

Meet The Best Nanotechnology

NANOLOY CUTTING TOOL

Solid Carbide Endmill

“Beyond the cutting Tools”

The Solution Provider for Difficult to cut Materials



www.nanoloy.co.kr



The world's first ultrafine 0.2 μ m powder Difficult-to-cut materials cutting solution

全球第一0.2 μ mNANO(纳米级)复合粉末材料开发 针对加工难切削材料最佳解决方案

Nanotech Co., Ltd. Developed the world's first 0.2 μ m WC-Co composite powder and manufactures Inserts and Endmills by Nano (Ultrafine) powder. Our products (Nanoloy) are Nanoloy cutting tools specialized in machining difficult-to-cut materials in various industries. We are expanding global network by selling nanoloy cutting tools to all around of world

NANOLOY研制出世界上第一0.2 μ mWC-Co复合粉末, 并以Nano(Ultrafine)粉末制造绝缘体和端面磨坊 NANOLOY产品是专门加工各种工业中难以切割材料的 我们向全世界销售纳米合金切削工具,以扩大全球网络

N A N O T E C H



Aerospace
航空航天



Turbocharger for automobile
汽车涡轮增压器



Pump & Valve Oil & Gas
泵阀石油&汽油



General Machining (SUS)
通用加工(SUS)

🕒 TIME LINE

1999

- 1999. 09 Established NANOTECH Co., LTD.
成立NANOTECH
- 1999. 12 The 20 century Korea Top 100 technologies selected (MK).
被选20世纪韩国百强科技评选

2000~2004

- 2000. 04 Established the annex research institute of NANOTECH CO.,LTD.
成立NANOTECH
- 2000. 09 Selected as a venture enterprise (MSIT).
被选为风险企业(Venture enterprise) (MSIT)
- 2001. 09 Manufactured Nano composite powder of tungsten carbide and cobalt.
碳化钨钴纳米复合粉体材料的研究制造
- 2003. 03 Selected as INNO-BIZ enterprise (MSIT Chungbuk).
被选为INNO-BIZ企业
- 2004. 07 Selected as an excellent manufacturing technology research center-Nano powder (MOCIE).
被选为优秀纳米粉体制造技术研究中心(MOCIE)

2006~2009

- 2006. 05 Cemented carbide (WC-CO) material production.
胶结及生产硬质合金材料
- 2007. 02 Selected with material part technology development business - Nano materials (MOTIE).
被选材料技术开发部门-纳米材料(MOCIE)
- 2008. 01 ISO 9001 ISO 14001 Certification (System Korea Certification).
ISO9001:ISO14001认证(韩国认证体系)
- 2008. 11 300 Million Dollars of Exports Award - 45th Trade Day (President).
300万美元出口奖-第45届韩国贸易日(总统奖)
- 2009. 08 Selected with material part technology development business - Difficult-to-cut materials (MOTIE).
被选材料技术开发部门-难切削材料(MOCIE)

2012~2015

- 2012. 09 Selected with material part technology development business - Cermet powder (MOCIE).
被选材料技术开发部门-金属陶瓷粉(MOCIE)
- 2013. 02 Selection of outstanding R&D performance utilization company (KEIT).
被选优秀研发绩效利用公司(KEIT)
- 2015. 01 NANOLOY inserts and end mills production. NANOLOY
NANOLOY立铣刀和刀片生产

2016~2018

- 2016. 05 Selected with material part technology development business - (W, Ti)C powder (MOCIE).
被选材料技术开发部门(钨、钛)钴粉末(MOCIE)
- 2016. 05 Designated as a global hidden champion (MSIT).
被指定为全球隐形冠军(MSIT)
- 2016. 09 Established NT Vina Factory.
建立了NT越南工厂
- 2018. 02 Selected as a promising small and medium-sized enterprise in Cheongju (Cheongju City).
被选为清州市有发展前途的中小企业

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CARBIDE ENDMILL SERIES

整体钨钢铣刀

CARBIDE ENDMILL SERIES

整体钨钢铣刀

Excellent tool life with superior NANO ultrafine grade
采用了NANOLOY超微粒材质确保卓越的工具寿命

"N-SM" CARBIDE ENDMILL SERIES FOR STAINLESS STEEL

"N-SM" 不锈钢专用铣刀

"N-SH" CARBIDE ENDMILL SERIES FOR HARDENED STEEL

"N-SM" 高硬度钢专用铣刀

"N-SM" CARBIDE ENDMILL SERIES FOR GENERAL PURPOSE

"N-SM" 普通钢专用铣刀

"N-SN" CARBIDE ENDMILL SERIES FOR ALUMINUM

"N-SN" 铝专用铣刀

“N-SM” CARBIDE ENDMILL SERIES FOR STAINLESS STEEL

“N-SM” 不锈钢专用铣刀

N-SM Series / 系列

CARBIDE ENDMILL SERIES FOR STAINLESS STEEL 不锈钢专用铣刀

1. Superior material, coating, geometry for stainless steel & Ni based alloy & Ti alloy machining
采用加工不锈钢及钛合金，镍合金的最优良的材质，涂层，形状
2. Excellent performance in ISO M,S group
对于M,S系列材料加工最合适
3. Wide range of applications with various geometries and specifications
可广泛应用于多种形状和特征



