

圆柄类刀具
一站式综合服务商



ROUND TOOLS ONE-STOP

GENERAL SERVICE PROVIDER

高性能
整体硬质合金钻头

HIGH PERFORMANCE SOLID CARBIDE DRILL

Your professional Cutting Partner!

Hi-Tech Cutting Tool Co., Ltd

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一站式服务
One-stop service



非标定制
Customized solution



技术加持
Technical support

**High performance
solid carbide drill
高性能整体硬质合金钻头**

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introduction
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SFK产品介绍

 **通用**
Versatile solution

 **定制**
Customized solution

ISO材料组应用范围 ISO material groups



SFP产品介绍

SFP PRODUCT INTRODUCTION

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills

编号规则

ORDERING CODE

概述及应用领域

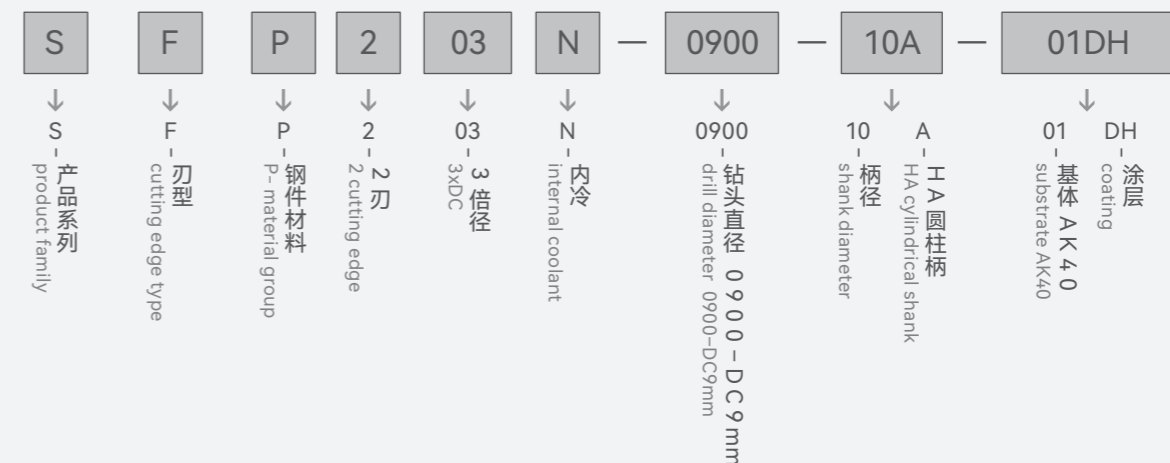
Overview & application areas

- 应用于通用机械、模具、汽车和能源行业
- 适用于ISO工件材料组P、K、M、H
- 可获孔径公差: IT8-9
- 产品直径范围: D3-D20mm
- 钻孔深度可达8倍径
- Solutions for industry segments such as general machining, D&M, auto and power generation
- Covers ISO-P/K/M/H material groups
- Hole tolerance H8-H9
- Diameter range: 3.0-20.0 mm
- Drill length above 8xDC

特性与益处

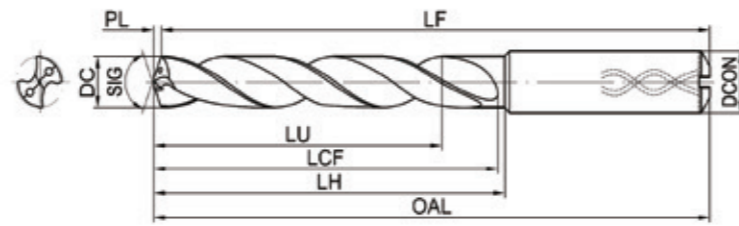
Features and benefits

-  **覆盖稳定工况和不稳定工况**
Cover both stable and unstable cutting conditions
-  **内冷和外冷设计都具备**
Provide both internal & external coolant solutions
-  **月牙形切削刃降低切削阻力**
Curve cutting edge generates low cutting force
-  **特殊的横刃设计带来优异的定心能力**
Good centering performance thanks to unique design on central cutting edge
-  **容屑槽优化设计改善排屑效果**
Good chips evacuation thanks to chips flute optimization design
-  **超微晶粒基体配合纳米复合多层PVD涂层带来长寿命**
extra fine grain size substrate together with multi layers PVD coating generates long tool life



Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



内冷钻头 internal coolant design

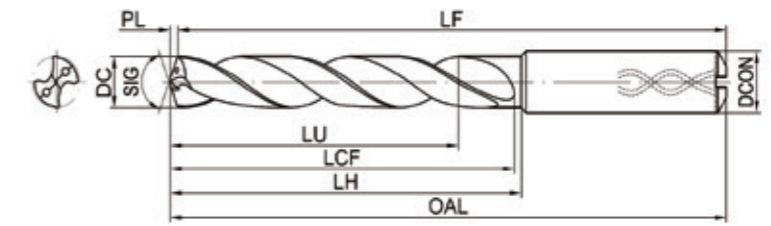
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFP203N-0300-04-01RA-H | 3 | 9.5 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205N-0300-04-01RA-H | 3 | 15.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP208N-0300-04-01RA-H | 3 | 24.5 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFP203N-0310-04-01RA-H | 3.1 | 9.8 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205N-0310-04-01RA-H | 3.1 | 16 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP208N-0310-04-01RA-H | 3.1 | 25.3 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFP203N-0317-04-01RA-H | 3.17 | 10 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205N-0317-04-01RA-H | 3.17 | 16.4 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP208N-0317-04-01RA-H | 3.17 | 25.9 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFP203N-0320-04-01RA-H | 3.2 | 10.1 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205N-0320-04-01RA-H | 3.2 | 16.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP208N-0320-04-01RA-H | 3.2 | 26.1 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFP203N-0330-04-01RA-H | 3.3 | 10.5 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205N-0330-04-01RA-H | 3.3 | 17.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP208N-0330-04-01RA-H | 3.3 | 27 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFP203N-0340-04-01RA-H | 3.4 | 10.8 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205N-0340-04-01RA-H | 3.4 | 17.6 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP208N-0340-04-01RA-H | 3.4 | 27.5 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFP208N-0345-04-01RA-H | 3.45 | 27.4 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFP203N-0350-04-01RA-H | 3.5 | 11.1 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205N-0350-04-01RA-H | 3.5 | 18.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP208N-0350-04-01RA-H | 3.5 | 27.3 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFP203N-0355-04-01RA-H | 3.55 | 11.2 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP208N-0357-04-01RA-H | 3.57 | 27.1 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFP203N-0360-04-01RA-H | 3.6 | 11.4 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205N-0360-04-01RA-H | 3.6 | 18.5 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP208N-0360-04-01RA-H | 3.6 | 27.1 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFP203N-0370-04-01RA-H | 3.7 | 11.7 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205N-0370-04-01RA-H | 3.7 | 19.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP208N-0370-04-01RA-H | 3.7 | 27.9 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFP203N-0380-04-01RA-H | 3.8 | 12.1 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| SFP205N-0380-04-01RA-H | 3.8 | 31.1 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| SFP208N-0380-04-01RA-H | 3.8 | 31.1 | 49 | 87 | 86.4 | 0.6 | 4 | 8 | |
| SFP203N-0390-04-01RA-H | 3.9 | 12.5 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| SFP205N-0390-04-01RA-H | 3.9 | 20.2 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| SFP208N-0390-04-01RA-H | 3.9 | 31.9 | 49 | 87 | 86.4 | 0.6 | 4 | 8 | |
| SFP208N-0397-04-01RA-H | 3.97 | 32.4 | 49 | 87 | 86.3 | 0.7 | 4 | 8 | |
| SFP203N-0400-04-01RA-H | 4 | 12.7 | 24 | 66 | 65.3 | 0.7 | 4 | 3 | |
| SFP205N-0400-04-01RA-H | 4 | 20.7 | 34 | 74 | 73.3 | 0.7 | 4 | 5 | |
| SFP208N-0400-04-01RA-H | 4 | 32.7 | 49 | 87 | 86.3 | 0.7 | 4 | 8 | |

注: ① 样本规格以外的需求 (特殊直径和长度比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 16

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内冷钻头 internal coolant design

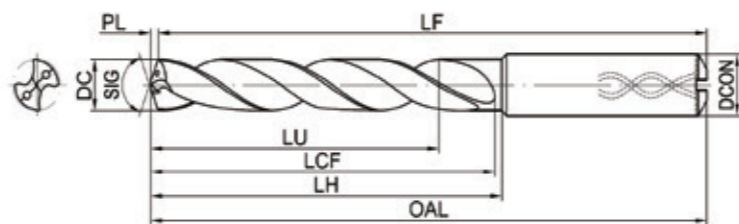
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFP203N-0530-06-01RA-H | 5.3 | 16.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205N-0530-06-01RA-H | 5.3 | 27.3 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203N-0540-06-01RA-H | 5.4 | 17 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205N-0540-06-01RA-H | 5.4 | 27.8 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP208N-0540-06-01RA-H | 5.4 | 44 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| SFP203N-0550-06-01RA-H | 5.5 | 17.4 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205N-0550-06-01RA-H | 5.5 | 28.4 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP208N-0550-06-01RA-H | 5.5 | 44.9 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| SFP205N-0555-06-01RA-H | 5.55 | 28.7 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203N-0556-06-01RA-H | 5.56 | 17.5 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205N-0556-06-01RA-H | 5.56 | 28.7 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP208N-0556-06-01RA-H | 5.56 | 45.3 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| SFP203N-0560-06-01RA-H | 5.6 | 17.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205N-0560-06-01RA-H | 5.6 | 28.9 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP208N-0560-06-01RA-H | 5.6 | 45.7 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| SFP203N-0570-06-01RA-H | 5.7 | 17.9 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205N-0570-06-01RA-H | 5.7 | 29.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP208N-0570-06-01RA-H | 5.7 | 46.5 | 56 | 94 | 93 | 1 | 6 | 8 | |
| SFP203N-0580-06-01RA-H | 5.8 | 18 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205N-0580-06-01RA-H | 5.8 | 29.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP208N-0580-06-01RA-H | 5.8 | 47.3 | 56 | 94 | 93 | 1 | 6 | 8 | |
| SFP203N-0590-06-01RA-H | 5.9 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205N-0590-06-01RA-H | 5.9 | 30.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP208N-0590-06-01RA-H | 5.9 | 47.4 | 56 | 94 | 93 | 1 | 6 | 8 | |
| SFP203N-0595-06-01RA-H | 5.95 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205N-0595-06-01RA-H | 5.95 | 30.7 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP203N-0600-06-01RA-H | 6 | 18.9 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205N-0600-06-01RA-H | 6 | 30.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP208N-0600-06-01RA-H | 6 | 48 | 56 | 94 | 93 | 1 | 6 | 8 | |
| SFP203N-0610-06-01RA-H | 6.1 | 19.3 | 28 | 66 | 65 | 1 | 8 | 3 | |
| SFP205N-0610-06-01RA-H | 6.1 | 31.5 | 44 | 82 | 81 | 1 | 8 | 5 | |
| SFP208N-0610-06-01RA-H | 6.1 | 49.8 | 67 | 106 | 105 | 1 | 8 | 8 | |
| SFP203N-0620-08-01RA-H | 6.2 | 19.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFP205N-0620-08-01RA-H | 6.2 | 32 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFP208N-0620-08-01RA-H | 6.2 | 50.6 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFP203N-0630-08-01RA-H | 6.3 | 19.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFP205N-0630-08-01RA-H | 6.3 | 32.5 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFP208N-0630-08-01RA-H | 6.3 | 51.4 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFP203N-0635-08-01RA-H | 6.35 | 20.1 | 34 | 79 | 78 | 1.1 | 8 | 3 | |
| SFP205N-0635-08-01RA-H | 6.35 | 32.8 | 53 | 91 | 90 | 1.1 | 8 | 5 | |
| SFP208N-0635-08-01RA-H | 6.35 | 51.8 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |

注: ① 样本规格以外的需求 (特殊直径和长度比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 16

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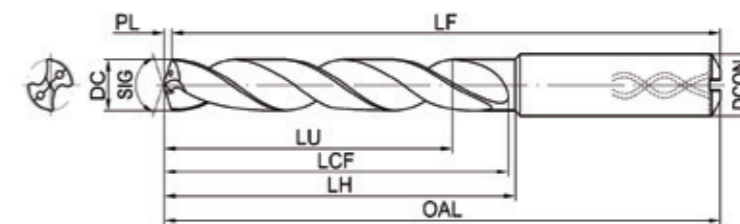
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| SFP203N-0760-08-01RA-H | 7.6 | 24 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP208N-0760-08-01RA-H | 7.6 | 62 | 72 | 110 | 108.7 | 1.3 | 8 | 8 |
| SFP203N-0770-08-01RA-H | 7.7 | 24.3 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205N-0770-08-01RA-H | 7.7 | 39.7 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP208N-0770-08-01RA-H | 7.7 | 62.8 | 72 | 110 | 108.7 | 1.3 | 8 | 8 |
| SFP203N-0780-08-01RA-H | 7.8 | 24.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205N-0780-08-01RA-H | 7.8 | 40.3 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP208N-0780-08-01RA-H | 7.8 | 63.7 | 72 | 110 | 108.7 | 1.3 | 8 | 8 |
| SFP203N-0790-08-01RA-H | 7.9 | 25 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205N-0790-08-01RA-H | 7.9 | 40.8 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP203N-0794-08-01RA-H | 7.94 | 25.1 | 41 | 79 | 77.6 | 1.4 | 8 | 3 |
| SFP205N-0794-08-01RA-H | 7.94 | 41 | 53 | 91 | 89.6 | 1.4 | 8 | 5 |
| SFP208N-0794-08-01RA-H | 7.94 | 64.8 | 72 | 110 | 108.6 | 1.4 | 8 | 8 |
| SFP203N-0800-08-01RA-H | 8 | 25.3 | 41 | 79 | 77.6 | 1.4 | 8 | 3 |
| SFP205N-0800-08-01RA-H | 8 | 41.3 | 53 | 91 | 89.6 | 1.4 | 8 | 5 |
| SFP207N-0800-08-01RA-H | 8 | 56 | 72 | 110 | 108.6 | 1.4 | 8 | 7 |
| SFP203N-0810-08-01RA-H | 8.1 | 25.6 | 41 | 79 | 77.6 | 1.4 | 10 | 3 |
| SFP205N-0810-08-01RA-H | 8.1 | 41.8 | 53 | 91 | 89.6 | 1.4 | 10 | 5 |
| SFP208N-0810-08-01RA-H | 8.1 | 66.1 | 80 | 122 | 120.6 | 1.4 | 10 | 8 |
| SFP205N-0815-10-01RA-H | 8.15 | 42.1 | 53 | 91 | 89.6 | 1.4 | 10 | 5 |
| SFP203N-0820-10-01RA-H | 8.2 | 25.9 | 47 | 89 | 87.6 | 1.4 | 10 | 3 |
| SFP205N-0820-10-01RA-H | 8.2 | 42.3 | 61 | 103 | 101.6 | 1.4 | 10 | 5 |
| SFP208N-0820-10-01RA-H | 8.2 | 66.9 | 80 | 122 | 120.6 | 1.4 | 10 | 8 |
| SFP203N-0830-10-01RA-H | 8.3 | 26.3 | 47 | 89 | 87.6 | 1.4 | 10 | 3 |
| SFP205N-0830-10-01RA-H | 8.3 | 42.9 | 61 | 103 | 101.6 | 1.4 | 10 | 5 |
| SFP208N-0830-10-01RA-H | 8.3 | 67.8 | 80 | 122 | 120.6 | 1.4 | 10 | 8 |
| SFP205N-0833-10-01RA-H | 8.33 | 43 | 61 | 103 | 101.6 | 1.4 | 10 | 5 |
| SFP203N-0840-10-01RA-H | 8.4 | 26.6 | 47 | 89 | 87.6 | 1.4 | 10 | 3 |
| SFP205N-0840-10-01RA-H | 8.4 | 43.4 | 61 | 103 | 101.6 | 1.4 | 10 | 5 |
| SFP208N-0840-10-01RA-H | 8.4 | 68.6 | 80 | 122 | 120.6 | 1.4 | 10 | 8 |
| SFP203N-0850-10-01RA-H | 8.5 | 26.9 | 47 | 89 | 87.6 | 1.4 | 10 | 3 |
| SFP205N-0850-10-01RA-H | 8.5 | 43.9 | 61 | 103 | 101.6 | 1.4 | 10 | 5 |
| SFP208N-0850-10-01RA-H | 8.5 | 69.4 | 80 | 122 | 120.6 | 1.4 | 10 | 8 |
| SFP203N-0860-10-01RA-H | 8.6 | 27.2 | 47 | 89 | 87.5 | 1.5 | 10 | 3 |
| SFP205N-0860-10-01RA-H | 8.6 | 44.4 | 61 | 103 | 101.5 | 1.5 | 10 | 5 |
| SFP208N-0860-10-01RA-H | 8.6 | 70.2 | 80 | 122 | 120.5 | 1.5 | 10 | 8 |
| SFP203N-0870-10-01RA-H | 8.7 | 27.5 | 47 | 89 | 87.5 | 1.5 | 10 | 3 |
| SFP205N-0870-10-01RA-H | 8.7 | 44.9 | 61 | 103 | 101.5 | 1.5 | 10 | 5 |
| SFP208N-0870-10-01RA-H | 8.7 | 71 | 80 | 122 | 120.5 | 1.5 | 10 | 8 |
| SFP203N-0873-10-01RA-H | 8.73 | 27.6 | 47 | 89 | 87.5 | 1.5 | 10 | 3 |

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内冷钻头 internal coolant design

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| 柄部直径公差 Shank diameter tolerance | h6 |
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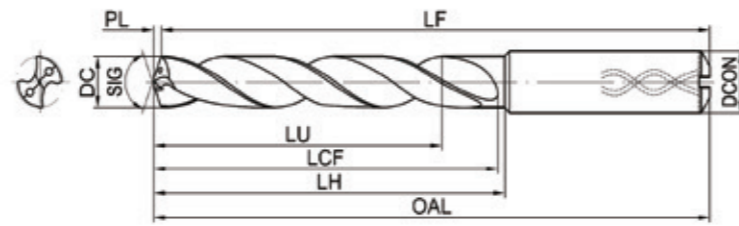
| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| SFP207N-0992-10-01RA-H | 9.92 | 69.4 | 80 | 122 | 120.3 | 1.7 | 10 | 7 |
| SFP203N-1000-10-01RA-H | 10 | 31.6 | 47 | 89 | 87.3 | 1.7 | 10 | 3 |
| SFP205N-1000-10-01RA-H | 10 | 50 | 61 | 103 | 101.3 | 1.7 | 10 | 5 |
| SFP207N-1000-10-01RA-H | 10 | 70 | 80 | 122 | 120.3 | 1.7 | 10 | 7 |
| SFP203N-1010-10-01RA-H | 10.1 | 31.9 | 47 | 89 | 87.3 | 1.7 | 12 | 3 |
| SFP205N-1010-10-01RA-H | 10.1 | 52.1 | 61 | 103 | 101.3 | 1.7 | 12 | 5 |
| SFP208N-1010-10-01RA-H | 10.1 | 82.4 | 96 | 141 | 139.3 | 1.7 | 12 | 8 |
| SFP203N-1020-12-01RA-H | 10.2 | 32.3 | 55 | 102 | 100.3 | 1.7 | 12 | 3 |
| SFP205N-1020-12-01RA-H | 10.2 | 52.7 | 71 | 118 | 116.3 | 1.7 | 12 | 5 |
| SFP208N-1020-12-01RA-H | 10.2 | 83.3 | 96 | 141 | 139.3 | 1.7 | 12 | 8 |
| SFP203N-1030-12-01RA-H | 10.3 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1030-12-01RA-H | 10.3 | 53.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP208N-1030-12-01RA-H | 10.3 | 84.1 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFP203N-1032-12-01RA-H | 10.32 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1032-12-01RA-H | 10.32 | 53.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203N-1040-12-01RA-H | 10.4 | 32.9 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1040-12-01RA-H | 10.4 | 53.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP208N-1040-12-01RA-H | 10.4 | 84.9 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFP203N-1050-12-01RA-H | 10.5 | 33.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1050-12-01RA-H | 10.5 | 54.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP208N-1050-12-01RA-H | 10.5 | 84 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFP203N-1060-12-01RA-H | 10.6 | 33.5 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1060-12-01RA-H | 10.6 | 54.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203N-1070-12-01RA-H | 10.7 | 33.8 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1070-12-01RA-H | 10.7 | 55.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP205N-1071-12-01RA-H | 10.71 | 55.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203N-1080-12-01RA-H | 10.8 | 34.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1080-12-01RA-H | 10.8 | 55.8 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP208N-1080-12-01RA-H | 10.8 | 86.4 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFP203N-1090-12-01RA-H | 10.9 | 34.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205N-1090-12-01RA-H | 10.9 | 56.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203N-1100-12-01RA-H | 11 | 34.8 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP205N-1100-12-01RA-H | 11 | 56.8 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP207N-1100-12-01RA-H | 11 | 77 | 96 | 141 | 139.1 | 1.9 | 12 | 7 |
| SFP203N-1110-12-01RA-H | 11.1 | 35.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP205N-1110-12-01RA-H | 11.1 | 57.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP207N-1110-12-01RA-H | 11.1 | 78 | 96 | 141 | 139.1 | 1.9 | 12 | 7 |
| SFP203N-1111-12-01RA-H | 11.11 | 35.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP207N-1111-12-01RA-H | 11.11 | 77.8 | 96 | 141 | 139.1 | 1.9 | 12 | 7 |
| SFP203N-1130-12-01RA-H | 11.3 | 35.7 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |

注：① 样本规格以外的需求（特殊直径和长径比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 16

公司简介
SFP 钻头
FPMH SFP
SEM 钻头
FPMH SEM
D200P 钻头
FPMH D200P
LFRA 钻头
FPMH LFRA
SFK 钻头
FPMH SFK

Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



内冷钻头 internal coolant design

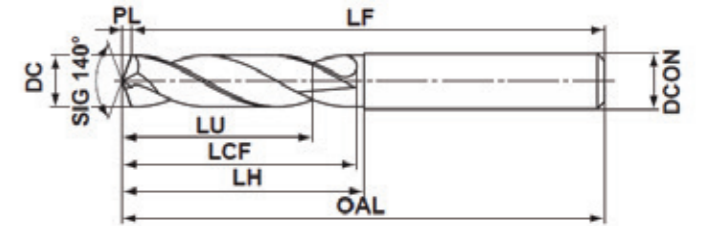
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFP203N-1300-14-01RA-H | 13 | 41.1 | 60 | 107 | 104.8 | 2.2 | 14 | 3 | |
| SFP205N-1300-14-01RA-H | 13 | 61.4 | 77 | 124 | 121.8 | 2.2 | 14 | 5 | |
| SFP207N-1300-14-01RA-H | 13 | 91 | 108 | 155 | 152.8 | 2.2 | 14 | 7 | |
| SFP203N-1310-14-01RA-H | 13.1 | 41.4 | 60 | 107 | 104.7 | 2.3 | 14 | 3 | |
| SFP205N-1310-14-01RA-H | 13.1 | 61.3 | 77 | 124 | 121.7 | 2.3 | 14 | 5 | |
| SFP207N-1310-14-01RA-H | 13.1 | 91.7 | 108 | 155 | 152.7 | 2.3 | 14 | 7 | |
| SFP205N-1325-14-01RA-H | 13.25 | 61.1 | 77 | 124 | 121.7 | 2.3 | 14 | 5 | |
| SFP203N-1350-14-01RA-H | 13.5 | 42.7 | 60 | 107 | 104.7 | 2.3 | 14 | 3 | |
| SFP205N-1350-14-01RA-H | 13.5 | 60.8 | 77 | 124 | 121.7 | 2.3 | 14 | 5 | |
| SFP207N-1350-14-01RA-H | 13.5 | 94.5 | 108 | 155 | 152.7 | 2.3 | 14 | 7 | |
| SFP205N-1375-14-01RA-H | 13.75 | 60.5 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| SFP203N-1380-14-01RA-H | 13.8 | 43.4 | 60 | 107 | 104.6 | 2.4 | 14 | 3 | |
| SFP205N-1380-14-01RA-H | 13.8 | 60.4 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| SFP207N-1380-14-01RA-H | 13.8 | 96.6 | 108 | 155 | 152.6 | 2.4 | 14 | 7 | |
| SFP205N-1389-14-01RA-H | 13.89 | 60.3 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| SFP203N-1400-14-01RA-H | 14 | 44.3 | 60 | 107 | 104.6 | 2.4 | 14 | 3 | |
| SFP205N-1400-14-01RA-H | 14 | 63 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| SFP207N-1400-14-01RA-H | 14 | 98 | 108 | 155 | 152.6 | 2.4 | 14 | 7 | |
| SFP203N-1425-16-01RA-H | 14.25 | 45 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| SFP205N-1425-16-01RA-H | 14.25 | 68.8 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| SFP203N-1429-16-01RA-H | 14.29 | 45.2 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| SFP205N-1429-16-01RA-H | 14.29 | 68.7 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| SFP203N-1450-16-01RA-H | 14.5 | 45.8 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| SFP205N-1450-16-01RA-H | 14.5 | 68.5 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| SFP203N-1469-16-01RA-H | 14.69 | 46.4 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| SFP203N-1480-16-01RA-H | 14.8 | 46.6 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| SFP205N-1480-16-01RA-H | 14.8 | 68.2 | 83 | 133 | 131 | 2.6 | 16 | 5 | |
| SFP203N-1500-16-01RA-H | 15 | 47.4 | 65 | 115 | 112.4 | 2.6 | 16 | 3 | |
| SFP205N-1500-16-01RA-H | 15 | 68 | 83 | 133 | 130.4 | 2.6 | 16 | 5 | |
| SFP203N-1550-16-01RA-H | 15.5 | 49 | 65 | 115 | 112.3 | 2.7 | 16 | 3 | |
| SFP205N-1550-16-01RA-H | 15.5 | 67.5 | 83 | 133 | 130.3 | 2.7 | 16 | 5 | |
| SFP203N-1580-16-01RA-H | 15.8 | 49.2 | 65 | 115 | 112.2 | 2.8 | 16 | 3 | |
| SFP205N-1580-16-01RA-H | 15.8 | 67.2 | 83 | 133 | 130.2 | 2.8 | 16 | 5 | |
| SFP203N-1587-16-01RA-H | 15.87 | 49.1 | 65 | 115 | 112.2 | 2.8 | 16 | 3 | |
| SFP203N-1600-16-01RA-H | 16 | 49 | 65 | 115 | 112.2 | 2.8 | 16 | 3 | |
| SFP205N-1600-16-01RA-H | 16 | 67 | 83 | 133 | 130.2 | 2.8 | 16 | 5 | |
| SFP207N-1600-16-01RA-H | 16 | 111 | 121 | 171 | 168.2 | 2.8 | 16 | 7 | |
| SFP203N-1650-18-01RA-H | 16.5 | 52.1 | 73 | 123 | 120.2 | 2.8 | 18 | 3 | |
| SFP205N-1650-18-01RA-H | 16.5 | 76.5 | 93 | 143 | 140.2 | 2.8 | 18 | 5 | |
| SFP203N-1680-18-01RA-H | 16.8 | 53 | 73 | 123 | 120.2 | 2.8 | 18 | 3 | |
| SFP205N-1680-18-01RA-H | 16.8 | 76.2 | 93 | 143 | 140.2 | 2.8 | 18 | 5 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 16

Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



外冷钻头 external coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

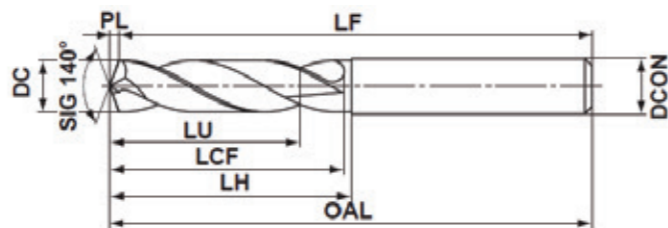
| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFP203W-0300-04-01RA-H | 3 | 9.5 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205W-0300-04-01RA-H | 3 | 15.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP203W-0310-04-01RA-H | 3.1 | 9.8 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205W-0310-04-01RA-H | 3.1 | 16 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP203W-0317-04-01RA-H | 3.17 | 10 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205W-0317-04-01RA-H | 3.17 | 16.4 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP203W-0320-04-01RA-H | 3.2 | 10.1 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFP205W-0320-04-01RA-H | 3.2 | 16.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFP203W-0330-04-01RA-H | 3.3 | 10.5 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205W-0330-04-01RA-H | 3.3 | 17.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP203W-0340-04-01RA-H | 3.4 | 10.8 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205W-0340-04-01RA-H | 3.4 | 17.6 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP203W-0350-04-01RA-H | 3.5 | 11.1 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205W-0350-04-01RA-H | 3.5 | 18.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP203W-0355-04-01RA-H | 3.55 | 11.2 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP203W-0360-04-01RA-H | 3.6 | 11.4 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205W-0360-04-01RA-H | 3.6 | 18.5 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP203W-0370-04-01RA-H | 3.7 | 11.7 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFP205W-0370-04-01RA-H | 3.7 | 19.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFP203W-0380-04-01RA-H | 3.8 | 12.1 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| SFP205W-0380-04-01RA-H | 3.8 | 19.5 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| SFP203W-0390-04-01RA-H | 3.9 | 12.5 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| SFP205W-0390-04-01RA-H | 3.9 | 20.2 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| SFP203W-0400-04-01RA-H | 4 | 12.7 | 24 | 66 | 65.3 | 0.7 | 4 | 3 | |
| SFP205W-0400-04-01RA-H | 4 | 20.7 | 34 | 74 | 73.3 | 0.7 | 4 | 5 | |
| SFP203W-0410-06-01RA-H | 4.1 | 13 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFP205W-0410-06-01RA-H | 4.1 | 21.2 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFP203W-0420-06-01RA-H | 4.2 | 13.3 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFP205W-0420-06-01RA-H | 4.2 | 21.7 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFP203W-0430-06-01RA-H | 4.3 | 13.7 | 24 | 66 | 65.2 | 0.7 | 6 | 3 | |
| SFP205W-0430-06-01RA-H | 4.3 | 22.3 | 34 | 74 | 73.2 | 0.7 | 6 | 5 | |
| SFP203W-0440-06-01RA-H | 4.4 | 14.1 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFP205W-0440-06-01RA-H | 4.4 | 22.8 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFP203W-0450-06-01RA-H | 4.5 | 14.3 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFP205W-0450-06-01RA-H | 4.5 | 23.3 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFP203W-0455-06-01RA-H | 4.55 | 14.5 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFP205W-0455-06-01RA-H | 4.55 | 23.5 | 36 | 74 | 73.2 | 0.8 | 6 | 5 | |
| SFP203W-0460-06-01RA-H | 4.6 | 14.6 | 24 | 66 | 65.2 | 0.8 | 6 | 3 | |
| SFP205W-0460-06-01RA-H | 4.6 | 23.8 | 34 | 74 | 73.2 | 0.8 | 6 | 5 | |
| SFP203W-0476-06-01RA-H | 4.76 | 15 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| SFP203W-0480-06-01RA-H | 4.8 | 15.2 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| SFP205W-0480-06-01RA-H | 4.8 | 24.8 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 16

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFP203W-0490-06-01RA-H | 4.9 | 15.5 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| SFP205W-0490-06-01RA-H | 4.9 | 25.3 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| SFP203W-0500-06-01RA-H | 5 | 15.8 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| SFP205W-0500-06-01RA-H | 5 | 25.8 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| SFP203W-0510-06-01RA-H | 5.1 | 16.1 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| SFP205W-0510-06-01RA-H | 5.1 | 26.3 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| SFP203W-0516-06-01RA-H | 5.16 | 16.6 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0516-06-01RA-H | 5.16 | 26.6 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| SFP203W-0520-06-01RA-H | 5.2 | 16.4 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0520-06-01RA-H | 5.2 | 26.8 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203W-0530-06-01RA-H | 5.3 | 16.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0530-06-01RA-H | 5.3 | 27.3 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203W-0540-06-01RA-H | 5.4 | 17 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0540-06-01RA-H | 5.4 | 27.8 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203W-0550-06-01RA-H | 5.5 | 17.4 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0550-06-01RA-H | 5.5 | 28.4 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203W-0555-06-01RA-H | 5.55 | 17.5 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0555-06-01RA-H | 5.55 | 28.7 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203W-0560-06-01RA-H | 5.6 | 17.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0560-06-01RA-H | 5.6 | 28.9 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| SFP203W-0570-06-01RA-H | 5.7 | 17.6 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| SFP205W-0570-06-01RA-H | 5.7 | 29.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP203W-0580-06-01RA-H | 5.8 | 17.6 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205W-0580-06-01RA-H | 5.8 | 29.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP203W-0590-06-01RA-H | 5.9 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205W-0590-06-01RA-H | 5.9 | 30.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP203W-0595-06-01RA-H | 5.95 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205W-0595-06-01RA-H | 5.95 | 30.7 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP203W-0600-06-01RA-H | 6 | 18.9 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFP205W-0600-06-01RA-H | 6 | 30.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFP203W-0610-06-01RA-H | 6.1 | 19.3 | 28 | 66 | 65 | 1 | 8 | 3 | |
| SFP205W-0610-06-01RA-H | 6.1 | 31.5 | 44 | 82 | 81 | 1 | 8 | 5 | |
| SFP203W-0620-08-01RA-H | 6.2 | 19.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFP205W-0620-08-01RA-H | 6.2 | 32 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFP203W-0630-08-01RA-H | 6.3 | 19.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFP205W-0630-08-01RA-H | 6.3 | 32.5 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFP203W-0635-08-01RA-H | 6.35 | 20.1 | 34 | 79 | 78 | 1.1 | 8 | 3 | |
| SFP205W-0635-08-01RA-H | 6.35 | 32.8 | 53 | 91 | 90 | 1.1 | 8 | 5 | |
| SFP203W-0640-08-01RA-H | 6.4 | 20.2 | 34 | 79 | 77.9 | 1.1 | 8 | | |

Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



外冷钻头 external coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

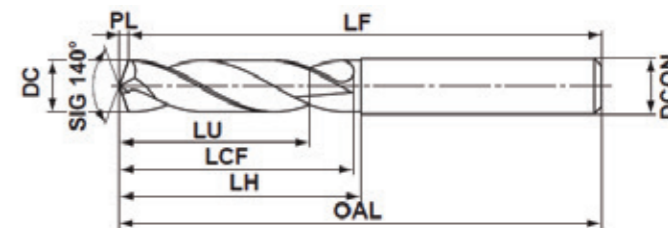
| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| SFP203W-0650-08-01RA-H | 6.5 | 20.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 |
| SFP205W-0650-08-01RA-H | 6.5 | 33.6 | 53 | 91 | 89.9 | 1.1 | 8 | 5 |
| SFP203W-0660-08-01RA-H | 6.6 | 20.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 |
| SFP205W-0660-08-01RA-H | 6.6 | 34.1 | 53 | 91 | 89.9 | 1.1 | 8 | 5 |
| SFP203W-0670-08-01RA-H | 6.7 | 21.2 | 34 | 79 | 77.9 | 1.1 | 8 | 3 |
| SFP205W-0670-08-01RA-H | 6.7 | 34.6 | 53 | 91 | 89.9 | 1.1 | 8 | 5 |
| SFP203W-0675-08-01RA-H | 6.75 | 21.3 | 34 | 79 | 77.9 | 1.1 | 8 | 3 |
| SFP205W-0675-08-01RA-H | 6.75 | 34.8 | 53 | 91 | 89.9 | 1.1 | 8 | 5 |
| SFP203W-0680-08-01RA-H | 6.8 | 21.5 | 34 | 79 | 77.9 | 1.1 | 8 | 3 |
| SFP205W-0680-08-01RA-H | 6.8 | 35.1 | 53 | 91 | 89.9 | 1.1 | 8 | 5 |
| SFP203W-0690-08-01RA-H | 6.9 | 21.8 | 34 | 79 | 77.8 | 1.2 | 8 | 3 |
| SFP205W-0690-08-01RA-H | 6.9 | 35.6 | 53 | 91 | 89.8 | 1.2 | 8 | 5 |
| SFP203W-0700-08-01RA-H | 7 | 22.1 | 34 | 79 | 77.8 | 1.2 | 8 | 3 |
| SFP205W-0700-08-01RA-H | 7 | 36.1 | 53 | 91 | 89.8 | 1.2 | 8 | 5 |
| SFP203W-0710-08-01RA-H | 7.1 | 22.4 | 41 | 79 | 77.8 | 1.2 | 8 | 3 |
| SFP205W-0710-08-01RA-H | 7.1 | 36.6 | 53 | 91 | 89.8 | 1.2 | 8 | 5 |
| SFP203W-0714-08-01RA-H | 7.14 | 22.6 | 41 | 79 | 77.8 | 1.2 | 8 | 3 |
| SFP205W-0714-08-01RA-H | 7.14 | 36.9 | 53 | 91 | 89.8 | 1.2 | 8 | 5 |
| SFP203W-0720-08-01RA-H | 7.2 | 22.8 | 41 | 79 | 77.8 | 1.2 | 8 | 3 |
| SFP205W-0720-08-01RA-H | 7.2 | 37.2 | 53 | 91 | 89.8 | 1.2 | 8 | 5 |
| SFP203W-0730-08-01RA-H | 7.3 | 23.1 | 41 | 79 | 77.8 | 1.2 | 8 | 3 |
| SFP205W-0730-08-01RA-H | 7.3 | 37.7 | 53 | 91 | 89.8 | 1.2 | 8 | 5 |
| SFP203W-0740-08-01RA-H | 7.4 | 23.4 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205W-0740-08-01RA-H | 7.4 | 38.2 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP203W-0750-08-01RA-H | 7.5 | 23.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205W-0750-08-01RA-H | 7.5 | 38.7 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP205W-0754-08-01RA-H | 7.54 | 38.9 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP203W-0760-08-01RA-H | 7.6 | 24 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205W-0760-08-01RA-H | 7.6 | 38.2 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP203W-0770-08-01RA-H | 7.7 | 24.3 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205W-0770-08-01RA-H | 7.7 | 39.7 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP203W-0780-08-01RA-H | 7.8 | 24.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205W-0780-08-01RA-H | 7.8 | 40.3 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP203W-0790-08-01RA-H | 7.9 | 25 | 41 | 79 | 77.7 | 1.3 | 8 | 3 |
| SFP205W-0790-08-01RA-H | 7.9 | 40.8 | 53 | 91 | 89.7 | 1.3 | 8 | 5 |
| SFP203W-0794-08-01RA-H | 7.94 | 25.1 | 41 | 79 | 77.6 | 1.4 | 8 | 3 |
| SFP205W-0794-08-01RA-H | 7.94 | 41 | 53 | 91 | 89.6 | 1.4 | 8 | 5 |
| SFP203W-0800-08-01RA-H | 8 | 25.3 | 41 | 79 | 77.6 | 1.4 | 8 | 3 |
| SFP205W-0800-08-01RA-H | 8 | 41.3 | 53 | 91 | 89.6 | 1.4 | 8 | 5 |
| SFP203W-0810-08-01RA-H | 8.1 | 25.6 | 41 | 79 | 77.6 | 1.4 | 10 | 3 |
| SFP205W-0810-08-01RA-H | 8.1 | 41.8 | 53 | 91 | 89.6 | 1.4 | 10 | 5 |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special

② 切削参数请参考本部分样本的末页
Cutting data, please go to page 16

Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



外冷钻头 external coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|------------------------|-------------------|------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| SFP203W-0990-10-01RA-H | 9.9 | 31.3 | 47 | 89 | 87.3 | 1.7 | 10 | 3 |
| SFP205W-0990-10-01RA-H | 9.9 | 48.1 | 61 | 103 | 101.3 | 1.7 | 10 | 5 |
| SFP203W-1000-10-01RA-H | 10 | 31.6 | 47 | 89 | 87.3 | 1.7 | 10 | 3 |
| SFP205W-1000-10-01RA-H | 10 | 50 | 61 | 103 | 101.3 | 1.7 | 10 | 5 |
| SFP203W-1010-10-01RA-H | 10.1 | 31.9 | 47 | 89 | 87.3 | 1.7 | 12 | 3 |
| SFP205W-1010-10-01RA-H | 10.1 | 52.1 | 61 | 103 | 101.3 | 1.7 | 12 | 5 |
| SFP203W-1020-12-01RA-H | 10.2 | 32.3 | 55 | 102 | 100.3 | 1.7 | 12 | 3 |
| SFP205W-1020-12-01RA-H | 10.2 | 52.7 | 71 | 118 | 116.3 | 1.7 | 12 | 5 |
| SFP203W-1030-12-01RA-H | 10.3 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1030-12-01RA-H | 10.3 | 53.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203W-1032-12-01RA-H | 10.32 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1032-12-01RA-H | 10.32 | 53.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203W-1040-12-01RA-H | 10.4 | 32.9 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1040-12-01RA-H | 10.4 | 53.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203W-1050-12-01RA-H | 10.5 | 33.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1050-12-01RA-H | 10.5 | 54.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203W-1060-12-01RA-H | 10.6 | 33.5 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1060-12-01RA-H | 10.6 | 54.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203W-1070-12-01RA-H | 10.7 | 33.8 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1070-12-01RA-H | 10.7 | 55.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP205W-1071-12-01RA-H | 10.71 | 55.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203W-1080-12-01RA-H | 10.8 | 34.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1080-12-01RA-H | 10.8 | 55.8 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFP203W-1090-12-01RA-H | 10.9 | 34.5 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFP205W-1090-12-01RA-H | 10.9 | 56.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203W-1100-12-01RA-H | 11 | 34.8 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP205W-1100-12-01RA-H | 11 | 56.8 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203W-1110-12-01RA-H | 11.1 | 35.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP205W-1110-12-01RA-H | 11.1 | 57.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203W-1111-12-01RA-H | 11.11 | 57.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP205W-1111-12-01RA-H | 11.11 | 57.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203W-1120-12-01RA-H | 11.2 | 35.4 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP205W-1120-12-01RA-H | 11.2 | 57.6 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203W-1130-12-01RA-H | 11.3 | 35.7 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFP205W-1130-12-01RA-H | 11.3 | 57.4 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203W-1140-12-01RA-H | 11.4 | 36.1 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFP205W-1140-12-01RA-H | 11.4 | 57.2 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFP203W-1150-12-01RA-H | 11.5 | 36.4 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFP205W-1150-12-01RA-H | 11.5 | 57.2 | 71 | 118 | 116 | 2 | 12 | 5 |
| SFP203W-1160-12-01RA-H | 11.6 | 36.7 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFP206W-1160-12-01RA-H | 11.6 | 57.1 | 71 | 118 | 116 | 2 | 12 | 5 |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special

② 切削参数请参考本部分样本的末页
Cutting data, please go to page 16

Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|----------------|---|--------------------------------------|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| M | 奥氏体不锈钢 Austenitic stainless steel | | | | | |
| | M1.0.C.UT | 铸造+未处理 Cast+untreated | 165 | 48 | 60 | 72 |
| | M1.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 48 | 60 | 72 |
| | M1.0.Z.PH | 沉淀硬化 PH-hardened | 350 | 44 | 55 | 66 |
| | M1.1.Z.AQ | 改善了可加工性 Machinability improved | 165 | 48 | 60 | 72 |
| | M1.2.Z.AQ | 易切削 Free cutting | 200 | 48 | 60 | 72 |
| | M1.3.C.AQ | 钛稳定化+铸造 Ti-stabilized+cast | 200 | 48 | 60 | 72 |
| | M1.3.Z.AQ | 钛稳定化 Ti-stabilized | 200 | 48 | 60 | 72 |
| | M1.4.Z.AQ | 高强度 High strength | 250 | 64 | 80 | 96 |
| | 优质奥氏体(Ni>20%)不锈钢 Super austenitic (Ni>20%) stainless steel | | | | | |
| | M2.0.C.AQ | 铸造+退火/淬火 Cast+annealed/quenched | 165 | 30 | 40 | 50 |
| | M2.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 30 | 40 | 50 |
| | 双相(奥氏体/铁素体)不锈钢 Duplex (austenitic/ferritic) stainless steel | | | | | |
| | M3.1.Z.AQ >60% | 铁素体 (N<0.10%) >60% ferrite (N<0.10%) | 250 | 40 | 50 | 70 |
| M3.2.Z.AQ <60% | 铁素体 (N≥0.10%) <60% ferrite (N≥0.10%) | 250 | 40 | 50 | 70 | |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.05 | 0.07 | 0.1 |
| 4 | 0.08 | 0.1 | 0.12 |
| 6 | 0.09 | 0.11 | 0.13 |
| 8 | 0.1 | 0.12 | 0.14 |
| 10 | 0.13 | 0.14 | 0.17 |
| 12 | 0.13 | 0.16 | 0.19 |
| 16 | 0.14 | 0.2 | 0.23 |
| 20 | 0.17 | 0.22 | 0.25 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料，需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally
- ④ 如果使用外冷加工，需要调节转速参数以确保切屑成型良好且排屑顺畅
Under external coolant condition, please adjust cutting speed to secure good chips formation and evacuation
- ⑤ 如果使用外冷加工，必要时降低每转进给以确保排屑顺畅
Under external coolant condition, please decrease feed per revolution to secure chips evacuation

Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----|---------------------|-----------------------------|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| K | 可锻铸铁 Malleable iron | | | | | |
| | K1.1.C.NS | 铁素体 珠光体 Ferritic Pearlitic | 200 | 80 | 100 | 120 |
| | 灰铸铁 (GCI) | | | | | |
| | K2.1.C.UT | 低抗拉强度 Low tensile strength | 180 | 100 | 120 | 140 |
| | K2.2.C.UT | 高抗拉强度 High tensile strength | 245 | 80 | 100 | 120 |
| | K2.3.C.UT | 高抗拉强度 High tensile strength | 175 | 100 | 120 | 140 |
| | 球墨铸铁 (NDI) | | | | | |
| | K3.1.C.UT | 铁素体 珠光体 Ferritic Pearlitic | 155 | 100 | 120 | 140 |
| | K3.2.C.UT | 珠光体 Perlitic | 215 | 80 | 100 | 120 |
| | K3.3.C.UT | 珠光体 Perlitic | 265 | 100 | 120 | 140 |
| | K3.5.C.UT | 珠光体 Perlitic | 190 | 100 | 120 | 140 |
| | K5.1.C.UT | ADI-等温淬火球墨铸铁 | 300 | 60 | 80 | 100 |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.08 | 0.1 | 0.12 |
| 4 | 0.1 | 0.12 | 0.14 |
| 6 | 0.12 | 0.16 | 0.18 |
| 8 | 0.16 | 0.2 | 0.24 |
| 10 | 0.2 | 0.25 | 0.3 |
| 12 | 0.22 | 0.28 | 0.33 |
| 16 | 0.25 | 0.32 | 0.38 |
| 20 | 0.26 | 0.34 | 0.4 |

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Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料，需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally
- ④ 如果使用外冷加工，需要调节转速参数以确保切屑成型良好且排屑顺畅
Under external coolant condition, please adjust cutting speed to secure good chips formation and evacuation
- ⑤ 如果使用外冷加工，必要时降低每转进给以确保排屑顺畅
Under external coolant condition, please decrease feed per revolution to secure chips evacuation

Drill SFP

通用高性能整体硬质合金钻头 Versatile high-performance solid carbide drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 Cutting speed VC(m/min) | 钻头直径 Drill diameter (mm) | | | |
|-----|------------------|----------------------------|--------------------------|-----------------------------------|--------------------------|-----------|-----------|-----------|
| | | | | | 3-6 | 6.01-10 | 10.01-14 | 14.01-20 |
| | | | | | 每转进给 Feed Fn(mm/r) * | | | |
| S | S1.0.U.AN | 淬硬高温合金 Hardened HRSA | 200 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S1.0.U.AG | | 280 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S2.0.Z.AN | 镍基合金 Nickel base HRSA | 250 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S2.0.Z.AG | | 350 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S2.0.Z.UT | | 275 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S2.0.Z.NS | | 320 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S3.0.Z.AN | 钴基合金 Cobalt base HRSA | 200 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S3.0.Z.AG | | 300 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S3.0.C.NS | | 320 | 15 - 25 | 0.06-0.12 | 0.08-0.14 | 0.10-0.14 | 0.12-0.16 |
| | S4.1.Z.UT | 钛合金 Ti alloy | 200 | 40 - 60 | 0.06-0.12 | 0.08-0.20 | 0.14-0.28 | 0.10-0.16 |
| | S4.2.Z.AN | | 320 | 40 - 60 | 0.06-0.12 | 0.08-0.20 | 0.14-0.28 | 0.16-0.30 |
| | S4.3.Z.AN | | 330 | 40 - 60 | 0.06-0.12 | 0.08-0.20 | 0.14-0.28 | 0.16-0.30 |
| | S4.3.Z.AG | | 375 | 40 - 60 | 0.06-0.12 | 0.08-0.20 | 0.14-0.28 | 0.16-0.30 |
| | S4.4.Z.AN | | 330 | 40 - 60 | 0.06-0.12 | 0.08-0.20 | 0.14-0.28 | 0.16-0.30 |
| | S4.4.Z.AG | | 410 | 40 - 60 | 0.06-0.12 | 0.08-0.20 | 0.14-0.28 | 0.16-0.30 |

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 Cutting speed VC(m/min) | 钻头直径 Drill diameter (mm) | | | |
|-----|------------------|----------------------------|--------------------------|-----------------------------------|--------------------------|-----------|-----------|----------|
| | | | | | 3-6 | 6.01-10 | 10.01-14 | 14.01-20 |
| | | | | | 每转进给 Feed Fn(mm/r) * | | | |
| H | H1.1.Z.HA | 超硬钢, 调质处理 Hardened HRSA | 50 | 16 - 24 | 0.05-0.12 | 0.08-0.14 | 0.10-0.16 | 0.12-0.2 |
| | H2.0.C.UT.4 | 冷硬铸铁 Chilled cast iron | 64 | 14 - 20 | 0.05-0.12 | 0.08-0.14 | 0.10-0.16 | 0.12-0.2 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
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Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料, 需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally
- ④ 如果使用外冷加工, 需要调节转速参数以确保切屑成型良好且排屑顺畅
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Drill SFP

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带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----------|--|---|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| | | | | 铝 Aluminium | | |
| N | N1.2.Z.UT | 工业纯铝 Commercial pure | 60 | 110 | 150 | 180 |
| | N1.2.Z.AG | 含硅铝合金 (硅含量≤1%) AlSi alloys, Si ≤ 1% | 100 | 110 | 150 | 180 |
| | N1.3.C.UT | 铸铝, 非时效 Cast, non-aging | 75 | 110 | 150 | 180 |
| | N1.3.C.UT | 铸铝加时效处理 Cast or cast and aged | 90 | 110 | 130 | 160 |
| | N1.4.C.NS | 含硅铸铝 (硅含量≥13%) AlSi cast alloys, Si ≥ 13% | 130 | 80 | 100 | 120 |
| | 铜基合金 Copper based alloys | | | | | |
| | N3.3.U.UT | 易切铜合金 (Pb>1%) Free cutting alloys | 110 | 70 | 90 | 110 |
| N3.1.U.UT | 非铅铜合金 (包括电解铜) Non-leaded copper alloys (incl. electrolytic copper) | 100 | 70 | 80 | 100 | |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.08 | 0.18 | 0.28 |
| 4 | 0.1 | 0.19 | 0.28 |
| 6 | 0.16 | 0.28 | 0.35 |
| 8 | 0.16 | 0.2 | 0.24 |
| 10 | 0.2 | 0.4 | 0.8 |
| 12 | 0.22 | 0.5 | 0.8 |
| 16 | 0.3 | 0.6 | 1 |
| 20 | 0.3 | 0.6 | 1 |

