

ガイド穴専用ドリル High Precision Guide Hole Drill

# 超硬 NCポインティングドリル

Solid Carbide NC Pointing Drill

ドリル径 Drill  $\phi$  :  $\phi 0.02 \sim \phi 3.0\text{mm}$

## 120° タイプ 位置決め専用



## 90° タイプ 位置決め+面取り加工



### ■ 特徴

- 小径・微小径穴加工用に設計されたガイド(センター) 穴専用ドリルです。
- $\phi 0.3 \sim \phi 0.95$ はシンニングを施し、小径で高い位置精度のガイド穴が得られます。
- $\phi 1$ 以上はシンニング無しで先端チゼル幅を小さく設計。高い位置精度を確保しながら、中心付近まで先端角を有効に使用できます。
- 共にガイド穴底辺の幅は二次工程ドリル芯厚より狭く保たれます。

### Features

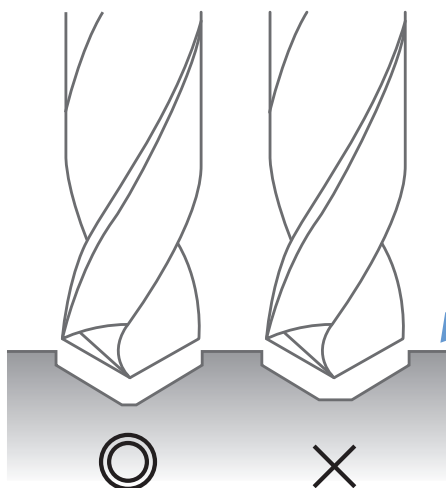
- Special Guide-Hole Drills developed for use in drilling small / microdiameter holes.
- The chisel edge width is designed smaller, and the width of guide hole base is always kept narrower than the core thickness of secondary using drill.
- Thinning on the drill point lets you drill holes with greater positioning accuracy.

### ■ 用途・効果

- 穴位置精度・穴径の公差が厳しい加工。
- ピッチ精度が厳しい小径多孔穴あけ加工。
- 正確なガイド穴により加工穴曲がりを防ぎます。
- ドリル食い付き時に起こる刃先の破損、チッピングを防ぎます。

### Uses & Advantages

- Work that requires stringent hole-position and hole-diameter tolerance.
- Work of opening small diameter perforation holes with strict pitch accuracy.
- Prevents off-angle hole drilling with accurate guide hole.
- Prevents drill damage and chipping that occur when the drill digs in.



ガイド穴の底辺が広いと正確な穴位置が得られません。

If the base of guide hole is wider, accurate hole position can not be achieved.

### ■ ポインティングドリル選定表 Pointing Drill Selection Table

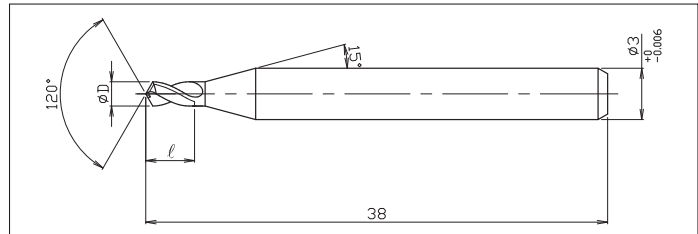
| 先端角<br>Point Angle | 被削材<br>Materials                     | 型番<br>Model | シャンク径<br>Shank Dia. |
|--------------------|--------------------------------------|-------------|---------------------|
| 120°               | 鋼材用<br>for Steel                     | ADPF30      | $\phi 3$            |
|                    |                                      | V-ADPF30    | $\phi 3$            |
|                    |                                      | ADPF31      | $\phi 3.175$        |
|                    |                                      | V-ADPF31    | $\phi 3.175$        |
|                    | 非鉄・樹脂用<br>for Non Ferrous<br>& Resin | ADPN30      | $\phi 3$            |
|                    |                                      | ADPN31      | $\phi 3.175$        |
| 90°                | 鋼材用<br>for Steel                     | ADPF309     | $\phi 3$            |
|                    |                                      | V-ADPF309   | $\phi 3$            |
|                    | 非鉄・樹脂用<br>for Non Ferrous & Resin    | ADPN309     | $\phi 3$            |

V-ADPF30/31/309はTiAlNコーティング付です。

先端120° ガイド穴専用ドリル Guide Hole Drill

## NCポインティングドリル

NC Pointing Drill with 120° point angle

ADPN30 非鉄・樹脂用  
for Non-Ferrous & Resin

■ 微小径穴加工用のガイド穴専用ドリルです。  
Special guide-hole drills for use in drilling small holes.

