

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



苏州用朴精密科技有限公司

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版本号：YP-Drilling-202402



一站式服务  
One-stop  
service



非标定制  
Customized  
solution



百余年技术加持  
Sandvik Coromant  
technical support

www.yp-tec.com



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# ABOUT YONGPU 关于用朴

圆柄类刀具一站式综合服务商  
ROUND TOOLS ONE-STOP  
GENERAL SERVICE PROVIDER



一站式服务  
One-stop  
service



非标定制  
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solution



百余年技术加持  
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technical support


苏州用朴精密科技有限公司成立于2013年，是一家专注圆柄类精密刀具的研发生产和销售的高新技术企业，提供圆柄类棒材、精密刀具、涂层的全产业链一站式服务。现有苏州吴江和安徽滁州两处制造基地，拥有专业的技术团队，先进的生产设备和完善的质量管理体系，依托山特维克的技术支持以及完整的产业链打造客户值得信赖的圆柄类刀具一站式综合服务商。

Suzhou Yongpu Precision Technology Co., Ltd. was established in 2013 and is a high-tech enterprise specializing in the research, development, production, and sales of high precision solid carbide round tools. It provides one-stop services for the entire industry chain of round tool blanks, high precision cutting tools, and coatings. There are two production units in Wujiang, Suzhou and Chuzhou, Anhui, with professional technical teams, advanced production equipment, and a comprehensive quality control system. With Sandvik's technical support and a complete industrial chain, we aim to create a trustworthy one-stop general service provider for solid carbide round tools for our customers.



Round Tools  
One-stop General  
Service Provider

 **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

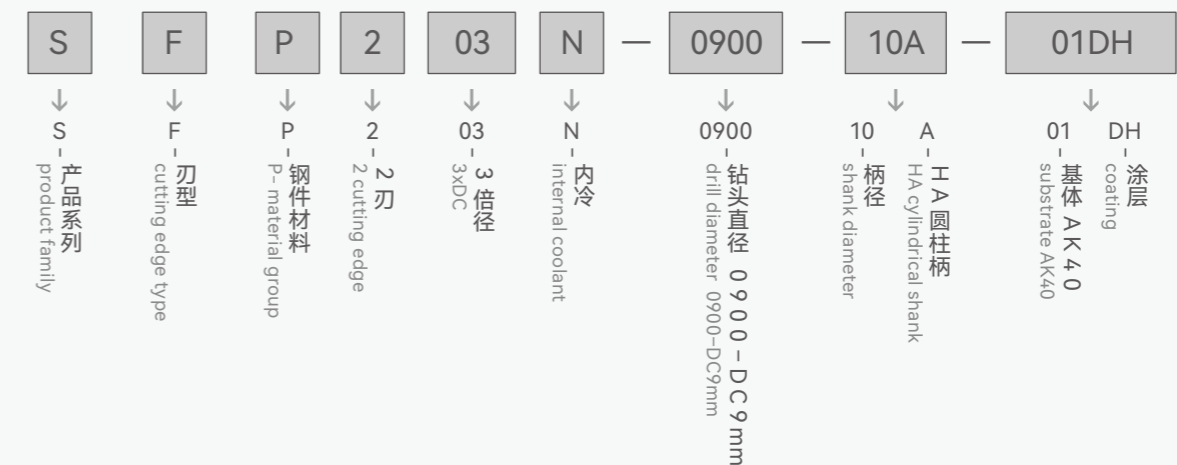
- 应用于通用机械、模具、汽车和能源行业
- 适用于ISO工件材料组P、K、M、H
- 可获孔径公差: IT8-9
- 产品直径范围: D3-D20mm
- 钻孔深度可达8倍径

