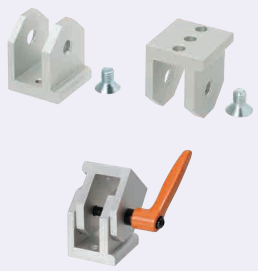
# Free Angle Brackets

## For 8-45 Series (Slot Width 10mm) Aluminum Extrusions

**Features:** Extrusions can be connected at any arbitrary angle.

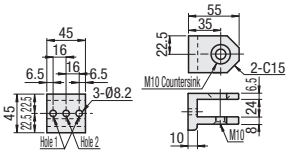
### Free Angle Brackets



| Type | M Material | S Surface Treatment |
|---|---|---|
| HBLTBA45<br>HBLTBBN45<br>HBLTBC45<br>HBLTBD45 | A6N01SS-T5 | Anodize |
| Included Screw | SCM435 | Trivalent Chromate |

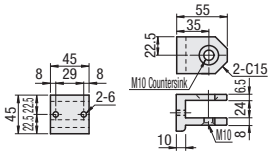
Extrusion Side Face Connection Type

**HBLTBA45** (An order of quantity 1 includes 1 pc.)




Extrusion Cross Section Connection Type

**HBLTBBN45** (An order of quantity 1 includes 1 pc.)

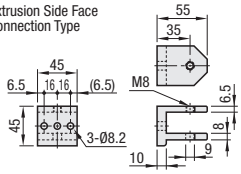



Clamp Lever Type

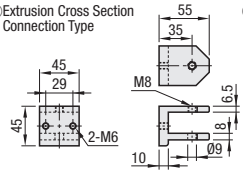
**HBLTBC45** (An order of quantity 1 includes 1 pc. each of ① and ③.)

**HBLTBD45** (An order of quantity 1 includes 1 pc. each of ② and ③.)

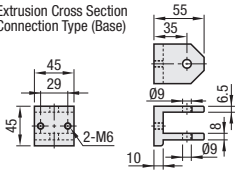
①Extrusion Side Face Connection Type




②Extrusion Cross Section Connection Type




③Extrusion Cross Section Connection Type (Base)




| Part Number Type | No. | Applicable Extrusion | Mass (g) | Accessory | Quantity | Unit Price 1 ~ 14 pc(s). | Volume Discount Rate 15~50 |
|---|---|---|---|---|---|---|---|
| HBLTBA | 45 | 45 Square (HFS8-45) | 113 | M10x16 | 1 | | |
| HBLTBBN | | | 116 | | | | |
| HBLTBC | | | 299 | CLDMC8-50-M | 1 | | |
| HBLTBD | | | 301 | | | | |

Ordering Example — Part Number: HBLTBA45

Alterations — Part Number - (SET·SET1·SET2·SET3·SET4·SET5)
HBLTBA45 - SET2
HBLTBBN45 - SET

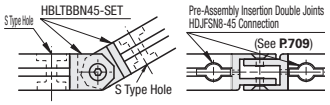
| Alterations | Code | How to Use | Part Number Type | No. | Accessory Screw | Quantity | Nuts, Pre-Assembly Insertion Double Joints | Quantity |
|---|---|---|---|---|---|---|---|---|
| Applicable Screws and Nuts Set | SET | | HBLTBBN | 45 | CBM6-35 | 2 | HDJFSN8-45 | 1 |
| | SET1 | Use the hole 1 | HBLTBA | | CBM8-20 | 2 | HNTT8-8 | 2 |
| | SET2 | Use the hole 2 | | | CBM8-20 | 1 | HNTT8-8 | 1 |
| | SET3 | Use the hole 1 | HBLTBC | | CBM6-35 | 2 | HDJFSN8-45 | 1 |
| | | | | | CBM8-20 | 2 | HNTT8-8 | 2 |
| | SET4 | Use the hole 2 | HBLTBC | | CBM6-35 | 2 | HDJFSN8-45 | 1 |
| | | | | | CBM8-20 | 1 | HNTT8-8 | 1 |
| | SET5 | | HBLTBD | | CBM6-35 | 4 | HDJFSN8-45 | 2 |

When connecting with Pre-Assembly Insertion Double Joints, S type hole machining (P.765) is required on extrusions.
Included Screw is not RoHS compliant when -SET□ is specified.