$\phi 0.02 \sim \phi 0.04$ は首逃げ2段形状です。

■ 穴位置・穴径精度の厳しい加工に最適です。  
Most suitable for work that requires stringent hole position accuracy.

刃径公差： $\phi D$  Tolerance

—0.006～—0.008 ( $\phi 0.02$ )  
—0.005～—0.01 ( $\phi 0.03 \sim \phi 0.09$ )  
—0.01～—0.015 ( $\geq \phi 0.1$ )

 $0.3 \leq \phi D \leq 0.95$ 

単位 Unit : mm

| 型番<br>CODE NUMBER | 径<br>$\phi D$ | 刃長<br>$\ell$ | 全長<br>L | シャンク<br>d | 定価<br>¥ |
|-------------------|---------------|--------------|---------|-----------|---------|
| ADPN30-0002       | 0.02          | 0.04         | 38      | 3         | 30,910  |
| ADPN30-0003       | 0.03          | 0.06         | 38      | 3         | 22,000  |
| ADPN30-0004       | 0.04          | 0.08         | 38      | 3         | 19,070  |
| ADPN30-0005       | 0.05          | 0.1          | 38      | 3         | 16,690  |
| ADPN30-0006       | 0.06          | 0.1          | 38      | 3         | 14,120  |
| ADPN30-0007       | 0.07          | 0.1          | 38      | 3         | 11,040  |
| ADPN30-0008       | 0.08          | 0.1          | 38      | 3         | 9,890   |
| ADPN30-0009       | 0.09          | 0.1          | 38      | 3         | 8,470   |
| ADPN30-0010       | 0.1           | 0.2          | 38      | 3         | 7,700   |
| ADPN30-0011       | 0.11          | 0.2          | 38      | 3         | 8,440   |
| ADPN30-0012       | 0.12          | 0.2          | 38      | 3         | 8,440   |
| ADPN30-0013       | 0.13          | 0.2          | 38      | 3         | 8,440   |
| ADPN30-0014       | 0.14          | 0.2          | 38      | 3         | 8,440   |
| ADPN30-0015       | 0.15          | 0.2          | 38      | 3         | 7,700   |
| ADPN30-0016       | 0.16          | 0.3          | 38      | 3         | 8,440   |
| ADPN30-0017       | 0.17          | 0.3          | 38      | 3         | 8,440   |
| ADPN30-0018       | 0.18          | 0.3          | 38      | 3         | 8,440   |
| ADPN30-0019       | 0.19          | 0.3          | 38      | 3         | 8,440   |
| ADPN30-0020       | 0.2           | 0.4          | 38      | 3         | 6,930   |
| ADPN30-0021       | 0.21          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0022       | 0.22          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0023       | 0.23          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0024       | 0.24          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0025       | 0.25          | 0.4          | 38      | 3         | 6,930   |
| ADPN30-0026       | 0.26          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0027       | 0.27          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0028       | 0.28          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0029       | 0.29          | 0.4          | 38      | 3         | 7,700   |
| ADPN30-0030       | 0.3           | 0.6          | 38      | 3         | 6,820   |
| ADPN30-0035       | 0.35          | 0.6          | 38      | 3         | 6,820   |
| ADPN30-0040       | 0.4           | 0.6          | 38      | 3         | 6,820   |
| ADPN30-0045       | 0.45          | 0.6          | 38      | 3         | 6,820   |

