

# PILOT PUNCHES WITH LOCATING DOWEL HOLES

—NORMAL·TiCN COATING·HW COATING·DICOAT® TREATMENT—

PRODUCTS DATA

P.1089-1094-1095

| Type                                  | Shank diameter<br>D | Tolerance | Catalog No.                                   |                                   |                    | Shape                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------|---------------------|-----------|-----------------------------------------------|-----------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       |                     |           | Type                                          | tip length<br>B                   | With<br>dowel hole |                                                                                                                                                                                                                                                                                                                                                                               |
| —Tip R type—<br><b>RoHS</b>           | D <sub>m5</sub>     |           | Equivalent to SKD11 60~63 HRC                 | <b>STA</b>                        |                    | <p><b>MS6—25</b><br/>           RT (※) → If P &lt; 8, tip is rounded for safety.<br/>           To keep the sharp tip (no rounding), specify RT=0.<br/>           (RT=0 cannot be selected with HW coating.)<br/>           (If P ≥ 8, tip end is flat. <b>P.1592</b>)<br/>           For the length of tip R, refer to the products data "Punch R length". <b>P.1592</b></p> |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | TiCN coating<br><b>H—STA</b>      |                    |                                                                                                                                                                                                                                                                                                                                                                               |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | HW coating<br><b>HW—STA</b>       |                    |                                                                                                                                                                                                                                                                                                                                                                               |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | Dicoat® treatment<br><b>T—STA</b> |                    |                                                                                                                                                                                                                                                                                                                                                                               |
| —Tapered tip type—<br><b>RoHS</b>     | D <sub>m5</sub>     |           | Equivalent to SKD11 60~63 HRC                 | <b>TPA</b>                        |                    | <p><b>MS6—25</b></p>                                                                                                                                                                                                                                                                                                                                                          |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | TiCN coating<br><b>H—TPA</b>      |                    |                                                                                                                                                                                                                                                                                                                                                                               |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | HW coating<br><b>HW—TPA</b>       |                    |                                                                                                                                                                                                                                                                                                                                                                               |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | Dicoat® treatment<br><b>T—TPA</b> |                    |                                                                                                                                                                                                                                                                                                                                                                               |
| —Sharp tip angle type—<br><b>RoHS</b> | D <sub>m5</sub>     |           | Equivalent to SKD11 60~63 HRC                 | <b>ATA</b>                        |                    | <p><b>MS6—25</b><br/>           RT (※) → Tip is rounded for safety.<br/>           To keep the sharp tip (no rounding), specify RT=0.<br/>           (RT=0 cannot be selected with HW coating.)</p>                                                                                                                                                                           |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | TiCN coating<br><b>H—ATA</b>      |                    |                                                                                                                                                                                                                                                                                                                                                                               |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | HW coating<br><b>HW—ATA</b>       |                    |                                                                                                                                                                                                                                                                                                                                                                               |
|                                       |                     |           | Equivalent to SKD11 60~63 HRC Surface 3000 HV | HW coating<br><b>HW—ATA</b>       |                    |                                                                                                                                                                                                                                                                                                                                                                               |