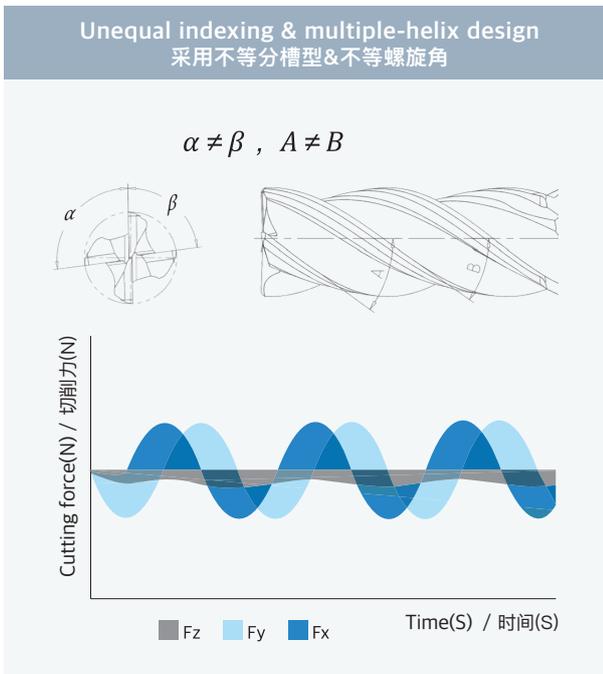
PRODUCT FEATURE / 产品特点

Own patented powder, special geometry, coating guarantee excellent cutting performance in stainless steel & Ni based alloy & Ti alloy machining

独特的粉末材料、特殊的几何结构、特殊涂层保证优良的切割性能
专门用于不锈钢、镍基合金、钛合金加工

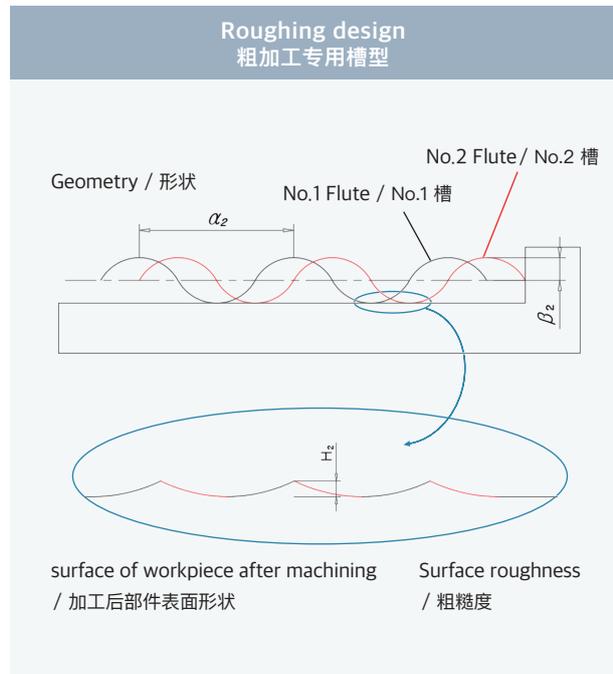
- Provide highest machining quality and tool life with excellent cutting edge in difficult to cut materials machining
- 提供最高的加工质量和刀具寿命，具有优良的切削刃适合难切削材料加工
- Longer tool life and minimization cutting force with high rake angle and enhanced edge resistance
- 提供最高的加工质量和刀具寿命，具有优良的切削刃适合难切削材料加工

| CORE TECHNOLOGY / 核心技术



Applying uneven indexing & helix preventing chattering and reduce cutting resistance.

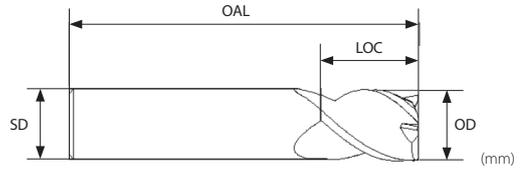
采用不等分槽型和不等螺旋角为减少震动和减少切削阻力



Nanoly proprietary technology designed Wide pitch, low wave shape to prevent chipping, perfect surface

