

## Locating Pins (Shoulder)

| Material No. | Material                       | Surface Treatment | Hardness                         | P Selectable |            | P Configurable |            | P, L & B Configurable |            |
|--------------|--------------------------------|-------------------|----------------------------------|--------------|------------|----------------|------------|-----------------------|------------|
|              |                                |                   |                                  | Type         | Shape Code | Type           | Shape Code | Type                  | Shape Code |
| (1)          | O1 Tool Steel Equivalent       | —                 | Treated Hardness: 60~63 HRC min. | JP           | JB Round   | JP             | JA Round   | FP                    | JA Round   |
| (3)          | 304 Stainless Steel Equivalent | —                 | —                                | SJP          | DJ Diamond | SJP            | —          | SFP                   | JD Diamond |
| (5)          | 440C or 420 Stainless Steel    | —                 | Treated Hardness: 50~55 HRC min. | —            | Diamond    | —              | Round      | CFP                   | Diamond    |

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

⊕ 440C or 420 Stainless Steel has an identification groove on D part.

### P Selectable

| Type      | Shape                  | D     | D Tolerance m6 | P           | L  | B  | C   | m   | H  | (W) |
|-----------|------------------------|-------|----------------|-------------|----|----|-----|-----|----|-----|
| JP<br>SJP | JB Round<br>DJ Diamond | 2     | +0.008         | 1 2         | 4  | 2  | 0.5 | 0.5 | 6  | —   |
|           |                        | 3     | +0.002         | 2 3 4       | 5  | 3  | —   | 1   | 8  | 1.0 |
|           |                        | 4     | +0.012         | 2 3 4 5     | 10 | 5  | 1   | 2   | 8  | 1.2 |
|           |                        | 5     | +0.004         | 3 4 5 6     | 10 | 5  | 1   | 2   | 8  | 1.5 |
|           |                        | 6     | +0.015         | 4 5 6       | 10 | 5  | 1   | 2   | 8  | 1.8 |
|           |                        | 8     | +0.006         | 5 6 8       | 15 | 6  | 1.5 | 3   | 11 | 2.2 |
|           |                        | 10    | +0.006         | 8 10        | 15 | 6  | 1.5 | 3   | 13 | 3   |
|           |                        | 12    | +0.018         | 8 10 12     | 22 | 8  | 2   | 4   | 15 | 3.2 |
|           |                        | 13    | +0.007         | 8 10 12 13  | 22 | 8  | 2   | 4   | 16 | 3.5 |
|           |                        | 16    | +0.021         | 13 14 15 16 | 30 | 10 | 3   | 5   | 19 | 4   |
| 20        | +0.008                 | 16 20 | 30             | 10          | 3  | 5  | 23  | 5.5 |    |     |

⊕ Applicable when D≥3.

### P Configurable

| Type      | Shape    | D           | D Tolerance m6 | P 0.01 mm Increment | L  | B  | C   | m   | H  | (W) |
|-----------|----------|-------------|----------------|---------------------|----|----|-----|-----|----|-----|
| JP<br>SJP | JA Round | 2           | +0.008         | 1.00-2.00           | 4  | 2  | 0.5 | 0.5 | 6  | —   |
|           |          | 3           | +0.002         | 2.00-4.00           | 5  | 3  | —   | 1   | 8  | 1.0 |
|           |          | 4           | +0.012         | 2.00-5.00           | 10 | 5  | 1   | 2   | 8  | 1.2 |
|           |          | 5           | +0.004         | 3.00-6.00           | 10 | 5  | 1   | 2   | 8  | 1.5 |
|           |          | 6           | +0.015         | 4.00-7.00           | 10 | 5  | 1   | 2   | 8  | 1.8 |
|           |          | 8           | +0.006         | 5.00-9.00           | 15 | 6  | 1.5 | 3   | 11 | 2.2 |
|           |          | 10          | +0.006         | 7.00-11.00          | 15 | 6  | 1.5 | 3   | 13 | 3   |
|           |          | 12          | +0.018         | 7.00-12.00          | 22 | 8  | 2   | 4   | 15 | 3.2 |
|           |          | 13          | +0.007         | 8.00-13.00          | 22 | 8  | 2   | 4   | 16 | 3.5 |
|           |          | 16          | +0.021         | 13.00-16.00         | 30 | 10 | 3   | 5   | 19 | 4   |
| 20        | +0.008   | 16.00-20.00 | 30             | 10                  | 3  | 5  | 23  | 5.5 |    |     |

