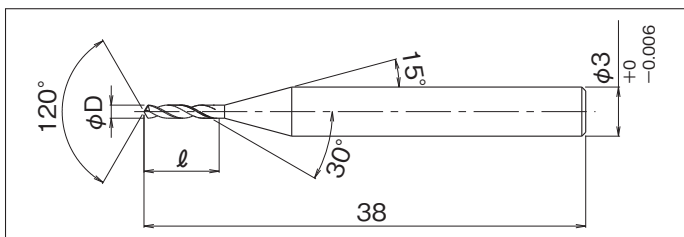


# ルーマドリル ショート刃

Micro Drill Short Flute Length

## ADRS



■ 精密・多孔細穴加工用ドリルです。

Best for drilling precision small holes.

■ 一般鋼材から非鉄、樹脂まで幅広い適用が可能です。

Wide application available covering from steel to non-ferrous and resin.

刃径公差：+0~-0.005

$\phi D$  Tolerance



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>¥ |
|-------------------|---------------|--------------|---------|-----------|---------|
| ADRS-0010         | 0.1           | 0.6          | 38      | 3         | 5,940   |
| ADRS-0011         | 0.11          | 0.6          | 38      | 3         | 5,940   |
| ADRS-0012         | 0.12          | 0.6          | 38      | 3         | 5,940   |
| ADRS-0013         | 0.13          | 0.6          | 38      | 3         | 5,940   |
| ADRS-0014         | 0.14          | 0.6          | 38      | 3         | 5,940   |
| ADRS-0015         | 0.15          | 0.8          | 38      | 3         | 5,940   |
| ADRS-0016         | 0.16          | 0.8          | 38      | 3         | 5,940   |
| ADRS-0017         | 0.17          | 0.8          | 38      | 3         | 5,940   |
| ADRS-0018         | 0.18          | 1            | 38      | 3         | 5,390   |
| ADRS-0019         | 0.19          | 1            | 38      | 3         | 5,390   |
| ADRS-0020         | 0.2           | 1            | 38      | 3         | 5,390   |
| ADRS-0021         | 0.21          | 1            | 38      | 3         | 4,880   |
| ADRS-0022         | 0.22          | 1.2          | 38      | 3         | 4,880   |
| ADRS-0023         | 0.23          | 1.2          | 38      | 3         | 4,880   |
| ADRS-0024         | 0.24          | 1.2          | 38      | 3         | 4,880   |
| ADRS-0025         | 0.25          | 1.5          | 38      | 3         | 4,880   |
| ADRS-0026         | 0.26          | 1.5          | 38      | 3         | 4,880   |
| ADRS-0027         | 0.27          | 1.5          | 38      | 3         | 4,880   |
| ADRS-0028         | 0.28          | 1.5          | 38      | 3         | 4,880   |
| ADRS-0029         | 0.29          | 1.5          | 38      | 3         | 4,880   |
| ADRS-0030         | 0.3           | 2.5          | 38      | 3         | 4,880   |
| ADRS-0031         | 0.31          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0032         | 0.32          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0033         | 0.33          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0034         | 0.34          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0035         | 0.35          | 2.5          | 38      | 3         | 3,670   |

| 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>¥ |
|-------------------|---------------|--------------|---------|-----------|---------|
| ADRS-0036         | 0.36          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0037         | 0.37          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0038         | 0.38          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0039         | 0.39          | 2.5          | 38      | 3         | 3,670   |
| ADRS-0040         | 0.4           | 3            | 38      | 3         | 3,670   |
| ADRS-0041         | 0.41          | 3            | 38      | 3         | 3,670   |
| ADRS-0042         | 0.42          | 3            | 38      | 3         | 3,670   |
| ADRS-0043         | 0.43          | 3            | 38      | 3         | 3,670   |
| ADRS-0044         | 0.44          | 3            | 38      | 3         | 3,670   |
| ADRS-0045         | 0.45          | 3            | 38      | 3         | 3,670   |
| ADRS-0046         | 0.46          | 3            | 38      | 3         | 3,670   |
| ADRS-0047         | 0.47          | 3            | 38      | 3         | 3,670   |
| ADRS-0048         | 0.48          | 3            | 38      | 3         | 3,670   |
| ADRS-0049         | 0.49          | 3            | 38      | 3         | 3,670   |
| ADRS-0050         | 0.5           | 3            | 38      | 3         | 3,670   |
| ADRS-0051         | 0.51          | 3            | 38      | 3         | 3,670   |
| ADRS-0052         | 0.52          | 3            | 38      | 3         | 3,670   |
| ADRS-0053         | 0.53          | 3            | 38      | 3         | 3,670   |
| ADRS-0054         | 0.54          | 3            | 38      | 3         | 3,670   |
| ADRS-0055         | 0.55          | 3            | 38      | 3         | 3,670   |
| ADRS-0056         | 0.56          | 3            | 38      | 3         | 3,670   |
| ADRS-0057         | 0.57          | 3            | 38      | 3         | 3,670   |
| ADRS-0058         | 0.58          | 3            | 38      | 3         | 3,670   |
| ADRS-0059         | 0.59          | 3            | 38      | 3         | 3,670   |
| ADRS-0060         | 0.6           | 3            | 38      | 3         | 3,670   |
| ADRS-0061         | 0.61          | 3            | 38      | 3         | 3,670   |

