

Hex Support Pins

Flat

Locating Pins/Bushings for Locating Pins

Hex Support Pins – Flat

| Type | | Material | Surface Treatment | Hardness | |
|----------|--------|---------------------------------|---|--------------------------|---|
| Threaded | Tapped | | | | |
| SRTAB | SRTBB | 1045 Carbon Steel or Equivalent | Black Oxide | Plating Hardness 750 min | |
| SRTAR | SRTBR | | Hard Chrome Plating Plating Thickness: 3 μm or More | | |
| SRTAHB | SRTBHB | | Black Oxide | | |
| SRTAHR | SRTBHR | | Hard Chrome Plating Plating Thickness: 3 μm or More | | |
| SRTASU | SRTBSU | | 304 Stainless Steel | | — |
| SRTAC | SRTBC | | 440C or 420 Stainless Steel | | — |

Threaded

Tapped

RoHS10

When G < Pitch x 2, the incomplete threaded section (Pitch x 2) is included in M x 1.5. Pitch Diameter P4010

| Type | Part Number | Material Code | B | L 0.01 mm Increment | G 1 mm Increment Threaded Type only | (C) | d | M (Coarse) | M ₁ (Coarse) | | | | | | | | |
|----------|-----------------|---------------|--------|------------------------|---|---------------|---|---------------|----------------------------|------------|----|------------|------------------------|------|---|----|----|
| | | | | | | | | | | Shape Code | | | | | | | |
| Threaded | A (Threaded) | B | 6 | 10.00-50.00 | 0 or 2 ≤ G ≤ dx2 | 6.9 | 4 | M4 | M3 | | | | | | | | |
| | | | 7 | | | 8.1 | | | | | | | | | | | |
| Tapped | B (Tapped) | SU | 8 | 15.00-50.00 | 0 or 2 ≤ G ≤ dx2 | 9.2 | 5 | M5 | M4 | | | | | | | | |
| | | | 10 | | | 11.5 | | | | | | | | | | | |
| Threaded | A (Threaded) | B | 12 | 20.0-80.00 | 0 or 2 ≤ G ≤ dx2 | 13.9 | 6 | M6 | M5 | | | | | | | | |
| | | | 13 | | | 15 | | | | | | | | | | | |
| | | | 14 | | | 16.2 | | | | | | | | | | | |
| | | | 17 | | | 19.6 | | | | | | | | | | | |
| | | | 19 | | | 21.9 | | | | | | | | | | | |
| | | | 24 | | | 27.7 | | | | | | | | | | | |
| | | | Tapped | | | B (Tapped) | | | | C | 12 | 20.0-80.00 | 0 or 2 ≤ G ≤ dx2 | 13.9 | 6 | M6 | M5 |
| | | | | | | | | | | | 13 | | | 15 | | | |
| 14 | 16.2 | | | | | | | | | | | | | | | | |
| 17 | 19.6 | | | | | | | | | | | | | | | | |
| 19 | 21.9 | | | | | | | | | | | | | | | | |
| 24 | 27.7 | | | | | | | | | | | | | | | | |

440C or 420 Stainless Steel is B=8. For full thread, specify a G dimension of 0 and NNC alteration.

Part Number Example

| Type | Shape | Materials | B | L | G |
|------|-------|-----------|----|--------|----|
| SRT | A | B | 8 | L20.00 | G6 |
| SRT | B | SU | 12 | L50.00 | |

Part Number Alterations

| Part Number | L | G | (DRC, NNC) |
|-------------|--------|----|------------|
| SRTAB10 | L30.00 | G3 | DRC |

| Alterations | Screwdriver Slot | Undercut |
|-------------|---|--|
| Code | DRC | NNC |
| Spec. | Machines a screwdriver slot of width 0.8 mm and depth 1 mm. | Adds a relief at the thread end. Applicable when G=0. |

Application Example

Features: Due to the hex shape, adjusting height with a wrench is easy.

Locating Pin for Jigs & Fixtures

Precision with Shoulder

Features: For Precision Grade, P dimension tolerance is $^{+0.01}$ or $^{-0.02}$ (for Standard Grade, $^{+0.05}$), concentricity is 0.01 or 0.02 (for Standard Grade, 0.03 or 0.05).

Threaded

| Type | Material | Hardness |
|--------|--------------------------------|--|
| LANAN | Round 4137 Alloy Steel | Hardened 35-40 HRC min. |
| LANDN | Diamond | |
| TLANAN | Round SCM415 Alloy Steel (JIS) | Carburized 55 HRC min. (Depth 0.7-0.8) Anti-Carburizing on Threads |
| TLANDN | Diamond | |