| Catalog No.                                                     |            |                 | D  | L                                           | 0.01mm increments<br>min. P max. | A    | B  | H  | Y |
|-----------------------------------------------------------------|------------|-----------------|----|---------------------------------------------|----------------------------------|------|----|----|---|
| Type                                                            | tip length | With dowel hole |    |                                             |                                  |      |    |    |   |
| —Normal—<br><b>STA</b><br><b>TPA</b><br><b>ATA</b>              |            |                 | 10 | (42) 52 62 72 82 92 102 112 122 (132) (142) | 3.00~ 9.99                       | (10) | 15 | 13 | 5 |
|                                                                 |            |                 | 13 |                                             | 6.00~ 12.99                      | (15) |    | 16 |   |
|                                                                 |            |                 | 16 |                                             | 10.00~ 15.99                     | (20) | 21 | 19 | 8 |
|                                                                 |            |                 | 20 |                                             | 13.00~ 19.99                     | (25) |    | 23 |   |
| —TiCN coating—<br><b>H—STA</b><br><b>H—TPA</b><br><b>H—ATA</b>  |            |                 | 25 | 52 62 72 82 92 102 112 122 (132) (142)      | 18.00~ 24.99                     | (30) | 21 | 28 | 5 |
|                                                                 |            |                 | 10 |                                             | 3.00~ 9.99                       | (10) |    | 13 |   |
|                                                                 |            |                 | 13 |                                             | 6.00~ 12.99                      | (15) | 27 | 16 | 8 |
|                                                                 |            |                 | 16 |                                             | 10.00~ 15.99                     | (20) |    | 19 |   |
| —Dicoat® treatment—<br><b>T—STA</b><br><b>T—TPA</b>             |            |                 | 20 | 62 72 82 92 102 112 122 (132) (142)         | 13.00~ 19.99                     | (25) | 27 | 23 | 8 |
|                                                                 |            |                 | 25 |                                             | 18.00~ 24.99                     | (30) |    | 28 |   |
| —HW coating—<br><b>HW—STA</b><br><b>HW—TPA</b><br><b>HW—ATA</b> |            |                 | 10 | 62 72 82 92 102 112 122 (132) (142)         | 3.00~ 9.99                       | (10) | 32 | 13 | 5 |
|                                                                 |            |                 | 13 |                                             | 6.00~ 12.99                      | (15) |    | 16 |   |
|                                                                 |            |                 | 16 |                                             | 10.00~ 15.99                     | (20) | 42 | 19 | 8 |
|                                                                 |            |                 | 20 |                                             | 13.00~ 19.99                     | (25) |    | 23 |   |
|                                                                 |            |                 | 25 |                                             | 18.00~ 24.99                     | (30) |    | 28 |   |

- (L (42) → B=10 If full length L is (42), tip length B is 10mm in all cases.  
 (L (132) (142) → L132 and 142 can be used for tip R types and tapered tip types only.  
 P > D - 0.03 → ℓ = 0 If P > D - 0.03, D = 0.01 (press-in lead) is not included.  
 A (10) → If P ≥ 9.0, A10 cannot be selected.  
 A (15) → If P ≥ 15.0, A15 cannot be selected.  
 A (20) → If P ≥ 20.0, A20 cannot be selected.



Order

Catalog No. — L — P — A — (RT=0)  
R=0

STASC 10 — 72 — P5.50

H—ATASC 10 — 62 — P3.80 — A20 — R0

(A) Can be used for sharp tip angle types only.

(RT=0) only can be selected. (Can be selected for tip R types with P < 8 and sharp tip angle types.)

(R=0) only can be selected. (Can be used for tapered tip types and sharp tip angle types.)



Days to Ship

Quotation



Alterations

Catalog No. — L (LC) — P (PC) — A — (RT=0)  
R=0 — (BC·YC·HC, etc.)