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>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADRS-0062         | 0.62    | 3       | 38      | 3         | 3,670   |
| ADRS-0063         | 0.63    | 3       | 38      | 3         | 3,670   |
| ADRS-0064         | 0.64    | 3       | 38      | 3         | 3,670   |
| ADRS-0065         | 0.65    | 3       | 38      | 3         | 3,670   |
| ADRS-0066         | 0.66    | 3       | 38      | 3         | 3,670   |
| ADRS-0067         | 0.67    | 3       | 38      | 3         | 3,670   |
| ADRS-0068         | 0.68    | 3       | 38      | 3         | 3,670   |
| ADRS-0069         | 0.69    | 3       | 38      | 3         | 3,670   |
| ADRS-0070         | 0.7     | 4       | 38      | 3         | 3,670   |
| ADRS-0071         | 0.71    | 4       | 38      | 3         | 3,670   |
| ADRS-0072         | 0.72    | 4       | 38      | 3         | 3,670   |
| ADRS-0073         | 0.73    | 4       | 38      | 3         | 3,670   |
| ADRS-0074         | 0.74    | 4       | 38      | 3         | 3,670   |
| ADRS-0075         | 0.75    | 4       | 38      | 3         | 3,670   |
| ADRS-0076         | 0.76    | 4       | 38      | 3         | 3,670   |
| ADRS-0077         | 0.77    | 4       | 38      | 3         | 3,670   |
| ADRS-0078         | 0.78    | 4       | 38      | 3         | 3,670   |
| ADRS-0079         | 0.79    | 4       | 38      | 3         | 3,670   |
| ADRS-0080         | 0.8     | 4       | 38      | 3         | 3,670   |
| ADRS-0081         | 0.81    | 4       | 38      | 3         | 3,670   |
| ADRS-0082         | 0.82    | 4       | 38      | 3         | 3,670   |
| ADRS-0083         | 0.83    | 4       | 38      | 3         | 3,670   |
| ADRS-0084         | 0.84    | 4       | 38      | 3         | 3,670   |
| ADRS-0085         | 0.85    | 4       | 38      | 3         | 3,670   |
| ADRS-0086         | 0.86    | 4       | 38      | 3         | 3,670   |
| ADRS-0087         | 0.87    | 4       | 38      | 3         | 3,670   |
| ADRS-0088         | 0.88    | 4       | 38      | 3         | 3,670   |
| ADRS-0089         | 0.89    | 4       | 38      | 3         | 3,670   |
| ADRS-0090         | 0.9     | 4       | 38      | 3         | 3,670   |
| ADRS-0091         | 0.91    | 4       | 38      | 3         | 3,670   |
| ADRS-0092         | 0.92    | 4       | 38      | 3         | 3,670   |
| ADRS-0093         | 0.93    | 4       | 38      | 3         | 3,670   |
| ADRS-0094         | 0.94    | 4       | 38      | 3         | 3,670   |
| ADRS-0095         | 0.95    | 4       | 38      | 3         | 3,670   |
| ADRS-0096         | 0.96    | 4       | 38      | 3         | 3,670   |
| ADRS-0097         | 0.97    | 4       | 38      | 3         | 3,670   |
| ADRS-0098         | 0.98    | 4       | 38      | 3         | 3,670   |
| ADRS-0099         | 0.99    | 4       | 38      | 3         | 3,670   |
| ADRS-0100         | 1       | 5       | 38      | 3         | 3,670   |
| ADRS-0101         | 1.01    | 5       | 38      | 3         | 3,670   |
| ADRS-0102         | 1.02    | 5       | 38      | 3         | 3,670   |
| ADRS-0103         | 1.03    | 5       | 38      | 3         | 3,670   |
| ADRS-0104         | 1.04    | 5       | 38      | 3         | 3,670   |
| ADRS-0105         | 1.05    | 5       | 38      | 3         | 3,670   |

