

NACHI

ものづくりの世界に革命を起こす

NEW

アクアREVOドリルオイルホール

AQRVDOH3D/5D/8D

REvolutionize for the Manufacturing
AquaREVO Drills Oil-Hole



NEW

ものづくりの世界に革命を起こす

レボ アクアREVOドリルオイルホール

AQRVDOH3D/5D/8D

材料、形状、コーティングの全てを一新した
アクアREVOシリーズに新発想のオイルホールが誕生
REVO-Dコートと超平滑化処理に加え、流体解析の活用により

冷却性 / 潤滑性 / 切りくず排出性 をさらに向上

REVOlutionize for the Manufacturing
AquaREVO Drills Oil-Hole

New concept Oil-Hole was born in AquaREVO series that material, design, coating are completely all renewed
In addition to REVO-D coat and super smooth surface treatment, the use of fluid analysis further improves cooling, lubrication, and smooth chip evacuation



新オイルホール形状
New Oil-Hole design

REVO Power Cooler

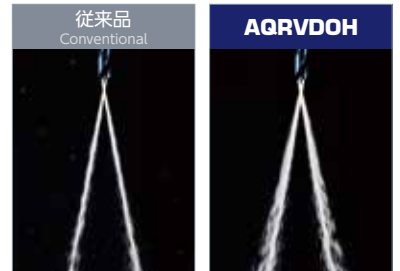
圧倒的な流量

Overwhelming flow rate

オイルホールの断面積・吐出量は従来品の2倍以上

Cross-sectional area and coolant amount of the oil hole are more than twice that of conventional.

VIDEO LINK

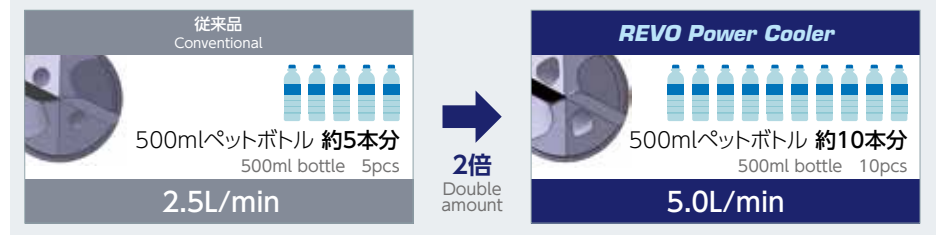


1分間あたりの排出量

(ドリル: φ8.0 設備: 1.5MPa 回転数: 4,800min⁻¹)

Amount per 1 minute

(Drill: φ8.0 Equipment: 1.5MPa Rotation: 4,800min⁻¹)

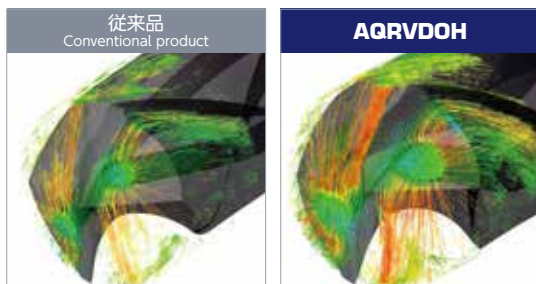


冷却性の向上

Improved cooling

コーナーやシンニングへの 流量、流速を増加

Increased flow rate and flow velocity of corners and thinning



VIDEO LINK



加工硬化を抑制

Suppresses work hardening

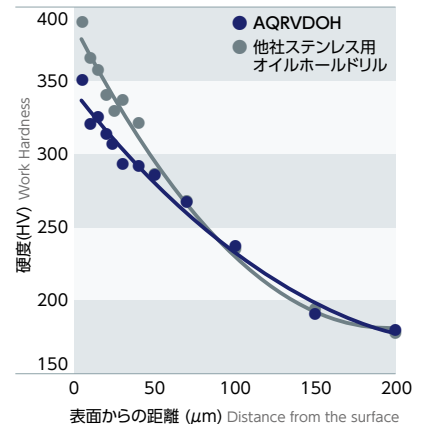
後工程の寿命と 精度も向上

Tool life and accuracy will improve after drilling process

加工硬化の比較

内部硬さ
被削材:SUS304

Comparison
of work hardening
Internal hardness
Work material:SUS304



抜群の長寿命 摩耗抑制

Excellent tool life Wear suppression

他のドリルを凌駕する耐久性と安定性

Durability and stability surpass other drills



ステンレスで驚異的な長寿命

Incredible tool life even in stainless steel drilling

汎用ドリルでありながら、ステンレス用ドリルと比較しても、2倍以上の穴あけ加工を実現

Although it is a multi-purpose drill, even compared to the drill for Stainless steel, more than twice as much drilling



一般鋼からステンレス、高硬度材まで、幅広い被削材に対応

Compatible with a wide range of materials from Structural steel to Stainless steel and Hardened steel

被削材選定表 Selection chart according to work materials

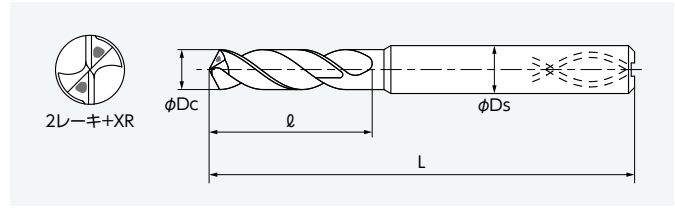
| | 穴あけ深さ L/D | 一般構造用鋼 | 炭素鋼 | 合金鋼調質鋼 | ダイス鋼 プレハードン鋼 | 高硬度鋼 | | | ステンレス鋼 | | | Ti合金 | Ni基合金 | 鋳鉄 | アルミニウム合金 |
|-----------|-----------|------------------|--------------|--------------------------------|---------------------------|----------------|--------------|--------------|------------------|--------|--------|----------------|--------------------|-----------|----------------|
| | | Structural Steel | Carbon Steel | Alloy Steel Heat treated Steel | Mold Steel Hardened Steel | Hardened Steel | | | Stainless Steel | | | Titanium Alloy | Nickel based Alloy | Cast Iron | Aluminum Alloy |
| | | SS400 | S45C S50C | SCM SCr | 30~40 HRC | 40~50 HRC | 50~57 HRC | 58~65 HRC | SUS304 SUS316 | SUS420 | SUS630 | Ti-6Al-4V | インコネル ハステロイ | FC FCD | AC ADC |
| AQRVDOH3D | 3 | ◎ | ◎ | ◎ | ◎ | ◎ | ○ | — | ◎ | ◎ | ◎ | ○ | ○ | ◎ | ○ |
| AQRVDOH5D | 5 | ◎ | ◎ | ◎ | ◎ | ◎ | ○ | — | ◎ | ◎ | ◎ | ○ | ○ | ◎ | ○ |
| AQRVDOH8D | 8 | ◎ | ◎ | ◎ | ◎ | ◎ | ○ | — | ◎ | ◎ | ◎ | ○ | ○ | ◎ | ○ |

