

# Height Adjusting Pins - Round, Wrench Flats / Shouldered Threaded, Tapped



■ **Features:** Locating Pins for the height direction. O.D. and Height Configurable.

## ■ Round, Wrench Flats Threaded

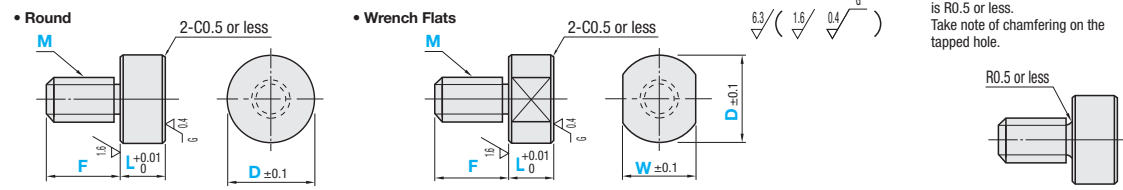


RoHS 10

| M Material       | S Surface Treatment                                   | H Hardness                                                | Type | Ordering Code, Shape Code<br>F Fixed F Configurable |
|------------------|-------------------------------------------------------|-----------------------------------------------------------|------|-----------------------------------------------------|
| EN 1.2510 Equiv. | -                                                     | Treated Hardness: 60 ~ 63HRC                              | JPH  | AF (Round) AFM (Round)                              |
|                  | Black Oxide                                           | Treated Hardness: 60 ~ 63HRC                              | BJPH |                                                     |
|                  | Hard Chrome Plating<br>Plating Thickness: 3µm or more | Treated Hardness: 50 ~ 55HRC<br>Plating Hardness: 750HV ~ | HJPH |                                                     |
| EN 1.4301 Equiv. | -                                                     | -                                                         | SJPH | AW (Wrench Flats) AWM (Wrench Flats)                |
| EN 1.4125 Equiv. | -                                                     | Treated Hardness: 50 ~ 55HRC                              | CJPH |                                                     |
| EN 1.7242 Equiv. | -                                                     | Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8)    | TJPH |                                                     |

❗ Some combinations are not available. Refer to the price list to select the available combination.

\* Under-head of F Configurable Type is R0.5 or less. Take note of chamfering on the tapped hole.



| Part Number |                                                        | M (Coarse) |  | * Tightening Torque N·cm | L                |                   | D             |  | W             |                   | F        |               |
|-------------|--------------------------------------------------------|------------|--|--------------------------|------------------|-------------------|---------------|--|---------------|-------------------|----------|---------------|
| Type        | Shape Code                                             | M (Coarse) |  | N·cm                     | 0.01mm Increment | 1mm Increment     | 1mm Increment |  | 1mm Increment |                   | Standard | 1mm Increment |
| JPH         | <Round><br>AF (F Fixed)<br>AFM (F Configurable)        | 3          |  | 147                      | 2.00~10.00       | 5~30<br>(M<D<Mx5) | 4~13          |  | 5             | 3~36<br>(M≤F≤Mx3) | 5        |               |
| BJPH        |                                                        | 4          |  | 333                      |                  |                   | 5~18          |  | 6             |                   | 6        |               |
| HJPH        |                                                        | 5          |  | 676                      |                  |                   | 6~23          |  | 8             |                   | 8        |               |
| SJPH        | <Wrench Flats><br>AW (F Fixed)<br>AWM (F Configurable) | 6          |  | 1156                     | 5.00~30.00       | 5~30<br>(M<D<Mx5) | 7~28          |  | 10            | 3~36<br>(M≤F≤Mx3) | 10       |               |
| CJPH        |                                                        | 8          |  | 2803                     |                  |                   | 9~29          |  | 12            |                   | 12       |               |
| TJPH        |                                                        | 10         |  | 5557                     |                  |                   | 11~29         |  | 15            |                   | 15       |               |
|             |                                                        | 12         |  | 9702                     | 10.00~50.00      |                   | 13~29         |  |               |                   |          |               |

❗ M<W<D

\* Tightening torque (reference) will be within Strength Class of Tightening Torque on Technical Data ■ P. 2297 (10.9). Not applicable when using locking materials or lock washers.

## ■ Round

| M (Coarse) | JPHAF | BJPHAF | HJPHAF | SJPHAF | CJPHAF | TJPHAF | JPHAFM | BJPHAFM | HJPHAFM | SJPHAFM | CJPHAFM | TJPHAFM |
|------------|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 3          |       |        |        |        |        |        |        |         |         |         |         |         |
| 4          |       |        |        |        |        |        |        |         |         |         |         |         |
| 5          |       |        |        |        |        |        |        |         |         |         |         |         |
| 6          |       |        |        |        |        |        |        |         |         |         |         |         |
| 8          |       |        |        |        |        |        |        |         |         |         |         |         |
| 10         |       |        |        |        |        |        |        |         |         |         |         |         |
| 12         |       |        |        |        |        |        |        |         |         |         |         |         |