- 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 8xD

#### 特性与益处

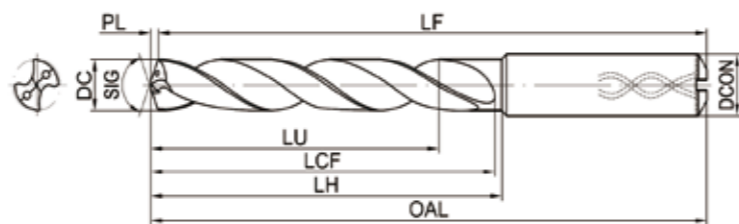
Features and benefits

-  **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



# YPDrill 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

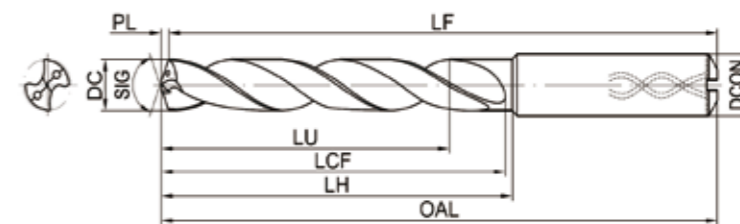
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	DC	LU	LCF	OAL	LF	PL	DCON	ULDR	
SFP203N-0300-04-01RA-H	3	9.5	20	62	61.5	0.5	4	3	
SFP205N-0300-04-01RA-H	3	15.5	26	66	65.5	0.5	4	5	
SFP208N-0300-04-01RA-H	3	24.5	40	78	77.5	0.5	4	8	
SFP203N-0310-04-01RA-H	3.1	9.8	20	62	61.5	0.5	4	3	
SFP205N-0310-04-01RA-H	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

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

# YPDrill 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

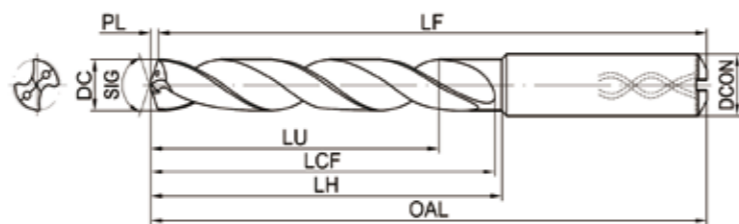
订货号 Ordering code	尺寸 Dimension (mm)								ULDR
	DC	LU	LCF	OAL	LF	PL	DCON	ULDR	
SFP203N-0530-06-01RA-H	5.3	16.7	28	66	65.1	0.9	6	3	
SFP205N-0530-06-01RA-H	5.3	27.3	44	82	81.1	0.9	6	5	
SFP203N-0540-06-01RA-H	5.4	17	28	66	65.1	0.9	6	3	
SFP205N-0540-06-01RA-H	5.4	27.8	44	82	81.1	0.9	6	5	
SFP208N-0540-06-01RA-H	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	

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# YPDrill 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

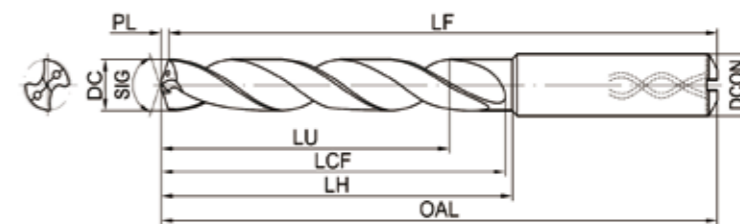
柄部直径公差 Shank diameter tolerance	h6
SIG	140°
最大修磨次数 Max. reconditioning times	5

订货号 Ordering code	尺寸 Dimension (mm)							ULDR
	DC	LU	LCF	OAL	LF	PL	DCON	
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
SFP208N-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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# YPDrill SFP

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



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SIG	140°
最大修磨次数 Max. reconditioning times	5

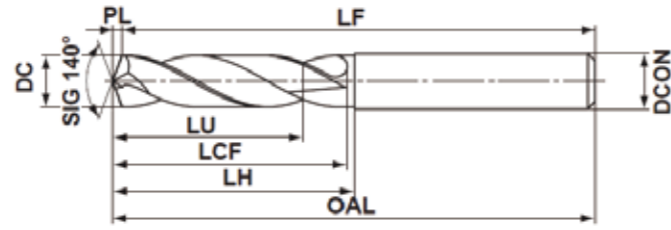
订货号 Ordering code	尺寸 Dimension (mm)							ULDR
	DC	LU	LCF	OAL	LF	PL	DCON	
SFP208N-0992-10-01RA-H	9.92	69.4	80	122	120.3	1.7	10	7
SFP203N-1000-10-01RA-H	10	31.6	47	89	87.3	1.7	10	3
SFP205N-1000-10-01RA-H	10	50	61	103	101.3	1.7	10	5
SFP208N-1000-10-01RA-H	10	70	80	122	120.3	1.7	10	7
SFP203N-1010-10-01RA-H	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
SFP208N-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
SFP208N-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
SFP208N-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