◎: 最適 Excellent ○: 適用 Good —: 推奨しません Not recommended

AQRVDOH3D

超硬 REVO D h7 140° 26°~30° h6 3.0-16.0
工具材料 コーティング 直径許容差 先端角 ねじれ角 シャンク許容差 直径範囲

レボ
アクアREVOドリルオイルホール 3D
 AquaREVO Drills Oil-Hole 3D



LIST9864 オーク方法 Order 商品記号 Code

単位 (Unit):mm

| 商品記号 Code | 直径 Dc | 溝長 ℓ | 全長 L | シャンク径 Ds | 在庫 Stock | 参考価格 (円) Price(¥) | | | |
|---------------|----------|---------|---------|-------------|-------------|----------------------|---|---|--------|
| AQRVDOH3D0300 | 3.0 | 19 | 68 | 3 | | 10,200 | | | |
| AQRVDOH3D0310 | 3.1 | 21 | 72 | 4 | | 10,900 | | | |
| AQRVDOH3D0320 | 3.2 | | | | | | | | |
| AQRVDOH3D0330 | 3.3 | | | | | | | | |
| AQRVDOH3D0340 | 3.4 | | | | | | | | |
| AQRVDOH3D0350 | 3.5 | | | | | | | | |
| AQRVDOH3D0360 | 3.6 | | | | | | | | |
| AQRVDOH3D0370 | 3.7 | 23 | 72 | 4 | | 11,400 | | | |
| AQRVDOH3D0380 | 3.8 | | | | | | | | |
| AQRVDOH3D0390 | 3.9 | | | | | | | | |
| AQRVDOH3D0400 | 4.0 | | | | | | | | |
| AQRVDOH3D0410 | 4.1 | 26 | 80 | 5 | | 12,000 | | | |
| AQRVDOH3D0420 | 4.2 | | | | | | | | |
| AQRVDOH3D0430 | 4.3 | | | | | | | | |
| AQRVDOH3D0440 | 4.4 | | | | | | | | |
| AQRVDOH3D0450 | 4.5 | | | | | | | | |
| AQRVDOH3D0460 | 4.6 | | | | | | | | |
| AQRVDOH3D0470 | 4.7 | | | | | | | | |
| AQRVDOH3D0480 | 4.8 | | | | | | | | |
| AQRVDOH3D0490 | 4.9 | | | | | | | | |
| AQRVDOH3D0500 | 5.0 | | | | 29 | 82 | 6 | ● | 12,900 |
| AQRVDOH3D0510 | 5.1 | | | | | | | | |
| AQRVDOH3D0520 | 5.2 | | | | | | | | |
| AQRVDOH3D0530 | 5.3 | | | | | | | | |
| AQRVDOH3D0540 | 5.4 | | | | | | | | |
| AQRVDOH3D0550 | 5.5 | | | | | | | | |
| AQRVDOH3D0560 | 5.6 | 32 | 88 | 7 | | | | | 13,600 |
| AQRVDOH3D0570 | 5.7 | | | | | | | | |
| AQRVDOH3D0580 | 5.8 | | | | | | | | |
| AQRVDOH3D0590 | 5.9 | | | | | | | | |
| AQRVDOH3D0600 | 6.0 | 34 | 88 | 7 | | 14,200 | | | |
| AQRVDOH3D0610 | 6.1 | | | | | | | | |
| AQRVDOH3D0620 | 6.2 | | | | | | | | |
| AQRVDOH3D0630 | 6.3 | | | | | | | | |
| AQRVDOH3D0640 | 6.4 | | | | | | | | |
| AQRVDOH3D0650 | 6.5 | | | | | | | | |
| AQRVDOH3D0660 | 6.6 | | | | 37 | 88 | 7 | | 14,200 |
| AQRVDOH3D0670 | 6.7 | | | | | | | | |
| AQRVDOH3D0680 | 6.8 | | | | | | | | |
| AQRVDOH3D0690 | 6.9 | | | | | | | | |

| 商品記号 Code | 直径 Dc | 溝長 ℓ | 全長 L | シャンク径 Ds | 在庫 Stock | 参考価格 (円) Price(¥) | | | |
|---------------|----------|---------|---------|-------------|-------------|----------------------|----|---|--------|
| AQRVDOH3D0700 | 7.0 | 37 | 88 | 7 | | 15,100 | | | |
| AQRVDOH3D0710 | 7.1 | 39 | 94 | 8 | | 15,900 | | | |
| AQRVDOH3D0720 | 7.2 | | | | | | | | |
| AQRVDOH3D0730 | 7.3 | | | | | | | | |
| AQRVDOH3D0740 | 7.4 | | | | | | | | |
| AQRVDOH3D0750 | 7.5 | | | | | | | | |
| AQRVDOH3D0760 | 7.6 | | | | | | | | |
| AQRVDOH3D0770 | 7.7 | 42 | 94 | 8 | | 16,900 | | | |
| AQRVDOH3D0780 | 7.8 | | | | | | | | |
| AQRVDOH3D0790 | 7.9 | | | | | | | | |
| AQRVDOH3D0800 | 8.0 | | | | | | | | |
| AQRVDOH3D0810 | 8.1 | 44 | 100 | 9 | | 18,400 | | | |
| AQRVDOH3D0820 | 8.2 | | | | | | | | |
| AQRVDOH3D0830 | 8.3 | | | | | | | | |
| AQRVDOH3D0840 | 8.4 | | | | | | | | |
| AQRVDOH3D0850 | 8.5 | | | | | | | | |
| AQRVDOH3D0860 | 8.6 | | | | 47 | 100 | 9 | | 19,200 |
| AQRVDOH3D0870 | 8.7 | | | | | | | | |
| AQRVDOH3D0880 | 8.8 | | | | | | | | |
| AQRVDOH3D0890 | 8.9 | | | | | | | | |
| AQRVDOH3D0900 | 9.0 | | | | 49 | 106 | 10 | ● | 19,200 |
| AQRVDOH3D0910 | 9.1 | | | | | | | | |
| AQRVDOH3D0920 | 9.2 | | | | | | | | |
| AQRVDOH3D0930 | 9.3 | | | | | | | | |
| AQRVDOH3D0940 | 9.4 | | | | | | | | |
| AQRVDOH3D0950 | 9.5 | | | | | | | | |
| AQRVDOH3D0960 | 9.6 | 52 | 106 | 10 | | | | | 20,200 |
| AQRVDOH3D0970 | 9.7 | | | | | | | | |
| AQRVDOH3D0980 | 9.8 | | | | | | | | |
| AQRVDOH3D0990 | 9.9 | | | | | | | | |
| AQRVDOH3D1000 | 10.0 | 54 | 116 | 11 | | 20,700 | | | |
| AQRVDOH3D1010 | 10.1 | | | | | | | | |
| AQRVDOH3D1020 | 10.2 | | | | | | | | |
| AQRVDOH3D1030 | 10.3 | | | | | | | | |
| AQRVDOH3D1040 | 10.4 | | | | | | | | |
| AQRVDOH3D1050 | 10.5 | | | | | | | | |
| AQRVDOH3D1060 | 10.6 | | | | 57 | 116 | 11 | | 20,700 |
| AQRVDOH3D1070 | 10.7 | | | | | | | | |
| AQRVDOH3D1080 | 10.8 | | | | | | | | |
| AQRVDOH3D1090 | 10.9 | | | | | | | | |