### P, L, B Configurable

| Type             | Shape                  | D  | D Tolerance m6 | P 0.01 mm Increment | L 1 mm Increment | B 0.1 mm Increment | C   | m   | H  | (W) |
|------------------|------------------------|----|----------------|---------------------|------------------|--------------------|-----|-----|----|-----|
| FP<br>SFP<br>CFP | JA Round<br>JD Diamond | 2  | +0.008         | 1.00-2.00           | 2-4              | 2.0-10.0           | 0.5 | 0.5 | 6  | —   |
|                  |                        | 3  | +0.002         | 2.00-4.00           | 3-6              | 2.0-10.0           | 1   | 1   | 8  | 1.0 |
|                  |                        | 4  | +0.012         | 2.00-5.00           | 4-8              | 2.0-10.0           | 1   | 1   | 8  | 1.2 |
|                  |                        | 5  | +0.004         | 3.00-6.00           | 5-10             | 2.0-15.0 (10.0)    | 1   | 2   | 8  | 1.5 |
|                  |                        | 6  | +0.015         | 4.00-7.00           | 5-12             | 2.0-15.0           | 1   | 2   | 8  | 1.8 |
|                  |                        | 8  | +0.006         | 5.00-9.00           | 5-16             | 2.0-20.0 (15.0)    | 1.5 | 3   | 11 | 2.2 |
|                  |                        | 10 | +0.006         | 7.00-12.00          | 8 (10)-20        | 3.0-30.0 (25.0)    | 2   | 4   | 13 | 3   |
|                  |                        | 12 | +0.018         | 7.00-12.00          | 10-24            | 3.0-30.0 (25.0)    | 2   | 4   | 15 | 3.2 |
|                  |                        | 13 | +0.007         | 8.00-13.00          | 13-26            | 5.0-30.0 (25.0)    | 2   | 4   | 16 | 3.5 |
|                  |                        | 16 | +0.021         | 13.00-16.00         | 16-32            | 5.0-30.0           | 2   | 4   | 19 | 4   |
|                  |                        | 20 | +0.008         | 16.00-20.00         | 20-40            | 5.0-30.0           | 3   | 5   | 23 | 5.5 |