| 型番<br>CODE NUMBER | 径<br>$\phi D$ | 刃長<br>$\ell$ | 全長<br>L | シャンク<br>d | 定価<br>¥ |
|-------------------|---------------|--------------|---------|-----------|---------|
| ADPN30-0050       | 0.5           | 1            | 38      | 3         | 6,160   |
| ADPN30-0055       | 0.55          | 1            | 38      | 3         | 6,820   |
| ADPN30-0060       | 0.6           | 1            | 38      | 3         | 6,820   |
| ADPN30-0065       | 0.65          | 1            | 38      | 3         | 6,820   |
| ADPN30-0070       | 0.7           | 1.2          | 38      | 3         | 6,820   |
| ADPN30-0075       | 0.75          | 1.2          | 38      | 3         | 6,820   |
| ADPN30-0080       | 0.8           | 1.2          | 38      | 3         | 6,820   |
| ADPN30-0085       | 0.85          | 1.2          | 38      | 3         | 6,820   |
| ADPN30-0090       | 0.9           | 1.8          | 38      | 3         | 6,820   |
| ADPN30-0095       | 0.95          | 1.8          | 38      | 3         | 6,820   |
| ADPN30-0100       | 1             | 2 (1.8)      | 38      | 3         | 6,160   |
| ADPN30-0110       | 1.1           | 2            | 38      | 3         | 6,820   |
| ADPN30-0120       | 1.2           | 2            | 38      | 3         | 6,820   |
| ADPN30-0130       | 1.3           | 3            | 38      | 3         | 6,820   |
| ADPN30-0140       | 1.4           | 3            | 38      | 3         | 6,820   |
| ADPN30-0150       | 1.5           | 3 (2.5)      | 38      | 3         | 6,160   |
| ADPN30-0160       | 1.6           | 3            | 38      | 3         | 6,820   |
| ADPN30-0170       | 1.7           | 3            | 38      | 3         | 6,820   |
| ADPN30-0180       | 1.8           | 4            | 38      | 3         | 6,820   |
| ADPN30-0190       | 1.9           | 4            | 38      | 3         | 6,820   |
| ADPN30-0200       | 2             | 4 (2.5)      | 38      | 3         | 6,160   |
| ADPN30-0210       | 2.1           | 4            | 38      | 3         | 6,820   |
| ADPN30-0220       | 2.2           | 4            | 38      | 3         | 6,820   |
| ADPN30-0230       | 2.3           | 5            | 38      | 3         | 6,820   |
| ADPN30-0240       | 2.4           | 5            | 38      | 3         | 6,820   |
| ADPN30-0250       | 2.5           | 5 (3)        | 38      | 3         | 6,160   |
| ADPN30-0260       | 2.6           | 5            | 38      | 3         | 6,820   |
| ADPN30-0270       | 2.7           | 5            | 38      | 3         | 6,820   |
| ADPN30-0280       | 2.8           | 5            | 38      | 3         | 6,820   |
| ADPN30-0290       | 2.9           | 5            | 38      | 3         | 6,820   |
| ADPN30-0300       | 3             | 5 (3)        | 38      | 3         | 6,160   |

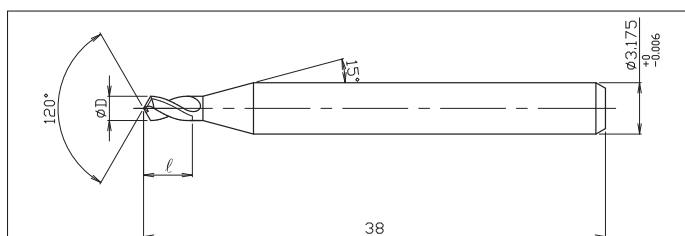
※ ( ) 内刃長は旧仕様となります。

先端120° ガイド穴専用ドリル Guide Hole Drill

# NCポインティングドリル〈3.175mmシャンク〉

NC Pointing Drill with 120° point angle and 3.175mm(1/8") shank

## ADPN31 非鉄・樹脂用 for Non-Ferrous & Resin



■ 微小径穴加工用のガイド穴専用ドリルです。

φ0.02～φ0.04は首逃げ2段形状です。

Special guide-hole drills for use in drilling small holes.

■ 穴位置・穴径精度の厳しい加工に最適です。

Most suitable for work that requires stringent hole position accuracy.