単位 (Unit):mm

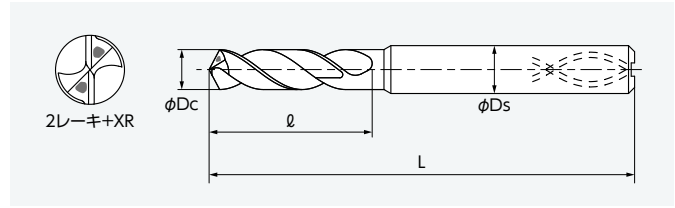
| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) |
|---------------|------|--------|-----|-------|-------|----------|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) |
| AQRVDOH3D1100 | 11.0 | 57 | 116 | 11 | | 22,200 |
| AQRVDOH3D1110 | 11.1 | 60 | 122 | 12 | | 23,400 |
| AQRVDOH3D1120 | 11.2 | | | | | 23,400 |
| AQRVDOH3D1130 | 11.3 | | | | | 23,400 |
| AQRVDOH3D1140 | 11.4 | | | | | 23,400 |
| AQRVDOH3D1150 | 11.5 | | | | | 23,400 |
| AQRVDOH3D1160 | 11.6 | | | | | 63 |
| AQRVDOH3D1170 | 11.7 | 23,800 | | | | |
| AQRVDOH3D1180 | 11.8 | 23,800 | | | | |
| AQRVDOH3D1190 | 11.9 | 23,800 | | | | |
| AQRVDOH3D1200 | 12.0 | 23,800 | | | | |
| AQRVDOH3D1210 | 12.1 | 65 | 128 | 13 | | |
| AQRVDOH3D1220 | 12.2 | | | | | 25,000 |
| AQRVDOH3D1230 | 12.3 | | | | | 25,000 |
| AQRVDOH3D1240 | 12.4 | | | | | 25,000 |
| AQRVDOH3D1250 | 12.5 | | | | | 25,000 |
| AQRVDOH3D1260 | 12.6 | | | | | 68 |
| AQRVDOH3D1270 | 12.7 | 25,500 | | | | |
| AQRVDOH3D1280 | 12.8 | 25,500 | | | | |
| AQRVDOH3D1290 | 12.9 | 25,500 | | | | |
| AQRVDOH3D1300 | 13.0 | 25,500 | | | | |
| AQRVDOH3D1310 | 13.1 | 70 | 140 | 15 | | |
| AQRVDOH3D1320 | 13.2 | | | | | 26,200 |
| AQRVDOH3D1330 | 13.3 | | | | | 26,200 |
| AQRVDOH3D1340 | 13.4 | | | | | 26,200 |
| AQRVDOH3D1350 | 13.5 | | | | | 26,200 |
| AQRVDOH3D1360 | 13.6 | | | | | 73 |
| AQRVDOH3D1370 | 13.7 | 26,800 | | | | |
| AQRVDOH3D1380 | 13.8 | 26,800 | | | | |
| AQRVDOH3D1390 | 13.9 | 26,800 | | | | |
| AQRVDOH3D1400 | 14.0 | 26,800 | | | | |
| AQRVDOH3D1410 | 14.1 | 75 | 140 | 15 | | |
| AQRVDOH3D1420 | 14.2 | | | | | 27,800 |
| AQRVDOH3D1430 | 14.3 | | | | | 27,800 |
| AQRVDOH3D1440 | 14.4 | | | | | 27,800 |
| AQRVDOH3D1450 | 14.5 | | | | | 27,800 |
| AQRVDOH3D1460 | 14.6 | | | | | 78 |
| AQRVDOH3D1470 | 14.7 | 28,500 | | | | |
| AQRVDOH3D1480 | 14.8 | 28,500 | | | | |
| AQRVDOH3D1490 | 14.9 | 28,500 | | | | |

| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) |
|---------------|------|--------|-----|-------|-------|----------|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) |
| AQRVDOH3D1500 | 15.0 | 78 | 140 | 15 | | 28,500 |
| AQRVDOH3D1510 | 15.1 | 80 | 146 | 16 | | 29,600 |
| AQRVDOH3D1520 | 15.2 | | | | | 29,600 |
| AQRVDOH3D1530 | 15.3 | | | | | 29,600 |
| AQRVDOH3D1540 | 15.4 | | | | | 29,600 |
| AQRVDOH3D1550 | 15.5 | | | | | 29,600 |
| AQRVDOH3D1560 | 15.6 | | | | | 83 |
| AQRVDOH3D1570 | 15.7 | 30,400 | | | | |
| AQRVDOH3D1580 | 15.8 | 30,400 | | | | |
| AQRVDOH3D1590 | 15.9 | 30,400 | | | | |
| AQRVDOH3D1600 | 16.0 | 30,400 | | | | |