| 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>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADRS-0106         | 1.06    | 5       | 38      | 3         | 3,670   |
| ADRS-0107         | 1.07    | 5       | 38      | 3         | 3,670   |
| ADRS-0108         | 1.08    | 5       | 38      | 3         | 3,670   |
| ADRS-0109         | 1.09    | 5       | 38      | 3         | 3,670   |
| ADRS-0110         | 1.1     | 5       | 38      | 3         | 3,670   |
| ADRS-0111         | 1.11    | 5       | 38      | 3         | 3,670   |
| ADRS-0112         | 1.12    | 5       | 38      | 3         | 3,670   |
| ADRS-0113         | 1.13    | 5       | 38      | 3         | 3,670   |
| ADRS-0114         | 1.14    | 5       | 38      | 3         | 3,670   |
| ADRS-0115         | 1.15    | 5       | 38      | 3         | 3,670   |
| ADRS-0116         | 1.16    | 5       | 38      | 3         | 3,670   |
| ADRS-0117         | 1.17    | 5       | 38      | 3         | 3,670   |
| ADRS-0118         | 1.18    | 5       | 38      | 3         | 3,670   |
| ADRS-0119         | 1.19    | 5       | 38      | 3         | 3,670   |
| ADRS-0120         | 1.2     | 5       | 38      | 3         | 3,670   |
| ADRS-0121         | 1.21    | 5       | 38      | 3         | 3,670   |
| ADRS-0122         | 1.22    | 5       | 38      | 3         | 3,670   |
| ADRS-0123         | 1.23    | 5       | 38      | 3         | 3,670   |
| ADRS-0124         | 1.24    | 5       | 38      | 3         | 3,670   |
| ADRS-0125         | 1.25    | 5       | 38      | 3         | 3,670   |
| ADRS-0126         | 1.26    | 5       | 38      | 3         | 3,670   |
| ADRS-0127         | 1.27    | 5       | 38      | 3         | 3,670   |
| ADRS-0128         | 1.28    | 5       | 38      | 3         | 3,670   |
| ADRS-0129         | 1.29    | 5       | 38      | 3         | 3,670   |
| ADRS-0130         | 1.3     | 5       | 38      | 3         | 3,670   |
| ADRS-0131         | 1.31    | 5       | 38      | 3         | 3,670   |
| ADRS-0132         | 1.32    | 5       | 38      | 3         | 3,670   |
| ADRS-0133         | 1.33    | 5       | 38      | 3         | 3,670   |
| ADRS-0134         | 1.34    | 5       | 38      | 3         | 3,670   |
| ADRS-0135         | 1.35    | 5       | 38      | 3         | 3,670   |
| ADRS-0136         | 1.36    | 5       | 38      | 3         | 3,670   |
| ADRS-0137         | 1.37    | 5       | 38      | 3         | 3,670   |
| ADRS-0138         | 1.38    | 5       | 38      | 3         | 3,670   |
| ADRS-0139         | 1.39    | 5       | 38      | 3         | 3,670   |
| ADRS-0140         | 1.4     | 5       | 38      | 3         | 3,670   |
| ADRS-0141         | 1.41    | 5       | 38      | 3         | 3,670   |
| ADRS-0142         | 1.42    | 5       | 38      | 3         | 3,670   |
| ADRS-0143         | 1.43    | 5       | 38      | 3         | 3,670   |
| ADRS-0144         | 1.44    | 5       | 38      | 3         | 3,670   |
| ADRS-0145         | 1.45    | 5       | 38      | 3         | 3,670   |
| ADRS-0146         | 1.46    | 5       | 38      | 3         | 3,670   |
| ADRS-0147         | 1.47    | 5       | 38      | 3         | 3,670   |
| ADRS-0148         | 1.48    | 5       | 38      | 3         | 3,670   |
| ADRS-0149         | 1.49    | 5       | 38      | 3         | 3,670   |

