

# KPD-90

## 超硬ポイントドリル Tungsten Carbide point Drill

- 一般鋼～アルミまで幅広い被削材が加工可能  
A wide range of work materials can be machined from general steel to aluminum

- 先端角140°×90°のポイントドリルです  
Point drill with a 140° x 90° tip angle



| 被削材 Workpiece                     |                     |                                   |                                    |                         |             |
|-----------------------------------|---------------------|-----------------------------------|------------------------------------|-------------------------|-------------|
| 一般構造鋼<br>General Structural Steel | 炭素鋼<br>Carbon Steel | 合金鋼・工具鋼<br>Alloy Steel Tool Steel | ステンレス鋼<br>Stainless Steel Ceramics | アルミ合金<br>Aluminum Alloy | 樹脂<br>Resin |
| ○                                 | ○                   | ○                                 | ○                                  | ○                       | ○           |

- 切削条件表はP147に記載

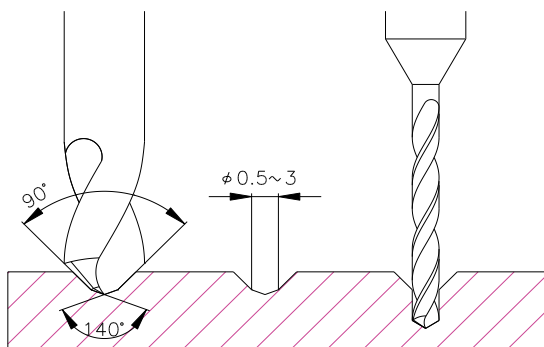
- Cutting conditions are recommended on page 147.

単位 [寸法:mm]

Unit [size:mm]

| 品番<br>Code No. | 刃径 D<br>Flute Diameter | 面取り長さ ℓ<br>chanfa Length | 溝長 ℓ1<br>Groove length | 全長 L<br>Total Length | 柄径 d<br>Shank Diameter |
|----------------|------------------------|--------------------------|------------------------|----------------------|------------------------|
| KPD-9005       | 0.5                    | 1.25                     | 6                      | 40                   | 3                      |
| KPD-9006       | 0.6                    | 1.2                      | 6                      | 40                   | 3                      |
| KPD-9007       | 0.7                    | 1.15                     | 6                      | 40                   | 3                      |
| KPD-9008       | 0.8                    | 1.1                      | 6                      | 40                   | 3                      |
| KPD-9009       | 0.9                    | 1.05                     | 6                      | 40                   | 3                      |
| KPD-9010       | 1                      | 1                        | 6                      | 40                   | 3                      |
| KPD-9011       | 1.1                    | 1.45                     | 10                     | 50                   | 4                      |
| KPD-9012       | 1.2                    | 1.4                      | 10                     | 50                   | 4                      |
| KPD-9013       | 1.3                    | 1.35                     | 10                     | 50                   | 4                      |
| KPD-9014       | 1.4                    | 1.3                      | 10                     | 50                   | 4                      |
| KPD-9015       | 1.5                    | 1.25                     | 10                     | 50                   | 4                      |
| KPD-9016       | 1.6                    | 1.2                      | 10                     | 50                   | 4                      |
| KPD-9017       | 1.7                    | 1.15                     | 10                     | 50                   | 4                      |

| 品番<br>Code No. | 刃径 D<br>Flute Diameter | 面取り長さ ℓ<br>chanfa Length | 溝長 ℓ1<br>Groove length | 全長 L<br>Total Length | 柄径 d<br>Shank Diameter |
|----------------|------------------------|--------------------------|------------------------|----------------------|------------------------|
| KPD-9018       | 1.8                    | 1.1                      | 10                     | 50                   | 4                      |
| KPD-9019       | 1.9                    | 1.05                     | 10                     | 50                   | 4                      |
| KPD-9020       | 2                      | 2                        | 12                     | 50                   | 6                      |
| KPD-9021       | 2.1                    | 1.95                     | 12                     | 50                   | 6                      |
| KPD-9022       | 2.2                    | 1.9                      | 12                     | 50                   | 6                      |
| KPD-9023       | 2.3                    | 1.85                     | 12                     | 50                   | 6                      |
| KPD-9024       | 2.4                    | 1.8                      | 12                     | 50                   | 6                      |
| KPD-9025       | 2.5                    | 1.75                     | 12                     | 50                   | 6                      |
| KPD-9026       | 2.6                    | 1.7                      | 12                     | 50                   | 6                      |
| KPD-9027       | 2.7                    | 1.65                     | 12                     | 50                   | 6                      |
| KPD-9028       | 2.8                    | 1.6                      | 12                     | 50                   | 6                      |
| KPD-9029       | 2.9                    | 1.55                     | 12                     | 50                   | 6                      |
| KPD-9030       | 3                      | 1.5                      | 12                     | 50                   | 6                      |