# YPD 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

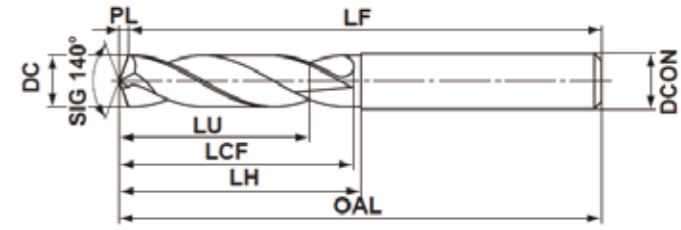
柄部直径公差 Shank diameter tolerance	h6
SIG	140°
最大修磨次数 Max. reconditioning times	5

订货号 Ordering code	尺寸 Dimension (mm)								ULDR
	DC	LU	LCF	OAL	LF	PL	DCON	ULDR	
SFP203W-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	

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Cutting data, please go to page 16

# YPD 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-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	
SFP203W-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	35.1	55	102	100.1	1.9	12	3	
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	36.2	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	
SFP205W-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  
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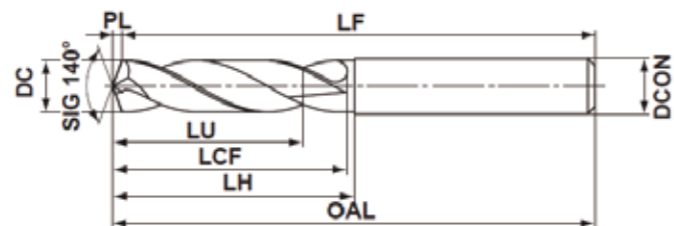


# YPDrill SFP

通用高性能整体硬质合金钻头 Versatile 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



外冷钻头 external coolant design

订货号 Ordering code	尺寸 Dimension (mm)							ULDR
	DC	LU	LCF	OAL	LF	PL	DCON	
SFP203W-1469-16-01RA-H	14.69	46.4	65	115	112.5	2.5	16	3
SFP203W-1480-16-01RA-H	14.8	46.9	65	115	112.4	2.6	16	3
SFP205W-1480-16-01RA-H	14.8	68.2	83	133	130.4	2.6	16	5
SFP203W-1500-16-01RA-H	15	47.4	65	115	112.4	2.6	16	3
SFP205W-1500-16-01RA-H	15	68	83	133	130.4	2.6	16	5
SFP203W-1550-16-01RA-H	15.5	49	65	115	112.3	2.7	16	3
SFP205W-1550-16-01RA-H	15.5	67.5	83	133	130.3	2.7	16	5
SFP203W-1580-16-01RA-H	15.8	49.2	65	115	112.2	2.8	16	3
SFP205W-1580-16-01RA-H	15.8	67.2	83	133	130.2	2.8	16	5
SFP203W-1587-16-01RA-H	15.87	49.1	65	115	112.2	2.8	16	3
SFP203W-1600-16-01RA-H	16	49	65	115	112.2	2.8	16	3
SFP205W-1600-16-01RA-H	16	67	83	133	130.2	2.8	16	5
SFP203W-1650-18-01RA-H	16.5	52.1	73	123	120.2	2.8	18	3
SFP205W-1650-18-01RA-H	16.5	76.5	93	143	140.2	2.8	18	5
SFP203W-1680-18-01RA-H	16.8	53	73	123	120.2	2.8	18	3
SFP205W-1680-18-01RA-H	16.8	76.2	93	143	140.2	2.8	18	5
SFP203W-1700-18-01RA-H	17	54.1	73	123	120.2	2.8	18	3
SFP205W-1700-18-01RA-H	17	76	93	143	140.2	2.8	18	5
SFP203W-1750-18-01RA-H	17.5	55.2	73	123	120.2	2.8	18	3
SFP205W-1750-18-01RA-H	17.5	75.5	93	143	140.2	2.8	18	5
SFP203W-1780-18-01RA-H	17.8	56.2	73	123	120.2	2.8	18	3
SFP205W-1780-18-01RA-H	17.8	75.2	93	143	140.1	2.9	18	5
SFP203W-1800-18-01RA-H	18	56.8	73	123	120.1	2.9	18	3
SFP205W-1800-18-01RA-H	18	78.6	93	143	140.1	2.9	18	5
SFP203W-1850-20-01RA-H	18.5	58.4	79	131	128.1	2.9	20	3
SFP205W-1850-20-01RA-H	18.5	84	101	153	150.1	2.9	20	5
SFP203W-1880-20-01RA-H	18.8	59.3	79	131	128.1	2.9	20	3
SFP205W-1880-20-01RA-H	18.8	86	101	153	150.1	2.9	20	5
SFP203W-1900-20-01RA-H	19	59.9	79	131	128.1	2.9	20	3
SFP203W-2000-20-01RA-H	20	63	79	131	127.9	3.1	20	3