刃径公差：φD Tolerance

－0.006～－0.008 (φ0.02)

－0.005～－0.01 (φ0.03～φ0.09)

－0.01～－0.015(≧φ0.1)

0.3≦φD≦0.95



単位 Unit : mm

| 型番<br>CODE NUMBER | 径<br>φD | 刃長<br>ℓ | 全長<br>L | シャンク<br>d | 定価<br>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADPN31-0002       | 0.02    | 0.04    | 38      | 3.175     | 30,910  |
| ADPN31-0003       | 0.03    | 0.06    | 38      | 3.175     | 22,000  |
| ADPN31-0004       | 0.04    | 0.08    | 38      | 3.175     | 19,070  |
| ADPN31-0005       | 0.05    | 0.1     | 38      | 3.175     | 16,690  |
| ADPN31-0006       | 0.06    | 0.1     | 38      | 3.175     | 14,120  |
| ADPN31-0007       | 0.07    | 0.1     | 38      | 3.175     | 11,040  |
| ADPN31-0008       | 0.08    | 0.1     | 38      | 3.175     | 9,890   |
| ADPN31-0009       | 0.09    | 0.1     | 38      | 3.175     | 8,470   |
| ADPN31-0010       | 0.1     | 0.2     | 38      | 3.175     | 7,700   |
| ADPN31-0011       | 0.11    | 0.2     | 38      | 3.175     | 8,440   |
| ADPN31-0012       | 0.12    | 0.2     | 38      | 3.175     | 8,440   |
| ADPN31-0013       | 0.13    | 0.2     | 38      | 3.175     | 8,440   |
| ADPN31-0014       | 0.14    | 0.2     | 38      | 3.175     | 8,440   |
| ADPN31-0015       | 0.15    | 0.2     | 38      | 3.175     | 7,700   |
| ADPN31-0016       | 0.16    | 0.3     | 38      | 3.175     | 8,440   |
| ADPN31-0017       | 0.17    | 0.3     | 38      | 3.175     | 8,440   |
| ADPN31-0018       | 0.18    | 0.3     | 38      | 3.175     | 8,440   |
| ADPN31-0019       | 0.19    | 0.3     | 38      | 3.175     | 8,440   |
| ADPN31-0020       | 0.2     | 0.4     | 38      | 3.175     | 6,930   |
| ADPN31-0021       | 0.21    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0022       | 0.22    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0023       | 0.23    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0024       | 0.24    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0025       | 0.25    | 0.4     | 38      | 3.175     | 6,930   |
| ADPN31-0026       | 0.26    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0027       | 0.27    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0028       | 0.28    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0029       | 0.29    | 0.4     | 38      | 3.175     | 7,700   |
| ADPN31-0030       | 0.3     | 0.6     | 38      | 3.175     | 6,820   |
| ADPN31-0035       | 0.35    | 0.6     | 38      | 3.175     | 6,820   |
| ADPN31-0040       | 0.4     | 0.6     | 38      | 3.175     | 6,820   |
| ADPN31-0045       | 0.45    | 0.6     | 38      | 3.175     | 6,820   |

| 型番<br>CODE NUMBER | 径<br>φD | 刃長<br>ℓ | 全長<br>L | シャンク<br>d | 定価<br>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADPN31-0050       | 0.5     | 1       | 38      | 3.175     | 6,160   |
| ADPN31-0055       | 0.55    | 1       | 38      | 3.175     | 6,820   |
| ADPN31-0060       | 0.6     | 1       | 38      | 3.175     | 6,820   |
| ADPN31-0065       | 0.65    | 1       | 38      | 3.175     | 6,820   |
| ADPN31-0070       | 0.7     | 1.2     | 38      | 3.175     | 6,820   |
| ADPN31-0075       | 0.75    | 1.2     | 38      | 3.175     | 6,820   |
| ADPN31-0080       | 0.8     | 1.2     | 38      | 3.175     | 6,820   |
| ADPN31-0085       | 0.85    | 1.2     | 38      | 3.175     | 6,820   |
| ADPN31-0090       | 0.9     | 1.8     | 38      | 3.175     | 6,820   |
| ADPN31-0095       | 0.95    | 1.8     | 38      | 3.175     | 6,820   |
| ADPN31-0100       | 1       | 2 (1.8) | 38      | 3.175     | 6,160   |
| ADPN31-0110       | 1.1     | 2       | 38      | 3.175     | 6,820   |
| ADPN31-0120       | 1.2     | 2       | 38      | 3.175     | 6,820   |
| ADPN31-0130       | 1.3     | 3       | 38      | 3.175     | 6,820   |
| ADPN31-0140       | 1.4     | 3       | 38      | 3.175     | 6,820   |
| ADPN31-0150       | 1.5     | 3 (2.5) | 38      | 3.175     | 6,160   |
| ADPN31-0160       | 1.6     | 3       | 38      | 3.175     | 6,820   |
| ADPN31-0170       | 1.7     | 3       | 38      | 3.175     | 6,820   |
| ADPN31-0180       | 1.8     | 4       | 38      | 3.175     | 6,820   |
| ADPN31-0190       | 1.9     | 4       | 38      | 3.175     | 6,820   |
| ADPN31-0200       | 2       | 4 (2.5) | 38      | 3.175     | 6,160   |
| ADPN31-0210       | 2.1     | 4       | 38      | 3.175     | 6,820   |
| ADPN31-0220       | 2.2     | 4       | 38      | 3.175     | 6,820   |
| ADPN31-0230       | 2.3     | 5       | 38      | 3.175     | 6,820   |
| ADPN31-0240       | 2.4     | 5       | 38      | 3.175     | 6,820   |
| ADPN31-0250       | 2.5     | 5 (3)   | 38      | 3.175     | 6,160   |
| ADPN31-0260       | 2.6     | 5       | 38      | 3.175     | 6,820   |
| ADPN31-0270       | 2.7     | 5       | 38      | 3.175     | 6,820   |
| ADPN31-0280       | 2.8     | 5       | 38      | 3.175     | 6,820   |
| ADPN31-0290       | 2.9     | 5       | 38      | 3.175     | 6,820   |
| ADPN31-0300       | 3       | 5 (3)   | 38      | 3.175     | 6,160   |

