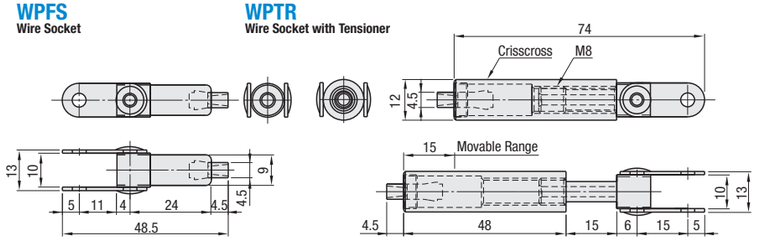
# Tensioners / Stainless Steel Wires

## For Aluminum Extrusions

**Tensioner Accessories for Aluminum Extrusions**

### WPFS
**Wire Socket**

### WPTR
**Wire Socket with Tensioner**



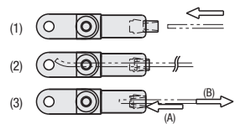

Can be mounted to HBLFSN5-C (**P.2692**).

**Material:** Free-Cutting Brass **Surface Treatment:** Nickel Plating

### Wire Sockets & Wire Sockets with Tensioner for Ø1.5 Stainless Steel Wire

| Part Number | | Mass (g) | Components | | | |
|---|---|---|---|---|---|---|
| Type | No. | | Truss Screw | Quantity | Acorn Nut | Quantity |
| WPFS | 1.5 | 19 | M4x25 | 1 | M4 | 1 |
| WPTR | | 44 | | | | |

**WPFS (Wire Socket)**

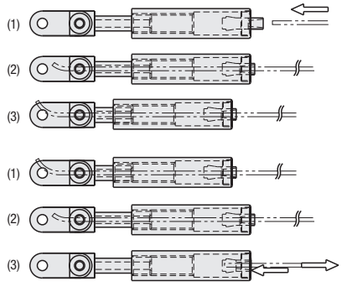



Insert wire

Insert to the end. Cannot be pulled out in this state.
(Safety load 30 kg, cut-off load 80 kg)

By pressing the tip (A) wire can be pulled out (B).
(Must remove tension in order to press wire.)

**WPTR (Wire Socket with Tensioner)**




Turn and extend the tensioner. Insert the wire.

Insert to the end. Cannot be pulled out in this state.
(Safe load 30g, Break load 80g)

Turn the tensioner and exert tension on the wire. Load tension within the working range of 15 mm.

The state where the tension is being exerted.

Loosen by turning the tensioner.

By pressing the tip (A) wire can be pulled out (B).
(Remove tension in order to press wire.)

**Inserting Wire**

Insert the wire from the pin side. While doing so, insert the wire enough into the pin. The wire will then be gripped.

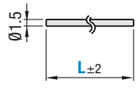
**Removing Wire**

When removing the wire, pull out the wire while pressing the pin.

### Stainless Steel Wires

RoHS 10

### WPS




The cut ends of the wire are terminated to prevent fraying. **Material:** 304 Stainless Steel 7 x 7 Strands

| | Wire Diameter Selection Guide *1 | Tensile Load Test Result *2 | |
|---|---|---|---|
| Wire Diameter (mm) | Allowable Load (kg) | Max. Load (kgf) | Displacement (mm) |
| 1.5Ø | 30 | 84.8–95.7 | 10–11 (80 kgf) |

* 1 Allowable load is determined as 1/3 of the maximum static load rating. Depending on usage, consider applying safety factor up to 1/5.

* 2 These are test results by the Tokyo Metropolitan Industrial Technology Research Institute. Displacement is the value measured with 110 m distance between metals.

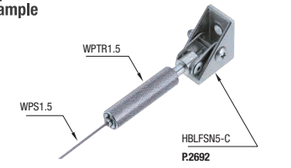
### Stainless Steel Wire Standard Length

| Part Number | | Length L (m) | Mass (g) |
|---|---|---|---|
| Type | No. | | |
| WPS | 1.5 | 1 | 10 |

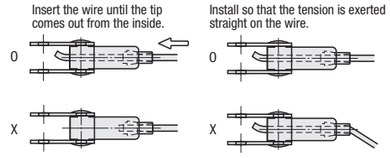
**Part Number Example**

| Part Number | - | L (m) |
|---|---|---|
| WPS1.5 | - | 1 |

**Application Example**




WPFS, WPTRboth can be mounted to the Aluminum Extrusions Bracket (**P.2692**)




MiSUMi





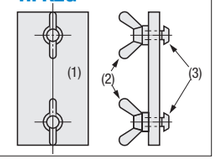
# Jigs for Assembly / Drilling Jigs / Black Anodize Spot Repair Pen