**Part Number Example**

Part Number: JP - P - L - B

Example: JP - JB - 6 - 4

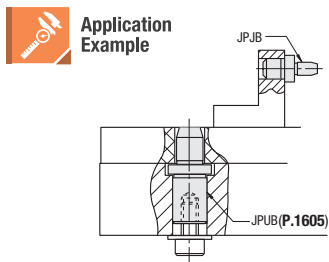
Example: JP - JA - 8 - 5.04

Example: FP - JD - 12 - P11.97 - L12 - B5.5

**Part Number Alterations**

Part Number: FPJA6 - P4.01 - L8 - B3.5 - HC7.0

| Alterations | Wrench Flats Alteration  | Length of Tapered Point  | Spherical Tip                                    |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
|-------------|--|--|--|----|---|----|---|---|---|------|---|---|---|------|---|---|----|------|---|---|----|------|---|---|----|---|----|---|---|---|------|---|---|---|------|---|---|----|------|
| Code        | HC   | TC   | RC   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| Spec.       | HC=0.5 mm Increment<br>HC>D HC>P<br>Ordering Code: HC10.0  | Changes the m dimension.<br>Ordering Code: TC8 (1 mm Increment) <table border="1"> <thead> <tr> <th>D</th> <th>TC</th> <th>D</th> <th>TC</th> </tr> </thead> <tbody> <tr><td>2</td><td>1</td><td>6</td><td>3-11</td></tr> <tr><td>3</td><td>2</td><td>8</td><td>4-14</td></tr> <tr><td>4</td><td>3</td><td>10</td><td>5-16</td></tr> <tr><td>5</td><td>4</td><td>12</td><td>6-23</td></tr> </tbody> </table> | D  | TC | D | TC | 2 | 1 | 6 | 3-11 | 3 | 2 | 8 | 4-14 | 4 | 3 | 10 | 5-16 | 5 | 4 | 12 | 6-23 | Changes the relief to R0.5.<br>Ordering Code: RC <table border="1"> <thead> <tr> <th>D</th> <th>RC</th> <th>D</th> <th>RC</th> </tr> </thead> <tbody> <tr><td>3</td><td>1</td><td>6</td><td>3-11</td></tr> <tr><td>4</td><td>2</td><td>8</td><td>4-14</td></tr> <tr><td>5</td><td>3</td><td>10</td><td>5-16</td></tr> </tbody> </table> | D | RC | D | RC | 3 | 1 | 6 | 3-11 | 4 | 2 | 8 | 4-14 | 5 | 3 | 10 | 5-16 |
| D           | TC   | D  | TC   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| 2           | 1  | 6  | 3-11   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| 3           | 2  | 8  | 4-14   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| 4           | 3  | 10   | 5-16   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| 5           | 4  | 12   | 6-23   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| D           | RC   | D  | RC   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| 3           | 1  | 6  | 3-11   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| 4           | 2  | 8  | 4-14   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| 5           | 3  | 10   | 5-16   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
| Alterations | HC=0.5 mm Increment<br>HC>D HC>P<br>Ordering Code: HC10.0  | Changes the relief to R0.5.<br>Ordering Code: RC   | Changes the relief to R0.5.<br>Ordering Code: RC |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |
|             | ⊕ B+m≥TC+2 (Straight Part min. 2 mm)<br>⊕ Applicable when P≥2.00.<br>⊕ P/2-TC x tan15°(=0.27)>0.5 (Tip Ø1.0min.)<br>⊕ B Dimension changes when TC is specified. (Changed B dimension = B+m-TC) | ⊕ B+m≥TC+2 (Straight Part min. 2 mm)<br>⊕ P/2-TC x tan15°(=0.27)>0.5 (Tip Ø1.0min.)<br>⊕ B Dim. changes when TC is specified. (Changed B dim. = B+m-TC)<br>⊗ Combination with RAC and LAC is not available.  | ⊕ Applicable when H-P≥2.                         |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |



⊗ Alteration is not available for P Selectable Type.

## Locating Pins (Shoulder)

### Tapped Shank

⊕ D=5 is now available.

| Material No. | Material                       | Surface Treatment   | Hardness  | P Selectable |            | P Configurable |          | P, L & B Configurable |          | D   | Tolerance g6 | m | H  | (W) | ℓ  | M (Coarse) |
|--------------|--------------------------------|---------------------|---|--------------|------------|----------------|----------|-----------------------|----------|-----|--------------|---|----|-----|----|------------|
|              |                                |                     |   | Type         | Shape      | Type           | Shape    | Type                  | Shape    |     |              |   |    |     |    |            |
| (1)          | O1 Tool Steel Equivalent       | —                   | Treated Hardness: 60~63 HRC min.                          | JP           | UB Round   | JP             | UA Round | FP                    | UA Round | 5   | -0.004       | 2 | 8  | 1.5 | 3  | M2         |
|              |                                |                     |   |              |            |                |          |                       |          | 6   | -0.012       | 3 | 11 | 2.2 | 4  | M3         |
|              |                                |                     |   |              |            |                |          |                       |          | 8   | -0.005       | 4 | 13 | 3   | 6  | M4         |
|              |                                |                     |   |              |            |                |          |                       |          | 10  | -0.014       | 5 | 15 | 3.2 | 8  | M5         |
|              |                                |                     |   |              |            |                |          |                       |          | 12  | -0.014       | 6 | 16 | 3.5 | 10 | M8         |
|              |                                |                     |   |              |            |                |          |                       |          | 13  | -0.017       | 7 | 19 | 4   | 12 | M8         |
| (2)          | O1 Tool Steel Equivalent       | Hard Chrome Plating | Hardness: 50~55 HRC min.<br>Plating Hardness: 750 HV min. | —            | Round      | —              | —        | GFP                   | Round    | 10  | -0.015       | 3 | 13 | 3   | 6  | M4         |
|              |                                |                     |   |              |            |                |          |                       |          | 12  | -0.015       | 4 | 15 | 3.2 | 8  | M5         |
|              |                                |                     |   |              |            |                |          |                       |          | 14  | -0.015       | 5 | 16 | 3.5 | 10 | M8         |
|              |                                |                     |   |              |            |                |          |                       |          | 16  | -0.006       | 6 | 19 | 4   | 12 | M8         |
|              |                                |                     |   |              |            |                |          |                       |          | 18  | -0.007       | 7 | 23 | 5.5 | 9  | M6         |
|              |                                |                     |   |              |            |                |          |                       |          | 20  | -0.020       | 8 | 23 | 5.5 | 9  | M6         |
| (3)          | 304 Stainless Steel Equivalent | —                   | —   | SJP          | DU Diamond | SJP            | —        | SFP                   | Diamond  | 12  | -0.006       | 4 | 16 | 3.5 | 10 | M8         |
|              |                                |                     |   |              |            |                |          |                       |          | 14  | -0.017       | 5 | 19 | 4   | 12 | M8         |
|              |                                |                     |   |              |            |                |          |                       |          | 16  | -0.007       | 6 | 23 | 5.5 | 9  | M6         |
|              |                                |                     |   |              |            |                |          |                       |          | 18  | -0.007       | 7 | 23 | 5.5 | 9  | M6         |
|              |                                |                     |   |              |            |                |          |                       |          | 20  | -0.020       | 8 | 23 | 5.5 | 9  | M6         |
|              |                                |                     |   |              |            |                |          |                       |          | 20T | -0.020       | 8 | 23 | 5.5 | 9  | M6         |

