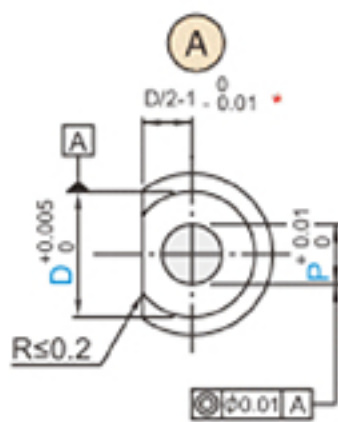
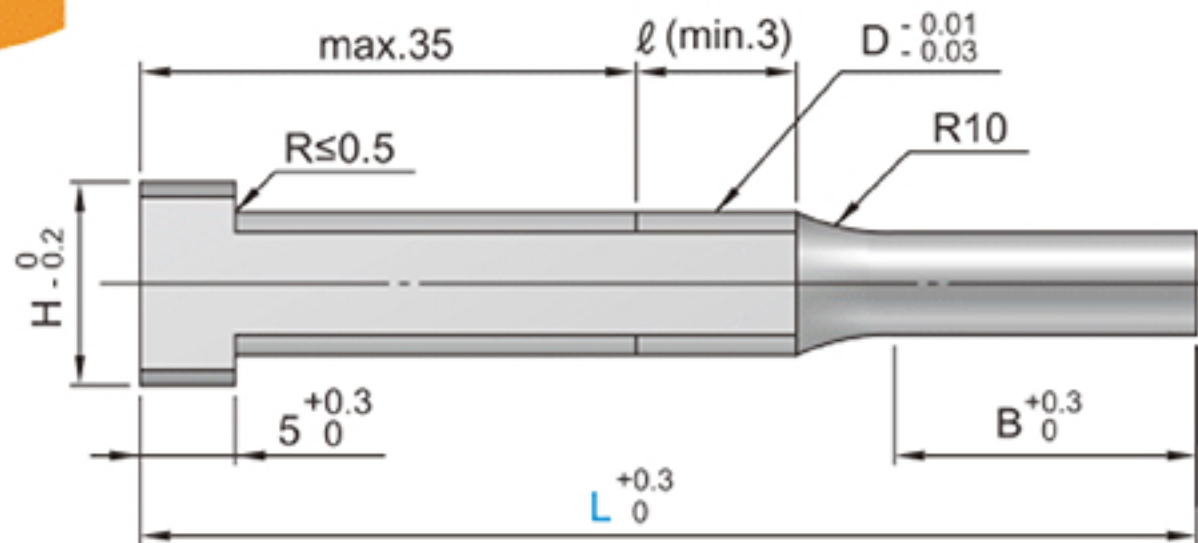


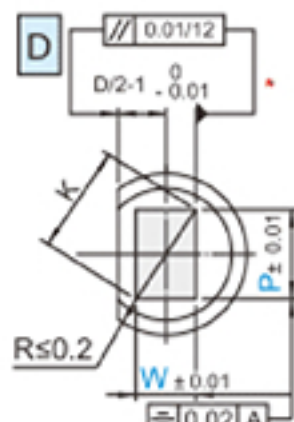
-WPC  
GW-WSP  
GW-WSH  
GW-WPH

-HW  
GHW-WSH  
GHW-WPH

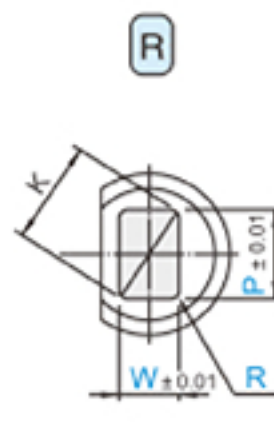
-HX  
GHX-WSH  
GHX-WPH



$$\bullet \left( \begin{array}{l} D=3-63H \\ D/2-0.5 -0.01/0 \end{array} \right) \left( \begin{array}{l} 0.01/12 \\ 0.01/12 \end{array} \right)$$



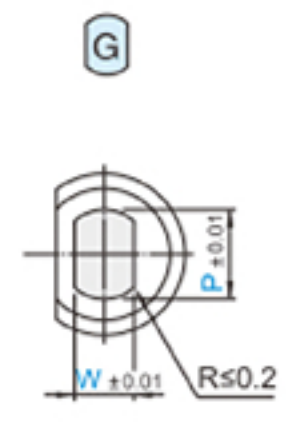
$$\begin{array}{l} P \geq W \\ K = \sqrt{P^2 + W^2} \end{array}$$



$$\begin{array}{l} P \geq W \quad 0.15 \leq R < W/2 \\ K = \sqrt{(P-2R)^2 + (W-2R)^2} + 2R \end{array}$$



$$P > W$$



$$P > W$$

| T          | M              | H                                | Type                       |                    |                    | Catalog No. | (B)<br>(X>L>S) |
|------------|----------------|----------------------------------|----------------------------|--------------------|--------------------|-------------|----------------|
|            |                |                                  | WPC<br>1000-1100HV         | HW<br>3000HV       | HX<br>3000HV       |             |                |
| D +0.005/0 | SKD11<br>SKH51 | 60-63HRC<br>61-64HRC<br>64-67HRC | GW-WSP<br>GW-WSH<br>GW-WPH | GHW-WSH<br>GHW-WPH | GHX-WSH<br>GHX-WPH | A D R E G   | S<br>L X       |