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 **通用**
Versatile solution

 **定制**
Customized solution

ISO材料组应用范围 ISO material groups

M



SFM产品介绍

SFM PRODUCT INTRODUCTION

不锈钢通用钻头 Versatile solid carbide drill for stainless steel

编号规则

ORDERING CODE

概述及应用领域

Overview & application areas

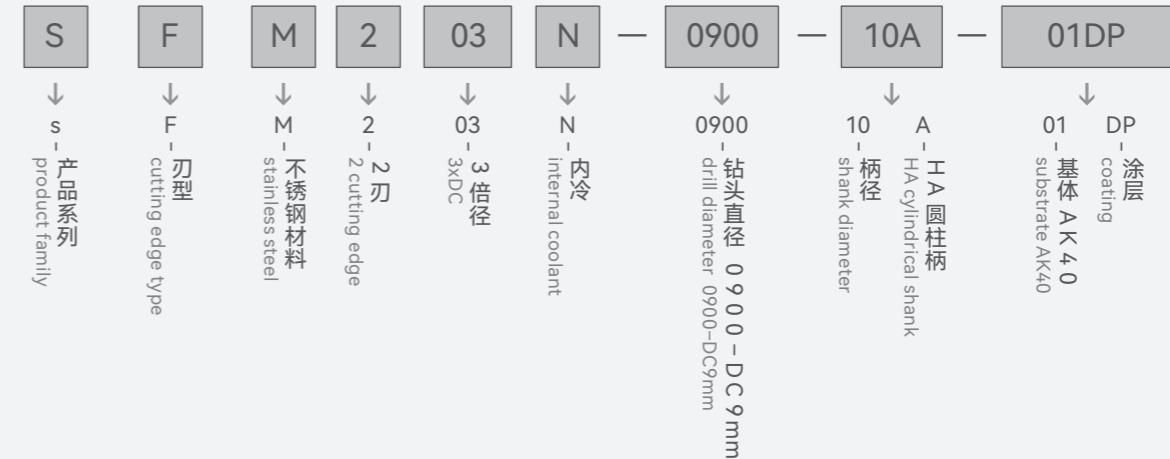
- 不锈钢材料通用加工
- 包括奥氏体、超级奥氏体、铁素体和双向不锈钢
- 可获孔径公差: IT8-9
- 产品直径范围: D3-D20mm
- 钻孔深度可达8倍径

- General purpose machining for stainless steel
- Including austenitic SS, super austenitic SS, ferritic SS, and duplex stainless steel
- Hole tolerance H8-H9
- Diameter range: 3.0-20.0 mm
- Drill length above 8xD

特性与益处

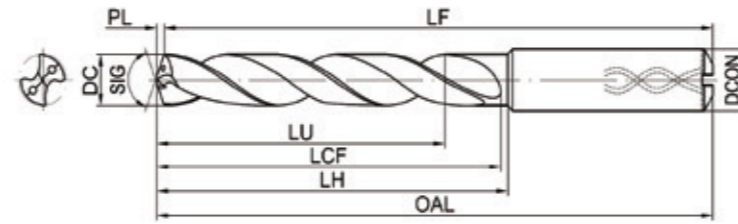
Features and benefits

-  **覆盖稳定工况和不稳定工况**
Cover both stable and unstable cutting conditions
-  **内冷设计**
Provide internal coolant solutions
-  **凹形切削刃降低切削阻力**
Curve cutting edge generates low cutting force
-  **可变主后角提高刃口强度**
Variant clearance angle which provide cutting edge reliability
-  **新型的容屑槽设计提高排屑能力**
Chips evacuation improvement thanks to chips flute new design
-  **先进的切削刃倒钝降低崩刃风险**
Advanced ER treatment applied on cutting edge, which reduce risk of cutting edge breakage



Drill SFM

不锈钢通用钻头 Versatile solid carbide drills for stainless steel



内冷钻头 internal coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

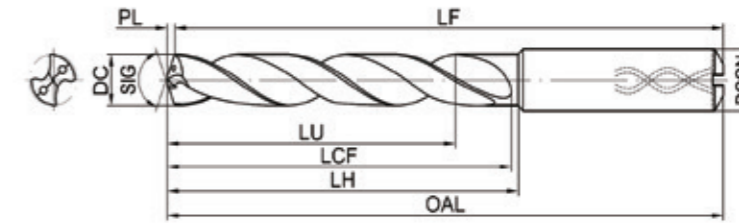
| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFM203N-0300-04A-01DP | 3 | 9.5 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFM205N-0300-04A-01DP | 3 | 15.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFM208N-0300-04A-01DP | 3 | 24.5 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFM203N-0310-04A-01DP | 3.1 | 9.8 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFM208N-0310-04A-01DP | 3.1 | 25.3 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFM205N-0318-04A-01DP | 3.18 | 16.4 | 28 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFM205N-0320-04A-01DP | 3.2 | 16.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFM203N-0330-04A-01DP | 3.3 | 10.5 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFM205N-0330-04A-01DP | 3.3 | 17.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFM208N-0330-04A-01DP | 3.3 | 27 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFM208N-0340-04A-01DP | 3.4 | 27 | 40 | 78 | 73.4 | 0.6 | 4 | 8 | |
| SFM203N-0350-04A-01DP | 3.5 | 11.1 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFM205N-0350-04A-01DP | 3.5 | 18.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFM208N-0350-04A-01DP | 3.5 | 27.3 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFM203N-0360-04A-01DP | 3.6 | 11.4 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFM205N-0370-04A-01DP | 3.7 | 19.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFM208N-0370-04A-01DP | 3.7 | 27.9 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFM203N-0380-04A-01DP | 3.8 | 12.1 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| SFM205N-0380-04A-01DP | 3.8 | 31.1 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| SFM208N-0380-04A-01DP | 3.8 | 31.1 | 49 | 87 | 86.4 | 0.6 | 4 | 8 | |
| SFM203N-0400-04A-01DP | 4 | 12.7 | 24 | 66 | 65.3 | 0.7 | 4 | 3 | |
| SFM205N-0400-04A-01DP | 4 | 20.7 | 34 | 74 | 73.3 | 0.7 | 4 | 5 | |
| SFM208N-0400-04A-01DP | 4 | 32.7 | 49 | 87 | 86.3 | 0.7 | 4 | 8 | |
| SFM203N-0420-06A-01DP | 4.2 | 13.3 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFM205N-0420-06A-01DP | 4.2 | 21.7 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFM208N-0420-06A-01DP | 4.2 | 34.3 | 49 | 87 | 86.3 | 0.7 | 6 | 8 | |
| SFM203N-0430-06A-01DP | 4.3 | 13.7 | 24 | 66 | 65.2 | 0.7 | 6 | 3 | |
| SFM205N-0430-06A-01DP | 4.3 | 22.3 | 34 | 74 | 73.2 | 0.7 | 6 | 5 | |
| SFM208N-0430-06A-01DP | 4.3 | 35.2 | 49 | 87 | 86.3 | 0.7 | 6 | 8 | |
| SFM203N-0437-06A-01DP | 4.37 | 13.8 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFM205N-0437-06A-01DP | 4.37 | 22.5 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFM203N-0440-06A-01DP | 4.4 | 14.1 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFM205N-0440-06A-01DP | 4.4 | 22.8 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFM208N-0440-06A-01DP | 4.4 | 36 | 49 | 87 | 86.3 | 0.7 | 6 | 8 | |
| SFM203N-0450-06A-01DP | 4.5 | 14.3 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFM205N-0450-06A-01DP | 4.5 | 23.3 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFM208N-0450-06A-01DP | 4.5 | 36.8 | 49 | 87 | 86.3 | 0.7 | 6 | 8 | |
| SFM205N-0460-06A-01DP | 4.6 | 23.8 | 34 | 74 | 73.2 | 0.8 | 6 | 5 | |
| SFM208N-0460-06A-01DP | 4.6 | 36.8 | 49 | 87 | 86.2 | 0.8 | 6 | 8 | |
| SFM205N-0470-06A-01DP | 4.7 | 24.3 | 34 | 74 | 73.2 | 0.8 | 6 | 5 | |
| SFM203N-0476-06A-01DP | 4.76 | 15 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |

注：① 样本规格以外的需求（特殊直径和长度比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special

② 切削参数请参考本部分样本的末页
Cutting data, please go to page 26

Drill SFM

不锈钢通用钻头 Versatile solid carbide drills for stainless steel



内冷钻头 internal coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

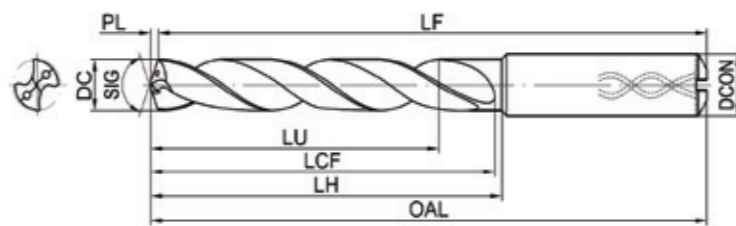
| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFM205N-0690-08A-01DP | 6.9 | 35.6 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| SFM208N-0690-08A-01DP | 6.9 | 55 | 67 | 106 | 104.8 | 1.2 | 8 | 8 | |
| SFM203N-0700-08A-01DP | 7 | 22.1 | 34 | 79 | 77.8 | 1.2 | 8 | 3 | |
| SFM205N-0700-08A-01DP | 7 | 36.1 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| SFM208N-0700-08A-01DP | 7 | 55 | 67 | 106 | 104.8 | 1.2 | 8 | 8 | |
| SFM208N-0710-08A-01DP | 7.1 | 57 | 72 | 110 | 108.8 | 1.2 | 8 | 8 | |
| SFM203N-0714-08A-01DP | 7.14 | 22.6 | 41 | 79 | 77.8 | 1.2 | 8 | 3 | |
| SFM208N-0714-08A-01DP | 7.14 | 58.3 | 72 | 110 | 108.8 | 1.2 | 8 | 8 | |
| SFM203N-0740-08A-01DP | 7.4 | 23.4 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| SFM203N-0750-08A-01DP | 7.5 | 23.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| SFM205N-0750-08A-01DP | 7.5 | 38.7 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| SFM203N-0780-08A-01DP | 7.8 | 24.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| SFM205N-0780-08A-01DP | 7.8 | 40.3 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| SFM208N-0780-08A-01DP | 7.8 | 63.7 | 72 | 110 | 108.7 | 1.3 | 8 | 8 | |
| SFM208N-0794-08A-01DP | 7.94 | 64.8 | 72 | 110 | 108.6 | 1.4 | 8 | 8 | |
| SFM203N-0800-08A-01DP | 8 | 25.3 | 41 | 79 | 77.6 | 1.4 | 8 | 3 | |
| SFM205N-0800-08A-01DP | 8 | 41.3 | 53 | 91 | 89.6 | 1.4 | 8 | 5 | |
| SFM207N-0800-08A-01DP | 8 | 56 | 72 | 110 | 108.6 | 1.4 | 8 | 7 | |
| SFM203N-0810-10A-01DP | 8.1 | 25.6 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| SFM208N-0810-10A-01DP | 8.1 | 66.1 | 80 | 122 | 120.6 | 1.4 | 10 | 8 | |
| SFM203N-0820-10A-01DP | 8.2 | 25.9 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| SFM205N-0820-10A-01DP | 8.2 | 42.3 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| SFM205N-0840-10A-01DP | 8.4 | 43.4 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| SFM203N-0850-10A-01DP | 8.5 | 26.9 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| SFM205N-0850-10A-01DP | 8.5 | 43.9 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| SFM208N-0850-10A-01DP | 8.5 | 69.4 | 80 | 122 | 120.6 | 1.4 | 10 | 8 | |
| SFM203N-0860-10A-01DP | 8.6 | 27.2 | 47 | 89 | 87.5 | 1.5 | 10 | 3 | |
| SFM205N-0860-10A-01DP | 8.6 | 44.4 | 61 | 103 | 101.5 | 1.5 | 10 | 5 | |
| SFM208N-0860-10A-01DP | 8.6 | 70.2 | 80 | 122 | 120.5 | 1.5 | 10 | 8 | |
| SFM203N-0870-10A-01DP | 8.7 | 27.5 | 47 | 89 | 87.5 | 1.5 | 10 | 3 | |
| SFM205N-0870-10A-01DP | 8.7 | 44.9 | 61 | 103 | 101.5 | 1.5 | 10 | 5 | |
| SFM208N-0870-10A-01DP | 8.7 | 71 | 80 | 122 | 120.5 | 1.5 | 10 | 8 | |
| SFM203N-0880-10A-01DP | 8.8 | 27.8 | 47 | 89 | 87.5 | 1.5 | 10 | 3 | |
| SFM208N-0880-10A-01DP | 8.8 | 71.8 | 80 | 122 | 120.5 | 1.5 | 10 | 8 | |
| SFM203N-0900-10A-01DP | 9 | 28.5 | 47 | 89 | 87.5 | 1.5 | 10 | 3 | |
| SFM205N-0900-10A-01DP | 9 | 46.5 | 61 | 103 | 101.5 | 1.5 | 10 | 5 | |
| SFM208N-0900-10A-01DP | 9 | 72 | 80 | 122 | 120.5 | 1.5 | 10 | 8 | |
| SFM207N-0910-10A-01DP | 9.1 | 63.7 | 80 | 122 | 120.5 | 1.5 | 10 | 7 | |
| SFM203N-0930-10A-01DP | 9.3 | 29.4 | 47 | 89 | 87.4 | 1.6 | 10 | 3 | |
| SFM205N-0930-10A-01DP | 9.3 | 48 | 61 | 103 | 101.4 | 1.6 | 10 | 5 | |
| SFM207N-0940-10A-01DP | 9.4 | 65.8 | 80 | 122 | 120.4 | 1.6 | 10 | 7 | |

注：① 样本规格以外的需求（特殊直径和长度比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special

② 切削参数请参考本部分样本的末页
Cutting data, please go to page 26

Drill SFM

不锈钢通用钻头 Versatile solid carbide drills for stainless steel



内冷钻头 internal coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFM203N-1280-14A-01DP | 12.8 | 40.5 | 60 | 107 | 104.8 | 2.2 | 14 | 3 | |
| SFM203N-1300-14A-01DP | 13 | 41.1 | 60 | 107 | 104.8 | 2.2 | 14 | 3 | |
| SFM205N-1300-14A-01DP | 13 | 61.4 | 77 | 124 | 121.8 | 2.2 | 14 | 5 | |
| SFM207N-1300-14A-01DP | 13 | 91 | 108 | 155 | 152.8 | 2.2 | 14 | 7 | |
| SFM205N-1350-14A-01DP | 13.5 | 60.8 | 77 | 124 | 121.7 | 2.3 | 14 | 5 | |
| SFM207N-1350-14A-01DP | 13.5 | 95 | 108 | 155 | 152.7 | 2.3 | 14 | 7 | |
| SFM203N-1400-14A-01DP | 14 | 44.3 | 60 | 107 | 104.6 | 2.4 | 14 | 3 | |
| SFM205N-1400-14A-01DP | 14 | 63 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| SFM207N-1400-14A-01DP | 14 | 98 | 108 | 155 | 152.6 | 2.4 | 14 | 7 | |
| SFM205N-1425-16A-01DP | 14.25 | 68.7 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| SFM207N-1425-16A-01DP | 14.25 | 101 | 121 | 171 | 168.5 | 2.5 | 16 | 7 | |
| SFM205N-1450-16A-01DP | 14.5 | 68.5 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| SFM203N-1468-16A-01DP | 14.68 | 46.4 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| SFM203N-1500-16A-01DP | 15 | 47.4 | 65 | 115 | 112.4 | 2.6 | 16 | 3 | |
| SFM205N-1500-16A-01DP | 15 | 68 | 83 | 133 | 130.4 | 2.6 | 16 | 5 | |
| SFM207N-1580-16A-01DP | 15.8 | 110.6 | 121 | 171 | 168.2 | 2.8 | 16 | 7 | |
| SFM203N-1600-16A-01DP | 16 | 49 | 65 | 115 | 112.2 | 2.8 | 16 | 3 | |
| SFM207N-1600-16A-01DP | 16 | 111 | 121 | 171 | 168.2 | 2.8 | 16 | 7 | |
| SFM203N-1650-18A-01DP | 16.5 | 52.1 | 73 | 123 | 120.2 | 2.8 | 18 | 3 | |
| SFM205N-1650-18A-01DP | 16.5 | 82.5 | 95 | 143 | 140.2 | 2.8 | 18 | 5 | |
| SFM203N-1680-18A-01DP | 16.8 | 53 | 73 | 123 | 120.2 | 2.8 | 18 | 3 | |
| SFM205N-1700-18A-01DP | 17 | 85 | 95 | 143 | 140.2 | 2.8 | 18 | 5 | |
| SFM203N-1750-18A-01DP | 17.5 | 55.2 | 73 | 123 | 120.2 | 2.8 | 18 | 3 | |
| SFM204N-1750-18A-01DP | 17.5 | 70 | 95 | 143 | 140.2 | 2.8 | 18 | 4 | |
| SFM204N-1780-18A-01DP | 17.8 | 71.2 | 95 | 143 | 140.1 | 2.9 | 18 | 4 | |
| SFM203N-1800-18A-01DP | 18 | 56.8 | 73 | 123 | 120.1 | 2.9 | 18 | 3 | |
| SFM204N-1800-18A-01DP | 18 | 72 | 95 | 143 | 140.1 | 2.9 | 18 | 4 | |
| SFM203N-1850-20A-01DP | 18.5 | 58.4 | 79 | 131 | 128.1 | 2.9 | 20 | 3 | |
| SFM203N-1880-20A-01DP | 18.8 | 59.3 | 79 | 131 | 128.1 | 2.9 | 20 | 3 | |
| SFM205N-1880-20A-01DP | 18.8 | 93 | 103 | 153 | 150.1 | 2.9 | 20 | 5 | |
| SFM203N-1900-20A-01DP | 19 | 59.9 | 79 | 131 | 128.1 | 2.9 | 20 | 3 | |
| SFM203N-2000-20A-01DP | 20 | 63 | 79 | 131 | 127.9 | 3.1 | 20 | 3 | |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|----------------------|-------------------|----|-----|-----|----|----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制 All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special ② 切削参数请参考本部分样本的末页 Cutting data, please go to page 26

Drill SFM

不锈钢通用钻头 Versatile solid carbide drills for stainless steel



带内冷设计 internal coolant


| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | | |
|-----------------------------------|---|---------------------------------|--------------------------|--------------------------------|-------------|------------|--|
| | | | | 最小 Min. | 起始 Start | 最大 Max. | |
| 奥氏体不锈钢 Austenitic stainless steel | | | | | | | |
| M | M1.0.C.UT | 铸造+未处理 Cast+untreated | 165 | 48 | 60 | 72 | |
| | M1.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 48 | 60 | 72 | |
| | M1.0.Z.PH | 沉淀硬化 PH-hardened | 350 | 44 | 55 | 66 | |
| | M1.1.Z.AQ | 改善了可加工性 Machinability improved | 165 | 48 | 60 | 72 | |
| | M1.2.Z.AQ | 易切削 Free cutting | 200 | 48 | 60 | 72 | |
| | M1.3.C.AQ | 钛稳定化+铸造 Ti-stabilized+cast | 200 | 48 | 60 | 72 | |
| | M1.3.Z.AQ | 钛稳定化 Ti-stabilized | 200 | 48 | 60 | 72 | |
| | M1.4.Z.AQ | 高强度 High strength | 250 | 48 | 60 | 72 | |
| | 优质奥氏体(Ni>20%)不锈钢 Super austenitic (Ni>20%) stainless steel | | | | | | |
| | M2.0.C.AQ | 铸造+退火/淬火 Cast+annealed/quenched | 165 | 44 | 50 | 68 | |
| | M2.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 44 | 50 | 68 | |
| | 双相(奥氏体/铁素体)不锈钢 Duplex (austenitic/ferritic) stainless steel | | | | | | |
| M3.1.Z.AQ >60% | 铁素体 (N<0.10%) >60% ferrite (N<0.10%) | 250 | 50 | 65 | 80 | | |
| M3.2.Z.AQ <60% | 铁素体 (N≥0.10%) <60% ferrite (N≥0.10%) | 250 | 50 | 65 | 80 | | |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.05 | 0.07 | 0.1 |
| 4 | 0.08 | 0.1 | 0.12 |
| 6 | 0.09 | 0.11 | 0.13 |
| 8 | 0.1 | 0.12 | 0.14 |
| 10 | 0.13 | 0.14 | 0.17 |
| 12 | 0.13 | 0.16 | 0.19 |
| 16 | 0.14 | 0.2 | 0.23 |
| 20 | 0.17 | 0.22 | 0.25 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的不锈钢例如沉淀硬化不锈钢, 需要按比例降低转速和进给
In case component material hardness increase such as PH stainless steel, please decrease cutting speed proportionally
- ④ 如果使用外冷加工, 需要调节转速参数以确保切屑成型良好且排屑顺畅
Under external coolant condition, please adjust cutting speed to secure good chips formation and evacuation
- ⑤ 如果使用外冷加工, 必要时降低每转进给以确保排屑顺畅
Under external coolant condition, please decrease feed per revolution to secure chips evacuation

公司介绍
SFM 钻头
SFM 钻头
DR200P 钻头
LFRA 钻头
SFK 钻头

 专用
Dedicated

 定制
Customized solution

ISO材料组应用范围 ISO material groups

P **M**



DR200P产品介绍

DR200P PRODUCT INTRODUCTION

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills

编号规则

ORDERING CODE

概述及应用领域

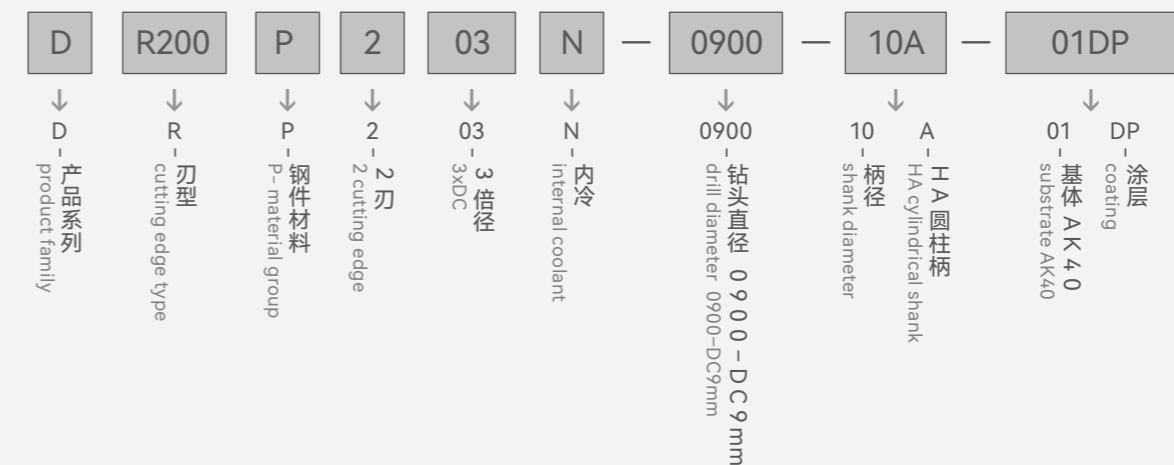
Overview & application areas

- 应用于专用机械、模具、汽车和能源行业
- 适用于ISO工件材料组P、M
- 可获孔径公差: IT8-9
- 产品直径范围: D3-D20mm
- 钻孔深度可达8倍径
- Solutions for industry segments such as general machining, D&M, auto and power generation
- Covers ISO-P/M material groups
- Hole tolerance H8-H9
- Diameter range: 3.0-20.0 mm
- Drill length above 8xD

特性与益处

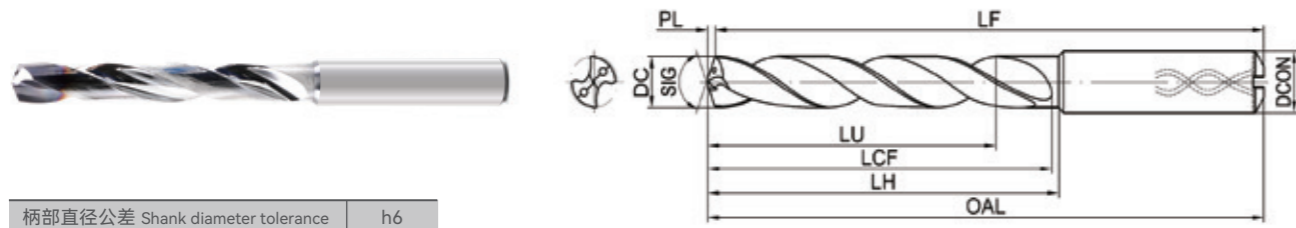
Features and benefits

-  覆盖稳定工况和不稳定工况
Cover both stable and unstable cutting conditions
-  内冷和外冷设计都具备
Provide both internal & external coolant solutions
-  月牙形切削刃降低切削阻力
Curve cutting edge generates low cutting force
-  特殊的横刃设计带来优异的定心能力
Good centering performance thanks to unique design on central cutting edge
-  容屑槽优化设计改善排屑效果
Good chips evacuation thanks to chips flute optimization design
-  超微晶粒基体配合纳米复合多层PVD涂层带来长寿命
extra fine grain size substrate together with multi layers PVD coating generates long tool life



Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

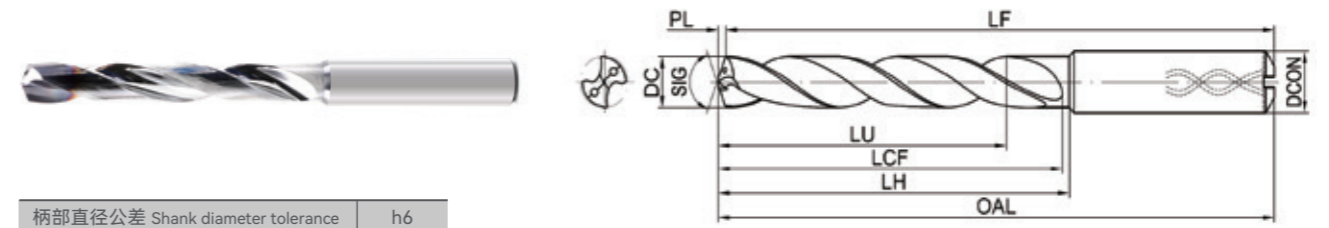
内冷钻头 internal coolant design

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR | ULDR |
|--------------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | | |
| DR200P203N-0300-04A-01DP | 3 | 9.5 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205N-0300-04A-01DP | 3 | 15.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P208N-0300-04A-01DP | 3 | 24.5 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| DR200P203N-0310-04A-01DP | 3.1 | 9.8 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205N-0310-04A-01DP | 3.1 | 16 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P208N-0310-04A-01DP | 3.1 | 25.3 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| DR200P203N-0317-04A-01DP | 3.17 | 10 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205N-0317-04A-01DP | 3.17 | 16.4 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P208N-0317-04A-01DP | 3.17 | 25.9 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| DR200P203N-0320-04A-01DP | 3.2 | 10.1 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205N-0320-04A-01DP | 3.2 | 16.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P208N-0320-04A-01DP | 3.2 | 26.1 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| DR200P203N-0330-04A-01DP | 3.3 | 10.5 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205N-0330-04A-01DP | 3.3 | 17.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P208N-0330-04A-01DP | 3.3 | 27 | 40 | 78 | 77.5 | 0.6 | 4 | 8 | |
| DR200P203N-0340-04A-01DP | 3.4 | 10.8 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205N-0340-04A-01DP | 3.4 | 17.6 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P208N-0340-04A-01DP | 3.4 | 27.5 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| DR200P208N-0345-04A-01DP | 3.45 | 27.4 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| DR200P203N-0350-04A-01DP | 3.5 | 11.1 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205N-0350-04A-01DP | 3.5 | 18.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P208N-0350-04A-01DP | 3.5 | 27.3 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| DR200P203N-0355-04A-01DP | 3.55 | 11.2 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P208N-0357-04A-01DP | 3.57 | 27.1 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| DR200P203N-0360-04A-01DP | 3.6 | 11.4 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205N-0360-04A-01DP | 3.6 | 18.5 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P208N-0360-04A-01DP | 3.6 | 27.1 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| DR200P203N-0370-04A-01DP | 3.7 | 11.7 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205N-0370-04A-01DP | 3.7 | 19.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P208N-0370-04A-01DP | 3.7 | 27.9 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| DR200P203N-0380-04A-01DP | 3.8 | 12.1 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| DR200P205N-0380-04A-01DP | 3.8 | 31.1 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| DR200P208N-0380-04A-01DP | 3.8 | 31.1 | 49 | 87 | 86.4 | 0.6 | 4 | 8 | |
| DR200P203N-0390-04A-01DP | 3.9 | 12.5 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| DR200P205N-0390-04A-01DP | 3.9 | 20.2 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| DR200P208N-0390-04A-01DP | 3.9 | 31.9 | 49 | 87 | 86.4 | 0.6 | 4 | 8 | |
| DR200P208N-0397-04A-01DP | 3.97 | 32.4 | 49 | 87 | 86.3 | 0.7 | 4 | 8 | |
| DR200P203N-0400-04A-01DP | 4 | 12.7 | 24 | 66 | 65.3 | 0.7 | 4 | 3 | |
| DR200P205N-0400-04A-01DP | 4 | 20.7 | 34 | 74 | 73.3 | 0.7 | 4 | 5 | |
| DR200P208N-0400-04A-01DP | 4 | 32.7 | 49 | 87 | 86.3 | 0.7 | 4 | 8 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

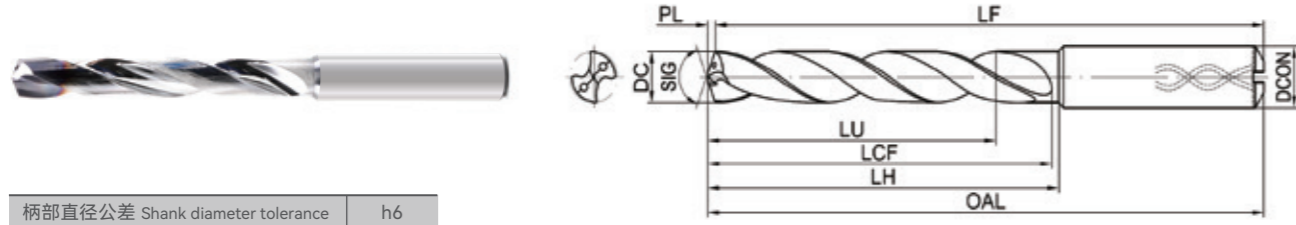
内冷钻头 internal coolant design

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR | ULDR |
|--------------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | | |
| DR200P203N-0530-06A-01DP | 5.3 | 16.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205N-0530-06A-01DP | 5.3 | 27.3 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P203N-0540-06A-01DP | 5.4 | 17 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205N-0540-06A-01DP | 5.4 | 27.8 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P208N-0540-06A-01DP | 5.4 | 44 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| DR200P203N-0550-06A-01DP | 5.5 | 17.4 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205N-0550-06A-01DP | 5.5 | 28.4 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P208N-0550-06A-01DP | 5.5 | 44.9 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| DR200P205N-0555-06A-01DP | 5.55 | 28.7 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P203N-0556-06A-01DP | 5.56 | 17.5 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205N-0556-06A-01DP | 5.56 | 28.7 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P208N-0556-06A-01DP | 5.56 | 45.3 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| DR200P203N-0560-06A-01DP | 5.6 | 17.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205N-0560-06A-01DP | 5.6 | 28.9 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P208N-0560-06A-01DP | 5.6 | 45.7 | 56 | 94 | 93.1 | 0.9 | 6 | 8 | |
| DR200P205N-0570-06A-01DP | 5.7 | 29.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P208N-0570-06A-01DP | 5.7 | 46.5 | 56 | 94 | 93 | 1 | 6 | 8 | |
| DR200P203N-0580-06A-01DP | 5.8 | 17.6 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205N-0580-06A-01DP | 5.8 | 29.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P208N-0580-06A-01DP | 5.8 | 47.3 | 56 | 94 | 93 | 1 | 6 | 8 | |
| DR200P203N-0590-06A-01DP | 5.9 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205N-0590-06A-01DP | 5.9 | 30.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P208N-0590-06A-01DP | 5.9 | 47.4 | 56 | 94 | 93 | 1 | 6 | 8 | |
| DR200P203N-0595-06A-01DP | 5.95 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205N-0595-06A-01DP | 5.95 | 30.7 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P203N-0600-06A-01DP | 6 | 18.9 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205N-0600-06A-01DP | 6 | 30.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P208N-0600-06A-01DP | 6 | 48 | 56 | 94 | 93 | 1 | 6 | 8 | |
| DR200P203N-0610-08A-01DP | 6.1 | 19.3 | 34 | 79 | 78 | 1 | 8 | 3 | |
| DR200P205N-0610-08A-01DP | 6.1 | 31.5 | 53 | 91 | 90 | 1 | 8 | 5 | |
| DR200P208N-0610-08A-01DP | 6.1 | 49.8 | 67 | 106 | 105 | 1 | 8 | 8 | |
| DR200P203N-0620-08A-01DP | 6.2 | 19.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205N-0620-08A-01DP | 6.2 | 32 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P208N-0620-08A-01DP | 6.2 | 50.6 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| DR200P203N-0630-08A-01DP | 6.3 | 19.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205N-0630-08A-01DP | 6.3 | 32.5 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P208N-0630-08A-01DP | 6.3 | 51.4 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| DR200P203N-0635-08A-01DP | 6.35 | 20.1 | 34 | 79 | 78 | 1.1 | 8 | 3 | |
| DR200P205N-0635-08A-01DP | 6.35 | 32.8 | 53 | 91 | 90 | 1.1 | 8 | 5 | |
| DR200P208N-0635-08A-01DP | 6.35 | 51.8 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



内冷钻头 internal coolant design

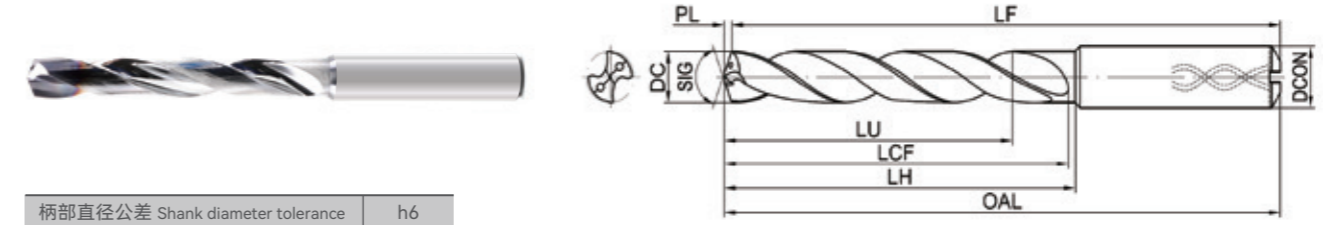
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|--------------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| DR200P203N-0760-08A-01DP | 7.6 | 24 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P208N-0760-08A-01DP | 7.6 | 62 | 72 | 110 | 108.7 | 1.3 | 8 | 8 | |
| DR200P203N-0770-08A-01DP | 7.7 | 24.3 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205N-0770-08A-01DP | 7.7 | 39.7 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P208N-0770-08A-01DP | 7.7 | 61.6 | 72 | 110 | 108.7 | 1.3 | 8 | 8 | |
| DR200P203N-0780-08A-01DP | 7.8 | 24.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205N-0780-08A-01DP | 7.8 | 40.3 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P208N-0780-08A-01DP | 7.8 | 63.7 | 72 | 110 | 108.7 | 1.3 | 8 | 8 | |
| DR200P203N-0790-08A-01DP | 7.9 | 25 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205N-0790-08A-01DP | 7.9 | 40.8 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P203N-0794-08A-01DP | 7.94 | 25.1 | 41 | 79 | 77.6 | 1.4 | 8 | 3 | |
| DR200P205N-0794-08A-01DP | 7.94 | 41 | 53 | 91 | 89.6 | 1.4 | 8 | 5 | |
| DR200P208N-0794-08A-01DP | 7.94 | 63.5 | 72 | 110 | 108.6 | 1.4 | 8 | 8 | |
| DR200P203N-0800-08A-01DP | 8 | 25.3 | 41 | 79 | 77.6 | 1.4 | 8 | 3 | |
| DR200P205N-0800-08A-01DP | 8 | 41.3 | 53 | 91 | 89.6 | 1.4 | 8 | 5 | |
| DR200P207N-0800-08A-01DP | 8 | 56 | 72 | 110 | 108.6 | 1.4 | 8 | 7 | |
| DR200P203N-0810-10A-01DP | 8.1 | 25.6 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| DR200P205N-0810-10A-01DP | 8.1 | 41.8 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P208N-0810-10A-01DP | 8.1 | 66.1 | 80 | 122 | 120.6 | 1.4 | 10 | 8 | |
| DR200P205N-0815-10A-01DP | 8.15 | 42.1 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P203N-0820-10A-01DP | 8.2 | 25.9 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| DR200P205N-0820-10A-01DP | 8.2 | 42.3 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P208N-0820-10A-01DP | 8.2 | 66.9 | 80 | 122 | 120.6 | 1.4 | 10 | 8 | |
| DR200P203N-0830-10A-01DP | 8.3 | 26.3 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| DR200P205N-0830-10A-01DP | 8.3 | 42.9 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P208N-0830-10A-01DP | 8.3 | 67.8 | 80 | 122 | 120.6 | 1.4 | 10 | 8 | |
| DR200P205N-0833-10A-01DP | 8.33 | 43 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P203N-0840-10A-01DP | 8.4 | 26.6 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| DR200P205N-0840-10A-01DP | 8.4 | 43.4 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P208N-0840-10A-01DP | 8.4 | 68.6 | 80 | 122 | 120.6 | 1.4 | 10 | 8 | |
| DR200P203N-0850-10A-01DP | 8.5 | 26.9 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| DR200P205N-0850-10A-01DP | 8.5 | 43.9 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P208N-0850-10A-01DP | 8.5 | 69.4 | 80 | 122 | 120.6 | 1.4 | 10 | 8 | |
| DR200P203N-0860-10A-01DP | 8.6 | 27.2 | 47 | 89 | 87.5 | 1.5 | 10 | 3 | |
| DR200P205N-0860-10A-01DP | 8.6 | 44.4 | 61 | 103 | 101.5 | 1.5 | 10 | 5 | |
| DR200P208N-0860-10A-01DP | 8.6 | 70.2 | 80 | 122 | 120.5 | 1.5 | 10 | 8 | |
| DR200P203N-0870-10A-01DP | 8.7 | 27.5 | 47 | 89 | 87.5 | 1.5 | 10 | 3 | |
| DR200P205N-0870-10A-01DP | 8.7 | 44.9 | 61 | 103 | 101.5 | 1.5 | 10 | 5 | |
| DR200P208N-0870-10A-01DP | 8.7 | 71 | 80 | 122 | 120.5 | 1.5 | 10 | 8 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



内冷钻头 internal coolant design

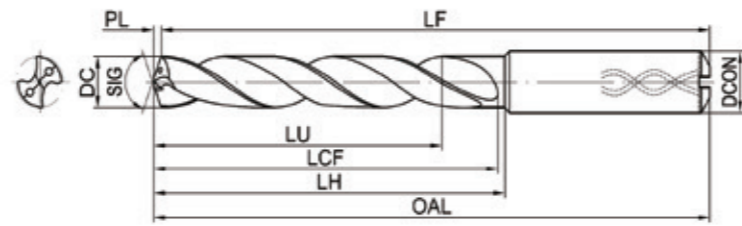
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|--------------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| DR200P207N-0992-10A-01DP | 9.92 | 69.4 | 80 | 122 | 120 | 1.7 | 10 | 7 | |
| DR200P203N-1000-10A-01DP | 10 | 31.6 | 47 | 89 | 87.3 | 1.7 | 10 | 3 | |
| DR200P205N-1000-10A-01DP | 10 | 50 | 61 | 103 | 101.3 | 1.7 | 10 | 5 | |
| DR200P207N-1000-10A-01DP | 10 | 70 | 80 | 122 | 120.3 | 1.7 | 10 | 7 | |
| DR200P203N-1010-12A-01DP | 10.1 | 31.9 | 55 | 102 | 100.3 | 1.7 | 12 | 3 | |
| DR200P205N-1010-12A-01DP | 10.1 | 52.1 | 71 | 118 | 116.3 | 1.7 | 12 | 5 | |
| DR200P208N-1010-12A-01DP | 10.1 | 82.4 | 96 | 141 | 139.3 | 1.7 | 12 | 8 | |
| DR200P203N-1020-12A-01DP | 10.2 | 32.3 | 55 | 102 | 100.3 | 1.7 | 12 | 3 | |
| DR200P205N-1020-12A-01DP | 10.2 | 52.7 | 71 | 118 | 116.3 | 1.7 | 12 | 5 | |
| DR200P208N-1020-12A-01DP | 10.2 | 83.3 | 96 | 141 | 139.3 | 1.7 | 12 | 8 | |
| DR200P203N-1030-12A-01DP | 10.3 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205N-1030-12A-01DP | 10.3 | 53.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P208N-1030-12A-01DP | 10.3 | 82.4 | 96 | 141 | 139.2 | 1.8 | 12 | 8 | |
| DR200P203N-1032-12A-01DP | 10.32 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205N-1032-12A-01DP | 10.32 | 53.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203N-1040-12A-01DP | 10.4 | 32.9 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205N-1040-12A-01DP | 10.4 | 53.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P208N-1040-12A-01DP | 10.4 | 84.9 | 96 | 141 | 139.2 | 1.8 | 12 | 8 | |
| DR200P203N-1050-12A-01DP | 10.5 | 33.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205N-1050-12A-01DP | 10.5 | 54.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P208N-1050-12A-01DP | 10.5 | 84 | 96 | 141 | 139.2 | 1.8 | 12 | 8 | |
| DR200P205N-1060-12A-01DP | 10.6 | 54.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203N-1070-12A-01DP | 10.7 | 33.8 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205N-1070-12A-01DP | 10.7 | 55.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P205N-1071-12A-01DP | 10.71 | 55.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203N-1080-12A-01DP | 10.8 | 34.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205N-1080-12A-01DP | 10.8 | 55.8 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P208N-1080-12A-01DP | 10.8 | 86.4 | 96 | 141 | 139.2 | 1.8 | 12 | 8 | |
| DR200P205N-1090-12A-01DP | 10.9 | 56.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P203N-1100-12A-01DP | 11 | 34.8 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P205N-1100-12A-01DP | 11 | 56.8 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P207N-1100-12A-01DP | 11 | 77 | 96 | 141 | 139.1 | 1.9 | 12 | 7 | |
| DR200P203N-1110-12A-01DP | 11.1 | 35.1 | 55 | 102 | 100 | 1.9 | 12 | 3 | |
| DR200P205N-1110-12A-01DP | 11.1 | 57.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P207N-1110-12A-01DP | 11.1 | 78 | 96 | 141 | 139.1 | 1.9 | 12 | 7 | |
| DR200P203N-1111-12A-01DP | 11.11 | 35.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P207N-1111-12A-01DP | 11.11 | 77.8 | 96 | 141 | 139.1 | 1.9 | 12 | 7 | |
| DR200P203N-1120-12A-01DP | 11.2 | 35.4 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P205N-1120-12A-01DP | 11.2 | 57.6 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P207N-1120-12A-01DP | 11.2 | 78.4 | 96 | 141 | 139.1 | 1.9 | 12 | 7 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
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Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



内冷钻头 internal coolant design

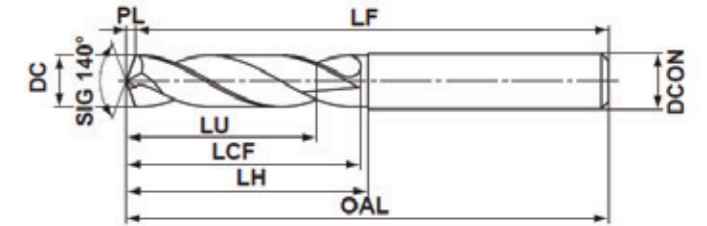
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|--------------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| DR200P203N-1310-14A-01DP | 13.1 | 41.4 | 60 | 107 | 105 | 2.3 | 14 | 3 | |
| DR200P205N-1310-14A-01DP | 13.1 | 61.3 | 77 | 124 | 121.7 | 2.3 | 14 | 5 | |
| DR200P207N-1310-14A-01DP | 13.1 | 91.7 | 108 | 155 | 152.7 | 2.3 | 14 | 7 | |
| DR200P205N-1325-14A-01DP | 13.25 | 61.1 | 77 | 124 | 121.7 | 2.3 | 14 | 5 | |
| DR200P203N-1350-14A-01DP | 13.5 | 42.7 | 60 | 107 | 104.7 | 2.3 | 14 | 3 | |
| DR200P205N-1350-14A-01DP | 13.5 | 60.8 | 77 | 124 | 121.7 | 2.3 | 14 | 5 | |
| DR200P207N-1350-14A-01DP | 13.5 | 94.5 | 108 | 155 | 152.7 | 2.3 | 14 | 7 | |
| DR200P205N-1375-14A-01DP | 13.75 | 60.5 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| DR200P203N-1380-14A-01DP | 13.8 | 43.4 | 60 | 107 | 104.6 | 2.4 | 14 | 3 | |
| DR200P205N-1380-14A-01DP | 13.8 | 60.4 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| DR200P207N-1380-14A-01DP | 13.8 | 96.6 | 108 | 155 | 152.6 | 2.4 | 14 | 7 | |
| DR200P205N-1389-14A-01DP | 13.89 | 60.3 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| DR200P203N-1400-14A-01DP | 14 | 44.3 | 60 | 107 | 104.6 | 2.4 | 14 | 3 | |
| DR200P205N-1400-14A-01DP | 14 | 63 | 77 | 124 | 121.6 | 2.4 | 14 | 5 | |
| DR200P207N-1400-14A-01DP | 14 | 98 | 108 | 155 | 152.6 | 2.4 | 14 | 7 | |
| DR200P203N-1425-16A-01DP | 14.25 | 45 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| DR200P205N-1425-16A-01DP | 14.25 | 68.8 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| DR200P203N-1429-16A-01DP | 14.29 | 45.2 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| DR200P205N-1429-16A-01DP | 14.29 | 68.7 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| DR200P203N-1450-16A-01DP | 14.5 | 45.8 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| DR200P205N-1450-16A-01DP | 14.5 | 68.5 | 83 | 133 | 130.5 | 2.5 | 16 | 5 | |
| DR200P203N-1469-16A-01DP | 14.69 | 46.4 | 65 | 115 | 112.5 | 2.5 | 16 | 3 | |
| DR200P205N-1480-16A-01DP | 14.8 | 68.2 | 83 | 133 | 130.4 | 2.6 | 16 | 5 | |
| DR200P203N-1500-16A-01DP | 15 | 47.4 | 65 | 115 | 112.4 | 2.6 | 16 | 3 | |
| DR200P205N-1500-16A-01DP | 15 | 68 | 83 | 133 | 130.4 | 2.6 | 16 | 5 | |
| DR200P203N-1550-16A-01DP | 15.5 | 49 | 65 | 115 | 112.3 | 2.7 | 16 | 3 | |
| DR200P205N-1550-16A-01DP | 15.5 | 67.5 | 83 | 133 | 130.3 | 2.7 | 16 | 5 | |
| DR200P203N-1580-16A-01DP | 15.8 | 49.2 | 65 | 115 | 112.2 | 2.8 | 16 | 3 | |
| DR200P205N-1580-16A-01DP | 15.8 | 67.2 | 83 | 133 | 130.2 | 2.8 | 16 | 5 | |
| DR200P203N-1587-16A-01DP | 15.87 | 49.1 | 65 | 115 | 112.2 | 2.8 | 16 | 3 | |
| DR200P203N-1600-16A-01DP | 16 | 49 | 65 | 115 | 112.2 | 2.8 | 16 | 3 | |
| DR200P205N-1600-16A-01DP | 16 | 67 | 83 | 133 | 130.2 | 2.8 | 16 | 5 | |
| DR200P207N-1600-16A-01DP | 16 | 111 | 121 | 171 | 168.2 | 2.8 | 16 | 7 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



外冷钻头 external coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|--------------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| DR200P203W-0300-04A-01DP | 3 | 9.5 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205W-0300-04A-01DP | 3 | 15.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P203W-0310-04A-01DP | 3.1 | 9.8 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205W-0310-04A-01DP | 3.1 | 16 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P203W-0317-04A-01DP | 3.17 | 10 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205W-0317-04A-01DP | 3.17 | 16.4 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P203W-0320-04A-01DP | 3.2 | 10.1 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| DR200P205W-0320-04A-01DP | 3.2 | 16.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| DR200P203W-0330-04A-01DP | 3.3 | 10.5 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205W-0330-04A-01DP | 3.3 | 17.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P203W-0340-04A-01DP | 3.4 | 10.8 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205W-0340-04A-01DP | 3.4 | 17.6 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P203W-0350-04A-01DP | 3.5 | 11.1 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205W-0350-04A-01DP | 3.5 | 18.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P203W-0355-04A-01DP | 3.55 | 11.2 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P203W-0360-04A-01DP | 3.6 | 11.4 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205W-0360-04A-01DP | 3.6 | 18.5 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P203W-0370-04A-01DP | 3.7 | 11.7 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| DR200P205W-0370-04A-01DP | 3.7 | 19.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| DR200P203W-0380-04A-01DP | 3.8 | 12.1 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| DR200P203W-0390-04A-01DP | 3.9 | 12.5 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| DR200P205W-0390-04A-01DP | 3.9 | 20.2 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| DR200P203W-0400-04A-01DP | 4 | 12.7 | 24 | 66 | 65.3 | 0.7 | 4 | 3 | |
| DR200P205W-0400-04A-01DP | 4 | 20.7 | 34 | 74 | 73.3 | 0.7 | 4 | 5 | |
| DR200P203W-0410-06A-01DP | 4.1 | 13 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| DR200P205W-0410-06A-01DP | 4.1 | 21.2 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| DR200P203W-0420-06A-01DP | 4.2 | 13.3 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| DR200P205W-0420-06A-01DP | 4.2 | 21.7 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| DR200P203W-0430-06A-01DP | 4.3 | 13.7 | 24 | 66 | 65.2 | 0.7 | 6 | 3 | |
| DR200P205W-0430-06A-01DP | 4.3 | 22.3 | 34 | 74 | 73.2 | 0.7 | 6 | 5 | |
| DR200P203W-0440-06A-01DP | 4.4 | 14.1 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| DR200P205W-0440-06A-01DP | 4.4 | 22.8 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| DR200P203W-0450-06A-01DP | 4.5 | 14.3 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| DR200P205W-0450-06A-01DP | 4.5 | 23.3 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| DR200P203W-0455-06A-01DP | 4.55 | 14.6 | 24 | 66 | 65.2 | 0.8 | 6 | 3 | |
| DR200P205W-0460-06A-01DP | 4.6 | 23.8 | 34 | 74 | 73.2 | 0.8 | 6 | 5 | |
| DR200P203W-0476-06A-01DP | 4.76 | 15 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| DR200P203W-0480-06A-01DP | 4.8 | 15.2 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| DR200P205W-0480-06A-01DP | 4.8 | 24.8 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |

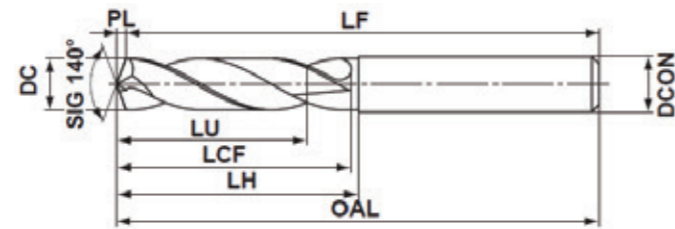
注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|--------------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| DR200P203W-0490-06A-01DP | 4.9 | 15.5 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| DR200P205W-0490-06A-01DP | 4.9 | 25.3 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| DR200P203W-0500-06A-01DP | 5 | 15.8 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| DR200P205W-0500-06A-01DP | 5 | 25.8 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| DR200P203W-0510-06A-01DP | 5.1 | 16.1 | 28 | 66 | 65.2 | 0.8 | 6 | 3 | |
| DR200P205W-0510-06A-01DP | 5.1 | 26.3 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| DR200P205W-0516-06A-01DP | 5.16 | 26.6 | 44 | 82 | 81.2 | 0.8 | 6 | 5 | |
| DR200P203W-0520-06A-01DP | 5.2 | 16.4 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205W-0520-06A-01DP | 5.2 | 26.8 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P203W-0530-06A-01DP | 5.3 | 16.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205W-0530-06A-01DP | 5.3 | 27.3 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P203W-0540-06A-01DP | 5.4 | 17 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205W-0540-06A-01DP | 5.4 | 27.8 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P203W-0550-06A-01DP | 5.5 | 17.4 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205W-0550-06A-01DP | 5.5 | 28.4 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P205W-0555-06A-01DP | 5.55 | 28.7 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P203W-0556-06A-01DP | 5.56 | 17.5 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205W-0556-06A-01DP | 5.56 | 28.7 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P203W-0560-06A-01DP | 5.6 | 17.7 | 28 | 66 | 65.1 | 0.9 | 6 | 3 | |
| DR200P205W-0560-06A-01DP | 5.6 | 28.9 | 44 | 82 | 81.1 | 0.9 | 6 | 5 | |
| DR200P205W-0570-06A-01DP | 5.7 | 29.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P203W-0580-06A-01DP | 5.8 | 17.6 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205W-0580-06A-01DP | 5.8 | 29.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P203W-0590-06A-01DP | 5.9 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205W-0590-06A-01DP | 5.9 | 30.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P203W-0595-06A-01DP | 5.95 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205W-0595-06A-01DP | 5.95 | 30.7 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P203W-0600-06A-01DP | 6 | 18.9 | 28 | 66 | 65 | 1 | 6 | 3 | |
| DR200P205W-0600-06A-01DP | 6 | 30.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| DR200P203W-0610-08A-01DP | 6.1 | 19.3 | 34 | 79 | 78 | 1 | 8 | 3 | |
| DR200P205W-0610-08A-01DP | 6.1 | 31.5 | 53 | 91 | 90 | 1 | 8 | 5 | |
| DR200P203W-0620-08A-01DP | 6.2 | 19.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0620-08A-01DP | 6.2 | 32 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P203W-0630-08A-01DP | 6.3 | 19.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0630-08A-01DP | 6.3 | 32.5 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P203W-0635-08A-01DP | 6.35 | 20.1 | 34 | 79 | 78 | 1.1 | 8 | 3 | |
| DR200P205W-0635-08A-01DP | 6.35 | 32.8 | 53 | 91 | 90 | 1.1 | 8 | 5 | |
| DR200P203W-0640-08A-01DP | 6.4 | 20.2 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0640-08A-01DP | 6.4 | 33 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P203W-0650-08A-01DP | 6.5 | 20.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0650-08A-01DP | 6.5 | 33.6 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