STASC 16 — 72 — PC8.505 — PKC

| Alteration | Code       | Tip R type                                                                                                                                                                                                         | Tapered tip and sharp tip angle types                                                                                                               | 1Code            |
|------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|            | <b>PC</b>  | Tip diameter change<br>PC ≥ P <sub>min.</sub><br>0.01mm increments<br>(If combined with PKC, 0.001mm increments can be selected.)                                                                                  | Tip diameter change<br>PC ≥ P <sub>min.</sub><br>0.01mm increments<br>(If combined with PKC, 0.001mm increments can be selected.)<br>Ymax = YCmax.  | <b>Quotation</b> |
|            |            | P (PC) Bmax.<br>1.500~1.999 20<br>2.000~3.999 35<br>4.000~5.999 45<br>6.000~ (60)                                                                                                                                  | P (PC) Bmax.<br>1.500~1.999 20<br>2.000~2.999 30<br>3.000~3.999 35<br>4.000~5.999 45<br>6.000~ (60)                                                 |                  |
|            | <b>BC</b>  | Tip length change<br>2 ≤ BC ≤ Bmax.<br>Full length L must be at least 30mm longer than tip length BC.<br>For TiCN coating or HW coating, Bmax. = 50.<br>For Dicoat® treatment, Bmax. = 47.                         | 0.1mm increments                                                                                                                                    |                  |
|            |            | Tip R is cut flat.<br>2 ≤ RLC < Y < 8<br>Y = √(P(10 - P/4))<br>0.1mm increments                                                                                                                                    | —                                                                                                                                                   |                  |
|            | <b>RLC</b> | Tip R is cut flat.<br>2 ≤ RLC < Y < 8<br>Y = √(P(10 - P/4))<br>0.1mm increments                                                                                                                                    | —                                                                                                                                                   |                  |
|            | <b>YC</b>  | —                                                                                                                                                                                                                  | Tip taper length change<br>1 ≤ YC ≤ P × 1.86 - 0.3 ≤ 18<br>L (LC) + YC ≤ Lmax. + 8<br>0.1mm increments<br>Cannot be used for sharp tip angle types. |                  |
|            | <b>SC</b>  | Lapping of tip<br>P dimension tolerance remains the same.<br>The base material is finished before coating is applied.<br>R=0 and RT=0 cannot be selected.<br>Cannot be used with HW coating and Dicoat® treatment. | —                                                                                                                                                   | <b>Quotation</b> |
|            |            | —                                                                                                                                                                                                                  | —                                                                                                                                                   |                  |
|            | <b>PKC</b> | Tip diameter tolerance change<br>P + 0.01 → + 0.005<br>(P dimension can be selected in 0.001mm increments.)<br>TiCN coating cannot be used for D > 13. HW coating or Dicoat® treatment cannot be used.             | —                                                                                                                                                   |                  |
|            |            | —                                                                                                                                                                                                                  | —                                                                                                                                                   |                  |

| Alteration | Code       | Tip R type                                                                                                                                                                          | Tapered tip and sharp tip angle types                                                                                                                      | 1Code            |
|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|            | <b>LC</b>  | Full length change<br>30 + B (BC) ≤ LC < L<br>0.1mm increments<br>If difference between full length and tip length is 30mm or less, tip length is adjusted to (Full length - 30mm). | —                                                                                                                                                          | <b>Quotation</b> |
|            |            | —                                                                                                                                                                                   | Full length tolerance change<br>L + 0.3 → + 0.05<br>0 0<br>TiCN coating, HW coating, and Dicoat® treatment cannot be used.                                 |                  |
|            | <b>LKC</b> | —                                                                                                                                                                                   | —                                                                                                                                                          | <b>Quotation</b> |
|            | <b>HC</b>  | Head diameter change<br>D ≤ HC < H<br>0.1mm increments                                                                                                                              | —                                                                                                                                                          |                  |
|            | <b>TC</b>  | Head thickness change<br>2 ≤ TC < 5<br>0.1mm increments<br>Full length L is shortened by (5 - TC).<br>If combined with LC, full length is equal to LC.                              | —                                                                                                                                                          |                  |
|            | <b>KC</b>  | Addition of single key flat to head                                                                                                                                                 | —                                                                                                                                                          |                  |
|            | <b>WKC</b> | Addition of double key flats in parallel                                                                                                                                            | —                                                                                                                                                          | <b>Quotation</b> |
|            | <b>FKC</b> | —                                                                                                                                                                                   | F dimension tolerance change<br>F + 0.3 → + 0.05<br>0 0<br>TiCN coating, HW coating, and Dicoat® treatment cannot be used.<br>Cannot be combined with LKC. |                  |
|            | <b>NDC</b> | No press-in lead<br>ℓ ≥ 3 → ℓ = 0                                                                                                                                                   | —                                                                                                                                                          | <b>Quotation</b> |
|            |            | —                                                                                                                                                                                   | —                                                                                                                                                          |                  |
|            | <b>TPC</b> | Dowel pin change MS6—25 that comes with the product is changed to MSTP6—25 (tapped type).                                                                                           | —                                                                                                                                                          | <b>Quotation</b> |
|            |            | —                                                                                                                                                                                   | —                                                                                                                                                          |                  |



Price

Quotation