超硬ドリル  
Micro Drill

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| 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>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADRS-0150         | 1.5     | 5       | 38      | 3         | 3,670   |
| ADRS-0151         | 1.51    | 5       | 38      | 3         | 3,670   |
| ADRS-0152         | 1.52    | 5       | 38      | 3         | 3,670   |
| ADRS-0153         | 1.53    | 5       | 38      | 3         | 3,670   |
| ADRS-0154         | 1.54    | 5       | 38      | 3         | 3,670   |
| ADRS-0155         | 1.55    | 5       | 38      | 3         | 3,670   |
| ADRS-0156         | 1.56    | 5       | 38      | 3         | 3,670   |
| ADRS-0157         | 1.57    | 5       | 38      | 3         | 3,670   |
| ADRS-0158         | 1.58    | 5       | 38      | 3         | 3,670   |
| ADRS-0159         | 1.59    | 5       | 38      | 3         | 3,670   |
| ADRS-0160         | 1.6     | 10      | 38      | 3         | 3,670   |
| ADRS-0161         | 1.61    | 10      | 38      | 3         | 4,260   |
| ADRS-0162         | 1.62    | 10      | 38      | 3         | 4,260   |
| ADRS-0163         | 1.63    | 10      | 38      | 3         | 4,260   |
| ADRS-0164         | 1.64    | 10      | 38      | 3         | 4,260   |
| ADRS-0165         | 1.65    | 10      | 38      | 3         | 4,260   |
| ADRS-0166         | 1.66    | 10      | 38      | 3         | 4,260   |
| ADRS-0167         | 1.67    | 10      | 38      | 3         | 4,260   |
| ADRS-0168         | 1.68    | 10      | 38      | 3         | 4,260   |
| ADRS-0169         | 1.69    | 10      | 38      | 3         | 4,260   |
| ADRS-0170         | 1.7     | 10      | 38      | 3         | 4,260   |
| ADRS-0171         | 1.71    | 10      | 38      | 3         | 4,260   |
| ADRS-0172         | 1.72    | 10      | 38      | 3         | 4,260   |
| ADRS-0173         | 1.73    | 10      | 38      | 3         | 4,260   |
| ADRS-0174         | 1.74    | 10      | 38      | 3         | 4,260   |
| ADRS-0175         | 1.75    | 10      | 38      | 3         | 4,260   |
| ADRS-0176         | 1.76    | 10      | 38      | 3         | 4,260   |
| ADRS-0177         | 1.77    | 10      | 38      | 3         | 4,260   |
| ADRS-0178         | 1.78    | 10      | 38      | 3         | 4,260   |
| ADRS-0179         | 1.79    | 10      | 38      | 3         | 4,260   |
| ADRS-0180         | 1.8     | 10      | 38      | 3         | 4,260   |
| ADRS-0181         | 1.81    | 10      | 38      | 3         | 4,260   |
| ADRS-0182         | 1.82    | 10      | 38      | 3         | 4,260   |
| ADRS-0183         | 1.83    | 10      | 38      | 3         | 4,260   |
| ADRS-0184         | 1.84    | 10      | 38      | 3         | 4,260   |
| ADRS-0185         | 1.85    | 10      | 38      | 3         | 4,260   |
| ADRS-0186         | 1.86    | 10      | 38      | 3         | 4,260   |
| ADRS-0187         | 1.87    | 10      | 38      | 3         | 4,260   |
| ADRS-0188         | 1.88    | 10      | 38      | 3         | 4,260   |
| ADRS-0189         | 1.89    | 10      | 38      | 3         | 4,260   |
| ADRS-0190         | 1.9     | 10      | 38      | 3         | 4,260   |
| ADRS-0191         | 1.91    | 10      | 38      | 3         | 4,260   |
| ADRS-0192         | 1.92    | 10      | 38      | 3         | 4,260   |
| ADRS-0193         | 1.93    | 10      | 38      | 3         | 4,260   |