外冷钻头 external coolant design

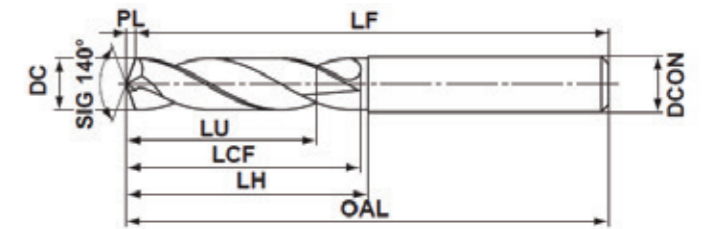
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR | 氏裕尔 |
|--------------------------|-------------------|------|-----|-----|-------|-----|------|------|-----|
| | DC | LU | LCF | OAL | LF | PL | DCON | | |
| DR200P203W-0660-08A-01DP | 6.6 | 20.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0660-08A-01DP | 6.6 | 34.1 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P203W-0670-08A-01DP | 6.7 | 21.2 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0670-08A-01DP | 6.7 | 34.6 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P203W-0675-08A-01DP | 6.75 | 21.3 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0675-08A-01DP | 6.75 | 34.8 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P203W-0680-08A-01DP | 6.8 | 21.5 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| DR200P205W-0680-08A-01DP | 6.8 | 35.1 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| DR200P203W-0690-08A-01DP | 6.9 | 21.8 | 34 | 79 | 77.8 | 1.2 | 8 | 3 | |
| DR200P205W-0690-08A-01DP | 6.9 | 35.6 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| DR200P203W-0700-08A-01DP | 7 | 22.1 | 34 | 79 | 77.8 | 1.2 | 8 | 3 | |
| DR200P205W-0700-08A-01DP | 7 | 36.1 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| DR200P203W-0710-08A-01DP | 7.1 | 22.4 | 41 | 79 | 77.8 | 1.2 | 8 | 3 | |
| DR200P205W-0710-08A-01DP | 7.1 | 36.6 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| DR200P203W-0714-08A-01DP | 7.14 | 22.6 | 41 | 79 | 77.8 | 1.2 | 8 | 3 | |
| DR200P205W-0714-08A-01DP | 7.14 | 36.9 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| DR200P203W-0720-08A-01DP | 7.2 | 22.8 | 41 | 79 | 77.8 | 1.2 | 8 | 3 | |
| DR200P205W-0720-08A-01DP | 7.2 | 37.2 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| DR200P205W-0730-08A-01DP | 7.3 | 37.7 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| DR200P203W-0740-08A-01DP | 7.4 | 23.4 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205W-0740-08A-01DP | 7.4 | 38.2 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P203W-0750-08A-01DP | 7.5 | 23.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205W-0750-08A-01DP | 7.5 | 38.7 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P205W-0754-08A-01DP | 7.54 | 38.9 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P203W-0760-08A-01DP | 7.6 | 24 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P203W-0770-08A-01DP | 7.7 | 24.3 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205W-0770-08A-01DP | 7.7 | 39.7 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P203W-0780-08A-01DP | 7.8 | 24.7 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205W-0780-08A-01DP | 7.8 | 40.3 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P203W-0790-08A-01DP | 7.9 | 25 | 41 | 79 | 77.7 | 1.3 | 8 | 3 | |
| DR200P205W-0790-08A-01DP | 7.9 | 40.8 | 53 | 91 | 89.7 | 1.3 | 8 | 5 | |
| DR200P203W-0794-08A-01DP | 7.94 | 25.1 | 41 | 79 | 77.6 | 1.4 | 8 | 3 | |
| DR200P205W-0794-08A-01DP | 7.94 | 41 | 53 | 91 | 89.6 | 1.4 | 8 | 5 | |
| DR200P203W-0800-08A-01DP | 8 | 25.3 | 41 | 79 | 77.6 | 1.4 | 8 | 3 | |
| DR200P205W-0800-08A-01DP | 8 | 41.3 | 53 | 91 | 89.6 | 1.4 | 8 | 5 | |
| DR200P203W-0810-10A-01DP | 8.1 | 25.6 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| DR200P205W-0810-10A-01DP | 8.1 | 41.8 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P205W-0815-10A-01DP | 8.15 | 42.1 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |
| DR200P203W-0820-10A-01DP | 8.2 | 25.9 | 47 | 89 | 87.6 | 1.4 | 10 | 3 | |
| DR200P205W-0820-10A-01DP | 8.2 | 42.3 | 61 | 103 | 101.6 | 1.4 | 10 | 5 | |

注：① 样本规格以外的需求（特殊直径和长径比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



外冷钻头 external coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR | 氏裕尔 |
|--------------------------|-------------------|------|-----|-----|-------|-----|------|------|-----|
| | DC | LU | LCF | OAL | LF | PL | DCON | | |
| DR200P203W-1010-12A-01DP | 10.1 | 31.9 | 55 | 102 | 100.3 | 1.7 | 12 | 3 | |
| DR200P205W-1010-12A-01DP | 10.1 | 52.1 | 71 | 118 | 116.3 | 1.7 | 12 | 5 | |
| DR200P203W-1020-12A-01DP | 10.2 | 32.3 | 55 | 102 | 100.3 | 1.7 | 12 | 3 | |
| DR200P205W-1020-12A-01DP | 10.2 | 52.7 | 71 | 118 | 116.3 | 1.7 | 12 | 5 | |
| DR200P203W-1030-12A-01DP | 10.3 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205W-1030-12A-01DP | 10.3 | 53.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203W-1032-12A-01DP | 10.32 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205W-1032-12A-01DP | 10.32 | 53.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203W-1040-12A-01DP | 10.4 | 32.9 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205W-1040-12A-01DP | 10.4 | 53.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203W-1050-12A-01DP | 10.5 | 33.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205W-1050-12A-01DP | 10.5 | 54.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P205W-1060-12A-01DP | 10.6 | 54.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203W-1070-12A-01DP | 10.7 | 33.8 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205W-1070-12A-01DP | 10.7 | 55.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P205W-1071-12A-01DP | 10.71 | 55.3 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P203W-1080-12A-01DP | 10.8 | 34.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 | |
| DR200P205W-1080-12A-01DP | 10.8 | 55.8 | 71 | 118 | 116.2 | 1.8 | 12 | 5 | |
| DR200P205W-1090-12A-01DP | 10.9 | 56.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P203W-1100-12A-01DP | 11 | 34.8 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P205W-1100-12A-01DP | 11 | 56.8 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P203W-1110-12A-01DP | 11.1 | 35.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P205W-1110-12A-01DP | 11.1 | 57.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P203W-1111-12A-01DP | 11.11 | 35.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P205W-1120-12A-01DP | 11.2 | 35.4 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P205W-1120-12A-01DP | 11.2 | 57.6 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P203W-1130-12A-01DP | 11.3 | 35.7 | 55 | 102 | 100.1 | 1.9 | 12 | 3 | |
| DR200P205W-1130-12A-01DP | 11.3 | 57.4 | 71 | 118 | 116.1 | 1.9 | 12 | 5 | |
| DR200P203W-1140-12A-01DP | 11.4 | 36.1 | 55 | 102 | 100 | 2 | 12 | 3 | |
| DR200P203W-1150-12A-01DP | 11.5 | 36.4 | 55 | 102 | 100 | 2 | 12 | 3 | |
| DR200P205W-1150-12A-01DP | 11.5 | 57.2 | 71 | 118 | 116 | 2 | 12 | 5 | |
| DR200P203W-1160-12A-01DP | 11.6 | 36.7 | 55 | 102 | 100 | 2 | 12 | 3 | |
| DR200P203W-1170-12A-01DP | 11.7 | 37 | 55 | 102 | 100 | 2 | 12 | 3 | |
| DR200P205W-1170-12A-01DP | 11.7 | 57 | 71 | 118 | 116 | 2 | 12 | 5 | |
| DR200P203W-1180-12A-01DP | 11.8 | 37 | 55 | 102 | 100 | 2 | 12 | 3 | |
| DR200P205W-1180-12A-01DP | 11.8 | 56.8 | 71 | 118 | 116 | 2 | 12 | 5 | |
| DR200P203W-1190-12A-01DP | 11.9 | 37.6 | 55 | 102 | 100 | 2 | 12 | 3 | |
| DR200P203W-1200-12A-01DP | 12 | 38 | 55 | 102 | 99.9 | 2.1 | 12 | 3 | |
| DR200P205W-1200-12A-01DP | 12 | 60 | 71 | 118 | 115.9 | 2.1 | 12 | 5 | |
| DR200P203W-1210-14A-01DP | 12.1 | 38.3 | 60 | 107 | 104.9 | 2.1 | 14 | 3 | |
| DR200P205W-1210-14A-01DP | 12.1 | 62.5 | 77 | 124 | 121.9 | 2.1 | 14 | 5 | |

注：① 样本规格以外的需求（特殊直径和长径比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 37

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----|-----------------------|---|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| P | 非合金钢 Unalloyed steel | | | | | |
| | P1.1.Z.AN | C = 0.05-0.1% | 125 | 90 | 150 | 170 |
| | P1.1.Z.AN | C = 0.1-0.25% | 125 | 90 | 150 | 170 |
| | P1.2.Z.AN | C = 0.25-0.55% | 150 | 90 | 140 | 170 |
| | P1.3.Z.AN | C = 0.55-0.80% | 170 | 90 | 140 | 170 |
| | 高碳钢 High carbon steel | | | | | |
| | P1.3.Z.AN | 碳素工具钢 Carbon tool steel | 210 | 100 | 130 | 150 |
| | 低合金钢 Low alloy steel | | | | | |
| | P2.1.Z.AN | 非淬硬 Non-hardened | 175 | 80 | 130 | 160 |
| | P2.5.Z.HT | 调质处理 Hardened and tempered | 275 | 50 | 80 | 90 |
| | P2.5.Z.HT | 调质处理 Hardened and tempered | 350 | 40 | 60 | 70 |
| | 高合金钢 High alloy steel | | | | | |
| | P3.0.Z.AN | 退火 Annealed | 200 | 40 | 90 | 90 |
| | P3.0.Z.HT | 淬硬工具钢 Hardened tool steel | 300 | 40 | 60 | 70 |
| | 铸钢 Steel castings | | | | | |
| | P1.5.C.UT | 非合金 Unalloyed | 150 | 80 | 130 | 140 |
| | P2.6.C.UT | 低合金 (合金元素≤5%) Low-alloy (alloying elements ≤5%) | 200 | 80 | 130 | 120 |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.06 | 0.1 | 0.13 |
| 4 | 0.07 | 0.11 | 0.14 |
| 6 | 0.11 | 0.18 | 0.24 |
| 8 | 0.16 | 0.21 | 0.25 |
| 10 | 0.19 | 0.23 | 0.27 |
| 12 | 0.22 | 0.25 | 0.29 |
| 16 | 0.23 | 0.28 | 0.33 |
| 20 | 0.26 | 0.3 | 0.34 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料，需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally
- ④ 如果使用外冷加工，需要调节转速参数以确保切屑成型良好且排屑顺畅
Under external coolant condition, please adjust cutting speed to secure good chips formation and evacuation
- ⑤ 如果使用外冷加工，必要时降低每转进给以确保排屑顺畅
Under external coolant condition, please decrease feed per revolution to secure chips evacuation

Drill DR200P

专用高性能整体硬质合金钻头 Optimized high-performance solid carbide drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----|---|--------------------------------------|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| M | 奥氏体不锈钢 Austenitic stainless steel | | | | | |
| | M1.0.C.UT | 铸造+未处理 Cast+untreated | 165 | 48 | 70 | 72 |
| | M1.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 48 | 70 | 72 |
| | M1.0.Z.PH | 沉淀硬化 PH-hardened | 350 | 44 | 60 | 66 |
| | M1.1.Z.AQ | 改善了可加工性 Machinability improved | 165 | 48 | 70 | 72 |
| | M1.2.Z.AQ | 易切削 Free cutting | 200 | 48 | 70 | 72 |
| | M1.3.C.AQ | 钛稳定化+铸造 Ti-stabilized+cast | 200 | 48 | 70 | 72 |
| | M1.3.Z.AQ | 钛稳定化 Ti-stabilized | 200 | 48 | 70 | 72 |
| | M1.4.Z.AQ | 高强度 High strength | 250 | 64 | 90 | 96 |
| | 优质奥氏体(Ni>20%)不锈钢 Super austenitic (Ni>20%) stainless steel | | | | | |
| | M2.0.C.AQ | 铸造+退火/淬火 Cast+annealed/quenched | 165 | 30 | 40 | 50 |
| | M2.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 30 | 40 | 50 |
| | 双相(奥氏体/铁素体)不锈钢 Duplex (austenitic/ferritic) stainless steel | | | | | |
| | M3.1.Z.AQ >60% | 铁素体 (N<0.10%) >60% ferrite (N<0.10%) | 250 | 40 | 60 | 70 |
| | M3.2.Z.AQ <60% | 铁素体 (N≥0.10%) <60% ferrite (N≥0.10%) | 250 | 40 | 60 | 70 |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.05 | 0.07 | 0.1 |
| 4 | 0.08 | 0.1 | 0.12 |
| 6 | 0.09 | 0.11 | 0.13 |
| 8 | 0.1 | 0.12 | 0.14 |
| 10 | 0.13 | 0.14 | 0.17 |
| 12 | 0.13 | 0.16 | 0.19 |
| 16 | 0.14 | 0.2 | 0.23 |
| 20 | 0.17 | 0.22 | 0.25 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的不锈钢例如沉淀硬化不锈钢，需要按比例降低转速和进给
In case component material hardness increase such as PH stainless steel, please decrease cutting speed proportionally
- ④ 如果使用外冷加工，需要调节转速参数以确保切屑成型良好且排屑顺畅
Under external coolant condition, please adjust cutting speed to secure good chips formation and evacuation
- ⑤ 如果使用外冷加工，必要时降低每转进给以确保排屑顺畅
Under external coolant condition, please decrease feed per revolution to secure chips evacuation

公司简介 Company Introduction
 SFP 钻头 SFP Drill Bits
 SEM 钻头 SEM Drill Bits
 DR200P 钻头 DR200P Drill Bits
 LFRA 钻头 LFRA Drill Bits
 SFK 钻头 SFK Drill Bits

 通用
Versatile solution

 定制
Customized solution

ISO材料组应用范围 ISO material groups



LFRA深孔钻产品介绍

LFRA DEEP HOLE DRILLS PRODUCT INTRODUCTION

深孔钻头 deep hole drills

编号规则

ORDERING CODE

概述及应用领域

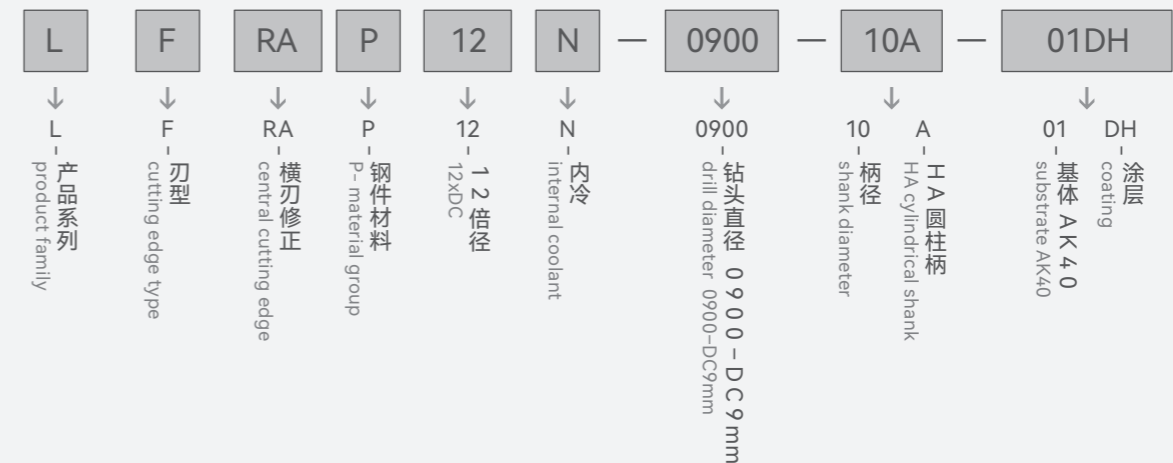
Overview & application areas

- 适合多种工件材料
- 传统钻削、交叉孔和倾斜面
- 可获孔径公差: H8-H9
- 产品直径范围: D3-D20mm
- 钻孔深度12-40倍径
- Covers many material groups
- Conventional drilling, cross holes & inclined surface
- Hole tolerance H8-H9
- Diameter range: 3.0-20.0 mm
- Drill length range 12-40xD

特性与益处

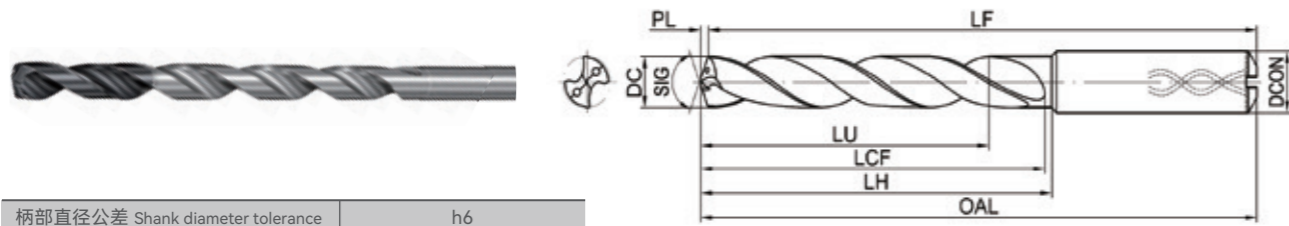
Features and benefits

-  优化的钻尖设计有助于降低轴向力
Optimized drill center design helps to reduce axial cutting force
-  内冷设计
Provide internal coolant solutions
-  凹形切削刃降低切削阻力
Curve cutting edge generates low cutting force
-  可修磨至新刀规格以延长刀具寿命
Secure tool life through high reconditioning quality
-  新型的容屑槽优化设计提高排屑能力
Good chips evacuation thanks to chips flute optimization design
-  先进的切削刃倒钝降低崩刃风险
Advanced ER treatment which reduce the risk of cutting edge breakage



Drill LFRAP

深孔钻头 Deep hole drills



| | |
|---------------------------------|--------------------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 135° |
| 加工材料 material group | 钢件、铸铁 ISO-P, ISO-K |

ISO材料应用范围
ISO material group

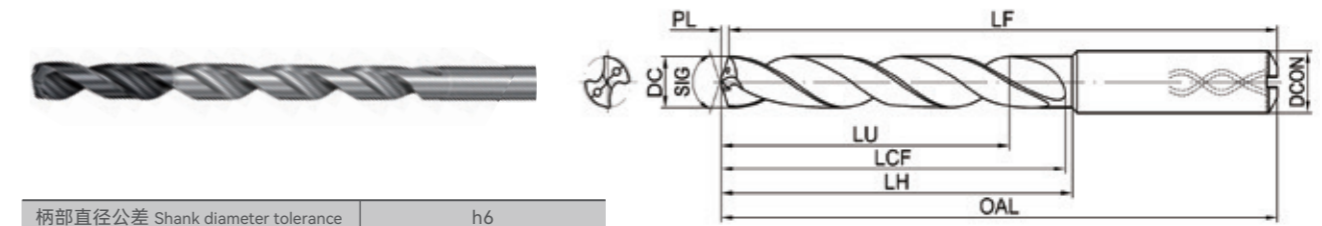


| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| LFRAP10-0300-06A-01DH | 3 | 31.5 | 47 | 89 | 88.5 | 0.5 | 6 | 10 | |
| LFRAP12-0300-06A-01DH | 3 | 36.5 | 52 | 94 | 93.5 | 0.5 | 6 | 12 | |
| LFRAP10-0310-06A-01DH | 3.1 | 32.7 | 47 | 89 | 88.5 | 0.5 | 6 | 10 | |
| LFRAP12-0310-06A-01DH | 3.1 | 37.7 | 52 | 94 | 93.5 | 0.5 | 6 | 12 | |
| LFRAP10-0320-06A-01DH | 3.2 | 33.9 | 47 | 89 | 88.5 | 0.5 | 6 | 10 | |
| LFRAP12-0320-06A-01DH | 3.2 | 38.9 | 52 | 94 | 93.5 | 0.5 | 6 | 12 | |
| LFRAP10-0330-06A-01DH | 3.3 | 35.1 | 47 | 89 | 88.5 | 0.5 | 6 | 10 | |
| LFRAP12-0330-06A-01DH | 3.3 | 40.1 | 52 | 94 | 93.5 | 0.5 | 6 | 12 | |
| LFRAP10-0340-06A-01DH | 3.4 | 36.4 | 47 | 89 | 88.4 | 0.6 | 6 | 10 | |
| LFRAP12-0340-06A-01DH | 3.4 | 41.4 | 52 | 94 | 93.4 | 0.6 | 6 | 12 | |
| LFRAP10-0350-06A-01DH | 3.5 | 37.6 | 47 | 89 | 88.4 | 0.6 | 6 | 10 | |
| LFRAP12-0350-06A-01DH | 3.5 | 42.6 | 52 | 94 | 93.4 | 0.6 | 6 | 12 | |
| LFRAP15-0350-06A-01DH | 3.5 | 53.1 | 63 | 105 | 104.4 | 0.6 | 6 | 15 | |
| LFRAP10-0370-06A-01DH | 3.7 | 38.9 | 47 | 89 | 88.4 | 0.6 | 6 | 10 | |
| LFRAP11-0370-06A-01DH | 3.7 | 43.9 | 52 | 94 | 93.4 | 0.6 | 6 | 11 | |
| LFRAP10-0380-06A-01DH | 3.8 | 39.2 | 60 | 102 | 101.4 | 0.6 | 6 | 10 | |
| LFRAP12-0380-06A-01DH | 3.8 | 46.2 | 67 | 109 | 108.4 | 0.6 | 6 | 12 | |
| LFRAP15-0380-06A-01DH | 3.8 | 57.6 | 68 | 110 | 109.4 | 0.6 | 6 | 15 | |
| LFRAP10-0400-06A-01DH | 4 | 41.7 | 60 | 102 | 101.3 | 0.7 | 6 | 10 | |
| LFRAP12-0400-06A-01DH | 4 | 48.7 | 67 | 109 | 108.3 | 0.7 | 6 | 12 | |
| LFRAP15-0400-06A-01DH | 4 | 60.7 | 72 | 114 | 113.3 | 0.7 | 6 | 15 | |
| LFRAP20-0400-06A-01DH | 4 | 80.7 | 92 | 134 | 133.3 | 0.7 | 6 | 20 | |
| LFRAP30-0400-06A-01DH | 4 | 120.7 | 132 | 174 | 173.3 | 0.7 | 6 | 30 | |
| LFRAP10-0410-06A-01DH | 4.1 | 42.9 | 60 | 102 | 101.3 | 0.7 | 6 | 10 | |
| LFRAP12-0410-06A-01DH | 4.1 | 49.9 | 67 | 109 | 108.3 | 0.7 | 6 | 12 | |
| LFRAP10-0420-06A-01DH | 4.2 | 44.1 | 60 | 102 | 101.3 | 0.7 | 6 | 10 | |
| LFRAP12-0420-06A-01DH | 4.2 | 51.1 | 67 | 109 | 108.3 | 0.7 | 6 | 12 | |
| LFRAP15-0420-06A-01DH | 4.2 | 63.7 | 76 | 118 | 117.3 | 0.7 | 6 | 15 | |
| LFRAP20-0420-06A-01DH | 4.2 | 84.7 | 97 | 139 | 138.3 | 0.7 | 6 | 20 | |
| LFRAP10-0430-06A-01DH | 4.3 | 45.3 | 60 | 102 | 101.3 | 0.7 | 6 | 10 | |
| LFRAP12-0430-06A-01DH | 4.3 | 52.3 | 67 | 109 | 108.3 | 0.7 | 6 | 12 | |
| LFRAP10-0450-06A-01DH | 4.5 | 47.7 | 60 | 102 | 101.3 | 0.7 | 6 | 10 | |
| LFRAP12-0450-06A-01DH | 4.5 | 54.7 | 67 | 109 | 108.3 | 0.7 | 6 | 12 | |
| LFRAP15-0450-06A-01DH | 4.5 | 68.2 | 81 | 123 | 122.3 | 0.7 | 6 | 15 | |
| LFRAP20-0450-06A-01DH | 4.5 | 90.7 | 104 | 146 | 145.3 | 0.7 | 6 | 20 | |
| LFRAP30-0450-06A-01DH | 4.5 | 135.7 | 149 | 191 | 190.3 | 0.7 | 6 | 30 | |
| LFRAP40-0450-06A-01DH | 4.5 | 153.7 | 167 | 209 | 208.3 | 0.7 | 6 | 40 | |
| LFRAP10-0460-06A-01DH | 4.6 | 49 | 60 | 102 | 101.2 | 0.8 | 6 | 10 | |
| LFRAP12-0460-06A-01DH | 4.6 | 56 | 67 | 109 | 108.2 | 0.8 | 6 | 12 | |
| LFRAP10-0480-06A-01DH | 4.8 | 51.4 | 60 | 102 | 101.2 | 0.8 | 6 | 10 | |
| LFRAP12-0480-06A-01DH | 4.8 | 58.4 | 67 | 109 | 108.2 | 0.8 | 6 | 12 | |