## ■ Wrench Flats

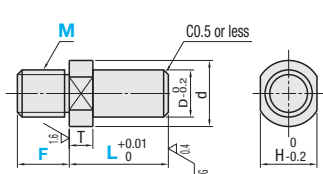
| M (Coarse) | JPHAW | BJPHAW | HJPHAW | SJPHAW | CJPHAW | TJPHAW | JPHAWM | BJPHAWM | HJPHAWM | SJPHAWM | CJPHAWM | TJPHAWM |
|------------|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 3          |       |        |        |        |        |        |        |         |         |         |         |         |
| 4          |       |        |        |        |        |        |        |         |         |         |         |         |
| 5          |       |        |        |        |        |        |        |         |         |         |         |         |
| 6          |       |        |        |        |        |        |        |         |         |         |         |         |
| 8          |       |        |        |        |        |        |        |         |         |         |         |         |
| 10         |       |        |        |        |        |        |        |         |         |         |         |         |
| 12         |       |        |        |        |        |        |        |         |         |         |         |         |

## ■ Shouldered, Threaded



RoHS 10

| M Material       | S Surface Treatment                                   | H Hardness                                                | Type    |                |
|------------------|-------------------------------------------------------|-----------------------------------------------------------|---------|----------------|
|                  |                                                       |                                                           | F Fixed | F Configurable |
| EN 1.2510 Equiv. | -                                                     | Treated Hardness: 60 ~ 63HRC                              | JPHA    | JPHAM          |
|                  | Black Oxide                                           | Treated Hardness: 60 ~ 63HRC                              | BJPHA   | BJPHAM         |
|                  | Hard Chrome Plating<br>Plating Thickness: 3µm or more | Treated Hardness: 50 ~ 55HRC<br>Plating Hardness: 750HV ~ | HJPHA   | HJPHAM         |
| EN 1.4301 Equiv. | -                                                     | -                                                         | SJPHA   | SJPHAM         |
| EN 1.4125 Equiv. | -                                                     | Treated Hardness: 50 ~ 55HRC                              | CJPHA   | CJPHAM         |
| EN 1.7242 Equiv. | -                                                     | Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8)    | -       | TJPHAM         |



\* Under-head of F Configurable Type is R0.5 or less. Take note of chamfering on the tapped hole.

| Part Number                                           |                                                                             |            | * Tightening Torque<br>N·cm | L<br>0.01mm Increment | F                 |               | D  | d  | T  | H |
|-------------------------------------------------------|-----------------------------------------------------------------------------|------------|-----------------------------|-----------------------|-------------------|---------------|----|----|----|---|
| Type                                                  |                                                                             | M (Coarse) |                             |                       | Standard          | 1mm Increment |    |    |    |   |
| <F Fixed><br>JPHA<br>BJPHA<br>HJPHA<br>SJPHA<br>CJPHA | <F Configurable><br>JPHAM<br>BJPHAM<br>HJPHAM<br>SJPHAM<br>CJPHAM<br>TJPHAM | 3          | 147                         | 5                     | 3~36<br>(M≤F≤Mx3) | 3             | 5  | 3  | 3  |   |
|                                                       |                                                                             | 4          | 333                         |                       |                   | 6             | 4  |    | 6  | 4 |
|                                                       |                                                                             | 5          | 676                         |                       |                   | 8             | 5  |    | 8  | 5 |
|                                                       |                                                                             | 6          | 1156                        | 8                     |                   | 6             | 10 | 8  |    |   |
|                                                       |                                                                             | 8          | 2803                        |                       |                   | 10            | 8  | 12 | 10 |   |
|                                                       |                                                                             | 10         | 5557                        |                       |                   | 12            | 10 | 14 | 12 |   |
|                                                       |                                                                             | 12         | 9702                        | 15                    |                   | 12            | 16 | 5  | 14 |   |

\* Tightening torque (reference) will be within Strength Class of Tightening Torque on Technical Data ■ P. 2297 (10.9). Not applicable when using locking materials or lock washers.

| M (Coarse) | JPHA | BJPHA | HJPHA | SJPHA | CJPHA | JPHAM | BJPHAM | HJPHAM | SJPHAM | CJPHAM | TJPHAM |
|------------|------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 3          |      |       |       |       |       |       |        |        |        |        |        |
| 4          |      |       |       |       |       |       |        |        |        |        |        |
| 5          |      |       |       |       |       |       |        |        |        |        |        |
| 6          |      |       |       |       |       |       |        |        |        |        |        |
| 8          |      |       |       |       |       |       |        |        |        |        |        |
| 10         |      |       |       |       |       |       |        |        |        |        |        |
| 12         |      |       |       |       |       |       |        |        |        |        |        |