AQRVDOH5D

超硬 REVO D h7 140° 26°~30° h6 3.0-16.0
工具材料 コーティング 直径許容差 先端角 ねじれ角 シャンク径許容差 直径範囲

レボ
アクアREVOドリルオイルホール 5D
 AquaREVO Drills Oil-Hole 5D



LIST9866 オーク方法 Order 商品記号 Code

単位 (Unit):mm

| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) |
|---------------|-----|----|-----|-------|-------|----------|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) |
| AQRVDOH5D0300 | 3.0 | 29 | 78 | 3 | | 13,500 |
| AQRVDOH5D0310 | 3.1 | 33 | 86 | 4 | | 14,000 |
| AQRVDOH5D0320 | 3.2 | | | | | |
| AQRVDOH5D0330 | 3.3 | | | | | |
| AQRVDOH5D0340 | 3.4 | | | | | |
| AQRVDOH5D0350 | 3.5 | | | | | |
| AQRVDOH5D0360 | 3.6 | | | | | |
| AQRVDOH5D0370 | 3.7 | 37 | 86 | 4 | | 14,100 |
| AQRVDOH5D0380 | 3.8 | | | | | |
| AQRVDOH5D0390 | 3.9 | | | | | |
| AQRVDOH5D0400 | 4.0 | | | | | |
| AQRVDOH5D0410 | 4.1 | 41 | 98 | 5 | | 14,500 |
| AQRVDOH5D0420 | 4.2 | | | | | |
| AQRVDOH5D0430 | 4.3 | | | | | |
| AQRVDOH5D0440 | 4.4 | | | | | |
| AQRVDOH5D0450 | 4.5 | | | | | |
| AQRVDOH5D0460 | 4.6 | | | | | |
| AQRVDOH5D0470 | 4.7 | 45 | 98 | 5 | | 14,800 |
| AQRVDOH5D0480 | 4.8 | | | | | |
| AQRVDOH5D0490 | 4.9 | | | | | |
| AQRVDOH5D0500 | 5.0 | | | | | |
| AQRVDOH5D0510 | 5.1 | 46 | 100 | 6 | | 14,800 |
| AQRVDOH5D0520 | 5.2 | | | | | |
| AQRVDOH5D0530 | 5.3 | | | | | |
| AQRVDOH5D0540 | 5.4 | | | | | |
| AQRVDOH5D0550 | 5.5 | | | | | |
| AQRVDOH5D0560 | 5.6 | | | | | |
| AQRVDOH5D0570 | 5.7 | 50 | 100 | 6 | | 16,400 |
| AQRVDOH5D0580 | 5.8 | | | | | |
| AQRVDOH5D0590 | 5.9 | | | | | |
| AQRVDOH5D0600 | 6.0 | | | | | |
| AQRVDOH5D0610 | 6.1 | 54 | 109 | 7 | | 16,400 |
| AQRVDOH5D0620 | 6.2 | | | | | |
| AQRVDOH5D0630 | 6.3 | | | | | |
| AQRVDOH5D0640 | 6.4 | | | | | |
| AQRVDOH5D0650 | 6.5 | | | | | |
| AQRVDOH5D0660 | 6.6 | | | | | |
| AQRVDOH5D0670 | 6.7 | 58 | 109 | 7 | | 17,500 |
| AQRVDOH5D0680 | 6.8 | | | | | |
| AQRVDOH5D0690 | 6.9 | | | | | |
| AQRVDOH5D0690 | 6.9 | | | | | |

| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) |
|---------------|------|----|-----|-------|-------|----------|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) |
| AQRVDOH5D0700 | 7.0 | 58 | 109 | 7 | | 17,500 |
| AQRVDOH5D0710 | 7.1 | 62 | 118 | 8 | | 18,400 |
| AQRVDOH5D0720 | 7.2 | | | | | |
| AQRVDOH5D0730 | 7.3 | | | | | |
| AQRVDOH5D0740 | 7.4 | | | | | |
| AQRVDOH5D0750 | 7.5 | | | | | |
| AQRVDOH5D0760 | 7.6 | | | | | |
| AQRVDOH5D0770 | 7.7 | 66 | 118 | 8 | | 19,500 |
| AQRVDOH5D0780 | 7.8 | | | | | |
| AQRVDOH5D0790 | 7.9 | | | | | |
| AQRVDOH5D0800 | 8.0 | | | | | |
| AQRVDOH5D0810 | 8.1 | 70 | 127 | 9 | | 20,500 |
| AQRVDOH5D0820 | 8.2 | | | | | |
| AQRVDOH5D0830 | 8.3 | | | | | |
| AQRVDOH5D0840 | 8.4 | | | | | |
| AQRVDOH5D0850 | 8.5 | | | | | |
| AQRVDOH5D0860 | 8.6 | | | | | |
| AQRVDOH5D0870 | 8.7 | 74 | 127 | 9 | | 21,700 |
| AQRVDOH5D0880 | 8.8 | | | | | |
| AQRVDOH5D0890 | 8.9 | | | | | |
| AQRVDOH5D0900 | 9.0 | | | | | |
| AQRVDOH5D0910 | 9.1 | 78 | 136 | 10 | | 21,700 |
| AQRVDOH5D0920 | 9.2 | | | | | |
| AQRVDOH5D0930 | 9.3 | | | | | |
| AQRVDOH5D0940 | 9.4 | | | | | |
| AQRVDOH5D0950 | 9.5 | | | | | |
| AQRVDOH5D0960 | 9.6 | | | | | |
| AQRVDOH5D0970 | 9.7 | 82 | 136 | 10 | | 22,900 |
| AQRVDOH5D0980 | 9.8 | | | | | |
| AQRVDOH5D0990 | 9.9 | | | | | |
| AQRVDOH5D1000 | 10.0 | | | | | |
| AQRVDOH5D1010 | 10.1 | 87 | 149 | 11 | | 22,900 |
| AQRVDOH5D1020 | 10.2 | | | | | |
| AQRVDOH5D1030 | 10.3 | | | | | |
| AQRVDOH5D1040 | 10.4 | | | | | |
| AQRVDOH5D1050 | 10.5 | | | | | |
| AQRVDOH5D1060 | 10.6 | | | | | |
| AQRVDOH5D1070 | 10.7 | 91 | 149 | 11 | | 24,300 |
| AQRVDOH5D1080 | 10.8 | | | | | |
| AQRVDOH5D1090 | 10.9 | | | | | |
| AQRVDOH5D1090 | 10.9 | | | | | |