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$

Hardened / Carburized / Chrome Plated

Dicoat® / TiCN Treatment

1 Dicoat® Treated / TiCN Thread Shape

$e = P/2 \tan 15^\circ + R - (R/\sin 15^\circ)$

2 Dicoat® Treated / TiCN Treated items do not come with a center hole.

3 Dicoat® Treated / TiCN items will have the () precision and Thread Shape will be 1.

4 Surface Finish Relief

5 Relief dimensions are reference values.

| Part Number | | D _{ps} | P 0.1 mm Increment | B 1 mm Increment | L Selection | | ℓ ₁ | H | R | W | | | |
|------------------|----------|-----------------|-----------------------|---------------------|----------------|-----|----------------|----|----|----|-----|----|-----|
| Type | Material | | | | ℓ ₁ | H | | | | | | | |
| Hardened (Round) | LANAN | 6 | -0.004 -0.012 | 3.0-7.0 | 5 | 8 | 10 | 6 | 9 | 1 | 1-2 | | |
| | | 8 | -0.005 -0.014 | 3.0-9.0 | 5 | 8 | 10 | 12 | 15 | 10 | | 11 | 1.5 |
| (Diamond) | LANDN | 10T | -0.005 -0.014 | 4.5-12.0 | (5) | (8) | 10 | 12 | 15 | 12 | 13 | 2 | 1-3 |
| | | 12 | -0.006 -0.017 | 9.0-13.0 | (8) | 10 | 12 | 15 | 18 | 15 | 15 | 3 | |
| | | 16 | -0.017 | 13.0-16.0 | (10) | 12 | 15 | 18 | 20 | 18 | 19 | 4 | 5 |

W Dimension D6, D8: W=2 when P>5.0 D10, 10T: W=1 when P<5.0, W=2 when 5.0 ≤ P ≤ 7.0, W=3 when P > 7.0. L dimension in () is not applicable to Diamond Shape, Dicoat® and TiCN treatment. B Dimension 5 mm – will be selected for Dicoat® Treated / TiCN Treated items.

Set Screw Type

| Type | Material | Hardness |
|--------|--------------------------|---|
| LATAN | Round 4137 Alloy Steel | 35-40 HRC min. |
| LATDN | Diamond | |
| TLATAN | Round SCM415 Alloy Steel | Carburized 55 HRC min. (Depth 0.7-0.8) Anti-Carburizing on Thread |
| TLATDN | Diamond | |

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$

Hardened / Carburized / Chrome Plated

Dicoat® / TiCN Treatment

$e = P/2 \tan 15^\circ + R - (R/\sin 15^\circ)$

4 Surface Finish Relief

5 Relief dimensions are reference values.

| Part Number | | D _{ps} | P 0.1 mm Inc. | B 1 mm Increment | L | ℓ ₁ | H | d | R | Applicable Set Screw | W |
|------------------|----------|-----------------|------------------|---------------------|----|----------------|----|----|-----|----------------------|-----|
| Type | Material | | | | | | | | | | |
| Hardened (Round) | LATAN | 6 | -0.004 -0.012 | 3.0-7.0 | 8 | 8 | 9 | 4 | 1 | M5 | 1-2 |
| | | 8 | -0.005 -0.014 | 3.0-9.0 | 10 | 10 | 11 | 5 | 1.5 | | |
| (Diamond) | LATDN | 10T | -0.005 -0.014 | 4.5-12.0 | 5 | 8 | 13 | 7 | 2 | M6 | 1-3 |
| | | 12 | -0.006 -0.017 | 9.0-13.0 | 12 | 10 | 15 | 9 | 3 | M8 | |
| | | 16 | -0.017 | 13.0-16.0 | 12 | 10 | 19 | 13 | 4 | M8 | 5 |

W Dimension D6, D8: W=2 when P>5.0 D10, 10T: W=1 when P<5.0, W=2 when 5.0 ≤ P ≤ 7.0, W=3 when P > 7.0. B Dimension 5 mm – will be selected for Dicoat® Treated / TiCN Treated items.

Part Number Example

| Type | D | P | B | L |
|-------|---|------|-----|-----|
| LANAN | 8 | P5.0 | B15 | L10 |
| LATAN | 6 | P6.8 | B14 | |

Part Number Alterations

| Type | D | P | B | L | (KC, KD, SC, MC) |
|-------|----|------|-----|----|------------------|
| LANAN | 10 | P4.5 | B10 | L5 | KD |

| Alterations | Grooves for Wear Sign | Flat Position | Flat Machining | Wrench Flats | Thread Diameter | Thread Length | Upper Relief Radius Change |
|-------------|---|--|--|--|---|---|---|
| Code | MK | KC | KD | SC | MC | FC | RTC |
| Spec. | Machine 4 grooves on B Dimension. The wear and tear of the grooves indicate the degree of wear. Applicable to Hardened, Carburized and Round Shape Products only Applicable when B ≥ 4 When used together with RTC, the groove starts from the area of R value + 1 mm. Groove Depth: 0.2mm (±0.06 mm) Groove Shape: V Groove (90°) | Ordering Code: KC Changes the flat position to 90° from the standard position 0°. Applicable to Diamond Shape Type only. | Ordering Code: KD Machining on one side. H-P ≥ 2 Applicable to Round Shape Type only. | Ordering Code: SC Adds wrench flats. H 9 11 13 15 19 H 7 8 11 13 17 Applicable to Round Shape Type only. | Ordering Code: MC8 Changes the thread diameter. D/3 ≤ M < D Mmin3 Applicable to Threaded Type only. | Ordering Code: FC15 Changes the thread length. FC=1 mm Increment D6-10: M=FC-Mx3 D12-16: M=FC-Mx2.5 D20: M=FC-Mx2 Applicable to Threaded only. Not applicable to Dicoat® and TiCN treatment. | Ordering Code: RTC1 Changes the relief to the following radius R. Selection: R1 R2 R3 RTC ≤ (H-P)/2 Applicable when B ≥ 5 |

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