注：① 样本规格以外的需求（特殊直径和长度比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 47

Drill LFRAP

深孔钻头 Deep hole drills



| | |
|---------------------------------|--------------------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 135° |
| 加工材料 material group | 钢件、铸铁 ISO-P, ISO-K |

ISO材料应用范围
ISO material group



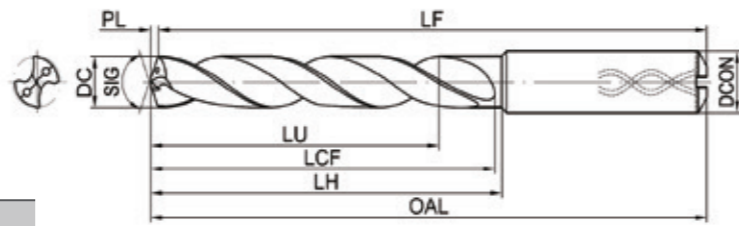
| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| LFRAP10-0660-08A-01DH | 6.6 | 67.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | |
| LFRAP12-0660-08A-01DH | 6.6 | 80.3 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | |
| LFRAP10-0670-08A-01DH | 6.7 | 68.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | |
| LFRAP12-0670-08A-01DH | 6.7 | 81.5 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | |
| LFRAP10-0680-08A-01DH | 6.8 | 69.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | |
| LFRAP12-0680-08A-01DH | 6.8 | 82.7 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | |
| LFRAP15-0680-08A-01DH | 6.8 | 103.1 | 122 | 164 | 162.9 | 1.1 | 8 | 15 | |
| LFRAP20-0680-08A-01DH | 6.8 | 137.1 | 156 | 198 | 196.9 | 1.1 | 8 | 20 | |
| LFRAP10-0690-08A-01DH | 6.9 | 70.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | |
| LFRAP12-0690-08A-01DH | 6.9 | 83.9 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | |
| LFRAP10-0700-08A-01DH | 7 | 71.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | |
| LFRAP12-0700-08A-01DH | 7 | 85.1 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | |
| LFRAP15-0700-08A-01DH | 7 | 106.1 | 126 | 168 | 166.9 | 1.1 | 8 | 15 | |
| LFRAP20-0700-08A-01DH | 7 | 141.1 | 161 | 203 | 201.9 | 1.1 | 8 | 20 | |
| LFRAP30-0700-08A-01DH | 7 | 211.1 | 231 | 273 | 271.9 | 1.1 | 8 | 30 | |
| LFRAP40-0700-08A-01DH | 7 | 281.1 | 301 | 343 | 341.9 | 1.1 | 8 | 40 | |
| LFRAP10-0740-08A-01DH | 7.4 | 75.2 | 101 | 143 | 141.8 | 1.2 | 8 | 10 | |
| LFRAP12-0740-08A-01DH | 7.4 | 90 | 116 | 158 | 156.8 | 1.2 | 8 | 12 | |
| LFRAP10-0750-08A-01DH | 7.5 | 76.2 | 101 | 143 | 141.8 | 1.2 | 8 | 10 | |
| LFRAP12-0750-08A-01DH | 7.5 | 91.2 | 116 | 158 | 156.8 | 1.2 | 8 | 12 | |
| LFRAP15-0750-08A-01DH | 7.5 | 113.7 | 135 | 177 | 175.8 | 1.2 | 8 | 15 | |
| LFRAP20-0750-08A-01DH | 7.5 | 151.2 | 173 | 215 | 213.8 | 1.2 | 8 | 20 | |
| LFRAP30-0750-08A-01DH | 7.5 | 226.2 | 248 | 290 | 288.8 | 1.2 | 8 | 30 | |
| LFRAP40-0750-08A-01DH | 7.5 | 301.2 | 323 | 365 | 363.8 | 1.2 | 8 | 40 | |
| LFRAP10-0760-08A-01DH | 7.6 | 77.2 | 101 | 143 | 141.8 | 1.2 | 8 | 10 | |
| LFRAP12-0760-08A-01DH | 7.6 | 92.4 | 116 | 158 | 156.8 | 1.2 | 8 | 12 | |
| LFRAP10-0770-08A-01DH | 7.7 | 78.3 | 101 | 143 | 141.7 | 1.3 | 8 | 10 | |
| LFRAP12-0770-08A-01DH | 7.7 | 93.7 | 116 | 158 | 156.7 | 1.3 | 8 | 12 | |
| LFRAP10-0780-08A-01DH | 7.8 | 79.3 | 101 | 143 | 141.7 | 1.3 | 8 | 10 | |
| LFRAP12-0780-08A-01DH | 7.8 | 94.9 | 116 | 158 | 156.7 | 1.3 | 8 | 12 | |
| LFRAP10-0800-08A-01DH | 8 | 81.3 | 101 | 143 | 141.7 | 1.3 | 8 | 10 | |
| LFRAP12-0800-08A-01DH | 8 | 97.3 | 116 | 158 | 156.7 | 1.3 | 8 | 12 | |
| LFRAP15-0800-08A-01DH | 8 | 121.3 | 144 | 186 | 184.7 | 1.3 | 8 | 15 | |
| LFRAP20-0800-08A-01DH | 8 | 161.3 | 184 | 226 | 224.7 | 1.3 | 8 | 20 | |
| LFRAP30-0800-08A-01DH | 8 | 241.3 | 264 | 306 | 304.7 | 1.3 | 8 | 30 | |
| LFRAP40-0800-08A-01DH | 8 | 321.3 | 344 | 386 | 384.7 | 1.3 | 8 | 40 | |
| LFRAP10-0810-10A-01DH | 8.1 | 82.3 | 106 | 152 | 150.7 | 1.3 | 10 | 10 | |
| LFRAP12-0810-10A-01DH | 8.1 | 98.5 | 146 | 192 | 190.7 | 1.3 | 10 | 12 | |
| LFRAP10-0820-10A-01DH | 8.2 | 83.3 | 106 | 152 | 150.7 | 1.3 | 10 | 10 | |
| LFRAP12-0820-10A-01DH | 8.2 | 99.7 | 146 | 192 | 190.7 | 1.3 | 10 | 12 | |
| LFRAP10-0840-10A-01DH | 8.4 | 85.4 | 106 | 152 | 150.6 | 1.4 | 10 | 10 | |

注：① 样本规格以外的需求（特殊直径和长度比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 47

注：② 切刃参数请参考本部分样本的末页
Cutting data, please go to page 47

Drill LFRAP

深孔钻头 Deep hole drills



| | |
|---------------------------------|--------------------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 135° |
| 加工材料 material group | 钢件、铸铁 ISO-P, ISO-K |

ISO材料应用范围
ISO material group

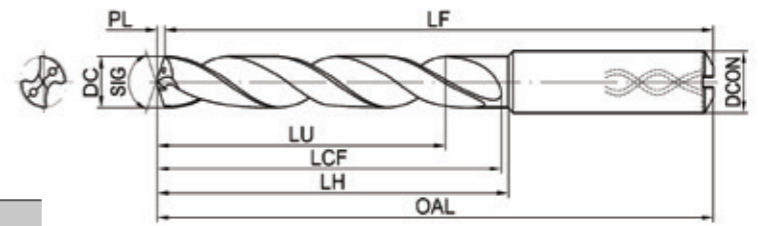


| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| LFRAP10-1100-12A-01DH | 11 | 111.8 | 156 | 208 | 206.2 | 1.8 | 12 | 10 |
| LFRAP12-1100-12A-01DH | 11 | 133.8 | 176 | 228 | 226.2 | 1.8 | 12 | 12 |
| LFRAP15-1100-12A-01DH | 11 | 166.8 | 197 | 249 | 247.2 | 1.8 | 12 | 15 |
| LFRAP20-1100-12A-01DH | 11 | 221.8 | 252 | 304 | 302.2 | 1.8 | 12 | 20 |
| LFRAP10-1120-12A-01DH | 11.2 | 113.8 | 156 | 208 | 206.2 | 1.8 | 12 | 10 |
| LFRAP12-1120-12A-01DH | 11.2 | 136.2 | 176 | 228 | 226.2 | 1.8 | 12 | 12 |
| LFRAP10-1150-12A-01DH | 11.5 | 116.9 | 156 | 208 | 206.1 | 1.9 | 12 | 10 |
| LFRAP12-1150-12A-01DH | 11.5 | 139.9 | 176 | 228 | 226.1 | 1.9 | 12 | 12 |
| LFRAP15-1150-12A-01DH | 11.5 | 174.4 | 206 | 258 | 256.1 | 1.9 | 12 | 15 |
| LFRAP20-1150-12A-01DH | 11.5 | 231.9 | 264 | 316 | 314.1 | 1.9 | 12 | 20 |
| LFRAP10-1180-12A-01DH | 11.8 | 119.9 | 156 | 208 | 206.1 | 1.9 | 12 | 10 |
| LFRAP12-1180-12A-01DH | 11.8 | 143.5 | 176 | 228 | 226.1 | 1.9 | 12 | 12 |
| LFRAP10-1200-12A-01DH | 12 | 122 | 156 | 208 | 206 | 2 | 12 | 10 |
| LFRAP12-1200-12A-01DH | 12 | 146 | 176 | 228 | 226 | 2 | 12 | 12 |
| LFRAP15-1200-12A-01DH | 12 | 182 | 215 | 267 | 265 | 2 | 12 | 15 |
| LFRAP20-1200-12A-01DH | 12 | 242 | 275 | 327 | 325 | 2 | 12 | 20 |
| LFRAP10-1230-14A-01DH | 12.3 | 125.1 | 182 | 234 | 232 | 2 | 14 | 10 |
| LFRAP12-1230-14A-01DH | 12.3 | 149.7 | 206 | 258 | 256 | 2 | 14 | 12 |
| LFRAP10-1250-14A-01DH | 12.5 | 127 | 182 | 234 | 232 | 2 | 14 | 10 |
| LFRAP12-1250-14A-01DH | 12.5 | 152 | 206 | 258 | 256 | 2 | 14 | 12 |
| LFRAP10-1270-14A-01DH | 12.7 | 129.1 | 182 | 234 | 231.9 | 2.1 | 14 | 10 |
| LFRAP12-1270-14A-01DH | 12.7 | 154.5 | 206 | 258 | 255.9 | 2.1 | 14 | 12 |
| LFRAP10-1300-14A-01DH | 13 | 132.1 | 182 | 234 | 231.9 | 2.1 | 14 | 10 |
| LFRAP12-1300-14A-01DH | 13 | 158.1 | 206 | 258 | 255.9 | 2.1 | 14 | 12 |
| LFRAP10-1310-14A-01DH | 13.1 | 133.1 | 182 | 234 | 231.9 | 2.1 | 14 | 10 |
| LFRAP12-1310-14A-01DH | 13.1 | 159.3 | 206 | 258 | 255.9 | 2.1 | 14 | 12 |
| LFRAP10-1350-14A-01DH | 13.5 | 137.2 | 182 | 234 | 231.8 | 2.2 | 14 | 10 |
| LFRAP12-1350-14A-01DH | 13.5 | 164.2 | 206 | 258 | 255.8 | 2.2 | 14 | 12 |
| LFRAP10-1400-14A-01DH | 14 | 142.3 | 182 | 234 | 231.7 | 2.3 | 14 | 10 |
| LFRAP12-1400-14A-01DH | 14 | 170.3 | 206 | 258 | 255.7 | 2.3 | 14 | 12 |
| LFRAP10-1450-16A-01DH | 14.5 | 147.4 | 207 | 262 | 259.6 | 2.4 | 16 | 10 |
| LFRAP12-1450-16A-01DH | 14.5 | 176.4 | 236 | 291 | 288.6 | 2.4 | 16 | 12 |
| LFRAP10-1500-16A-01DH | 15 | 152.5 | 207 | 262 | 259.5 | 2.5 | 16 | 10 |
| LFRAP12-1500-16A-01DH | 15 | 182.5 | 236 | 291 | 288.5 | 2.5 | 16 | 12 |
| LFRAP10-1550-16A-01DH | 15.5 | 157.5 | 207 | 262 | 259.5 | 2.5 | 16 | 10 |
| LFRAP12-1550-16A-01DH | 15.5 | 188.5 | 236 | 291 | 288.5 | 2.5 | 16 | 12 |
| LFRAP10-1600-16A-01DH | 16 | 162.6 | 207 | 262 | 259.4 | 2.6 | 16 | 10 |
| LFRAP12-1600-16A-01DH | 16 | 194.6 | 236 | 291 | 288.4 | 2.6 | 16 | 12 |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 47

Drill LFRAM

深孔钻头 Deep hole drills



| | |
|---------------------------------|-----------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 135° |
| 加工材料 material group | 不锈钢 ISO-M |

ISO材料应用范围
ISO material group



| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| LFRAM10-0300-04A-01DP | 3 | 31.5 | 47 | 89 | 88.5 | 0.5 | 6 | 10 |
| LFRAM12-0300-06A-01DP | 3 | 36.5 | 52 | 94 | 93.5 | 0.5 | 6 | 12 |
| LFRAM10-0310-06A-01DP | 3.1 | 32.7 | 47 | 89 | 88.5 | 0.5 | 6 | 10 |
| LFRAM12-0310-06A-01DP | 3.1 | 37.7 | 52 | 94 | 93.5 | 0.5 | 6 | 12 |
| LFRAM10-0320-06A-01DP | 3.2 | 33.9 | 47 | 89 | 88.5 | 0.5 | 6 | 10 |
| LFRAM12-0320-06A-01DP | 3.2 | 38.9 | 52 | 94 | 93.5 | 0.5 | 6 | 12 |
| LFRAM10-0330-06A-01DP | 3.3 | 35.1 | 47 | 89 | 88.5 | 0.5 | 6 | 10 |
| LFRAM12-0330-06A-01DP | 3.3 | 40.1 | 52 | 94 | 93.5 | 0.5 | 6 | 12 |
| LFRAM10-0340-06A-01DP | 3.4 | 36.4 | 47 | 89 | 88.4 | 0.6 | 6 | 10 |
| LFRAM12-0340-06A-01DP | 3.4 | 41.4 | 52 | 94 | 93.4 | 0.6 | 6 | 12 |
| LFRAM10-0350-06A-01DP | 3.5 | 37.6 | 47 | 89 | 88.4 | 0.6 | 6 | 10 |
| LFRAM12-0350-06A-01DP | 3.5 | 42.6 | 52 | 94 | 93.4 | 0.6 | 6 | 12 |
| LFRAM15-0350-06A-01DP | 3.5 | 53.1 | 63 | 105 | 104.4 | 0.6 | 6 | 15 |
| LFRAM10-0370-06A-01DP | 3.7 | 38.9 | 47 | 89 | 88.4 | 0.6 | 6 | 10 |
| LFRAM11-0370-06A-01DP | 3.7 | 43.9 | 52 | 94 | 93.4 | 0.6 | 6 | 11 |
| LFRAM10-0380-06A-01DP | 3.8 | 39.2 | 60 | 102 | 101.4 | 0.6 | 6 | 10 |
| LFRAM12-0380-06A-01DP | 3.8 | 46.2 | 67 | 109 | 108.4 | 0.6 | 6 | 12 |
| LFRAM15-0380-06A-01DP | 3.8 | 57.6 | 68 | 110 | 109.4 | 0.6 | 6 | 15 |
| LFRAM10-0400-06A-01DP | 4 | 41.7 | 60 | 102 | 101.3 | 0.7 | 6 | 10 |
| LFRAM12-0400-06A-01DP | 4 | 48.7 | 67 | 109 | 108.3 | 0.7 | 6 | 12 |
| LFRAM15-0400-06A-01DP | 4 | 60.7 | 72 | 114 | 113.3 | 0.7 | 6 | 15 |
| LFRAM20-0400-06A-01DP | 4 | 80.7 | 92 | 134 | 133.3 | 0.7 | 6 | 20 |
| LFRAM30-0400-06A-01DP | 4 | 120.7 | 132 | 174 | 173.3 | 0.7 | 6 | 30 |
| LFRAM10-0410-06A-01DP | 4.1 | 42.9 | 60 | 102 | 101.3 | 0.7 | 6 | 10 |
| LFRAM12-0410-06A-01DP | 4.1 | 49.9 | 67 | 109 | 108.3 | 0.7 | 6 | 12 |
| LFRAM10-0420-06A-01DP | 4.2 | 44.1 | 60 | 102 | 101.3 | 0.7 | 6 | 10 |
| LFRAM12-0420-06A-01DP | 4.2 | 51.1 | 67 | 109 | 108.3 | 0.7 | 6 | 12 |
| LFRAM15-0420-06A-01DP | 4.2 | 63.7 | 76 | 118 | 117.3 | 0.7 | 6 | 15 |
| LFRAM20-0420-06A-01DP | 4.2 | 84.7 | 97 | 139 | 138.3 | 0.7 | 6 | 20 |
| LFRAM10-0430-06A-01DP | 4.3 | 45.3 | 60 | 102 | 101.3 | 0.7 | 6 | 10 |
| LFRAM12-0430-06A-01DP | 4.3 | 52.3 | 67 | 109 | 108.3 | 0.7 | 6 | 12 |
| LFRAM10-0450-06A-01DP | 4.5 | 47.7 | 60 | 102 | 101.3 | 0.7 | 6 | 10 |
| LFRAM12-0450-06A-01DP | 4.5 | 54.7 | 67 | 109 | 108.3 | 0.7 | 6 | 12 |
| LFRAM15-0450-06A-01DP | 4.5 | 68.2 | 81 | 123 | 122.3 | 0.7 | 6 | 15 |
| LFRAM20-0450-06A-01DP | 4.5 | 90.7 | 104 | 146 | 145.3 | 0.7 | 6 | 20 |
| LFRAM30-0450-06A-01DP | 4.5 | 135.7 | 149 | 191 | 190.3 | 0.7 | 6 | 30 |
| LFRAM40-0450-06A-01DP | 4.5 | 153.7 | 167 | 209 | 208.3 | 0.7 | 6 | 40 |
| LFRAM10-0460-06A-01DP | 4.6 | 49 | 60 | 102 | 101.2 | 0.8 | 6 | 10 |
| LFRAM12-0460-06A-01DP | 4.6 | 56 | 67 | 109 | 108.2 | 0.8 | 6 | 12 |
| LFRAM10-0480-06A-01DP | 4.8 | 51.4 | 60 | 102 | 101.2 | 0.8 | 6 | 10 |
| LFRAM12-0480-06A-01DP | 4.8 | 58.4 | 67 | 109 | 108.2 | 0.8 | 6 | 12 |

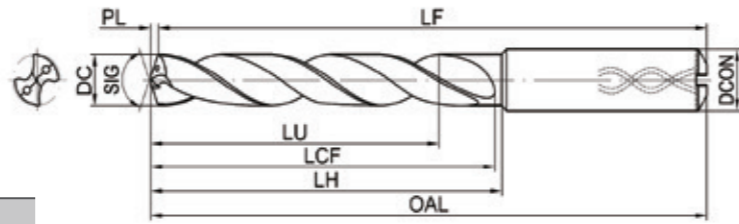
注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 47

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| LFRAM15-0480-06A-01DP | 4.8 | 72.8 | 86 | 128 | 127.2 | 0.8 | 6 | 15 |
| LFRAM20-0480-06A-01DP | 4.8 | 96.8 | 110 | 152 | 151.2 | 0.8 | 6 | 20 |
| LFRAM10-0500-06A-01DP | 5 | 50.8 | 68 | 110 | 109.2 | 0.8 | 6 | 10 |
| LFRAM12-0500-06A-01DP | 5 | 60.8 | 86 | 128 | 127.2 | 0.8 | 6 | 12 |
| LFRAM15-0500-06A-01DP | 5 | 75.8 | 90 | 132 | 131.2 | 0.8 | 6 | 15 |
| LFRAM20-0500-06A-01DP | 5 | 100.8 | 115 | 157 | 156.2 | 0.8 | 6 | 20 |
| LFRAM30-0500-06A-01DP | 5 | 150.8 | 165 | 207 | 206.2 | 0.8 | 6 | 30 |
| LFRAM40-0500-06A-01DP | 5 | 200.8 | 215 | 257 | 256.2 | 0.8 | 6 | 40 |
| LFRAM10-0510-06A-01DP | 5.1 | 52 | 75 | 117 | 116.2 | 0.8 | 6 | 10 |
| LFRAM12-0510-06A-01DP | 5.1 | 62 | 86 | 128 | 127.2 | 0.8 | 6 | 12 |
| LFRAM10-0520-06A-01DP | 5.2 | 53.3 | 75 | 117 | 116.1 | 0.9 | 6 | 10 |
| LFRAM12-0520-06A-01DP | 5.2 | 63.3 | 86 | 128 | 127.1 | 0.9 | 6 | 12 |
| LFRAM10-0550-06A-01DP | 5.5 | 56.9 | 75 | 117 | 116.1 | 0.9 | 6 | 10 |
| LFRAM12-0550-06A-01DP | 5.5 | 66.9 | 86 | 128 | 127.1 | 0.9 | 6 | 12 |
| LFRAM15-0550-06A-01DP | 5.5 | 83.4 | 99 | 141 | 140.1 | 0.9 | 6 | 15 |
| LFRAM20-0550-06A-01DP | 5.5 | 110.9 | 127 | 169 | 168.1 | 0.9 | 6 | 20 |
| LFRAM30-0550-06A-01DP | 5.5 | 165.9 | 182 | 224 | 223.1 | 0.9 | 6 | 30 |
| LFRAM40-0550-06A-01DP | 5.5 | 220.9 | 237 | 279 | 278.1 | 0.9 | 6 | 40 |
| LFRAM10-0580-06A-01DP | 5.8 | 59.6 | 75 | 117 | 116 | 1 | 6 | 10 |
| LFRAM12-0580-06A-01DP | 5.8 | 70.6 | 86 | 128 | 127 | 1 | 6 | 12 |
| LFRAM15-0580-06A-01DP | 5.8 | 88 | 104 | 146 | 145 | 1 | 6 | 15 |
| LFRAM20-0580-06A-01DP | 5.8 | 117 | 133 | 175 | 174 | 1 | 6 | 20 |
| LFRAM10-0600-06A-01DP | 6 | 61 | 75 | 117 | 116 | 1 | 6 | 10 |
| LFRAM12-0600-06A-01DP | 6 | 73 | 86 | 128 | 127 | 1 | 6 | 12 |
| LFRAM15-0600-06A-01DP | 6 | 91 | 108 | 150 | 149 | 1 | 6 | 15 |
| LFRAM20-0600-06A-01DP | 6 | 121 | 138 | 180 | 179 | 1 | 6 | 20 |
| LFRAM30-0600-06A-01DP | 6 | 181 | 198 | 240 | 239 | 1 | 6 | 30 |
| LFRAM40-0600-06A-01DP | 6 | 241 | 258 | 300 | 299 | 1 | 6 | 40 |
| LFRAM10-0610-08A-01DP | 6.1 | 62 | 86 | 128 | 127 | 1 | 8 | 10 |
| LFRAM12-0610-08A-01DP | 6.1 | 74.2 | 116 | 158 | 157 | 1 | 8 | 12 |
| LFRAM10-0620-08A-01DP | 6.2 | 63 | 86 | 128 | 127 | 1 | 8 | 10 |
| LFRAM12-0620-08A-01DP | 6.2 | 75.4 | 116 | 158 | 157 | 1 | 8 | 12 |
| LFRAM10-0630-08A-01DP | 6.3 | 64 | 86 | 128 | 127 | 1 | 8 | 10 |
| LFRAM12-0630-08A-01DP | 6.3 | 76.6 | 116 | 158 | 157 | 1 | 8 | 12 |
| LFRAM10-0650-08A-01DP | 6.5 | 66.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 |
| LFRAM12-0650-08A-01DP | 6.5 | 79.1 | 116 | 158 | 156.9 | 1.1 | 8 | 12 |
| LFRAM15-0650-08A-01DP | 6.5 | 98.6 | 116 | 158 | 156.9 | 1.1 | 8 | 15 |
| LFRAM20-0650-08A-01DP | 6.5 | 131.1 | 150 | 192 | 190.9 | 1.1 | 8 | 20 |
| LFRAM30-0650-08A-01DP | 6.5 | 196.1 | 215 | 257 | 255.9 | 1.1 | 8 | 30 |
| LFRAM40-0650-08A-01DP | 6.5 | 261.1 | 280 | 322 | 320.9 | 1.1 | 8 | 40 |

注: ① 样本规格以外的需求 (特殊直径和长径比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via

Drill LFRAM

深孔钻头 Deep hole drills



| | |
|---------------------------------|-----------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 135° |
| 加工材料 material group | 不锈钢 ISO-M |

