the nuts into the bosses, and it will be refastenable.

LINE-UP

Press-in inserts



Material : Brass / Unfinished

Part #	Size	Hole size in bosses	Length (mm)
SP-M3	M3×0.5P	8 ~ 10	5.3
SP-M4	M4×0.7P	9.5 ~ 12	7.4
SP-M5	M5×0.8P	12 ~ 14	8.3

Threaded inserts



Material : Brass / Nickel plated

Part #	Size	Hole size in bosses	Length (mm)
IRB-2603S	M2.6×0.45P	5.5 ~ 6	3.0
IRB-304S	M3×0.5P	5.5 ~ 6	4.0
IRB-404S	M4×0.7P	6 ~ 10	4.0

Heliserts



Material : Stainless steel / Unfinished

Part #	Size	Hole size in bosses	Length (mm)
2TNM-M2	M2×0.4P	4 ~ 5	2.0
2TMN-M2.6	M2.6×0.45P	4.8 ~ 6	2.6
2TMN-M3	M3×0.5P	4.8 ~ 6	3.0

Comparison chart

Point \ Method	Press-in inserts	Threaded inserts	Heliserts
Strength	○	◎	◎
Cost	◎	▲	▲
Boss size	▲	○	◎

◎ : Excellent ○ : Good ▲ : Average

EXAMPLE

Press-in inserts



Threaded inserts



Heliserts