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Cutting data, please go to page 16

# YPDrill 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.
P	非合金钢 Unalloyed steel					
	P1.1.Z.AN	C = 0.05-0.1%	125	90	130	170
	P1.1.Z.AN	C = 0.1-0.25%	125	90	130	170
	P1.2.Z.AN	C = 0.25-0.55%	150	90	120	170
	P1.3.Z.AN	C = 0.55-0.80%	170	90	120	170
	高碳钢 High carbon steel					
	P1.3.Z.AN	碳素工具钢 Carbon tool steel	210	100	110	150
	低合金钢 Low alloy steel					
	P2.1.Z.AN	非淬硬 Non-hardened	175	80	110	160
	P2.5.Z.HT	调质处理 Hardened and tempered	275	50	70	90
	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	0.07	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

# YPDrill 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

# YPDrill 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

- 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

# YPDrill 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
- 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

# YPDrill 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.
				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

- 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  
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Under external coolant condition, please decrease feed per revolution to secure chips evacuation

公司介紹  
 YPF011 SFP  
 SFP 钻头  
 YPF011 SFP  
 SFM 钻头  
 YPF011 SFP  
 D R200P 钻头  
 YPF011 D R200P  
 L FRA 钻头  
 YPF011 L FRA  
 SFK 钻头  
 YPF011 SFK

 **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

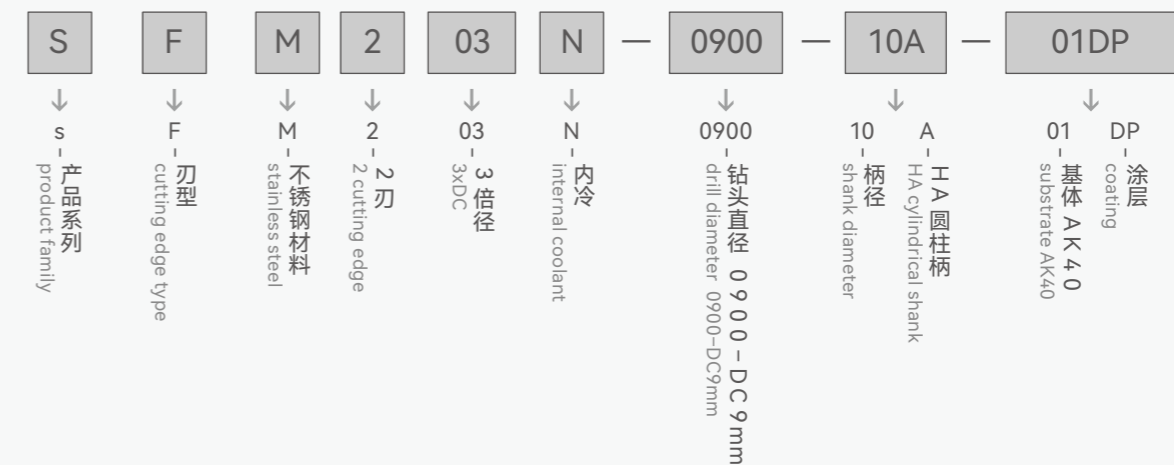
- 不锈钢材料通用加工
- 包括奥氏体、超级奥氏体、铁素体和双向不锈钢
- 可获孔径公差: IT8-9
- 产品直径范围: D3-D20mm
- 钻孔深度可达8倍径