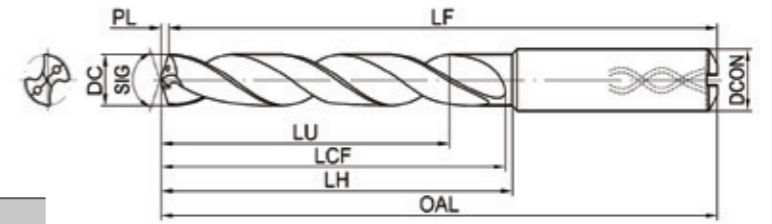
ISO材料应用范围
ISO material group **M**

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| LFRAM10-0660-08A-01DP | 6.6 | 67.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | 10 |
| LFRAM12-0660-08A-01DP | 6.6 | 80.3 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | 12 |
| LFRAM10-0670-08A-01DP | 6.7 | 68.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | 10 |
| LFRAM12-0670-08A-01DP | 6.7 | 81.5 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | 12 |
| LFRAM10-0680-08A-01DP | 6.8 | 69.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | 10 |
| LFRAM12-0680-08A-01DP | 6.8 | 82.7 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | 12 |
| LFRAM15-0680-08A-01DP | 6.8 | 103.1 | 122 | 164 | 162.9 | 1.1 | 8 | 15 | 15 |
| LFRAM20-0680-08A-01DP | 6.8 | 137.1 | 156 | 198 | 196.9 | 1.1 | 8 | 20 | 20 |
| LFRAM10-0690-08A-01DP | 6.9 | 70.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | 10 |
| LFRAM12-0690-08A-01DP | 6.9 | 83.9 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | 12 |
| LFRAM10-0700-08A-01DP | 7 | 71.1 | 86 | 128 | 126.9 | 1.1 | 8 | 10 | 10 |
| LFRAM12-0700-08A-01DP | 7 | 85.1 | 116 | 158 | 156.9 | 1.1 | 8 | 12 | 12 |
| LFRAM15-0700-08A-01DP | 7 | 106.1 | 126 | 168 | 166.9 | 1.1 | 8 | 15 | 15 |
| LFRAM20-0700-08A-01DP | 7 | 141.1 | 161 | 203 | 201.9 | 1.1 | 8 | 20 | 20 |
| LFRAM30-0700-08A-01DP | 7 | 211.1 | 231 | 273 | 271.9 | 1.1 | 8 | 30 | 30 |
| LFRAM40-0700-08A-01DP | 7 | 281.1 | 301 | 343 | 341.9 | 1.1 | 8 | 40 | 40 |
| LFRAM10-0740-08A-01DP | 7.4 | 75.2 | 101 | 143 | 141.8 | 1.2 | 8 | 10 | 10 |
| LFRAM12-0740-08A-01DP | 7.4 | 90 | 116 | 158 | 156.8 | 1.2 | 8 | 12 | 12 |
| LFRAM10-0750-08A-01DP | 7.5 | 76.2 | 101 | 143 | 141.8 | 1.2 | 8 | 10 | 10 |
| LFRAM12-0750-08A-01DP | 7.5 | 91.2 | 116 | 158 | 156.8 | 1.2 | 8 | 12 | 12 |
| LFRAM15-0750-08A-01DP | 7.5 | 113.7 | 135 | 177 | 175.8 | 1.2 | 8 | 15 | 15 |
| LFRAM20-0750-08A-01DP | 7.5 | 151.2 | 173 | 215 | 213.8 | 1.2 | 8 | 20 | 20 |
| LFRAM30-0750-08A-01DP | 7.5 | 226.2 | 248 | 290 | 288.8 | 1.2 | 8 | 30 | 30 |
| LFRAM40-0750-08A-01DP | 7.5 | 301.2 | 323 | 365 | 363.8 | 1.2 | 8 | 40 | 40 |
| LFRAM10-0760-08A-01DP | 7.6 | 77.2 | 101 | 143 | 141.8 | 1.2 | 8 | 10 | 10 |
| LFRAM12-0760-08A-01DP | 7.6 | 92.4 | 116 | 158 | 156.8 | 1.2 | 8 | 12 | 12 |
| LFRAM10-0770-08A-01DP | 7.7 | 78.3 | 101 | 143 | 141.7 | 1.3 | 8 | 10 | 10 |
| LFRAM12-0770-08A-01DP | 7.7 | 93.7 | 116 | 158 | 156.7 | 1.3 | 8 | 12 | 12 |
| LFRAM10-0780-08A-01DP | 7.8 | 79.3 | 101 | 143 | 141.7 | 1.3 | 8 | 10 | 10 |
| LFRAM12-0780-08A-01DP | 7.8 | 94.9 | 116 | 158 | 156.7 | 1.3 | 8 | 12 | 12 |
| LFRAM10-0800-08A-01DP | 8 | 81.3 | 101 | 143 | 141.7 | 1.3 | 8 | 10 | 10 |
| LFRAM12-0800-08A-01DP | 8 | 97.3 | 116 | 158 | 156.7 | 1.3 | 8 | 12 | 12 |
| LFRAM15-0800-08A-01DP | 8 | 121.3 | 144 | 186 | 184.7 | 1.3 | 8 | 15 | 15 |
| LFRAM20-0800-08A-01DP | 8 | 161.3 | 184 | 226 | 224.7 | 1.3 | 8 | 20 | 20 |
| LFRAM30-0800-08A-01DP | 8 | 241.3 | 264 | 306 | 304.7 | 1.3 | 8 | 30 | 30 |
| LFRAM40-0800-08A-01DP | 8 | 321.3 | 344 | 386 | 384.7 | 1.3 | 8 | 40 | 40 |
| LFRAM10-0810-10A-01DP | 8.1 | 82.3 | 106 | 152 | 150.7 | 1.3 | 10 | 10 | 10 |
| LFRAM12-0810-10A-01DP | 8.1 | 98.5 | 146 | 192 | 190.7 | 1.3 | 10 | 12 | 12 |
| LFRAM10-0820-10A-01DP | 8.2 | 83.3 | 106 | 152 | 150.7 | 1.3 | 10 | 10 | 10 |
| LFRAM12-0820-10A-01DP | 8.2 | 99.7 | 146 | 192 | 190.7 | 1.3 | 10 | 12 | 12 |
| LFRAM10-0840-10A-01DP | 8.4 | 85.4 | 106 | 152 | 150.6 | 1.4 | 10 | 10 | 10 |

注：① 样本规格以外的需求（特殊直径和长径比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 47

Drill LFRAM

深孔钻头 Deep hole drills



| | |
|---------------------------------|-----------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 135° |
| 加工材料 material group | 不锈钢 ISO-M |

ISO材料应用范围
ISO material group **M**

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|-------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| LFRAM10-1100-12A-01DP | 11 | 111.8 | 156 | 208 | 206.2 | 1.8 | 12 | 10 | 10 |
| LFRAM12-1100-12A-01DP | 11 | 133.8 | 176 | 228 | 226.2 | 1.8 | 12 | 12 | 12 |
| LFRAM15-1100-12A-01DP | 11 | 166.8 | 197 | 249 | 247.2 | 1.8 | 12 | 15 | 15 |
| LFRAM20-1100-12A-01DP | 11 | 221.8 | 252 | 304 | 302.2 | 1.8 | 12 | 20 | 20 |
| LFRAM10-1120-12A-01DP | 11.2 | 113.8 | 156 | 208 | 206.2 | 1.8 | 12 | 10 | 10 |
| LFRAM12-1120-12A-01DP | 11.2 | 136.2 | 176 | 228 | 226.2 | 1.8 | 12 | 12 | 12 |
| LFRAM10-1150-12A-01DP | 11.5 | 116.9 | 156 | 208 | 206.1 | 1.9 | 12 | 10 | 10 |
| LFRAM12-1150-12A-01DP | 11.5 | 139.9 | 176 | 228 | 226.1 | 1.9 | 12 | 12 | 12 |
| LFRAM15-1150-12A-01DP | 11.5 | 174.4 | 206 | 258 | 256.1 | 1.9 | 12 | 15 | 15 |
| LFRAM20-1150-12A-01DP | 11.5 | 231.9 | 264 | 316 | 314.1 | 1.9 | 12 | 20 | 20 |
| LFRAM10-1180-12A-01DP | 11.8 | 119.9 | 156 | 208 | 206.1 | 1.9 | 12 | 10 | 10 |
| LFRAM12-1180-12A-01DP | 11.8 | 143.5 | 176 | 228 | 226.1 | 1.9 | 12 | 12 | 12 |
| LFRAM10-1200-12A-01DP | 12 | 122 | 156 | 208 | 206 | 2 | 12 | 10 | 10 |
| LFRAM12-1200-12A-01DP | 12 | 146 | 176 | 228 | 226 | 2 | 12 | 12 | 12 |
| LFRAM15-1200-12A-01DP | 12 | 182 | 215 | 267 | 265 | 2 | 12 | 15 | 15 |
| LFRAM20-1200-12A-01DP | 12 | 242 | 275 | 327 | 325 | 2 | 12 | 20 | 20 |
| LFRAM10-1230-14A-01DP | 12.3 | 125.1 | 182 | 234 | 232 | 2 | 14 | 10 | 10 |
| LFRAM12-1230-14A-01DP | 12.3 | 149.7 | 206 | 258 | 256 | 2 | 14 | 12 | 12 |
| LFRAM10-1250-14A-01DP | 12.5 | 127 | 182 | 234 | 232 | 2 | 14 | 10 | 10 |
| LFRAM12-1250-14A-01DP | 12.5 | 152 | 206 | 258 | 256 | 2 | 14 | 12 | 12 |
| LFRAM10-1270-14A-01DP | 12.7 | 129.1 | 182 | 234 | 231.9 | 2.1 | 14 | 10 | 10 |
| LFRAM12-1270-14A-01DP | 12.7 | 154.5 | 206 | 258 | 255.9 | 2.1 | 14 | 12 | 12 |
| LFRAM10-1300-14A-01DP | 13 | 132.1 | 182 | 234 | 231.9 | 2.1 | 14 | 10 | 10 |
| LFRAM12-1300-14A-01DP | 13 | 158.1 | 206 | 258 | 255.9 | 2.1 | 14 | 12 | 12 |
| LFRAM10-1310-14A-01DP | 13.1 | 133.1 | 182 | 234 | 231.9 | 2.1 | 14 | 10 | 10 |
| LFRAM12-1310-14A-01DP | 13.1 | 159.3 | 206 | 258 | 255.9 | 2.1 | 14 | 12 | 12 |
| LFRAM10-1350-14A-01DP | 13.5 | 137.2 | 182 | 234 | 231.8 | 2.2 | 14 | 10 | 10 |
| LFRAM12-1350-14A-01DP | 13.5 | 164.2 | 206 | 258 | 255.8 | 2.2 | 14 | 12 | 12 |
| LFRAM10-1400-14A-01DP | 14 | 142.3 | 182 | 234 | 231.7 | 2.3 | 14 | 10 | 10 |
| LFRAM12-1400-14A-01DP | 14 | 170.3 | 206 | 258 | 255.7 | 2.3 | 14 | 12 | 12 |
| LFRAM10-1450-16A-01DP | 14.5 | 147.4 | 207 | 262 | 259.6 | 2.4 | 16 | 10 | 10 |
| LFRAM12-1450-16A-01DP | 14.5 | 176.4 | 236 | 291 | 288.6 | 2.4 | 16 | 12 | 12 |
| LFRAM10-1500-16A-01DP | 15 | 152.5 | 207 | 262 | 259.5 | 2.5 | 16 | 10 | 10 |
| LFRAM12-1500-16A-01DP | 15 | 182.5 | 236 | 291 | 288.5 | 2.5 | 16 | 12 | 12 |
| LFRAM10-1550-16A-01DP | 15.5 | 157.5 | 207 | 262 | 259.5 | 2.5 | 16 | 10 | 10 |
| LFRAM12-1550-16A-01DP | 15.5 | 188.5 | 236 | 291 | 288.5 | 2.5 | 16 | 12 | 12 |
| LFRAM10-1600-16A-01DP | 16 | 162.6 | 207 | 262 | 259.4 | 2.6 | 16 | 10 | 10 |
| LFRAM12-1600-16A-01DP | 16 | 194.6 | 236 | 291 | 288.4 | 2.6 | 16 | 12 | 12 |

注：① 样本规格以外的需求（特殊直径和长径比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 47

Company Introduction
SFP 钻头
YFDIII SFP
SEM 钻头
YFDIII SEM
DR200P 钻头
YFDIII DR200P
LFRAM 深孔钻头
YFDIII LFRAM
SFK 钻头
YFDIII SFK

Drill LFRAP

深孔钻头 Deep hole drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----------|---|----------------------------|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| P | 非合金钢 Unalloyed steel | | | | | |
| | P1.1.Z.AN | C = 0.05-0.1% | 125 | 60 | 90 | 120 |
| | P1.1.Z.AN | C = 0.1-0.25% | 125 | 60 | 90 | 120 |
| | P1.2.Z.AN | C = 0.25-0.55% | 150 | 60 | 90 | 120 |
| | P1.3.Z.AN | C = 0.55-0.80% | 170 | 60 | 90 | 120 |
| | 高碳钢 High carbon steel | | | | | |
| | P1.3.Z.AN | 碳素工具钢 Carbon tool steel | 210 | 60 | 80 | 100 |
| | 低合金钢 Low alloy steel | | | | | |
| | P2.1.Z.AN | 非淬硬 Non-hardened | 175 | 60 | 80 | 120 |
| | P2.5.Z.HT | 调质处理 Hardened and tempered | 275 | 50 | 80 | 100 |
| | P2.5.Z.HT | 调质处理 Hardened and tempered | 350 | 40 | 50 | 70 |
| | 高合金钢 High alloy steel | | | | | |
| | P3.0.Z.AN | 退火 Annealed | 200 | 40 | 80 | 90 |
| | P3.0.Z.HT | 淬硬工具钢 Hardened tool steel | 300 | 40 | 50 | 70 |
| | 铸钢 Steel castings | | | | | |
| | P1.5.C.UT | 非合金 Unalloyed | 150 | 80 | 110 | 140 |
| P2.6.C.UT | 低合金 (合金元素≤5%) Low-alloy (alloying elements ≤5%) | 200 | 80 | 110 | 120 | |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.06 | 0.1 | 0.13 |
| 4 | 0.06 | 0.1 | 0.13 |
| 6 | 0.11 | 0.18 | 0.24 |
| 8 | 0.16 | 0.21 | 0.25 |
| 10 | 0.19 | 0.23 | 0.27 |
| 12 | 0.2 | 0.25 | 0.3 |
| 16 | 0.2 | 0.25 | 0.3 |
| 20 | 0.2 | 0.25 | 0.3 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料，需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally

Drill LFRAM

深孔钻头 Deep hole drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----|---|--------------------------------------|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| M | 奥氏体不锈钢 Austenitic stainless steel | | | | | |
| | M1.0.C.UT | 铸造+未处理 Cast+untreated | 165 | 30 | 40 | 60 |
| | M1.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 30 | 40 | 60 |
| | M1.0.Z.PH | 沉淀硬化 PH-hardened | 350 | 30 | 40 | 60 |
| | M1.1.Z.AQ | 改善了可加工性 Machinability improved | 165 | 30 | 40 | 60 |
| | M1.2.Z.AQ | 易切削 Free cutting | 200 | 30 | 40 | 60 |
| | M1.3.C.AQ | 钛稳定化+铸造 Ti-stabilized+cast | 200 | 30 | 40 | 60 |
| | M1.3.Z.AQ | 钛稳定化 Ti-stabilized | 200 | 30 | 40 | 60 |
| | M1.4.Z.AQ | 高强度 High strength | 250 | 30 | 40 | 60 |
| | 优质奥氏体(Ni>20%)不锈钢 Super austenitic (Ni>20%) stainless steel | | | | | |
| | M2.0.C.AQ | 铸造+退火/淬火 Cast+annealed/quenched | 165 | 20 | 30 | 40 |
| | M2.0.Z.AQ | 退火/淬火 Annealed/quenched | 200 | 20 | 30 | 40 |
| | 双相(奥氏体/铁素体)不锈钢 Duplex (austenitic/ferritic) stainless steel | | | | | |
| | M3.1.Z.AQ >60% | 铁素体 (N<0.10%) >60% ferrite (N<0.10%) | 250 | 30 | 40 | 60 |
| | M3.2.Z.AQ <60% | 铁素体 (N≥0.10%) <60% ferrite (N≥0.10%) | 250 | 30 | 40 | 60 |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.05 | 0.1 | 0.15 |
| 4 | 0.05 | 0.1 | 0.15 |
| 6 | 0.06 | 0.11 | 0.16 |
| 8 | 0.06 | 0.11 | 0.16 |
| 10 | 0.07 | 0.12 | 0.17 |
| 12 | 0.08 | 0.13 | 0.18 |
| 16 | 0.09 | 0.14 | 0.19 |
| 20 | 0.1 | 0.15 | 0.2 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的不锈钢例如沉淀硬化不锈钢，需要按比例降低转速和进给
In case component material hardness increase such as PH stainless steel, please decrease cutting speed proportionally

公司介绍 Introduction
SFP 钻头
SFM 钻头
DR200P 钻头
LFRAM 深孔钻头
SFK 钻头

Drill LFRAP

深孔钻头 Deep hole drills



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----------|---------------------|-----------------------------|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| K | 可锻铸铁 Malleable iron | | | | | |
| | K1.1.C.NS | 铁素体 珠光体 Ferritic Pearlitic | 200 | 60 | 80 | 120 |
| | 灰铸铁 (GCI) | | | | | |
| | K2.1.C.UT | 低抗拉强度 Low tensile strength | 180 | 60 | 80 | 120 |
| | K2.2.C.UT | 高抗拉强度 High tensile strength | 245 | 60 | 80 | 120 |
| | K2.3.C.UT | 高抗拉强度 High tensile strength | 175 | 60 | 80 | 120 |
| | 球墨铸铁 (NDI) | | | | | |
| | K3.1.C.UT | 铁素体 珠光体 Ferritic Pearlitic | 155 | 60 | 70 | 80 |
| | K3.2.C.UT | 珠光体 Perlitic | 215 | 60 | 70 | 80 |
| | K3.3.C.UT | 珠光体 Perlitic | 265 | 60 | 70 | 80 |
| K3.5.C.UT | 珠光体 Perlitic | 190 | 60 | 70 | 80 | |
| K5.1.C.UT | ADI-等温淬火球墨铸铁 | 300 | 60 | 70 | 80 | |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.06 | 0.09 | 0.12 |
| 4 | 0.07 | 0.1 | 0.13 |
| 6 | 0.08 | 0.12 | 0.16 |
| 8 | 0.16 | 0.2 | 0.24 |
| 10 | 0.16 | 0.2 | 0.28 |
| 12 | 0.16 | 0.2 | 0.28 |
| 16 | 0.2 | 0.25 | 0.3 |
| 20 | 0.2 | 0.25 | 0.3 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料，需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally

Drill LFRAM

深孔钻头 Deep hole drills



带内冷设计 internal coolant


| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----|--------------------------|--|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| N | 铝 Aluminium | | | | | |
| | N1.2.Z.UT | 工业纯铝 Commercial pure | 60 | 80 | 120 | 150 |
| | N1.2.Z.AG | 含硅铝合金 (硅含量≤1%) AlSi alloys, Si ≤ 1% | 100 | 80 | 120 | 150 |
| | N1.3.C.UT | 铸铝, 非时效 Cast, non-aging | 75 | 80 | 120 | 150 |
| | N1.3.C.UT | 铸铝加时效处理 Cast or cast and aged | 90 | 80 | 120 | 150 |
| | N1.4.C.NS | 含硅铸铝 (硅含量≥13%) AlSi cast alloys, Si ≥ 13% | 130 | 60 | 100 | 120 |
| | 铜基合金 Copper based alloys | | | | | |
| | N3.3.U.UT | 易切铜合金 (Pb>1%) Free cutting alloys | 110 | 70 | 90 | 110 |
| | N3.1.U.UT | 非铅铜合金 (包括电解铜) Non-leaded copper alloys (incl. electrolytic copper) | 100 | 70 | 80 | 100 |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.08 | 0.15 | 0.2 |
| 4 | 0.1 | 0.15 | 0.2 |
| 6 | 0.16 | 0.28 | 0.35 |
| 8 | 0.16 | 0.28 | 0.35 |
| 10 | 0.2 | 0.25 | 0.35 |
| 12 | 0.2 | 0.25 | 0.35 |
| 16 | 0.2 | 0.28 | 0.35 |
| 20 | 0.2 | 0.3 | 0.35 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料，需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally

Company Introduction
 SFP 钻头
 TFD/III SFP
 SFM 钻头
 TFD/III SFM
 DR200P 钻头
 TFD/III DR200P
 LFRAP 深孔钻头
 TFD/III LFRAP
 SFK 钻头
 TFD/III SFK

 **通用**
Versatile solution

 **定制**
Customized solution

ISO材料组应用范围 ISO material groups

K



SFK产品介绍

SFK PRODUCT INTRODUCTION

铸铁通用钻头 Versatile solid carbide drills for ISO-K material

编号规则

ORDERING CODE

概述及应用领域






Overview & application areas

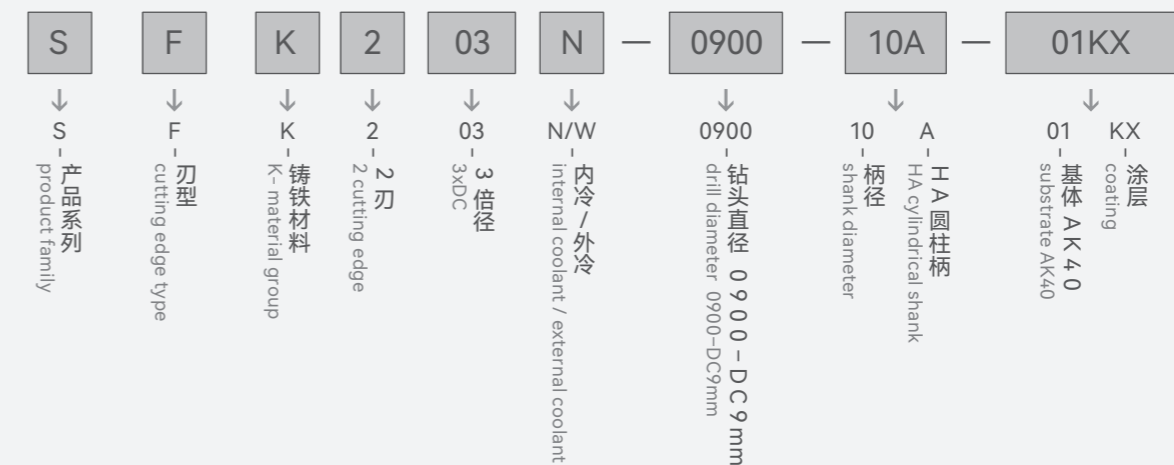
- 铸铁材料通用加工
- 包括灰口铸铁、球墨铸铁、蠕墨铸铁以及ADI铸铁
- 可获孔径公差: IT8-9
- 产品直径范围: D3-D20mm
- 钻孔深度可达8倍径

- General machining for ISO-K material
- Including GCI, NCI, CGI and ADI
- Hole tolerance H8-H9
- Diameter range: 3.0-20.0 mm
- Drill length above 8xDC

特性与益处

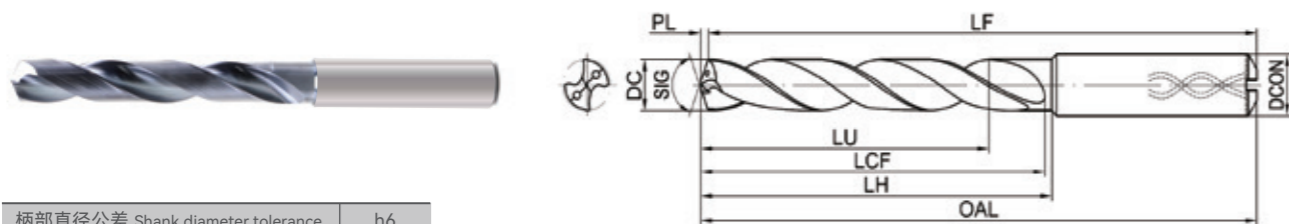
Features and benefits

-  **覆盖稳定工况和不稳定工况**
Cover both stable and unstable cutting conditions
-  **内冷设计**
Provide internal coolant solutions
-  **弯刃口提供优异断屑性能**
Curve cutting edge generates good chips deformation
-  **圆锥形后刀面提高刃口强度**
Conical flank surface generates cutting edge high toughness
-  **宽阔的容屑槽设计提高排屑能力**
Good chips evacuation thanks to chips flute optimization design
-  **刀尖倒角降低崩刃风险**
Chamfer design on peripheral corner which reduce risk of breakage



Drill SFK

铸铁通用钻头 Versatile solid carbide drills for ISO-K



内冷钻头 internal coolant design

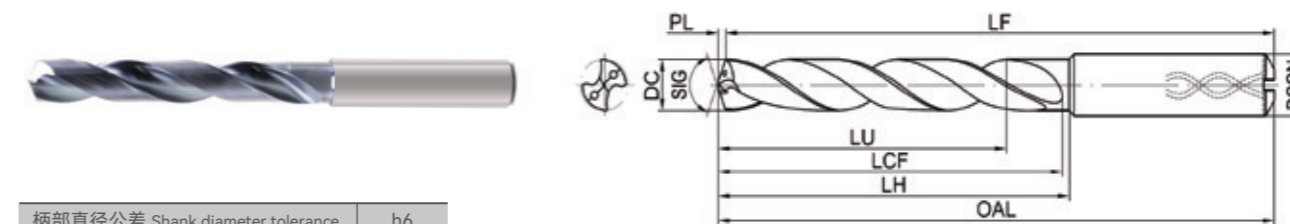
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|------|-----|-----|------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFK203N-0300-04A-01KX | 3 | 9.5 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFK205N-0300-04A-01KX | 3 | 15.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFK208N-0300-04A-01KX | 3 | 24.5 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFK203N-0310-04A-01KX | 3.1 | 9.8 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFK205N-0310-04A-01KX | 3.1 | 16 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFK208N-0310-04A-01KX | 3.1 | 25.3 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFK203N-0320-04A-01KX | 3.2 | 10.1 | 20 | 62 | 61.5 | 0.5 | 4 | 3 | |
| SFK205N-0320-04A-01KX | 3.2 | 16.5 | 26 | 66 | 65.5 | 0.5 | 4 | 5 | |
| SFK208N-0320-04A-01KX | 3.2 | 26.1 | 40 | 78 | 77.5 | 0.5 | 4 | 8 | |
| SFK203N-0330-04A-01KX | 3.3 | 10.5 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFK205N-0330-04A-01KX | 3.3 | 17.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFK208N-0330-04A-01KX | 3.3 | 27 | 40 | 78 | 77.5 | 0.6 | 4 | 8 | |
| SFK203N-0340-04A-01KX | 3.4 | 10.8 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFK205N-0340-04A-01KX | 3.4 | 17.6 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFK208N-0340-04A-01KX | 3.4 | 27.5 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFK203N-0350-04A-01KX | 3.5 | 11.1 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFK205N-0350-04A-01KX | 3.5 | 18.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFK208N-0350-04A-01KX | 3.5 | 27.3 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFK203N-0360-04A-01KX | 3.6 | 11.4 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFK205N-0360-04A-01KX | 3.6 | 18.5 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFK208N-0360-04A-01KX | 3.6 | 27.3 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFK203N-0370-04A-01KX | 3.7 | 11.7 | 20 | 62 | 61.4 | 0.6 | 4 | 3 | |
| SFK205N-0370-04A-01KX | 3.7 | 19.1 | 26 | 66 | 65.4 | 0.6 | 4 | 5 | |
| SFK208N-0370-04A-01KX | 3.7 | 27.9 | 40 | 78 | 77.4 | 0.6 | 4 | 8 | |
| SFK203N-0380-04A-01KX | 3.8 | 12.1 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| SFK205N-0380-04A-01KX | 3.8 | 20.2 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| SFK208N-0380-04A-01KX | 3.8 | 31.1 | 49 | 87 | 86.4 | 0.6 | 4 | 8 | |
| SFK203N-0390-04A-01KX | 3.9 | 12.5 | 24 | 66 | 65.4 | 0.6 | 4 | 3 | |
| SFK205N-0390-04A-01KX | 3.9 | 20.2 | 34 | 74 | 73.4 | 0.6 | 4 | 5 | |
| SFK208N-0390-04A-01KX | 3.9 | 31.9 | 49 | 87 | 86.4 | 0.6 | 4 | 8 | |
| SFK203N-0400-04A-01KX | 4 | 12.7 | 24 | 66 | 65.3 | 0.7 | 4 | 3 | |
| SFK205N-0400-04A-01KX | 4 | 20.7 | 34 | 74 | 73.3 | 0.7 | 4 | 5 | |
| SFK208N-0400-04A-01KX | 4 | 32.7 | 49 | 87 | 86.3 | 0.7 | 4 | 8 | |
| SFK203N-0410-06A-01KX | 4.1 | 13 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFK205N-0410-06A-01KX | 4.1 | 21.2 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFK208N-0410-06A-01KX | 4.1 | 33.5 | 49 | 87 | 86.3 | 0.7 | 6 | 8 | |
| SFK203N-0420-06A-01KX | 4.2 | 13.3 | 24 | 66 | 65.3 | 0.7 | 6 | 3 | |
| SFK205N-0420-06A-01KX | 4.2 | 21.7 | 34 | 74 | 73.3 | 0.7 | 6 | 5 | |
| SFK208N-0420-06A-01KX | 4.2 | 34.3 | 49 | 87 | 86.3 | 0.7 | 6 | 8 | |
| SFK203N-0430-06A-01KX | 4.3 | 13.7 | 24 | 66 | 65.2 | 0.7 | 6 | 3 | |
| SFK205N-0430-06A-01KX | 4.3 | 22.3 | 34 | 74 | 73.2 | 0.7 | 6 | 5 | |