Example

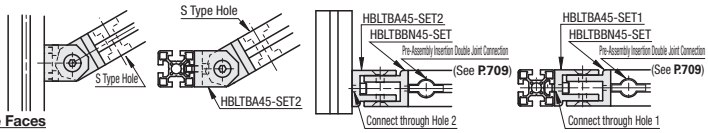
**(1) Connection of Two End Sections**

Two pieces of HBLTBBN are used to connect two end sections using Pre-Assembly Insertion Double Joints (P.709). (With Clamp Lever Type: HBLTBD45)



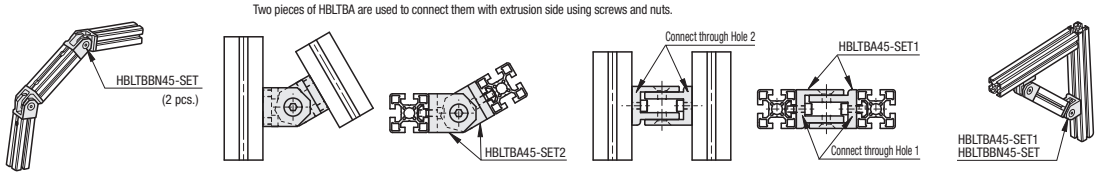

**(2) Connection of Two Side Faces**

To the extrusion side face, connect with HBLTBA, a screw and a nut. To the end face, use 1 HBLTBBN for 1 HBLTBA using Pre-Assembly Insertion Double Joint. (With Clamp Lever Type: HBLTBC45)



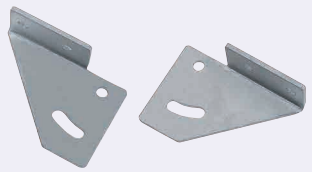

**(3) Connection of Two Side Faces**

Two pieces of HBLTBA are used to connect them with extrusion side using screws and nuts.




**Features:** Sheet Metal Brackets to fix at arbitrary positions.

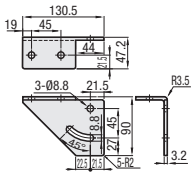
### Free Angle Sheet Metal Brackets



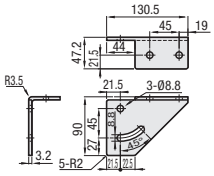
M Material: SPCC
S Surface Treatment: Trivalent Chromate

RoHS 10

**HBLPBL8-45**




**HBLPBR8-45**




Ordering Example — Part Number: HBLPBL8-45

| Part Number Type | No. | Applicable Extrusion | Applicable Screw and Nut: Hex Socket Head Cap Screws with Captured Washer | Quantity | Nut | Quantity | Unit Price 1~99 pc(s). | Volume Discount Rate 100~150 |
|---|---|---|---|---|---|---|---|---|
| HBLPBL<br>HBLPBR | 8-45 | 45 Square (HFS8-45) | CBST8-15 | 4 | HNTT8-8 | 4 | | |

Alterations — Part Number - (SET, SET1)
HBLPBL8-45 - SET

| Alterations | Code | Spec. | Applicable Bracket |
|---|---|---|---|
| Applicable Screws and Nuts Set | SET | Supplies a set of applicable screws and nuts for fixing the bracket to a extrusion. | HBLPBL8-45<br>HBLPBR8-45 |
| Set with applicable screws, nuts and clamp levers | SET1 | Applicable Screw: 3 pcs.<br>Clamp Lever (LNP): 1 pc.<br>Flat Washer (PWF) 1 pc.<br>Applicable Nut: 4 pcs.<br>Set with the above items. | HBLPBL8-45<br>HBLPBR8-45 |

Example