単位 (Unit):mm

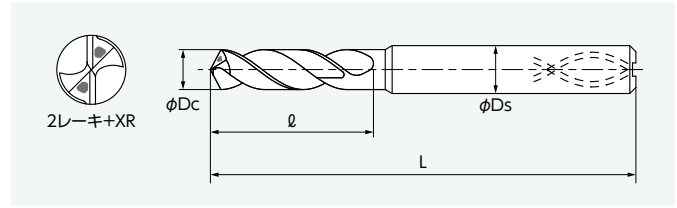
| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) |
|---------------|------|--------|-----|--------|--------|----------|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) |
| AQRVDOH5D1100 | 11.0 | 91 | 149 | 11 | | 25,100 |
| AQRVDOH5D1110 | 11.1 | 95 | 158 | 12 | ● | 26,200 |
| AQRVDOH5D1120 | 11.2 | | | | | 26,200 |
| AQRVDOH5D1130 | 11.3 | | | | | 26,200 |
| AQRVDOH5D1140 | 11.4 | | | | | 26,200 |
| AQRVDOH5D1150 | 11.5 | | | | | 26,200 |
| AQRVDOH5D1160 | 11.6 | | | | | 99 |
| AQRVDOH5D1170 | 11.7 | 27,400 | | | | |
| AQRVDOH5D1180 | 11.8 | 27,400 | | | | |
| AQRVDOH5D1190 | 11.9 | 27,400 | | | | |
| AQRVDOH5D1200 | 12.0 | | | 27,400 | | |
| AQRVDOH5D1210 | 12.1 | 103 | 167 | 13 | | 28,100 |
| AQRVDOH5D1220 | 12.2 | | | | | 28,100 |
| AQRVDOH5D1230 | 12.3 | | | | 28,100 | |
| AQRVDOH5D1240 | 12.4 | | | | 28,100 | |
| AQRVDOH5D1250 | 12.5 | | | | 28,100 | |
| AQRVDOH5D1260 | 12.6 | | | | 107 | |
| AQRVDOH5D1270 | 12.7 | 29,300 | | | | |
| AQRVDOH5D1280 | 12.8 | 29,300 | | | | |
| AQRVDOH5D1290 | 12.9 | 29,300 | | | | |
| AQRVDOH5D1300 | 13.0 | | | 29,300 | | |
| AQRVDOH5D1310 | 13.1 | 111 | 176 | 14 | 30,100 | |
| AQRVDOH5D1320 | 13.2 | | | | 30,100 | |
| AQRVDOH5D1330 | 13.3 | | | | 30,100 | |
| AQRVDOH5D1340 | 13.4 | | | | 30,100 | |
| AQRVDOH5D1350 | 13.5 | | | | 30,100 | |
| AQRVDOH5D1360 | 13.6 | | | | 115 | |
| AQRVDOH5D1370 | 13.7 | 31,100 | | | | |
| AQRVDOH5D1380 | 13.8 | 31,100 | | | | |
| AQRVDOH5D1390 | 13.9 | 31,100 | | | | |
| AQRVDOH5D1400 | 14.0 | | | 31,100 | | |
| AQRVDOH5D1410 | 14.1 | 119 | 185 | 15 | 32,400 | |
| AQRVDOH5D1420 | 14.2 | | | | 32,400 | |
| AQRVDOH5D1430 | 14.3 | | | | 32,400 | |
| AQRVDOH5D1440 | 14.4 | | | | 32,400 | |
| AQRVDOH5D1450 | 14.5 | | | | 32,400 | |
| AQRVDOH5D1460 | 14.6 | | | | 124 | |
| AQRVDOH5D1470 | 14.7 | 32,900 | | | | |
| AQRVDOH5D1480 | 14.8 | 32,900 | | | | |
| AQRVDOH5D1490 | 14.9 | 32,900 | | | | |

| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) |
|---------------|------|--------|-----|--------|-------|----------|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) |
| AQRVDOH5D1500 | 15.0 | 124 | 185 | 15 | | 32,900 |
| AQRVDOH5D1510 | 15.1 | 128 | 194 | 16 | ● | 34,000 |
| AQRVDOH5D1520 | 15.2 | | | | | 34,000 |
| AQRVDOH5D1530 | 15.3 | | | | | 34,000 |
| AQRVDOH5D1540 | 15.4 | | | | | 34,000 |
| AQRVDOH5D1550 | 15.5 | | | | | 34,000 |
| AQRVDOH5D1560 | 15.6 | | | | | 132 |
| AQRVDOH5D1570 | 15.7 | 35,200 | | | | |
| AQRVDOH5D1580 | 15.8 | 35,200 | | | | |
| AQRVDOH5D1590 | 15.9 | 35,200 | | | | |
| AQRVDOH5D1600 | 16.0 | | | 35,200 | | |

AQRVDOH8D

超硬 REVO D h7 140° 26°~30° h6 3.0-16.0
工具材料 コーティング 直径許容差 先端角 ねじれ角 シャンク径許容差 直径範囲

レボ
アクアREVOドリルオイルホール 8D
 AquaREVO Drills Oil-Hole 8D



LIST9868 オーク方法 Order 商品記号 Code

単位 (Unit):mm

| 商品記号 Code | 直径 Dc | 溝長 ℓ | 全長 L | シャンク径 Ds | 在庫 Stock | 参考価格(円) Price(¥) |
|---------------|----------|---------|---------|-------------|-------------|---------------------|
| AQRVDOH8D0300 | 3.0 | 34 | 81 | 3 | | 16,100 |
| AQRVDOH8D0310 | 3.1 | 39 | 92 | 4 | | 16,400 |
| AQRVDOH8D0320 | 3.2 | | | | | 16,400 |
| AQRVDOH8D0330 | 3.3 | | | | | 16,400 |
| AQRVDOH8D0340 | 3.4 | | | | | 16,400 |
| AQRVDOH8D0350 | 3.5 | | | | | 16,400 |
| AQRVDOH8D0360 | 3.6 | | | | | 16,500 |
| AQRVDOH8D0370 | 3.7 | 45 | 92 | 4 | | 16,500 |
| AQRVDOH8D0380 | 3.8 | | | | | 16,500 |
| AQRVDOH8D0390 | 3.9 | | | | | 16,500 |
| AQRVDOH8D0400 | 4.0 | | | | | 16,500 |
| AQRVDOH8D0410 | 4.1 | 50 | 105 | 5 | | 17,100 |
| AQRVDOH8D0420 | 4.2 | | | | | 17,100 |
| AQRVDOH8D0430 | 4.3 | | | | | 17,100 |
| AQRVDOH8D0440 | 4.4 | | | | | 17,100 |
| AQRVDOH8D0450 | 4.5 | | | | | 17,100 |
| AQRVDOH8D0460 | 4.6 | | | | | 17,300 |
| AQRVDOH8D0470 | 4.7 | 56 | 105 | 5 | | 17,300 |
| AQRVDOH8D0480 | 4.8 | | | | | 17,300 |
| AQRVDOH8D0490 | 4.9 | | | | | 17,300 |
| AQRVDOH8D0500 | 5.0 | | | | | 17,300 |
| AQRVDOH8D0510 | 5.1 | 62 | 118 | 6 | | 18,100 |
| AQRVDOH8D0520 | 5.2 | | | | | 18,100 |
| AQRVDOH8D0530 | 5.3 | | | | | 18,100 |
| AQRVDOH8D0540 | 5.4 | | | | | 18,100 |
| AQRVDOH8D0550 | 5.5 | | | | | 18,100 |
| AQRVDOH8D0560 | 5.6 | | | | | 18,400 |
| AQRVDOH8D0570 | 5.7 | 68 | 118 | 6 | | 18,400 |
| AQRVDOH8D0580 | 5.8 | | | | | 18,400 |
| AQRVDOH8D0590 | 5.9 | | | | | 18,400 |
| AQRVDOH8D0600 | 6.0 | | | | | 18,400 |
| AQRVDOH8D0610 | 6.1 | 73 | 130 | 7 | | 19,600 |
| AQRVDOH8D0620 | 6.2 | | | | | 19,600 |
| AQRVDOH8D0630 | 6.3 | | | | | 19,600 |
| AQRVDOH8D0640 | 6.4 | | | | | 19,600 |
| AQRVDOH8D0650 | 6.5 | | | | | 19,600 |
| AQRVDOH8D0660 | 6.6 | | | | | 19,800 |
| AQRVDOH8D0670 | 6.7 | 79 | 130 | 7 | | 19,800 |
| AQRVDOH8D0680 | 6.8 | | | | | 19,800 |
| AQRVDOH8D0690 | 6.9 | | | | | 19,800 |
| AQRVDOH8D0690 | 6.9 | | | | | 19,800 |