注: ① 样本规格以外的需求 (特殊直径和长度比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 57

Drill SFK

铸铁通用钻头 Versatile solid carbide drills for ISO-K



内冷钻头 internal coolant design

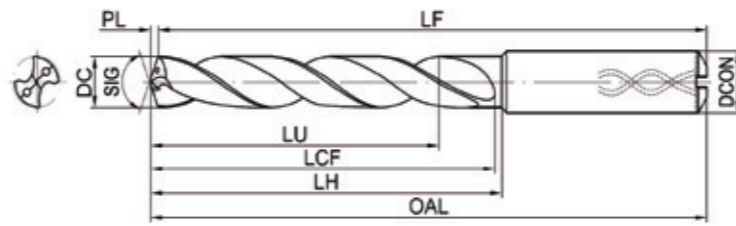
| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | | ULDR |
|-----------------------|-------------------|------|-----|-----|-------|-----|------|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | ULDR | |
| SFK208N-0580-06A-01KX | 5.8 | 47.3 | 56 | 94 | 93 | 1 | 6 | 8 | |
| SFK203N-0590-06A-01KX | 5.9 | 18.2 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFK205N-0590-06A-01KX | 5.9 | 30.4 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFK208N-0590-06A-01KX | 5.9 | 47.4 | 56 | 94 | 93 | 1 | 6 | 8 | |
| SFK203N-0600-06A-01KX | 6 | 18.9 | 28 | 66 | 65 | 1 | 6 | 3 | |
| SFK205N-0600-06A-01KX | 6 | 30.9 | 44 | 82 | 81 | 1 | 6 | 5 | |
| SFK208N-0600-06A-01KX | 6 | 48.9 | 56 | 94 | 93 | 1 | 6 | 8 | |
| SFK203N-0610-08A-01KX | 6.1 | 19.6 | 34 | 79 | 77.9 | 1 | 8 | 3 | |
| SFK205N-0610-08A-01KX | 6.1 | 32 | 53 | 91 | 89.9 | 1 | 8 | 5 | |
| SFK208N-0610-08A-01KX | 6.1 | 50.6 | 67 | 106 | 104.9 | 1 | 8 | 8 | |
| SFK203N-0620-08A-01KX | 6.2 | 19.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFK205N-0620-08A-01KX | 6.2 | 32 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFK208N-0620-08A-01KX | 6.2 | 50.6 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFK203N-0630-08A-01KX | 6.3 | 19.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFK205N-0630-08A-01KX | 6.3 | 32.5 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFK208N-0630-08A-01KX | 6.3 | 51.4 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFK203N-0640-08A-01KX | 6.4 | 20.2 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFK205N-0640-08A-01KX | 6.4 | 33 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFK208N-0640-08A-01KX | 6.4 | 52.2 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFK203N-0650-08A-01KX | 6.5 | 20.6 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFK205N-0650-08A-01KX | 6.5 | 33.6 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFK208N-0650-08A-01KX | 6.5 | 53.1 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFK203N-0660-08A-01KX | 6.6 | 20.9 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFK205N-0660-08A-01KX | 6.6 | 34.1 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFK208N-0660-08A-01KX | 6.6 | 53.9 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFK203N-0670-08A-01KX | 6.7 | 21.2 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFK205N-0670-08A-01KX | 6.7 | 34.6 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFK208N-0670-08A-01KX | 6.7 | 54.7 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFK203N-0680-08A-01KX | 6.8 | 21.5 | 34 | 79 | 77.9 | 1.1 | 8 | 3 | |
| SFK205N-0680-08A-01KX | 6.8 | 35.1 | 53 | 91 | 89.9 | 1.1 | 8 | 5 | |
| SFK208N-0680-08A-01KX | 6.8 | 55.5 | 67 | 106 | 104.9 | 1.1 | 8 | 8 | |
| SFK203N-0690-08A-01KX | 6.9 | 21.8 | 34 | 79 | 77.8 | 1.2 | 8 | 3 | |
| SFK205N-0690-08A-01KX | 6.9 | 35.6 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| SFK208N-0690-08A-01KX | 6.9 | 56.3 | 67 | 106 | 104.8 | 1.2 | 8 | 8 | |
| SFK203N-0700-08A-01KX | 7 | 22.1 | 34 | 79 | 77.8 | 1.2 | 8 | 3 | |
| SFK205N-0700-08A-01KX | 7 | 36.1 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| SFK208N-0700-08A-01KX | 7 | 57.1 | 67 | 106 | 104.8 | 1.2 | 8 | 8 | |
| SFK203N-0710-08A-01KX | 7.1 | 22.4 | 41 | 79 | 77.8 | 1.2 | 8 | 3 | |
| SFK205N-0710-08A-01KX | 7.1 | 36.6 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |
| SFK203N-0720-08A-01KX | 7.2 | 22.8 | 41 | 79 | 77.8 | 1.2 | 8 | 3 | |
| SFK205N-0720-08A-01KX | 7.2 | 37.2 | 53 | 91 | 89.8 | 1.2 | 8 | 5 | |

注: ① 样本规格以外的需求 (特殊直径和长度比等), 提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 57

Drill SFK

铸铁通用钻头 Versatile solid carbide drills for ISO-K



内冷钻头 internal coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

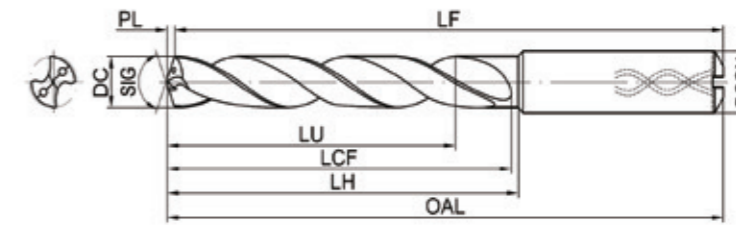
| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|-----------------------|-------------------|------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| SFK208N-0870-10A-01KX | 8.7 | 71 | 80 | 122 | 120.5 | 1.5 | 10 | 8 |
| SFK203N-0880-10A-01KX | 8.8 | 27.8 | 47 | 89 | 87.5 | 1.5 | 10 | 3 |
| SFK205N-0880-10A-01KX | 8.8 | 45.4 | 61 | 103 | 101.5 | 1.5 | 10 | 5 |
| SFK208N-0880-10A-01KX | 8.8 | 71.8 | 80 | 122 | 120.5 | 1.5 | 10 | 8 |
| SFK205N-0890-10A-01KX | 8.9 | 45.9 | 61 | 103 | 101.5 | 1.5 | 10 | 5 |
| SFK203N-0900-10A-01KX | 9 | 28.5 | 47 | 89 | 87.5 | 1.5 | 10 | 3 |
| SFK205N-0900-10A-01KX | 9 | 46.5 | 61 | 103 | 101.5 | 1.5 | 10 | 5 |
| SFK208N-0900-10A-01KX | 9 | 73.5 | 80 | 122 | 120.5 | 1.5 | 10 | 8 |
| SFK203N-0910-10A-01KX | 9.1 | 28.8 | 47 | 89 | 87.5 | 1.5 | 10 | 3 |
| SFK205N-0910-10A-01KX | 9.1 | 47 | 61 | 103 | 101.5 | 1.5 | 10 | 5 |
| SFK207N-0910-10A-01KX | 9.1 | 63.7 | 80 | 122 | 120.5 | 1.5 | 10 | 7 |
| SFK203N-0920-10A-01KX | 9.2 | 29.1 | 47 | 89 | 87.4 | 1.6 | 10 | 3 |
| SFK205N-0920-10A-01KX | 9.2 | 47.5 | 61 | 103 | 101.4 | 1.6 | 10 | 5 |
| SFK207N-0920-10A-01KX | 9.2 | 64.4 | 80 | 122 | 120.4 | 1.6 | 10 | 7 |
| SFK203N-0930-10A-01KX | 9.3 | 29.4 | 47 | 89 | 87.4 | 1.6 | 10 | 3 |
| SFK205N-0930-10A-01KX | 9.3 | 48 | 61 | 103 | 101.4 | 1.6 | 10 | 5 |
| SFK207N-0930-10A-01KX | 9.3 | 65.1 | 80 | 122 | 120.4 | 1.6 | 10 | 7 |
| SFK203N-0940-10A-01KX | 9.4 | 29.7 | 47 | 89 | 87.4 | 1.6 | 10 | 3 |
| SFK205N-0940-10A-01KX | 9.4 | 48.5 | 61 | 103 | 101.4 | 1.6 | 10 | 5 |
| SFK207N-0940-10A-01KX | 9.4 | 65.8 | 80 | 122 | 120.4 | 1.6 | 10 | 7 |
| SFK203N-0950-10A-01KX | 9.5 | 30 | 47 | 89 | 87.4 | 1.6 | 10 | 3 |
| SFK205N-0950-10A-01KX | 9.5 | 48.7 | 61 | 103 | 101.4 | 1.6 | 10 | 5 |
| SFK207N-0950-10A-01KX | 9.5 | 66.5 | 80 | 122 | 120.4 | 1.6 | 10 | 7 |
| SFK203N-0960-10A-01KX | 9.6 | 30.3 | 47 | 89 | 87.4 | 1.6 | 10 | 3 |
| SFK205N-0960-10A-01KX | 9.6 | 48.5 | 61 | 103 | 101.4 | 1.6 | 10 | 5 |
| SFK207N-0960-10A-01KX | 9.6 | 67.2 | 80 | 122 | 120.4 | 1.6 | 10 | 7 |
| SFK203N-0970-10A-01KX | 9.7 | 30.7 | 47 | 89 | 87.3 | 1.7 | 10 | 3 |
| SFK207N-0970-10A-01KX | 9.7 | 67.9 | 80 | 122 | 120.3 | 1.7 | 10 | 7 |
| SFK203N-0980-10A-01KX | 9.8 | 31 | 47 | 89 | 87.3 | 1.7 | 10 | 3 |
| SFK205N-0980-10A-01KX | 9.8 | 48.3 | 61 | 103 | 101.3 | 1.7 | 10 | 5 |
| SFK207N-0980-10A-01KX | 9.8 | 68.6 | 80 | 122 | 120.3 | 1.7 | 10 | 7 |
| SFK203N-0990-10A-01KX | 9.9 | 31.3 | 47 | 89 | 87.3 | 1.7 | 10 | 3 |
| SFK205N-0990-10A-01KX | 9.9 | 48.1 | 61 | 103 | 101.3 | 1.7 | 10 | 5 |
| SFK207N-0990-10A-01KX | 9.9 | 69.3 | 80 | 122 | 120.3 | 1.7 | 10 | 7 |
| SFK203N-1000-10A-01KX | 10 | 31.6 | 47 | 89 | 87.3 | 1.7 | 10 | 3 |
| SFK205N-1000-10A-01KX | 10 | 50 | 61 | 103 | 101.3 | 1.7 | 10 | 5 |
| SFK207N-1000-10A-01KX | 10 | 70 | 80 | 122 | 120.3 | 1.7 | 10 | 7 |
| SFK203N-1010-12A-01KX | 10.1 | 31.9 | 47 | 89 | 87.3 | 1.7 | 12 | 3 |
| SFK205N-1010-12A-01KX | 10.1 | 52.1 | 61 | 103 | 101.3 | 1.7 | 12 | 5 |
| SFK208N-1010-12A-01KX | 10.1 | 82.4 | 96 | 141 | 139.3 | 1.7 | 12 | 8 |
| SFK203N-1020-12A-01KX | 10.2 | 32.3 | 55 | 102 | 100.3 | 1.7 | 12 | 3 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|-----------------------|-------------------|------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| SFK205N-1020-12A-01KX | 10.2 | 52.7 | 71 | 118 | 116.3 | 1.7 | 12 | 5 |
| SFK208N-1020-12A-01KX | 10.2 | 83.3 | 96 | 141 | 139.3 | 1.7 | 12 | 8 |
| SFK203N-1030-12A-01KX | 10.3 | 32.6 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFK205N-1030-12A-01KX | 10.3 | 53.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFK208N-1030-12A-01KX | 10.3 | 84.1 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFK203N-1040-12A-01KX | 10.4 | 32.9 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFK205N-1040-12A-01KX | 10.4 | 53.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFK208N-1040-12A-01KX | 10.4 | 84.9 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFK203N-1050-12A-01KX | 10.5 | 33.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFK205N-1050-12A-01KX | 10.5 | 54.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFK208N-1050-12A-01KX | 10.5 | 85.7 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFK205N-1060-12A-01KX | 10.6 | 54.7 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFK203N-1070-12A-01KX | 10.7 | 33.8 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFK205N-1070-12A-01KX | 10.7 | 55.2 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFK203N-1080-12A-01KX | 10.8 | 34.2 | 55 | 102 | 100.2 | 1.8 | 12 | 3 |
| SFK205N-1080-12A-01KX | 10.8 | 55.8 | 71 | 118 | 116.2 | 1.8 | 12 | 5 |
| SFK208N-1080-12A-01KX | 10.8 | 88.2 | 96 | 141 | 139.2 | 1.8 | 12 | 8 |
| SFK205N-1090-12A-01KX | 10.9 | 56.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFK203N-1100-12A-01KX | 11 | 34.8 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFK205N-1100-12A-01KX | 11 | 56.8 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFK207N-1100-12A-01KX | 11 | 77 | 96 | 141 | 139.1 | 1.9 | 12 | 7 |
| SFK203N-1110-12A-01KX | 11.1 | 35.1 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFK205N-1110-12A-01KX | 11.1 | 57.3 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFK207N-1110-12A-01KX | 11.1 | 77.8 | 96 | 141 | 139.1 | 1.9 | 12 | 7 |
| SFK203N-1120-12A-01KX | 11.2 | 35.4 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFK205N-1120-12A-01KX | 11.2 | 57.6 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFK207N-1120-12A-01KX | 11.2 | 78.4 | 96 | 141 | 139.1 | 1.9 | 12 | 7 |
| SFK203N-1130-12A-01KX | 11.3 | 35.7 | 55 | 102 | 100.1 | 1.9 | 12 | 3 |
| SFK205N-1130-12A-01KX | 11.3 | 57.4 | 71 | 118 | 116.1 | 1.9 | 12 | 5 |
| SFK207N-1130-12A-01KX | 11.3 | 79.1 | 96 | 141 | 139.1 | 1.9 | 12 | 7 |
| SFK203N-1140-12A-01KX | 11.4 | 36.1 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFK203N-1150-12A-01KX | 11.5 | 36.4 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFK205N-1150-12A-01KX | 11.5 | 57.2 | 71 | 118 | 116 | 2 | 12 | 5 |
| SFK207N-1150-12A-01KX | 11.5 | 80.5 | 96 | 141 | 139 | 2 | 12 | 7 |
| SFK203N-1160-12A-01KX | 11.6 | 36.7 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFK203N-1170-12A-01KX | 11.7 | 37 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFK205N-1170-12A-01KX | 11.7 | 57 | 71 | 118 | 116 | 2 | 12 | 5 |
| SFK203N-1180-12A-01KX | 11.8 | 37.3 | 55 | 102 | 100 | 2 | 12 | 3 |
| SFK205N-1180-12A-01KX | 11.8 | 56.8 | 71 | 118 | 116 | 2 | 12 | 5 |
| SFK207N-1180-12A-01KX | 11.8 | 82.6 | 96 | 141 | 139 | 2 | 12 | 7 |
| SFK203N-1190-12A-01KX | 11.9 | 37.6 | 55 | 102 | 100 | 2 | 12 | 3 |

注：① 样本规格以外的需求（特殊直径和长径比等），提供非标订制
All intermediate sizes within diameter range & all intermediate lengths within limits, offered via special Cutting data, please go to page 57

Drill SFK

铸铁通用钻头 Versatile solid carbide drills for ISO-K



内冷钻头 internal coolant design

| | |
|----------------------------------|------|
| 柄部直径公差 Shank diameter tolerance | h6 |
| SIG | 140° |
| 最大修磨次数 Max. reconditioning times | 5 |

| 订货号 Ordering code | 尺寸 Dimension (mm) | | | | | | | ULDR |
|-----------------------|-------------------|------|-----|-----|-------|-----|------|------|
| | DC | LU | LCF | OAL | LF | PL | DCON | |
| SFK207N-1190-12A-01KX | 11.9 | 97.1 | 96 | 141 | 139 | 2 | 12 | 7 |
| SFK203N-1200-12A-01KX | 12 | 38 | 55 | 102 | 99.9 | 2.1 | 12 | 3 |
| SFK205N-1200-12A-01KX | 12 | 60 | 71 | 118 | 115.9 | 2.1 | 12 | 5 |
| SFK207N-1200-12A-01KX | 12 | 84 | 96 | 141 | 138.9 | 2.1 | 12 | 7 |
| SFK203N-1210-14A-01KX | 12.1 | 38.3 | 55 | 102 | 99.9 | 2.1 | 14 | 3 |
| SFK205N-1210-14A-01KX | 12.1 | 62.5 | 71 | 118 | 115.9 | 2.1 | 14 | 5 |
| SFK208N-1210-14A-01KX | 12.1 | 96.8 | 108 | 155 | 152.9 | 2.1 | 14 | 8 |
| SFK203N-1220-14A-01KX | 12.2 | 38.6 | 60 | 107 | 104.9 | 2.1 | 14 | 3 |
| SFK205N-1220-14A-01KX | 12.2 | 62.4 | 77 | 124 | 121.9 | 2.1 | 14 | 5 |
| SFK208N-1220-14A-01KX | 12.2 | 97.6 | 108 | 155 | 152.9 | 2.1 | 14 | 8 |
| SFK203N-1230-14A-01KX | 12.3 | 38.9 | 60 | 107 | 104.9 | 2.1 | 14 | 3 |
| SFK205N-1230-14A-01KX | 12.3 | 62.2 | 77 | 124 | 121.9 | 2.1 | 14 | 5 |
| SFK208N-1230-14A-01KX | 12.3 | 98.4 | 108 | 155 | 152.9 | 2.1 | 14 | 8 |
| SFK203N-1250-14A-01KX | 12.5 | 39.5 | 60 | 107 | 104.9 | 2.1 | 14 | 3 |
| SFK205N-1250-14A-01KX | 12.5 | 63 | 77 | 124 | 121.9 | 2.1 | 14 | 5 |
| SFK207N-1250-14A-01KX | 12.5 | 88 | 108 | 155 | 152.9 | 2.1 | 14 | 7 |
| SFK203N-1260-14A-01KX | 12.6 | 39.9 | 60 | 107 | 104.8 | 2.2 | 14 | 3 |
| SFK203N-1270-14A-01KX | 12.7 | 40.2 | 60 | 107 | 104.8 | 2.2 | 14 | 3 |
| SFK205N-1270-14A-01KX | 12.7 | 64 | 77 | 124 | 121.8 | 2.2 | 14 | 5 |
| SFK207N-1270-14A-01KX | 12.7 | 88.9 | 108 | 155 | 152.8 | 2.2 | 14 | 7 |
| SFK203N-1280-14A-01KX | 12.8 | 40.5 | 60 | 107 | 104.8 | 2.2 | 14 | 3 |
| SFK205N-1280-14A-01KX | 12.8 | 64.6 | 77 | 124 | 121.8 | 2.2 | 14 | 5 |
| SFK207N-1280-14A-01KX | 12.8 | 89.6 | 108 | 155 | 152.8 | 2.2 | 14 | 7 |
| SFK203N-1300-14A-01KX | 13 | 41.1 | 60 | 107 | 104.8 | 2.2 | 14 | 3 |
| SFK205N-1300-14A-01KX | 13 | 61.4 | 77 | 124 | 121.8 | 2.2 | 14 | 5 |
| SFK207N-1300-14A-01KX | 13 | 91 | 108 | 155 | 152.8 | 2.2 | 14 | 7 |
| SFK203N-1310-14A-01KX | 13.1 | 41.4 | 60 | 107 | 104.7 | 2.3 | 14 | 3 |
| SFK205N-1310-14A-01KX | 13.1 | 61.3 | 77 | 124 | 121.7 | 2.3 | 14 | 5 |
| SFK207N-1310-14A-01KX | 13.1 | 91.7 | 108 | 155 | 152.7 | 2.3 | 14 | 7 |
| SFK203N-1350-14A-01KX | 13.5 | 42.7 | 60 | 107 | 104.7 | 2.3 | 14 | 3 |
| SFK205N-1350-14A-01KX | 13.5 | 60.8 | 77 | 124 | 121.7 | 2.3 | 14 | 5 |
| SFK207N-1350-14A-01KX | 13.5 | 94.5 | 108 | 155 | 152.7 | 2.3 | 14 | 7 |
| SFK203N-1380-14A-01KX | 13.8 | 43.4 | 60 | 107 | 104.6 | 2.4 | 14 | 3 |
| SFK205N-1380-14A-01KX | 13.8 | 60.4 | 77 | 124 | 121.6 | 2.4 | 14 | 5 |
| SFK207N-1380-14A-01KX | 13.8 | 96.6 | 108 | 155 | 152.6 | 2.4 | 14 | 7 |
| SFK203N-1400-14A-01KX | 14 | 44.3 | 60 | 107 | 104.6 | 2.4 | 14 | 3 |
| SFK205N-1400-14A-01KX | 14 | 63 | 77 | 124 | 121.6 | 2.4 | 14 | 5 |
| SFK207N-1400-14A-01KX | 14 | 98 | 108 | 155 | 152.6 | 2.4 | 14 | 7 |
| SFK203N-1 | | | | | | | | |

Drill SFK

铸铁通用钻头 Versatile solid carbide drills for ISO-K



带内冷设计 internal coolant

| ISO | MC材料编号 MC No. | 工件材料 Component material | 布氏硬度 Hardness Brinell | 线速度 VC(m/min) Cutting speed | | |
|-----------|---------------------|-----------------------------|--------------------------|--------------------------------|-------------|------------|
| | | | | 最小 Min. | 起始 Start | 最大 Max. |
| K | 可锻铸铁 Malleable iron | | | | | |
| | K1.1.C.NS | 铁素体 珠光体 Ferritic Pearlitic | 200 | 80 | 100 | 120 |
| | 灰铸铁 (GCI) | | | | | |
| | K2.1.C.UT | 低抗拉强度 Low tensile strength | 180 | 100 | 120 | 140 |
| | K2.2.C.UT | 高抗拉强度 High tensile strength | 245 | 80 | 100 | 120 |
| | K2.3.C.UT | 高抗拉强度 High tensile strength | 175 | 100 | 120 | 140 |
| | 球墨铸铁 (NDI) | | | | | |
| | K3.1.C.UT | 铁素体 珠光体 Ferritic Pearlitic | 155 | 100 | 120 | 140 |
| | K3.2.C.UT | 珠光体 Perlitic | 215 | 80 | 100 | 120 |
| | K3.3.C.UT | 珠光体 Perlitic | 265 | 100 | 120 | 140 |
| K3.5.C.UT | 珠光体 Perlitic | 190 | 100 | 120 | 140 | |
| K5.1.C.UT | ADI-等温淬火球墨铸铁 | 300 | 60 | 80 | 100 | |

| 钻头直径 Drill diameter (mm) | 每转进给 Feed Fn(mm/r) * | | |
|--------------------------|----------------------|----------|---------|
| | 最小 Min. | 起始 Start | 最大 Max. |
| 3 | 0.08 | 0.1 | 0.12 |
| 4 | 0.1 | 0.12 | 0.14 |
| 6 | 0.12 | 0.16 | 0.18 |
| 8 | 0.16 | 0.2 | 0.24 |
| 10 | 0.2 | 0.25 | 0.3 |
| 12 | 0.22 | 0.28 | 0.33 |
| 16 | 0.25 | 0.32 | 0.38 |
| 20 | 0.26 | 0.34 | 0.4 |

- ① 切削参数推荐值仅在使用内冷时有效
Cutting data is suitable for internal coolant
- ② 推荐的内冷切削液压力最小20bar
Coolant pressure recommendation min. 20bar
- ③ 硬度较高的材料，需要按比例降低转速和进给
In case component material hardness increase, please decrease cutting speed proportionally
- ④ 如果使用外冷加工，需要调节转速参数以确保切屑成型良好且排屑顺畅
Under external coolant condition, please adjust cutting speed to secure good chips formation and evacuation
- ⑤ 如果使用外冷加工，必要时降低每转进给以确保排屑顺畅
Under external coolant condition, please decrease feed per revolution to secure chips evacuation