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

⊕ 440C or 420 Stainless Steel has an identification groove on D part.

### P Selectable

| Part Number | Type       | Shape      | D  | P           | L           | B          | Available Types for Round Shape  |  |
|-------------|------------|------------|----|-------------|-------------|------------|--|--|
| JP<br>SJP   | UB Round   | DU Diamond | 5  | 3.00-6.00   | 5-10        | 2.0-10.0   | (1) O1 Tool Steel Hardened JPJB, (3) 304 Stainless Steel SJPJB, (1) O1 Tool Steel Hardened JPDJ, (3) 304 Stainless Steel SJPDJ |  |
|             |            |            | 6  | 4.00-7.00   | 6 (9)-12    | 2.0-10.0   |  |  |
|             |            |            | 8  | 5.00-9.00   | 8 (12)-16   | 2.0-12.0   |  |  |
|             |            |            | 10 | 7.00-11.00  | 10 (12)-20  | 2.0-15.0   |  |  |
|             |            |            | 12 | 8.00-13.00  | 12-24       | 3.0-20.0   |  |  |
|             |            |            | 13 | 8.00-13.00  | 13 (14)-26  | 3.0-20.0   |  |  |
|             |            |            | 16 | 13.00-16.00 | 16-32       | 5.0-20.0   |  |  |
|             | DU Diamond |            |    | 10          | 8.00-13.00  | 10 (14)-20 | 3.0-20.0   |  |
|             |            |            |    | 12          | 8.00-13.00  | 12 (18)-30 | 5.0-20.0   |  |
|             |            |            |    | 13          | 13.00-16.00 | 13 (14)-26 | 3.0-20.0   |  |
|             |            |            |    | 16          | 13.00-16.00 | 16-32      | 5.0-20.0   |  |
|             |            |            |    | 16T         | 16.00-20.00 | 16-32      | 5.0-20.0   |  |
|             |            |            |    | 20          | 16.00-20.00 | 20-40      | 5.0-20.0   |  |
|             |            |            |    | 20T         | 16.00-20.00 | 20-40      | 5.0-20.0   |  |

⊕ Pins with D value ending in T (ex. 8T) have one size smaller thread diameter and larger wall thickness. (Actual D dimension is the number without "T".) ⊕ L dimension in ( ) is applicable to Diamond Shape. ⊕ Notes on the strength of under-head part. P.1542 ⊕ Please confirm pilot hole depth on P.1542. Holes may go through.

### P, L & B Configurable

| Part Number      | Type       | Shape      | D  | P 0.1 mm Increment | L 1 mm Increment | B 0.1 mm Increment | Available Types for Round Shape   | Available Types for Round Shape   |
|------------------|------------|------------|----|--------------------|------------------|--------------------|---|---|
| FP<br>GFP<br>SFP | UA Round   | UD Diamond | 5  | 3.00-6.00          | 5-10             | 2.0-10.0           | (1) O1 Tool Steel Hardened FPJA, (3) 304 Stainless Steel SFPJA, (5) 440C or 420 Stainless Steel CFPJA | (1) O1 Tool Steel Hardened FPDJ, (3) 304 Stainless Steel SFPJD, (5) 440C or 420 Stainless Steel CFPJD |
|                  |            |            | 6  | 4.00-7.00          | 6 (9)-12         | 2.0-10.0           |   |   |
|                  |            |            | 8  | 5.00-9.00          | 8 (12)-16        | 2.0-12.0           |   |   |
|                  |            |            | 10 | 7.00-11.00         | 10 (12)-20       | 2.0-15.0           |   |   |
|                  |            |            | 12 | 8.00-13.00         | 12-24            | 3.0-20.0           |   |   |
|                  |            |            | 13 | 8.00-13.00         | 13 (14)-26       | 3.0-20.0           |   |   |
|                  |            |            | 16 | 13.00-16.00        | 16-32            | 5.0-20.0           |   |   |
|                  | UD Diamond |            |    | 10                 | 8.00-13.00       | 10 (14)-20         | 3.0-20.0  |   |
|                  |            |            |    | 12                 | 8.00-13.00       | 12 (18)-30         | 5.0-20.0  |   |
|                  |            |            |    | 13                 | 13.00-16.00      | 13 (14)-26         | 3.0-20.0  |   |
|                  |            |            |    | 16                 | 13.00-16.00      | 16-32              | 5.0-20.0  |   |
|                  |            |            |    | 16T                | 16.00-20.00      | 16-32              | 5.0-20.0  |   |
|                  |            |            |    | 20                 | 16.00-20.00      | 20-40              | 5.0-20.0  |   |
|                  |            |            |    | 20T                | 16.00-20.00      | 20-40              | 5.0-20.0  |   |