| 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>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADRS-0194         | 1.94    | 10      | 38      | 3         | 4,260   |
| ADRS-0195         | 1.95    | 10      | 38      | 3         | 4,260   |
| ADRS-0196         | 1.96    | 10      | 38      | 3         | 4,260   |
| ADRS-0197         | 1.97    | 10      | 38      | 3         | 4,260   |
| ADRS-0198         | 1.98    | 10      | 38      | 3         | 4,260   |
| ADRS-0199         | 1.99    | 10      | 38      | 3         | 4,260   |
| ADRS-0200         | 2       | 10      | 38      | 3         | 4,260   |
| ADRS-0201         | 2.01    | 10      | 38      | 3         | 4,260   |
| ADRS-0202         | 2.02    | 10      | 38      | 3         | 4,260   |
| ADRS-0203         | 2.03    | 10      | 38      | 3         | 4,260   |
| ADRS-0204         | 2.04    | 10      | 38      | 3         | 4,260   |
| ADRS-0205         | 2.05    | 10      | 38      | 3         | 4,260   |
| ADRS-0206         | 2.06    | 10      | 38      | 3         | 4,260   |
| ADRS-0207         | 2.07    | 10      | 38      | 3         | 4,260   |
| ADRS-0208         | 2.08    | 10      | 38      | 3         | 4,260   |
| ADRS-0209         | 2.09    | 10      | 38      | 3         | 4,260   |
| ADRS-0210         | 2.1     | 10      | 38      | 3         | 4,260   |
| ADRS-0211         | 2.11    | 10      | 38      | 3         | 4,260   |
| ADRS-0212         | 2.12    | 10      | 38      | 3         | 4,260   |
| ADRS-0213         | 2.13    | 10      | 38      | 3         | 4,260   |
| ADRS-0214         | 2.14    | 10      | 38      | 3         | 4,260   |
| ADRS-0215         | 2.15    | 10      | 38      | 3         | 4,260   |
| ADRS-0216         | 2.16    | 10      | 38      | 3         | 4,260   |
| ADRS-0217         | 2.17    | 10      | 38      | 3         | 4,260   |
| ADRS-0218         | 2.18    | 10      | 38      | 3         | 4,260   |
| ADRS-0219         | 2.19    | 10      | 38      | 3         | 4,260   |
| ADRS-0220         | 2.2     | 10      | 38      | 3         | 4,500   |
| ADRS-0221         | 2.21    | 10      | 38      | 3         | 4,500   |
| ADRS-0222         | 2.22    | 10      | 38      | 3         | 4,500   |
| ADRS-0223         | 2.23    | 10      | 38      | 3         | 4,500   |
| ADRS-0224         | 2.24    | 10      | 38      | 3         | 4,500   |
| ADRS-0225         | 2.25    | 10      | 38      | 3         | 4,500   |
| ADRS-0226         | 2.26    | 10      | 38      | 3         | 4,500   |
| ADRS-0227         | 2.27    | 10      | 38      | 3         | 4,500   |
| ADRS-0228         | 2.28    | 10      | 38      | 3         | 4,500   |
| ADRS-0229         | 2.29    | 10      | 38      | 3         | 4,500   |
| ADRS-0230         | 2.3     | 10      | 38      | 3         | 4,500   |
| ADRS-0231         | 2.31    | 10      | 38      | 3         | 4,500   |
| ADRS-0232         | 2.32    | 10      | 38      | 3         | 4,500   |
| ADRS-0233         | 2.33    | 10      | 38      | 3         | 4,500   |
| ADRS-0234         | 2.34    | 10      | 38      | 3         | 4,500   |
| ADRS-0235         | 2.35    | 10      | 38      | 3         | 4,500   |
| ADRS-0236         | 2.36    | 10      | 38      | 3         | 4,500   |
| ADRS-0237         | 2.37    | 10      | 38      | 3         | 4,500   |