| 商品記号 Code | 直径 Dc | 溝長 ℓ | 全長 L | シャンク径 Ds | 在庫 Stock | 参考価格(円) Price(¥) |
|---------------|----------|---------|---------|-------------|-------------|---------------------|
| AQRVDOH8D0700 | 7.0 | 79 | 130 | 7 | | 19,800 |
| AQRVDOH8D0710 | 7.1 | 84 | 142 | 8 | | 21,400 |
| AQRVDOH8D0720 | 7.2 | | | | | 21,400 |
| AQRVDOH8D0730 | 7.3 | | | | | 21,400 |
| AQRVDOH8D0740 | 7.4 | | | | | 21,400 |
| AQRVDOH8D0750 | 7.5 | | | | | 21,400 |
| AQRVDOH8D0760 | 7.6 | | | | | 21,700 |
| AQRVDOH8D0770 | 7.7 | 90 | 142 | 8 | | 21,700 |
| AQRVDOH8D0780 | 7.8 | | | | | 21,700 |
| AQRVDOH8D0790 | 7.9 | | | | | 21,700 |
| AQRVDOH8D0800 | 8.0 | | | | | 21,700 |
| AQRVDOH8D0810 | 8.1 | 95 | 154 | 9 | | 23,400 |
| AQRVDOH8D0820 | 8.2 | | | | | 23,400 |
| AQRVDOH8D0830 | 8.3 | | | | | 23,400 |
| AQRVDOH8D0840 | 8.4 | | | | | 23,400 |
| AQRVDOH8D0850 | 8.5 | | | | | 23,400 |
| AQRVDOH8D0860 | 8.6 | | | | | 24,000 |
| AQRVDOH8D0870 | 8.7 | 101 | 154 | 9 | | 24,000 |
| AQRVDOH8D0880 | 8.8 | | | | | 24,000 |
| AQRVDOH8D0890 | 8.9 | | | | | 24,000 |
| AQRVDOH8D0900 | 9.0 | | | | | 24,000 |
| AQRVDOH8D0910 | 9.1 | 106 | 166 | 10 | | 26,000 |
| AQRVDOH8D0920 | 9.2 | | | | | 26,000 |
| AQRVDOH8D0930 | 9.3 | | | | | 26,000 |
| AQRVDOH8D0940 | 9.4 | | | | | 26,000 |
| AQRVDOH8D0950 | 9.5 | | | | | 26,000 |
| AQRVDOH8D0960 | 9.6 | | | | | 26,700 |
| AQRVDOH8D0970 | 9.7 | 112 | 166 | 10 | | 26,700 |
| AQRVDOH8D0980 | 9.8 | | | | | 26,700 |
| AQRVDOH8D0990 | 9.9 | | | | | 26,700 |
| AQRVDOH8D1000 | 10.0 | | | | | 26,700 |
| AQRVDOH8D1010 | 10.1 | 118 | 182 | 11 | | 29,500 |
| AQRVDOH8D1020 | 10.2 | | | | | 29,500 |
| AQRVDOH8D1030 | 10.3 | | | | | 29,500 |
| AQRVDOH8D1040 | 10.4 | | | | | 29,500 |
| AQRVDOH8D1050 | 10.5 | | | | | 29,500 |
| AQRVDOH8D1060 | 10.6 | | | | | 30,100 |
| AQRVDOH8D1070 | 10.7 | 124 | 182 | 11 | | 30,100 |
| AQRVDOH8D1080 | 10.8 | | | | | 30,100 |
| AQRVDOH8D1090 | 10.9 | | | | | 30,100 |
| AQRVDOH8D1090 | 10.9 | | | | | 30,100 |

● 近日発売予定 ● It will be on sale soon

単位 (Unit):mm

| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) | | | |
|---------------|------|--------|-----|--------|-------|----------|----|--|--------|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) | | | |
| AQRVDOH8D1100 | 11.0 | 124 | 182 | 11 | | 30,100 | | | |
| AQRVDOH8D1110 | 11.1 | 129 | 182 | 11 | | 33,100 | | | |
| AQRVDOH8D1120 | 11.2 | | | | | 33,100 | | | |
| AQRVDOH8D1130 | 11.3 | | | | | 33,100 | | | |
| AQRVDOH8D1140 | 11.4 | | | | | 33,100 | | | |
| AQRVDOH8D1150 | 11.5 | | | | | 33,100 | | | |
| AQRVDOH8D1160 | 11.6 | | | | | 194 | 12 | | 33,900 |
| AQRVDOH8D1170 | 11.7 | 33,900 | | | | | | | |
| AQRVDOH8D1180 | 11.8 | 135 | | 33,900 | | | | | |
| AQRVDOH8D1190 | 11.9 | | | 33,900 | | | | | |
| AQRVDOH8D1200 | 12.0 | | | 33,900 | | | | | |
| AQRVDOH8D1210 | 12.1 | 140 | 194 | 12 | | 37,500 | | | |
| AQRVDOH8D1220 | 12.2 | | | | | 37,500 | | | |
| AQRVDOH8D1230 | 12.3 | | | | | 37,500 | | | |
| AQRVDOH8D1240 | 12.4 | | | | | 37,500 | | | |
| AQRVDOH8D1250 | 12.5 | | | | | 206 | 13 | | 37,500 |
| AQRVDOH8D1260 | 12.6 | | | | | | | | 38,100 |
| AQRVDOH8D1270 | 12.7 | 146 | 206 | 13 | | 38,100 | | | |
| AQRVDOH8D1280 | 12.8 | | | | | 38,100 | | | |
| AQRVDOH8D1290 | 12.9 | | | | | 38,100 | | | |
| AQRVDOH8D1300 | 13.0 | | | | | 38,100 | | | |
| AQRVDOH8D1310 | 13.1 | 151 | 206 | 13 | | 42,500 | | | |
| AQRVDOH8D1320 | 13.2 | | | | | 42,500 | | | |
| AQRVDOH8D1330 | 13.3 | | | | | 42,500 | | | |
| AQRVDOH8D1340 | 13.4 | | | | | 42,500 | | | |
| AQRVDOH8D1350 | 13.5 | | | | | 42,500 | | | |
| AQRVDOH8D1360 | 13.6 | | | | | 218 | 14 | | 43,100 |
| AQRVDOH8D1370 | 13.7 | 43,100 | | | | | | | |
| AQRVDOH8D1380 | 13.8 | 157 | | 43,100 | | | | | |
| AQRVDOH8D1390 | 13.9 | | | 43,100 | | | | | |
| AQRVDOH8D1400 | 14.0 | | | 43,100 | | | | | |
| AQRVDOH8D1410 | 14.1 | 163 | 218 | 14 | | 48,400 | | | |
| AQRVDOH8D1420 | 14.2 | | | | | 48,400 | | | |
| AQRVDOH8D1430 | 14.3 | | | | | 48,400 | | | |
| AQRVDOH8D1440 | 14.4 | | | | | 48,400 | | | |
| AQRVDOH8D1450 | 14.5 | | | | | 230 | 15 | | 48,400 |
| AQRVDOH8D1460 | 14.6 | | | | | | | | 48,700 |
| AQRVDOH8D1470 | 14.7 | 169 | 230 | 15 | | 48,700 | | | |
| AQRVDOH8D1480 | 14.8 | | | | | 48,700 | | | |
| AQRVDOH8D1490 | 14.9 | | | | | 48,700 | | | |