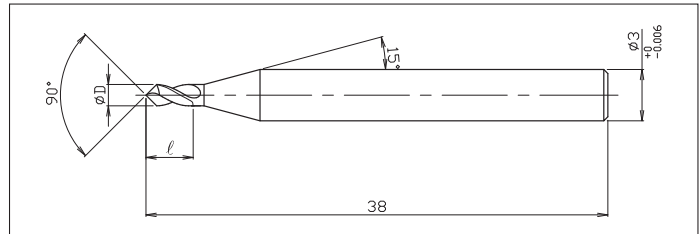
※ ( ) 内刃長は旧仕様となります。

切削条件 Cutting Condition P.170

先端90° ガイド穴専用ドリル Guide Hole Drill

## NCポインティングドリル

NC Pointing Drill with 90° point angle

ADPN309 非鉄・樹脂用  
for Non-Ferrous & Resin

■ 微小径穴加工用のガイド穴専用ドリルです。  
Special guide-hole drills for use in drilling small holes.

φ0.03～φ0.04は首逃げ2段形状です。

■ 穴位置・穴径精度の厳しい加工に最適です。  
Most suitable for work that requires stringent hole position accuracy.

刃径公差：φD Tolerance

-0.005～-0.01 (≦φ0.09)

-0.01～-0.015 (≧φ0.1)

0.3≦φD≦0.95



単位 Unit : mm

| 型番<br>CODE NUMBER | 径<br>φD | 刃長<br>ℓ | 全長<br>L | シャンク<br>d | 定価<br>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADPN309-0003      | 0.03    | 0.06    | 38      | 3         | 22,000  |
| ADPN309-0004      | 0.04    | 0.08    | 38      | 3         | 19,070  |
| ADPN309-0005      | 0.05    | 0.1     | 38      | 3         | 16,690  |
| ADPN309-0006      | 0.06    | 0.1     | 38      | 3         | 14,120  |
| ADPN309-0007      | 0.07    | 0.1     | 38      | 3         | 11,040  |
| ADPN309-0008      | 0.08    | 0.1     | 38      | 3         | 9,890   |
| ADPN309-0009      | 0.09    | 0.1     | 38      | 3         | 8,470   |
| ADPN309-0010      | 0.1     | 0.2     | 38      | 3         | 7,700   |
| ADPN309-0011      | 0.11    | 0.2     | 38      | 3         | 8,440   |
| ADPN309-0012      | 0.12    | 0.2     | 38      | 3         | 8,440   |
| ADPN309-0013      | 0.13    | 0.2     | 38      | 3         | 8,440   |
| ADPN309-0014      | 0.14    | 0.2     | 38      | 3         | 8,440   |
| ADPN309-0015      | 0.15    | 0.2     | 38      | 3         | 7,700   |
| ADPN309-0016      | 0.16    | 0.3     | 38      | 3         | 8,440   |
| ADPN309-0017      | 0.17    | 0.3     | 38      | 3         | 8,440   |
| ADPN309-0018      | 0.18    | 0.3     | 38      | 3         | 8,440   |
| ADPN309-0019      | 0.19    | 0.3     | 38      | 3         | 8,440   |
| ADPN309-0020      | 0.2     | 0.4     | 38      | 3         | 6,930   |
| ADPN309-0021      | 0.21    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0022      | 0.22    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0023      | 0.23    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0024      | 0.24    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0025      | 0.25    | 0.4     | 38      | 3         | 6,930   |
| ADPN309-0026      | 0.26    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0027      | 0.27    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0028      | 0.28    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0029      | 0.29    | 0.4     | 38      | 3         | 7,700   |
| ADPN309-0030      | 0.3     | 0.6     | 38      | 3         | 6,820   |
| ADPN309-0035      | 0.35    | 0.6     | 38      | 3         | 6,820   |
| ADPN309-0040      | 0.4     | 0.6     | 38      | 3         | 6,820   |
| ADPN309-0045      | 0.45    | 0.6     | 38      | 3         | 6,820   |