ルーマドリル  
Micro Drill

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>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADRS-0238         | 2.38    | 10      | 38      | 3         | 4,500   |
| ADRS-0239         | 2.39    | 10      | 38      | 3         | 4,500   |
| ADRS-0240         | 2.4     | 10      | 38      | 3         | 4,500   |
| ADRS-0241         | 2.41    | 10      | 38      | 3         | 4,500   |
| ADRS-0242         | 2.42    | 10      | 38      | 3         | 4,500   |
| ADRS-0243         | 2.43    | 10      | 38      | 3         | 4,500   |
| ADRS-0244         | 2.44    | 10      | 38      | 3         | 4,500   |
| ADRS-0245         | 2.45    | 10      | 38      | 3         | 4,500   |
| ADRS-0246         | 2.46    | 10      | 38      | 3         | 4,500   |
| ADRS-0247         | 2.47    | 10      | 38      | 3         | 4,500   |
| ADRS-0248         | 2.48    | 10      | 38      | 3         | 4,500   |
| ADRS-0249         | 2.49    | 10      | 38      | 3         | 4,500   |
| ADRS-0250         | 2.5     | 10      | 38      | 3         | 4,500   |
| ADRS-0251         | 2.51    | 10      | 38      | 3         | 4,500   |
| ADRS-0252         | 2.52    | 10      | 38      | 3         | 4,500   |
| ADRS-0253         | 2.53    | 10      | 38      | 3         | 4,500   |
| ADRS-0254         | 2.54    | 10      | 38      | 3         | 4,500   |
| ADRS-0255         | 2.55    | 10      | 38      | 3         | 4,500   |
| ADRS-0256         | 2.56    | 10      | 38      | 3         | 4,500   |
| ADRS-0257         | 2.57    | 10      | 38      | 3         | 4,500   |
| ADRS-0258         | 2.58    | 10      | 38      | 3         | 4,500   |
| ADRS-0259         | 2.59    | 10      | 38      | 3         | 4,500   |
| ADRS-0260         | 2.6     | 10      | 38      | 3         | 4,500   |
| ADRS-0261         | 2.61    | 10      | 38      | 3         | 4,500   |
| ADRS-0262         | 2.62    | 10      | 38      | 3         | 4,500   |
| ADRS-0263         | 2.63    | 10      | 38      | 3         | 4,500   |
| ADRS-0264         | 2.64    | 10      | 38      | 3         | 4,500   |
| ADRS-0265         | 2.65    | 10      | 38      | 3         | 4,500   |
| ADRS-0266         | 2.66    | 10      | 38      | 3         | 4,500   |
| ADRS-0267         | 2.67    | 10      | 38      | 3         | 4,500   |
| ADRS-0268         | 2.68    | 10      | 38      | 3         | 4,500   |
| ADRS-0269         | 2.69    | 10      | 38      | 3         | 4,500   |
| ADRS-0270         | 2.7     | 12      | 38      | 3         | 4,530   |
| ADRS-0271         | 2.71    | 12      | 38      | 3         | 4,530   |
| ADRS-0272         | 2.72    | 12      | 38      | 3         | 4,530   |
| ADRS-0273         | 2.73    | 12      | 38      | 3         | 4,530   |
| ADRS-0274         | 2.74    | 12      | 38      | 3         | 4,530   |
| ADRS-0275         | 2.75    | 12      | 38      | 3         | 4,530   |
| ADRS-0276         | 2.76    | 12      | 38      | 3         | 4,530   |
| ADRS-0277         | 2.77    | 12      | 38      | 3         | 4,530   |
| ADRS-0278         | 2.78    | 12      | 38      | 3         | 4,530   |
| ADRS-0279         | 2.79    | 12      | 38      | 3         | 4,530   |
| ADRS-0280         | 2.8     | 12      | 38      | 3         | 4,530   |
| ADRS-0281         | 2.81    | 12      | 38      | 3         | 4,530   |