- 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

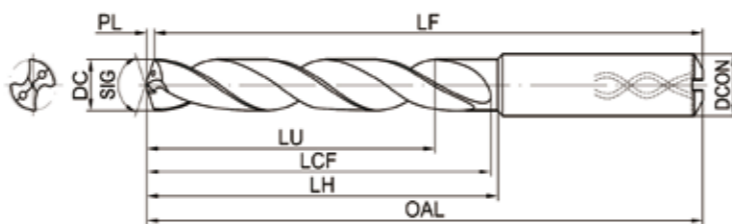
Features and benefits

-  **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



## YPSDrill 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

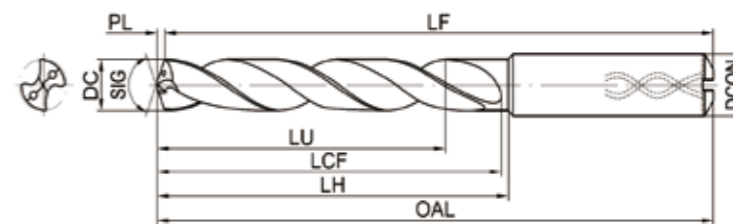
订货号 Ordering code	尺寸 Dimension (mm)							ULDR
	DC	LU	LCF	OAL	LF	PL	DCON	
SFM203N-0300-04A-01DP	3	9.5	20	62	61.5	0.5	4	3
SFM205N-0300-04A-01DP	3	15.5	26	66	65.5	0.5	4	5
SFM208N-0300-04A-01DP	3	24.5	40	78	77.5	0.5	4	8
SFM203N-0310-04A-01DP	3.1	9.8	20	62	61.5	0.5	4	3
SFM208N-0310-04A-01DP	3.1	25.3	40	78	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 26

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

## YPSDrill 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

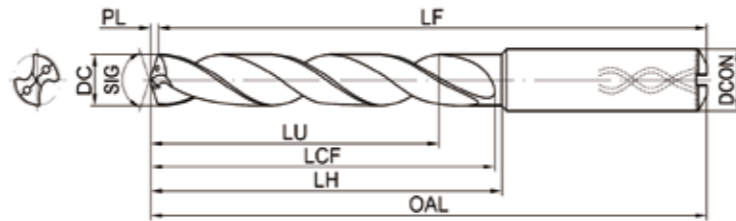
订货号 Ordering code	尺寸 Dimension (mm)							ULDR
	DC	LU	LCF	OAL	LF	PL	DCON	
SFM205N-0690-08A-01DP	6.9	35.6	53	91	89.8	1.2	8	5
SFM208N-0690-08A-01DP	6.9	55	67	106	104.8	1.2	8	8
SFM203N-0700-08A-01DP	7	22.1	34	79	77.8	1.2	8	3
SFM205N-0700-08A-01DP	7	36.1	53	91	89.8	1.2	8	5
SFM208N-0700-08A-01DP	7	55	67	106	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
SFM208N-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 26

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

# YPDrill 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

# YPDrill 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.
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	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