# KPD-90

## 切削条件参考

Referential Cutting Conditions

| 被削材<br>Workpiece            | 炭素鋼・一般構造用鋼<br>Carbon Steel・<br>General Structural Steel<br>SS・S55C                                                                             |                        | 合金鋼・工具鋼<br>Alloy Steel・Tool Steel<br><br>SCM・SKT・SKS・SKD |                        | ステンレス鋼<br>Stainless Steel<br><br>SUS303,SUS304,SUS416 |                        | アルミニウム合金<br>Aluminum Alloy<br><br>ADC・AC |                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------|------------------------|-------------------------------------------------------|------------------------|------------------------------------------|------------------------|
| 刃 径<br>Flute Diameter<br>mm | 切削速度<br>Cutting Speed<br>m/min                                                                                                                 | 送り速度<br>Feed<br>mm/rev | 切削速度<br>Cutting Speed<br>m/min                           | 送り速度<br>Feed<br>mm/rev | 切削速度<br>Cutting Speed<br>m/min                        | 送り速度<br>Feed<br>mm/rev | 切削速度<br>Cutting Speed<br>m/min           | 送り速度<br>Feed<br>mm/rev |
| 0.5~0.9                     | 15~20                                                                                                                                          | 0.01~0.03              | 10~20                                                    | 0.01~0.02              | 10~20                                                 | 0.01~0.02              | 20~30                                    | 0.03~0.06              |
| 1.0~1.9                     | 15~25                                                                                                                                          | 0.02~0.04              | 10~25                                                    | 0.02~0.03              | 10~25                                                 | 0.02~0.03              | 25~35                                    | 0.04~0.07              |
| 2.0~3.0                     | 20~30                                                                                                                                          | 0.03~0.05              | 15~25                                                    | 0.02~0.04              | 15~25                                                 | 0.02~0.04              | 30~40                                    | 0.04~0.08              |
| 備 考<br>Remarks              | ・工具取付時の振れを最小に抑えてください。<br>・切削油を使用して下さい。 <div>             ・Minimize Run out on fixing tool.<br/>             ・Use Cutting Oil.           </div> |                        |                                                          |                        |                                                       |                        |                                          |                        |

# KPDA-90

## 切削条件参考

Referential Cutting Conditions

| 被削材<br>Workpiece            | 炭素鋼・一般構造用鋼<br>Carbon Steel・<br>General Structural Steel<br>SS・S55C                                                                             |                        | 合金鋼・工具鋼<br>Alloy Steel・Tool Steel<br><br>SCM・SKT・SKS・SKD |                        | ステンレス鋼<br>Stainless Steel<br><br>SUS303,SUS304,SUS416 |                        |  |  |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------|------------------------|-------------------------------------------------------|------------------------|--|--|
| 刃 径<br>Flute Diameter<br>mm | 切削速度<br>Cutting Speed<br>m/min                                                                                                                 | 送り速度<br>Feed<br>mm/rev | 切削速度<br>Cutting Speed<br>m/min                           | 送り速度<br>Feed<br>mm/rev | 切削速度<br>Cutting Speed<br>m/min                        | 送り速度<br>Feed<br>mm/rev |  |  |
| 0.5~0.9                     | 20~30                                                                                                                                          | 0.02~0.05              | 15~25                                                    | 0.01~0.03              | 15~25                                                 | 0.01~0.03              |  |  |
| 1.0~1.9                     | 20~35                                                                                                                                          | 0.03~0.06              | 15~30                                                    | 0.02~0.05              | 15~30                                                 | 0.02~0.05              |  |  |
| 2.0~3.0                     | 20~40                                                                                                                                          | 0.04~0.08              | 20~35                                                    | 0.03~0.07              | 20~35                                                 | 0.03~0.07              |  |  |
| 備 考<br>Remarks              | ・工具取付時の振れを最小に抑えてください。<br>・切削油を使用して下さい。 <div>             ・Minimize Run out on fixing tool.<br/>             ・Use Cutting Oil.           </div> |                        |                                                          |                        |                                                       |                        |  |  |