| 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>¥ |
|-------------------|---------|---------|---------|-----------|---------|
| ADRS-0282         | 2.82    | 12      | 38      | 3         | 4,530   |
| ADRS-0283         | 2.83    | 12      | 38      | 3         | 4,530   |
| ADRS-0284         | 2.84    | 12      | 38      | 3         | 4,530   |
| ADRS-0285         | 2.85    | 12      | 38      | 3         | 4,530   |
| ADRS-0286         | 2.86    | 12      | 38      | 3         | 4,530   |
| ADRS-0287         | 2.87    | 12      | 38      | 3         | 4,530   |
| ADRS-0288         | 2.88    | 12      | 38      | 3         | 4,530   |
| ADRS-0289         | 2.89    | 12      | 38      | 3         | 4,530   |
| ADRS-0290         | 2.9     | 12      | 38      | 3         | 4,530   |
| ADRS-0291         | 2.91    | 12      | 38      | 3         | 4,530   |
| ADRS-0292         | 2.92    | 12      | 38      | 3         | 4,530   |
| ADRS-0293         | 2.93    | 12      | 38      | 3         | 4,530   |
| ADRS-0294         | 2.94    | 12      | 38      | 3         | 4,530   |
| ADRS-0295         | 2.95    | 12      | 38      | 3         | 4,530   |
| ADRS-0296         | 2.96    | 12      | 38      | 3         | 4,530   |
| ADRS-0297         | 2.97    | 12      | 38      | 3         | 4,530   |
| ADRS-0298         | 2.98    | 12      | 38      | 3         | 4,530   |
| ADRS-0299         | 2.99    | 12      | 38      | 3         | 4,530   |
| ADRS-0300         | 3       | 12      | 38      | 3         | 4,530   |
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# ADR/ADRS/ADRSL/ADRL/ADR-SP/AMSD/ADR-h4/ADR31 ルーマ型ドリルシリーズ

## Micro Drill with Common Shank Series

| 被削材<br>Work<br>Materials | 炭素鋼・合金鋼・工具鋼 Steel                       |                         |   |                         |  |                         | ステンレス Stainless Steel                           |                         |  |                         |
|--------------------------|---|-------------------------|---|-------------------------|--|-------------------------|---|-------------------------|--|-------------------------|
|                          | 炭素鋼<br>Carbon steel<br>SS S50C          |                         | 合金鋼<br>Alloy Steel<br>SCM SKS           |                         | 調質鋼<br>Hardened Steel<br>NAK SKD<br>(HRC30~38) |                         | SUS304等<br>オーステナイト系<br>SUS304/316<br>Austenitic |                         | マルテンサイト・<br>フェライト系<br>SUS420/430<br>Martensitic & Ferritic |                         |
| 条件<br>先端径                | 回転数<br>Rotation<br>(min <sup>-1</sup> ) | 送り量<br>Feed<br>(mm/rev) | 回転数<br>Rotation<br>(min <sup>-1</sup> ) | 送り量<br>Feed<br>(mm/rev) | 回転数<br>Rotation<br>(min <sup>-1</sup> )        | 送り量<br>Feed<br>(mm/rev) | 回転数<br>Rotation<br>(min <sup>-1</sup> )         | 送り量<br>Feed<br>(mm/rev) | 回転数<br>Rotation<br>(min <sup>-1</sup> )                    | 送り量<br>Feed<br>(mm/rev) |
| φ0.02~<br>0.09           | 10,000→<br>20,000                       | 0.001~<br>0.0015        | 10,000→<br>20,000                       | 0.001~<br>0.0015        | 10,000→<br>20,000                              | 0.001                   | 10,000→<br>20,000                               | 0.0005~<br>0.001        | 10,000→<br>20,000  | 0.001~<br>0.0015        |
| φ0.1~<br>0.29            | 19,000~<br>13,000                       | 0.002~<br>0.01          | 16,000~<br>11,000                       | 0.0014~<br>0.007        | 13,000~<br>8,800                               | 0.001~<br>0.004         | 10,000~<br>5,000                                | 0.0005~<br>0.001        | 13,000~<br>8,800   | 0.0005~<br>0.001        |
| φ0.3~<br>0.49            | 13,000~<br>12,000                       | 0.01~<br>0.02           | 11,000~<br>9,700                        | 0.007~<br>0.01          | 8,800~<br>6,500                                | 0.003~<br>0.005         | 5,000~<br>4,500                                 | 0.001~<br>0.005         | 8,800~<br>6,500  | 0.001~<br>0.005         |
| φ0.5~<br>0.99            | 12,000~<br>9,600                        | 0.02~<br>0.04           | 9,700~<br>6,400                         | 0.01~<br>0.02           | 6,500~<br>4,800                                | 0.005~<br>0.01          | 4,500~<br>3,200                                 | 0.005~<br>0.01          | 6,500~<br>4,800  | 0.005~<br>0.01          |
| φ1~<br>1.99              | 9,600~<br>6,400                         | 0.03~<br>0.06           | 6,400~<br>4,000                         | 0.02~<br>0.05           | 4,800~<br>2,400                                | 0.01~<br>0.03           | 3,200~<br>2,400                                 | 0.01~<br>0.03           | 4,800~<br>3,200  | 0.01~<br>0.03           |
| φ2.0~<br>3.0             | 6,400~<br>4,200                         | 0.07~<br>0.1            | 4,000~<br>3,200                         | 0.05~<br>0.08           | 2,400~<br>1,600                                | 0.02~<br>0.04           | 2,400~<br>1,800                                 | 0.03~<br>0.05           | 3,200~<br>2,100  | 0.03~<br>0.05           |