## Blind Joint D Hole / Wrench Hole Machining

**Jigs for Assembly**

RoHS 10

### HFKZG



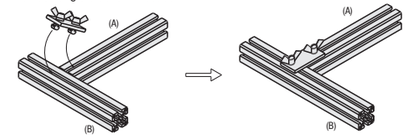

| Part Number | | Extrusions (Series) | Components | | | | | |
|---|---|---|---|---|---|---|---|---|
| Type | No. | | (1) Plate | Quantity | (2) Wing Screw | Quantity | (3) Post-Assembly Fitting Nut | Quantity |
| HFKZG | 5 | HFS5 | HPTSS5 | 1 | CHOB4-8 | 2 | HNTFSN5-4 | 2 |
| | 6 | HFS6 | HPTSS6 | 1 | CHOB6-12 | 2 | HNTFSN6-6 | 2 |
| | 8 | HFS8 | HPTSS8 | 1 | CHOB8-15 | 2 | HNTFSN8-8 | 2 |
| | 8-45 | HFS8-45 | HPTSS8-45 | 1 | | | | |

**Part Number Example**

| Part Number |
|---|
| HFKZG6 |

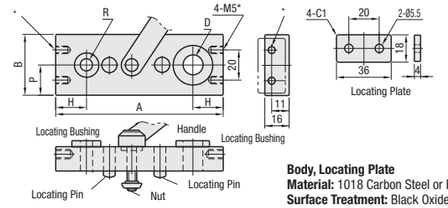
**Application Example**

Assembly Fixture sits over two extrusions (A) and (B) to make the surface even. Then use angle bracket if needed.




**Drilling Jigs – Blind Joint D Hole / Wrench Hole Machining**

### HFSJG




*No hole for HFSJG5.

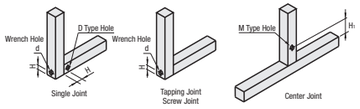
**Body, Locating Plate**
**Material:** 1018 Carbon Steel or Equivalent
**Surface Treatment:** Black Oxide

| Part Number | | A | B | P | H | R | D | Extrusions (Series) | Components | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | No. | | | | | | | | Clamp Lever | Quantity | Nut | Quantity | Screw | Quantity | Locating Plate |
| HFSJG | 5 | 100 | 25 | 15 | 15 | 7.3 | 7.1 | HFS5 | CLDM5-20-Y | 1 | HNTTSN5-5 | 1 | CHOB5-8 | 1 | 1 Pc. |
| | 6 | 100 | 30 | 15 | 15 | 8 | 11.1 | HFS6 | CLDM6-20-M | | HNTFSN6-6 | | | 2 | |
| | 8 | 110 | 40 | 20 | 20 | 8 | 13.1 | HFS8 | CLDM8-25-B | | HNTFSN8-8 | | | | |
| | 8-45 | 120 | 45 | 22.5 | 22.5 | 8 | 15.1 | HFS8-45 | CLDM8-25-S | | HNTFSN8-8 | | | | |

**Part Number Example**

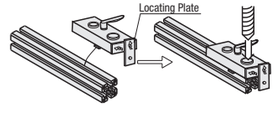
| Part Number |
|---|
| HFSJG6 |

| Hole Type | Hole Name |
|---|---|
| Hole for Joint Nut of Single Joint | D Type Hole |
| The Hole for the Joint Guide / Joint Hollow of Center Joint, Post-Assembly Double Joint. | M type Hole |
| Wrench Hole for Tightening Screw of Joint Plate of Single Joint | Wrench Hole |




**Application Example**

1) Attach the Locating Plate to one of the holes on the drilling jig.
2) Slide jig into the frame channel up to the Locating Plate.
3) Drill hole using the positioning jig bushing.




| Applicable Frame Series | H mm | $H_1$ mm | D Type Hole mm | M type Hole mm | d (Wrench Hole) mm |
|---|---|---|---|---|---|
| HFS5 | 10 | 10 | — | 7.1 | 7.3 |
| HFS6 | 15 | 15 | 11.1 | 11.1 | 8 |
| HFS8 | 20 | 20 | 13.1 | 13.1 | |
| HFS8-45 | 22.5 | 20 | 15.1 | 13.1 | |

**Black Anodize Spot Repair Pen**

### ANCPE

| Part Number | Volume (ml) | Type | Features | Color | Usage | Operating Temp. Range (°C) | How to Use Dry Condition | Main Components |
|---|---|---|---|---|---|---|---|---|
| ANCPE | 13 | Pen | A felt-tipped pen that can quickly repair flaws on black anodized items. Repairs become less noticeable as the color is similar to that of black anodized aluminum extrusions. | Mat Black | Flaw repairs of black anodizing on aluminum frame extrusions. Markings on aluminum items. | 5–35 | Shake well before use, and directly apply on the surface to repair. | Acrylic Resin |

**Part Number Example**

| Part Number |
|---|
| ANCPE |

### Characteristic Values of ANCPE

| Item | | Values |
|---|---|---|
| Drying Characteristics | Dry to Touch | 10 minutes |
| | Cured Dry | 50 minutes |
| Pencil Hardness (JIS K5400) | | F |
| Gasoline Resistance (Soaked in Gasoline 2 Hours) | | Partial Softening |
| Alkali Resistance (20°C 5%NaOH 24 Hours) | | Standard |