**Part Number Example**

Part Number: JPUB8 - P - L - B

Example: JPUB8 - 6

Example: JPUB6 - 4.02

Example: FPUB6 - P4.01 - L8 - B3.5

**Part Number Alterations**

Part Number: FPUB6 - P4.01 - L8 - B3.5 - HC7.0

⊗ Alteration is not available for P Selectable Type.

| Alterations | Wrench Flats Alteration  | Length of Tapered Point  | Spherical Tip                                    | Hex Socket Machining   | Wrench Hole Machining   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
|-------------|--|--|--|--|---|----|---|---|---|------|---|---|---|------|---|---|----|------|---|---|----|------|---|---|----|---|----|---|---|---|------|---|---|---|------|---|---|----|------|---|---|----------------------|--------------------|-------|---------|----------|---------|---------|----------|---------|---------|----------|---------|---------|--------|---------|----------|-----------|---------|----------|-----------|---|---|----------------------|---|---|-------|------|-----------|---|---------|--|-------------|-----|---------|--|--------|---|
| Code        | HC   | TC   | RC   | RAC  | LAC   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| Spec.       | HC=0.5 mm Increment<br>HC>D HC>P<br>Ordering Code: HC10.0  | Changes the m dimension.<br>Ordering Code: TC8 (1 mm Increment) <table border="1"> <thead> <tr> <th>D</th> <th>TC</th> <th>D</th> <th>TC</th> </tr> </thead> <tbody> <tr><td>2</td><td>1</td><td>6</td><td>3-11</td></tr> <tr><td>3</td><td>2</td><td>8</td><td>4-14</td></tr> <tr><td>4</td><td>3</td><td>10</td><td>5-16</td></tr> <tr><td>5</td><td>4</td><td>12</td><td>6-23</td></tr> </tbody> </table> | D  | TC   | D   | TC | 2 | 1 | 6 | 3-11 | 3 | 2 | 8 | 4-14 | 4 | 3 | 10 | 5-16 | 5 | 4 | 12 | 6-23 | Changes the relief to R0.5.<br>Ordering Code: RC <table border="1"> <thead> <tr> <th>D</th> <th>RC</th> <th>D</th> <th>RC</th> </tr> </thead> <tbody> <tr><td>3</td><td>1</td><td>6</td><td>3-11</td></tr> <tr><td>4</td><td>2</td><td>8</td><td>4-14</td></tr> <tr><td>5</td><td>3</td><td>10</td><td>5-16</td></tr> </tbody> </table> | D | RC | D | RC | 3 | 1 | 6 | 3-11 | 4 | 2 | 8 | 4-14 | 5 | 3 | 10 | 5-16 | Machines hex socket. Ordering Code: RAC <table border="1"> <thead> <tr> <th>D</th> <th>Applicable Dimension</th> <th>Hex Hole Dimension</th> </tr> </thead> <tbody> <tr> <td>8, 8T</td> <td>6.50-13</td> <td>6.50-3.5</td> </tr> <tr> <td>10, 10T</td> <td>7.00-13</td> <td>7.00-3.5</td> </tr> <tr> <td>12, 12T</td> <td>7.00-13</td> <td>7.00-3.5</td> </tr> <tr> <td>13, 13T</td> <td>9.00-15</td> <td>9.00-4</td> </tr> <tr> <td>16, 16T</td> <td>13.00-17</td> <td>13.00-4.5</td> </tr> <tr> <td>20, 20T</td> <td>16.00-20</td> <td>16.00-6.0</td> </tr> </tbody> </table> | D | Applicable Dimension | Hex Hole Dimension | 8, 8T | 6.50-13 | 6.50-3.5 | 10, 10T | 7.00-13 | 7.00-3.5 | 12, 12T | 7.00-13 | 7.00-3.5 | 13, 13T | 9.00-15 | 9.00-4 | 16, 16T | 13.00-17 | 13.00-4.5 | 20, 20T | 16.00-20 | 16.00-6.0 | Machines wrench hole. Ordering Code: LAC <table border="1"> <thead> <tr> <th>D</th> <th>Applicable Dimension</th> <th>P</th> <th>Q</th> </tr> </thead> <tbody> <tr> <td>8, 8T</td> <td>5.0-</td> <td>6.00-9.99</td> <td>2</td> </tr> <tr> <td>10, 10T</td> <td></td> <td>10.00-16.99</td> <td>3.5</td> </tr> <tr> <td>12, 12T</td> <td></td> <td>17.00-</td> <td>5</td> </tr> </tbody> </table> | D | Applicable Dimension | P | Q | 8, 8T | 5.0- | 6.00-9.99 | 2 | 10, 10T |  | 10.00-16.99 | 3.5 | 12, 12T |  | 17.00- | 5 |