| 被削材<br>Work<br>Materials | 非鉄金属 Non-Ferrous                        |                         |   |                         | 樹脂 Resin                                |                         |
|--------------------------|---|-------------------------|---|-------------------------|---|-------------------------|
|                          | アルミ合金<br>Aluminium Alloy                |                         | 銅合金<br>Copper Alloy                     |                         | エンブラ<br>Engineering<br>Plastic          |                         |
| 条件<br>先端径                | 回転数<br>Rotation<br>(min <sup>-1</sup> ) | 送り量<br>Feed<br>(mm/rev) | 回転数<br>Rotation<br>(min <sup>-1</sup> ) | 送り量<br>Feed<br>(mm/rev) | 回転数<br>Rotation<br>(min <sup>-1</sup> ) | 送り量<br>Feed<br>(mm/rev) |
| φ0.02~<br>0.09           | 10,000→<br>30,000                       | 0.001~<br>0.003         | 10,000→<br>20,000                       | 0.001~<br>0.005         | 10,000→<br>20,000                       | 0.001~<br>0.003         |
| φ0.1~<br>0.29            | 22,200~<br>16,500                       | 0.005~<br>0.02          | 16,000~<br>11,000                       | 0.002~<br>0.008         | 20,000~<br>15,000                       | 0.005~<br>0.01          |
| φ0.3~<br>0.49            | 16,500~<br>13,000                       | 0.02~<br>0.04           | 11,000~<br>11,500                       | 0.008~<br>0.015         | 15000                                   | 0.01~<br>0.02           |
| φ0.5~<br>0.99            | 13,000~<br>12,700                       | 0.04~<br>0.06           | 11,500~<br>9,600                        | 0.015~<br>0.04          | 15,000~<br>10,000                       | 0.02~<br>0.04           |
| φ1~<br>1.99              | 12,700~<br>6,400                        | 0.06~<br>0.12           | 9,600~<br>4,800                         | 0.04~<br>0.08           | 10,000~<br>6,000                        | 0.05~<br>0.07           |
| φ2.0~<br>3.0             | 6,400~<br>5,300                         | 0.12~<br>0.2            | 4,800~<br>4,200                         | 0.08~<br>0.15           | 6,000~<br>5,000                         | 0.07~<br>0.1            |

▶ ステップ送り量: φ0.02~φ0.49:ドリル径  
×10% (0.1D)  
φ0.5~φ1.0:ドリル径×  
20% (0.2D)  
φ1.0以上:ドリル径×25  
%~50%(0.25~0.5D)

### 備考

- 1) 細穴、特にφ1.0以下の穴あけ加工の場合には、ガイド穴（センター穴）を施した上で穴加工を行って下さい。  
ドリル食い付き時の破損・チッピングを防ぎます。
- 2) チャッキング時のドリル振れ精度は0.003mm以下に抑えて下さい。
- 3) ご使用の機械の最高回転数が上記切削条件に達しない場合は、なるべく安定領域での高い回転数でご使用下さい。  
その場合送り量も同じ比率で下げて下さい。
- 4) ドリルφ0.5以下ご使用の場合は、上記切削条件よりもご使用のスピンドル精度が最も安定する回転数を優先させて下さい。

### Remarks:

- 1) When drilling smaller hole, especially under φ1.0mm, the guide hole (positioning by starting drill) is necessary.  
It prevents the drill breakage and initial chipping of cutting edge.
- 2) The run out with a drill in a spindle should be minimized to less than 0.003mm.

- 3) When machines can not achieve a recommended rotation speed, please set maximum speed but in stable rotation range and adjust the feed rate.
- 4) For smaller drills under φ0.5, the most stable rotation speed of actually using spindle has priority over the recommended conditions indicated in the table.