| 商品記号 | 直径 | 溝長 | 全長 | シャンク径 | 在庫 | 参考価格 (円) | |
|---------------|------|--------|-----|--------|-------|----------|----|
| Code | Dc | ℓ | L | Ds | Stock | Price(¥) | |
| AQRVDOH8D1500 | 15.0 | 169 | 230 | 15 | | 48,700 | |
| AQRVDOH8D1510 | 15.1 | 174 | 230 | 15 | | 54,600 | |
| AQRVDOH8D1520 | 15.2 | | | | | 54,600 | |
| AQRVDOH8D1530 | 15.3 | | | | | 54,600 | |
| AQRVDOH8D1540 | 15.4 | | | | | 54,600 | |
| AQRVDOH8D1550 | 15.5 | | | | | 54,600 | |
| AQRVDOH8D1560 | 15.6 | | | | | 242 | 16 |
| AQRVDOH8D1570 | 15.7 | 55,000 | | | | | |
| AQRVDOH8D1580 | 15.8 | 180 | | 55,000 | | | |
| AQRVDOH8D1590 | 15.9 | | | 55,000 | | | |
| AQRVDOH8D1600 | 16.0 | | | 55,000 | | | |

● 近日発売予定 ● It will be on sale soon

基準切削条件表

Standard Cutting Conditions

AQRVDOH3D/5D

レボ
アクアREVOドリルオイルホール 3D/5D

AquaREVO Drills Oil-Hole 3D/5D

ウェット加工

Wet condition

| 被削材 Work Material | 一般構造用鋼 炭素鋼 ねずみ鑄鉄 | | 合金鋼 調質鋼 | | ダイス鋼 プレハードン鋼 | | 高硬度鋼 | | ダクタイル鑄鉄 | | ステンレス鋼 フェライト系 マルテンサイト系 オーステナイト系 | | ステンレス鋼 析出硬化系 | | チタン合金 | | Ni基合金 | | |
|------------------------|---|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--|
| | SS400 | S50C | FC250 | SCM440 | SCr | SKD61 | NAK | HPM | FCD400 | | SUS430 | SUS403 | SUS304 | SUS630 | | Ti-6Al-4V | | インコネル718 | |
| | Structural Steel Carbon Steel Cast Iron | | Alloy Steel Heat treated Steel | | Mold Steel Hardened Steel | | Hardened Steel | | Ductile Cast Iron | | Stainless Steel | | Stainless Steel | | Titanium Alloy | | Nickel based Alloy Inconel | | |
| 直径 Drill Dia. mm | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | |
| 3.0 | 12700 | 1220 | 10600 | 1020 | 8500 | 760 | 4250 | 260 | 10600 | 950 | 8500 | 680 | 5300 | 400 | 4200 | 320 | 4200 | 190 | |
| 4.0 | 9600 | 1220 | 8000 | 1020 | 6400 | 760 | 3200 | 260 | 8000 | 950 | 6400 | 680 | 4000 | 400 | 3200 | 320 | 3200 | 190 | |
| 6.0 | 6400 | 1220 | 5300 | 1020 | 4200 | 710 | 2100 | 240 | 5300 | 950 | 4200 | 660 | 2600 | 400 | 2100 | 320 | 2100 | 190 | |
| 8.0 | 4800 | 1220 | 4000 | 1020 | 3200 | 710 | 1600 | 240 | 4000 | 880 | 3200 | 640 | 2000 | 400 | 1600 | 320 | 1600 | 190 | |
| 10.0 | 3800 | 1140 | 3200 | 960 | 2500 | 640 | 1300 | 230 | 3200 | 790 | 2500 | 590 | 1600 | 370 | 1300 | 300 | 1300 | 180 | |
| 12.0 | 3200 | 1070 | 2700 | 920 | 2100 | 540 | 1050 | 220 | 2700 | 670 | 2100 | 560 | 1300 | 350 | 1050 | 280 | 1050 | 180 | |
| 16.0 | 2400 | 960 | 2000 | 890 | 1600 | 480 | 800 | 210 | 2000 | 620 | 1600 | 510 | 1000 | 320 | 800 | 260 | 800 | 150 | |

MQL加工

MQL condition

| 被削材 Work Material | 一般構造用鋼 炭素鋼 ねずみ鑄鉄 | | 合金鋼 調質鋼 | | ダイス鋼 プレハードン鋼 | | 高硬度鋼 | | ダクタイル鑄鉄 | |
|------------------------|---|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|
| | SS400 | S50C | FC250 | SCM440 | SCr | SKD61 | NAK | HPM | FCD400 | |
| | Structural Steel Carbon Steel Cast Iron | | Alloy Steel Heat treated Steel | | Mold Steel Hardened Steel | | Hardened Steel | | Ductile Cast Iron | |
| 直径 Drill Dia. mm | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min |
| 3.0 | 8500 | 770 | 7400 | 570 | 6400 | 540 | 2550 | 140 | 7400 | 620 |
| 4.0 | 6400 | 770 | 5600 | 570 | 4800 | 540 | 1900 | 140 | 5600 | 620 |
| 6.0 | 4200 | 770 | 3700 | 570 | 3200 | 540 | 1300 | 130 | 3700 | 620 |
| 8.0 | 3200 | 770 | 2800 | 570 | 2400 | 500 | 1000 | 130 | 2800 | 580 |
| 10.0 | 2500 | 720 | 2200 | 540 | 1900 | 440 | 800 | 120 | 2200 | 500 |
| 12.0 | 2100 | 670 | 1900 | 500 | 1600 | 380 | 650 | 120 | 1900 | 460 |
| 16.0 | 1600 | 600 | 1400 | 500 | 1200 | 340 | 480 | 100 | 1400 | 400 |