| 型番<br>CODE NUMBER | 径<br>φD | 刃長<br>ℓ | 全長<br>L | シャンク<br>d | 定価<br>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADPN309-0050      | 0.5     | 1       | 38      | 3         | 6,160   |
| ADPN309-0055      | 0.55    | 1       | 38      | 3         | 6,820   |
| ADPN309-0060      | 0.6     | 1       | 38      | 3         | 6,820   |
| ADPN309-0065      | 0.65    | 1       | 38      | 3         | 6,820   |
| ADPN309-0070      | 0.7     | 1.2     | 38      | 3         | 6,820   |
| ADPN309-0075      | 0.75    | 1.2     | 38      | 3         | 6,820   |
| ADPN309-0080      | 0.8     | 1.2     | 38      | 3         | 6,820   |
| ADPN309-0085      | 0.85    | 1.2     | 38      | 3         | 6,820   |
| ADPN309-0090      | 0.9     | 1.8     | 38      | 3         | 6,820   |
| ADPN309-0095      | 0.95    | 1.8     | 38      | 3         | 6,820   |
| ADPN309-0100      | 1       | 2 (1.8) | 38      | 3         | 6,160   |
| ADPN309-0110      | 1.1     | 2       | 38      | 3         | 6,820   |
| ADPN309-0120      | 1.2     | 2       | 38      | 3         | 6,820   |
| ADPN309-0130      | 1.3     | 3       | 38      | 3         | 6,820   |
| ADPN309-0140      | 1.4     | 3       | 38      | 3         | 6,820   |
| ADPN309-0150      | 1.5     | 3 (2.5) | 38      | 3         | 6,160   |
| ADPN309-0160      | 1.6     | 3       | 38      | 3         | 6,820   |
| ADPN309-0170      | 1.7     | 3       | 38      | 3         | 6,820   |
| ADPN309-0180      | 1.8     | 4       | 38      | 3         | 6,820   |
| ADPN309-0190      | 1.9     | 4       | 38      | 3         | 6,820   |
| ADPN309-0200      | 2       | 4 (2.5) | 38      | 3         | 6,160   |
| ADPN309-0210      | 2.1     | 4       | 38      | 3         | 6,820   |
| ADPN309-0220      | 2.2     | 4       | 38      | 3         | 6,820   |
| ADPN309-0230      | 2.3     | 5       | 38      | 3         | 6,820   |
| ADPN309-0240      | 2.4     | 5       | 38      | 3         | 6,820   |
| ADPN309-0250      | 2.5     | 5 (3)   | 38      | 3         | 6,160   |
| ADPN309-0260      | 2.6     | 5       | 38      | 3         | 6,820   |
| ADPN309-0270      | 2.7     | 5       | 38      | 3         | 6,820   |
| ADPN309-0280      | 2.8     | 5       | 38      | 3         | 6,820   |
| ADPN309-0290      | 2.9     | 5       | 38      | 3         | 6,820   |
| ADPN309-0300      | 3       | 5 (3)   | 38      | 3         | 6,160   |

※ ( ) 内刃長は旧仕様となります。