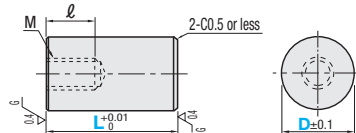
## ■ Round, Wrench Flats Tapped



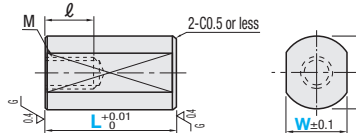
RoHS 10

| M Material       | S Surface Treatment                                   | H Hardness                                                | Round  | Wrench Flats |
|------------------|-------------------------------------------------------|-----------------------------------------------------------|--------|--------------|
| EN 1.2510 Equiv. | -                                                     | Treated Hardness: 60 ~ 63HRC                              | JPHUF  | JPHUW        |
|                  | Black Oxide                                           | Treated Hardness: 60 ~ 63HRC                              | BJPHUF | BJPHUW       |
|                  | Hard Chrome Plating<br>Plating Thickness: 3µm or more | Treated Hardness: 50 ~ 55HRC<br>Plating Hardness: 750HV ~ | HJPHUF | HJPHUW       |

### • Round



### • Wrench Flats



| Part Number                          |                | L  |             | W                |  | M             |  | * Tightening Torque |    | ℓ    |  |
|--------------------------------------|----------------|----|-------------|------------------|--|---------------|--|---------------------|----|------|--|
| Type                                 |                | D  |             | 0.01mm Increment |  | 1mm Increment |  | (Coarse)            |    | N·cm |  |
| <Round><br>JPHUF<br>BJPHUF<br>HJPHUF | <Wrench Flats> | 6  | 12.00~30.00 | -                |  | M3            |  | 147                 | 5  |      |  |
|                                      |                | 8  | 16.00~30.00 | -                |  |               |  |                     |    |      |  |
|                                      |                | 10 | 16.00~50.00 | 8~ 9             |  | M5            |  | 676                 | 8  |      |  |
|                                      |                | 12 | 16.00~50.00 | 8~11             |  |               |  |                     |    |      |  |
|                                      |                | 16 | 22.00~50.00 | 11~15            |  |               |  |                     |    |      |  |
|                                      |                | 20 | 22.00~50.00 | 11~19            |  | M8            |  | 2803                | 12 |      |  |
|                                      |                |    |             |                  |  |               |  |                     |    |      |  |

❗ M+2<W<D ❗ Wrench flats is D≥10.

\* Tightening torque (reference) will be within Strength Class of Tightening Torque on Technical Data ■ P. 2297 (10.9). Not applicable when using locking materials or lock washers.

| D  | JPHUF | Unit Price Round | HJPHUF | Unit Price Wrench Flats | BJPHUF | JPHUW | BJPHUW | HJPHUW |
|----|-------|------------------|--------|-------------------------|--------|-------|--------|--------|
| 6  |       |                  |        |                         |        |       |        |        |
| 8  |       |                  |        |                         |        |       |        |        |
| 10 |       |                  |        |                         |        |       |        |        |
| 12 |       |                  |        |                         |        |       |        |        |
| 16 |       |                  |        |                         |        |       |        |        |
| 20 |       |                  |        |                         |        |       |        |        |



Ordering Example

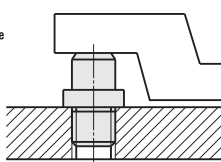
Part Number - L - D - W - F

■ Round, Wrench Flats Threaded  
(Round, F Fixed) JPHAF3 - 5.21 - 6  
(Round, F Configurable) JPHAFM3 - L5.21 - D6 - F9

(Wrench Flats, F Fixed) HJPHAW10 - 20 - 15 - W11  
(Wrench Flats, F Configurable) HJPHAWM10 - L20.00 - D15 - W11 - F15

■ Shouldered, Threaded  
(F Fixed) JPHA8 - 14  
(F Configurable) JPHAM8 - L14.00 - F10

EX Example



Ordering Example

■ Round, Wrench Flats Tapped  
(Round) JPHUF6 - 20.00  
(Wrench Flats) BJPHUW10 - 17.00 - W8



Alterations

Part Number - L - D - W - F - (CRC, EAT)  
JPHAF10 - 20.50 25 - CRC  
HJPHAWM10 - L15.00 - D20 - W20 - F15 - EAT

❗ Alterations are applicable to Threaded only.

| Alterations | Radius to End Face                                                                                                                                      | Seating Sensor Holes                                                                                                                                                                                                          |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Code        | CRC                                                                                                                                                     | EAT                                                                                                                                                                                                                           |
| Spec.       | Chamfering of workpiece receiving-surface is changed to R1.<br>Ordering Code CRC<br>❗ No addition of radius to wrench flats.<br>❗ Applicable when L≥15. | Machines seating sensor holes on the work-receiving surface.<br>Hole diameters are shown in the table below.<br>Ordering Code EAT<br>❗ Applicable when D≥6.<br>❗ Application conditions vary depending on F and L dimensions. |
|             |                                                                                                                                                         |                                                                                                                                                                                                                               |

| M  | Narrow Hole Dia. d1 | Through Hole Dia. d2 | Applicable Overall Length Conditions |
|----|---------------------|----------------------|--------------------------------------|
| 6  | 1.0                 | 1.5                  | F+L≤20                               |
| 8  | 1.0                 | 2.5                  | F+L≤30                               |
| 10 | 1.5                 | 3.5                  | F+L≤40                               |
| 12 | 1.5                 | 4.5                  | F+L≤50                               |