AQRVDOH8D

アクアREVO^{レボ}ドリルオイルホール 8D

AquaREVO Drills Oil-Hole 8D

ウェット加工 Wet condition

| 被削材 Work Material | 一般構造用鋼 炭素鋼 ねずみ鑄鉄 | | 合金鋼 調質鋼 | | ダイス鋼 プレハードン鋼 | | 高硬度鋼 | | ダクタイル鑄鉄 | | ステンレス鋼 フェライト系 マルテンサイト系 オーステナイト系 | | ステンレス鋼 析出硬化系 | | チタン合金 | | Ni基合金 | |
|------------------------|---|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--|-------------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|
| | SS400 | S50C | FC250 | SCM440 | SCr | SKD61 | NAK | HPM | FCD400 | SUS430 | SUS403 | SUS304 | SUS630 | Ti-6Al-4V | インコネル718 | | | |
| | Structural Steel Carbon Steel Cast Iron | | Alloy Steel Heat treated Steel | | Mold Steel Hardened Steel | | Hardened Steel | Ductile Cast Iron | Stainless Steel | Stainless Steel | Titanium Alloy | Nickel based Alloy Inconel | | | | | | |
| | ~200HB | | 20~30HRC | | 30~40HRC | | 40~50HRC | | | | | | | | | | | |
| 直径 Drill Dia. mm | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min |
| 3.0 | 12700 | 1020 | 10600 | 920 | 8500 | 630 | 4250 | 230 | 10600 | 800 | 8500 | 630 | 5300 | 360 | 4200 | 290 | 4200 | 170 |
| 4.0 | 9600 | 1020 | 8000 | 920 | 6400 | 630 | 3200 | 230 | 8000 | 800 | 6400 | 630 | 4000 | 360 | 3200 | 290 | 3200 | 170 |
| 6.0 | 6400 | 1020 | 5300 | 920 | 4200 | 600 | 2100 | 220 | 5300 | 740 | 4200 | 600 | 2600 | 360 | 2100 | 290 | 2100 | 170 |
| 8.0 | 4800 | 1020 | 4000 | 920 | 3200 | 590 | 1600 | 220 | 4000 | 740 | 3200 | 570 | 2000 | 360 | 1600 | 290 | 1600 | 170 |
| 10.0 | 3800 | 950 | 3200 | 860 | 2500 | 530 | 1300 | 210 | 3200 | 680 | 2500 | 530 | 1600 | 330 | 1300 | 260 | 1300 | 160 |
| 12.0 | 3200 | 890 | 2700 | 820 | 2100 | 480 | 1050 | 200 | 2700 | 630 | 2100 | 500 | 1300 | 320 | 1050 | 250 | 1050 | 150 |
| 16.0 | 2400 | 800 | 2000 | 800 | 1600 | 440 | 800 | 190 | 2000 | 550 | 1600 | 470 | 1000 | 290 | 800 | 230 | 800 | 140 |

MQL加工 MQL condition

| 被削材 Work Material | 一般構造用鋼 炭素鋼 ねずみ鑄鉄 | | 合金鋼 調質鋼 | | ダイス鋼 プレハードン鋼 | | 高硬度鋼 | | ダクタイル鑄鉄 | |
|------------------------|---|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|
| | SS400 | S50C | FC250 | SCM440 | SCr | SKD61 | NAK | HPM | FCD400 | |
| | Structural Steel Carbon Steel Cast Iron | | Alloy Steel Heat treated Steel | | Mold Steel Hardened Steel | | Hardened Steel | Ductile Cast Iron | | |
| | ~200HB | | 20~30HRC | | 30~40HRC | | 40~50HRC | | | |
| 直径 Drill Dia. mm | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min | 回転数 Rotation min ⁻¹ | 送り速度 Feed mm/min |
| 3.0 | 8500 | 640 | 7400 | 510 | 6400 | 400 | 2550 | 120 | 7400 | 500 |
| 4.0 | 6400 | 640 | 5600 | 510 | 4800 | 400 | 1900 | 120 | 5600 | 500 |
| 6.0 | 4200 | 640 | 3700 | 510 | 3200 | 370 | 1300 | 120 | 3700 | 470 |
| 8.0 | 3200 | 640 | 2800 | 510 | 2400 | 370 | 1000 | 120 | 2800 | 470 |
| 10.0 | 2500 | 600 | 2200 | 480 | 1900 | 340 | 800 | 100 | 2200 | 440 |
| 12.0 | 2100 | 560 | 1900 | 450 | 1600 | 340 | 650 | 100 | 1900 | 430 |
| 16.0 | 1600 | 500 | 1400 | 450 | 1200 | 330 | 480 | 90 | 1400 | 360 |

切削条件ご利用の注意

- 機械剛性やワーククランプ、加工部形状などの状況により切削条件を調整してください。
- ウェット加工は水溶性切削油剤を使用した場合です。
- 不水溶性切削油剤の場合には回転数と送り速度を20%下げてください。
- 内部給油でお使いください。
- ノンステップ加工が行えます。
ただし、被削材や加工条件により切りくず排出性が悪くなることがあります。
その場合には所定の穴深さ以下であってもステップ送りをしてください。
ステップ送りは穴の上面まで戻してください。
ステップ量は0.2~1Dcを目安にしてください。

Attention on using the cutting condition tables

- Adjust cutting condition according to the rigidity of machine or work clamp state.
- Wet condition are for drilling with water soluble cutting fluid.
- In non-water soluble cutting fluid, reduce the rotation and feed by 20%.
- Use on internal coolant.
- Non-step drilling is possible.
However, a work material and cutting condition to chip removal may be worse.
In that case, even if under predetermined hole depth, please step feed.
In step feed, return to the entrance hole.
Step feed interval is about 0.2~1xDc.

NACHI

株式会社 不二越

www.nachi-fujikoshi.co.jp

本社 Tel:03-5568-5111 Fax:03-5568-5206 東京都港区東新橋1-9-2 汐留住友ビル17F 〒105-0021
富山事業所 Tel:076-423-5111 Fax:076-493-5211 富山市不二越本町1-1-1 〒930-8511

| | | | | | | | | |
|--------|------------------|------------------|--------|------------------|------------------|--------|------------------|------------------|
| 東日本支社 | Tel:03-5568-5285 | Fax:03-5568-5293 | 中日本支社 | Tel:052-769-6816 | Fax:052-769-6828 | 株式会社関東 | Tel:03-5568-5190 | Fax:03-5568-5195 |
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困ったときのテレホンサービス

 **0120-714-159**

- 切削条件・工具選定など、お気軽にお問い合わせください。
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CATALOG NO.

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2019.07.N-MD-MIZUNO