 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

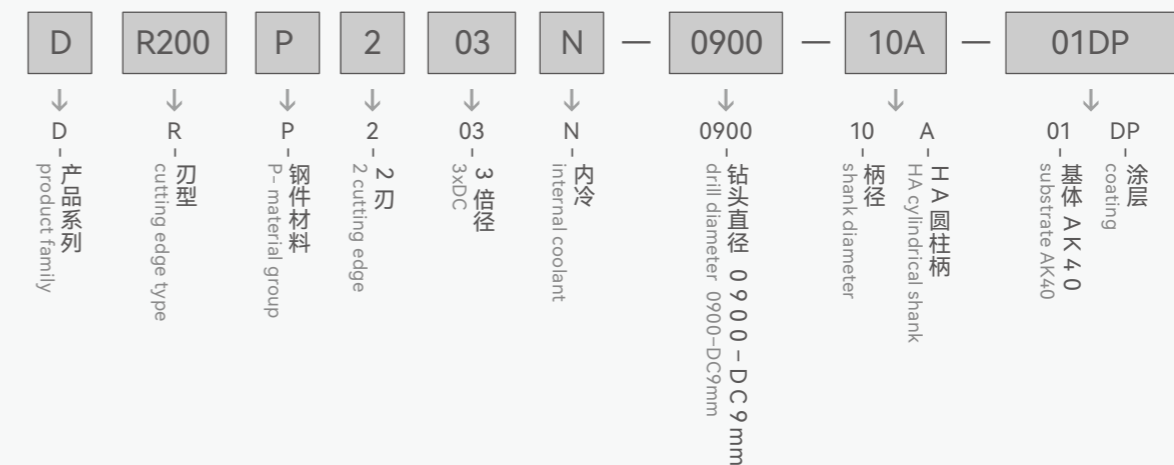
Overview & application areas

- 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













# YPDrill 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

# YPDrill 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

 **通用**  
Versatile solution

 **定制**  
Customized solution

ISO材料组应用范围 ISO material groups

**P** **K** **M** **N**



# 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

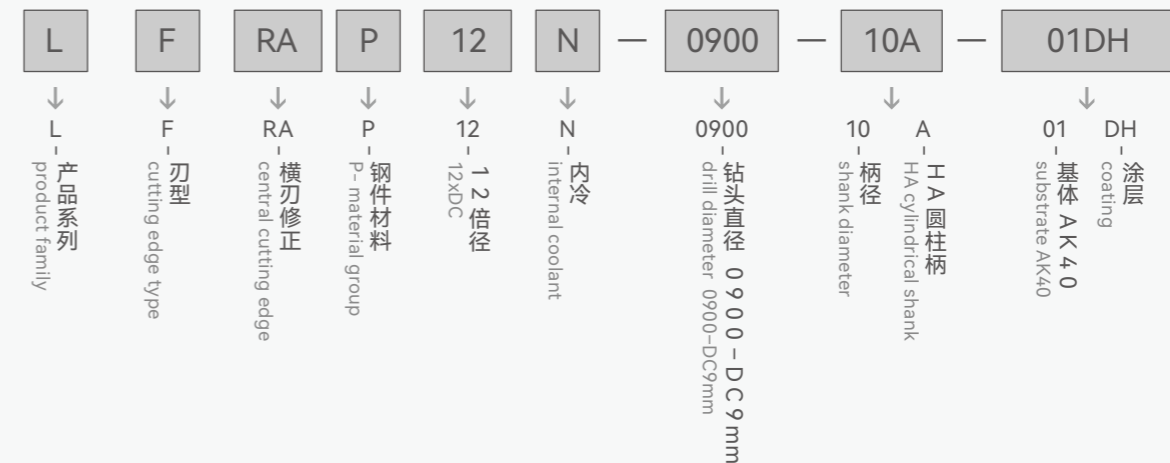
Overview & application areas

- 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











# YPDriill 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

# YPDriill 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

# YPDrill 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

# YPDrill 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-leded 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
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In case component material hardness increase, please decrease cutting speed proportionally

 **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

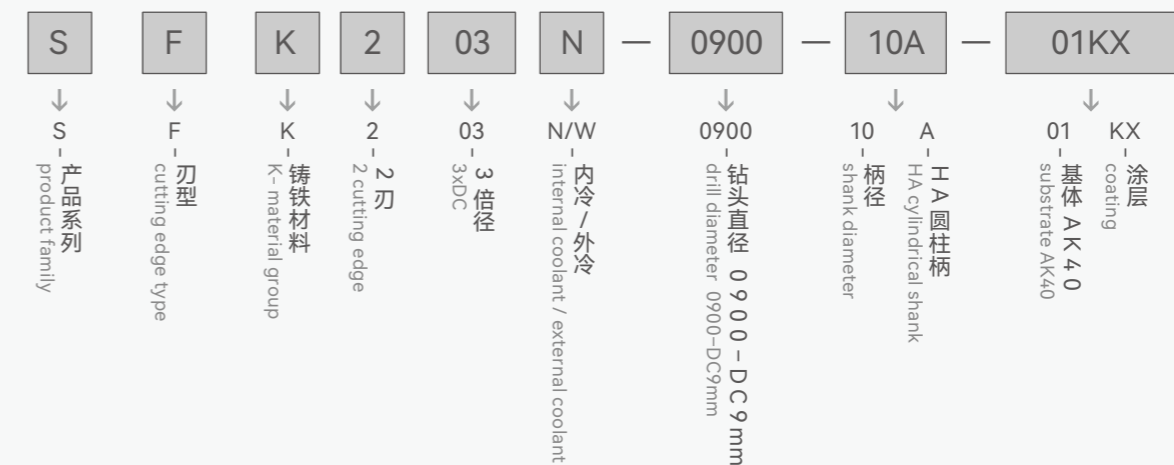
- 铸铁材料通用加工
- 包括灰口铸铁、球墨铸铁、蠕墨铸铁以及ADI铸铁
- 可获孔径公差: IT8-9
- 产品直径范围: D3-D20mm
- 钻孔深度可达8倍径

- 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







# YPDrill SFK

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



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	最小 Min.	起始 Start	最大 Max.
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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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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