| D           | TC   | D  | TC   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 2           | 1  | 6  | 3-11   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 3           | 2  | 8  | 4-14   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 4           | 3  | 10   | 5-16   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 5           | 4  | 12   | 6-23   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| D           | RC   | D  | RC   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 3           | 1  | 6  | 3-11   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 4           | 2  | 8  | 4-14   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 5           | 3  | 10   | 5-16   |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| D           | Applicable Dimension   | Hex Hole Dimension   |  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 8, 8T       | 6.50-13  | 6.50-3.5   |  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 10, 10T     | 7.00-13  | 7.00-3.5   |  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 12, 12T     | 7.00-13  | 7.00-3.5   |  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 13, 13T     | 9.00-15  | 9.00-4   |  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 16, 16T     | 13.00-17   | 13.00-4.5  |  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 20, 20T     | 16.00-20   | 16.00-6.0  |  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| D           | Applicable Dimension   | P  | Q  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 8, 8T       | 5.0-   | 6.00-9.99  | 2  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 10, 10T     |  | 10.00-16.99  | 3.5  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| 12, 12T     |  | 17.00-   | 5  |  |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
| Alterations | HC=0.5 mm Increment<br>HC>D HC>P<br>Ordering Code: HC10.0  | Changes the m dimension.<br>Ordering Code: TC8 (1 mm Increment)  | Changes the relief to R0.5.<br>Ordering Code: RC | Machines hex socket. Ordering Code: RAC  | Machines wrench hole. Ordering Code: LAC  |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |
|             | ⊕ B+m≥TC+2 (Straight Part min. 2 mm)<br>⊕ Applicable when P≥2.00.<br>⊕ P/2-TC x tan15°(=0.27)>0.5 (Tip Ø1.0min.)<br>⊕ B Dimension changes when TC is specified. (Changed B dimension = B+m-TC) | ⊕ B+m≥TC+2 (Straight Part min. 2 mm)<br>⊕ P/2-TC x tan15°(=0.27)>0.5 (Tip Ø1.0min.)<br>⊕ B Dim. changes when TC is specified. (Changed B dim. = B+m-TC)<br>⊗ Combination with RAC and LAC is not available.  | ⊕ Applicable when H-P≥2.                         | ⊕ Applicable to P, L and B Dim. Configurable only.<br>⊕ Round shape is applicable to D≥8, and diamond to D≥10.<br>⊕ When D=8, it is applicable to P≥6.<br>⊗ Combination with TC and LAC is not available | ⊕ Round shape is applicable to D≥8 and P≥6, and diamond to D≥10 and P≥8.<br>⊕ Orientation between diamond shape head and wrench hole is arbitrary.<br>⊗ Combination with TC, RC and RAC is not available. |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |    |      |   |   |    |   |    |   |   |   |      |   |   |   |      |   |   |    |      |   |   |                      |                    |       |         |          |         |         |          |         |         |          |         |         |        |         |          |           |         |          |           |   |   |                      |   |   |       |      |           |   |         |  |             |     |         |  |        |   |