 **ORDER** Catalog No. - L - P - W - R (R)  
GW-WSPAS13 - 80 - P10.5 - W7.34

| Catalog No.                                                                                                                         |                                                                                                                                                                                                                                                               |                                 | D  | L                                   | (A)         | (D)      | (E)   | (R)     | (G) | (R)                     | B  | H |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----|-------------------------------------|-------------|----------|-------|---------|-----|-------------------------|----|---|
| Type                                                                                                                                |                                                                                                                                                                                                                                                               |                                 |    |                                     | P           | P-K max. | Wmax. | P-Wmin. |     | R                       |    |   |
| (D <sup>+0.005</sup> <sub>0</sub> )<br>-WPC<br>GW-WSP<br>GW-WSH<br>GW-WPH<br>-HW<br>GHW-WSH<br>GHW-WPH<br>-HX<br>GHX-WSH<br>GHX-WPH | <br><br> | (A)<br>(D)<br>(R)<br>(E)<br>(G) | 3  | 40 · 50 · 60 · 70 · 80 · 90 · 100   | 1.00~ 1.80  |          |       |         |     | 0.15<br>~<br>W/2<br>(R) | 5  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 4  |                                     | 1.00~ 2.80  | 3.97     | 2.80  | 1.00    |     |                         | 7  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 5  |                                     | 2.00~ 3.80  | 4.97     | 3.80  | 1.20    |     |                         | 8  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 6  |                                     | 2.00~ 4.80  | 5.97     | 4.80  | 1.50    |     |                         | 9  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 8  |                                     | 3.00~ 5.80  | 7.97     | 5.80  | 2.00    |     |                         | 11 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 10 | (40) · 50 · 60 · 70 · 80 · 90 · 100 | 3.00~ 7.80  | 9.97     | 7.80  | 2.50    |     |                         | 13 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 13 |                                     | 6.00~10.80  | 12.97    | 10.80 | 3.00    |     |                         | 16 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 16 |                                     | 10.00~13.80 | 15.97    | 13.80 | 4.00    |     |                         | 19 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 20 |                                     | 13.00~17.80 | 19.97    | 17.80 | 5.00    |     |                         | 23 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 25 |                                     | 18.00~22.80 | 24.97    | 22.80 | 6.00    |     |                         | 28 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 3  | 50 · 60 · 70 · 80 · 90 · 100        | 1.00~ 1.80  |          |       |         |     |                         | 7  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 4  |                                     | 1.00~ 2.80  | 3.97     | 2.80  | 2.00    |     |                         | 7  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 5  |                                     | 2.00~ 3.80  | 4.97     | 3.80  | 2.00    |     |                         | 8  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 6  |                                     | 2.00~ 4.80  | 5.97     | 4.80  | 2.00    |     |                         | 9  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 8  |                                     | 3.00~ 5.80  | 7.97     | 5.80  | 2.50    |     |                         | 11 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 10 | 60 · 70 · 80 · 90 · 100             | 3.00~ 7.80  | 9.97     | 7.80  | 2.50    |     |                         | 13 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 13 |                                     | 6.00~10.80  | 12.97    | 10.80 | 3.00    |     |                         | 16 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 16 |                                     | 10.00~13.80 | 15.97    | 13.80 | 4.00    |     |                         | 19 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 20 |                                     | 13.00~17.80 | 19.97    | 17.80 | 5.00    |     |                         | 23 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 25 |                                     | 18.00~22.80 | 24.97    | 22.80 | 6.00    |     |                         | 28 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 3  | 50 · 60 · 70 · 80 · 90 · 100        | 1.20~ 1.80  |          |       |         |     |                         | 5  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 4  |                                     | 1.20~ 2.80  | 3.97     | 2.80  | 2.00    |     |                         | 7  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 5  |                                     | 2.00~ 3.80  | 4.97     | 3.80  | 3.50    |     |                         | 8  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 6  |                                     | 2.00~ 4.80  | 5.97     | 4.80  | 3.50    |     |                         | 9  |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 8  | 60 · 70 · 80 · 90 · 100             | 3.00~ 5.80  | 7.97     | 5.80  | 5.00    |     |                         | 11 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 10 |                                     | 3.00~ 7.80  | 9.97     | 7.80  | 5.00    |     |                         | 13 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 13 |                                     | 6.00~10.80  | 12.97    | 10.80 | 5.00    |     |                         | 16 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 16 |                                     | 10.00~13.80 |          |       |         |     |                         | 19 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 20 | 70 · 80 · 90 · 100                  | 13.00~17.80 |          |       |         |     |                         | 23 |   |
|                                                                                                                                     |                                                                                                                                                                                                                                                               |                                 | 25 |                                     | 18.00~22.80 |          |       |         |     |                         | 28 |   |

⚠ L(40) → B=8  
⚠  : P-K>D-0.05 →  $\ell=0$

D<sup>+0.01</sup><sub>-0.03</sub>

⚠  D=3~6 → a=0.5  
D=8~25 → a=1

## Fastening method of punch:

- Punch fixed plate benchmark:** This method is the most common method and should not be used for molds with small gaps.  
( The punch is driven into the punch fixing plate, so the mold production is very simple. If the coaxiality of the punch and the hole processing accuracy of the punch fixing plate are low, the gap between the punch and the die is prone to unevenness, so it should not be used for molds with small gaps. )
- Unloading plate benchmark:** This method is mainly used for high-precision molds of thin plates.  
( On the discharge plate close to the male mold and the female mold, the blade of the male mold has a guide device, so the accuracy error can be kept to a minimum. The punch fixing plate is fastened by fitting the gap. )