采用宽间距和深槽形状为扩大接触面积可防止崩刃和提高粗糙度。

NANO SUS 4 FLUTE FLAT
NANO 不锈钢 4刃 平头

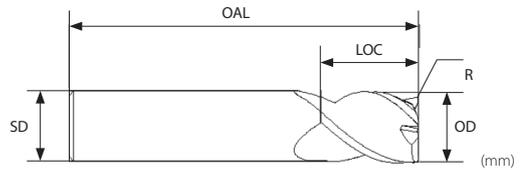


NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFMS4-010-025-S06-L50	1X6X2.5X50	1	6	2.5	50	4
2	NFMS4-012-030-S06-L50	1.2X6X3X50	1.2	6	3	50	4
3	NFMS4-015-040-S06-L50	1.5X6X4X50	1.5	6	4	50	4
4	NFMS4-020-060-S06-L50	2X6X6X50	2	6	6	50	4
5	NFMS4-025-070-S06-L50	2.5X6X7X50	2.5	6	7	50	4
6	NFMS4-030-080-S06-L55	3X6X8X55	3	6	8	55	4
7	NFMS4-030-100-S06-L60	3X6X10X60	3	6	10	60	4
8	NFMS4-035-100-S06-L55	3.5X6X10X55	3.5	6	10	55	4
9	NFMS4-040-100-S06-L55	4X6X10X55	4	6	10	55	4
10	NFMS4-040-120-S06-L60	4X6X12X60	4	6	12	60	4
11	NFMS4-045-120-S06-L55	4.5X6X12X55	4.5	6	12	55	4
12	NFMS4-050-150-S06-L55	5X6X15X55	5	6	15	55	4
13	NFMS4-055-150-S06-L60	5.5X6X15X60	5.5	6	15	60	4
14	NFMS4-060-150-S06-L60	6X6X15X60	6	6	15	60	4
15	NFMS4-060-200-S06-L65	6X6X20X65	6	6	20	65	4
16	NFMS4-065-150-S08-L60	6.5X8X15X60	6.5	8	15	60	4
17	NFMS4-070-200-S08-L80	7X8X20X80	7	8	20	80	4
18	NFMS4-080-200-S08-L70	8X8X20X70	8	8	20	70	4
19	NFMS4-080-250-S08-L70	8X8X25X70	8	8	25	70	4
20	NFMS4-080-300-S08-L80	8X8X30X80	8	8	30	80	4
21	NFMS4-085-200-S10-L70	8.5X10X20X70	8.5	10	20	70	4
22	NFMS4-090-250-S10-L80	9X10X25X80	9	10	25	80	4
23	NFMS4-100-250-S10-L75	10X10X25X75	10	10	25	75	4
24	NFMS4-100-350-S10-L85	10X10X35X85	10	10	35	85	4
25	NFMS4-120-300-S12-L80	12X12X30X80	12	12	30	80	4
26	NFMS4-120-400-S12-L90	12X12X40X90	12	12	40	90	4
27	NFMS4-160-420-S16-L100	16X16X42X100	16	16	42	100	4
28	NFMS4-200-480-S20-L100	20X20X48X100	20	20	48	100	4

“N-SM” CARBIDE ENDMILL SERIES FOR STAINLESS STEEL

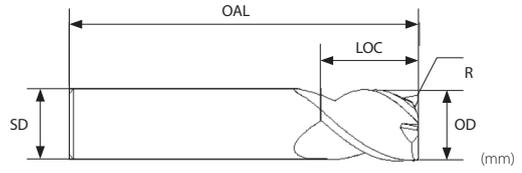
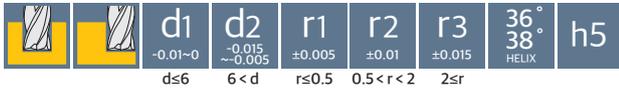
“N-SM” 不锈钢专用铣刀

| NANO SUS 4 FLUTE CORNER RADIUS ①
NANO 不锈钢 4刃 圆鼻 ①



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
1	NRMS4-010-001-025-S06-L50	1(R0.1)X6X2.5X50	1	6	R0.1	2.5	50	4
2	NRMS4-010-002-025-S06-L50	1(R0.2)X6X2.5X50	1	6	R0.2	2.5	50	4
3	NRMS4-012-001-030-S06-L50	1.2(R0.1)X6X3X50	1.2	6	R0.1	3	50	4
4	NRMS4-015-001-040-S06-L50	1.5(R0.1)X6X4X50	1.5	6	R0.1	4	50	4
5	NRMS4-015-002-040-S06-L50	1.5(R0.2)X6X4X50	1.5	6	R0.2	4	50	4
6	NRMS4-020-001-060-S06-L50	2(R0.1)X6X6X50	2	6	R0.1	6	50	4
7	NRMS4-020-002-060-S06-L50	2(R0.2)X6X6X50	2	6	R0.2	6	50	4
8	NRMS4-025-002-070-S06-L50	2.5(R0.2)X6X7X50	2.5	6	R0.2	7	50	4
9	NRMS4-030-002-080-S06-L55	3(R0.2)X6X8X55	3	6	R0.2	8	55	4
10	NRMS4-030-003-080-S06-L55	3(R0.3)X6X8X55	3	6	R0.3	8	55	4
11	NRMS4-030-005-080-S06-L55	3(R0.5)X6X8X55	3	6	R0.5	8	55	4
12	NRMS4-040-002-100-S06-L55	4(R0.2)X6X10X55	4	6	R0.2	10	55	4
13	NRMS4-040-003-100-S06-L55	4(R0.3)X6X10X55	4	6	R0.3	10	55	4
14	NRMS4-040-005-100-S06-L55	4(R0.5)X6X10X55	4	6	R0.5	10	55	4
15	NRMS4-050-002-150-S06-L55	5(R0.2)X6X15X55	5	6	R0.2	15	55	4
16	NRMS4-050-003-150-S06-L55	5(R0.3)X6X15X55	5	6	R0.3	15	55	4
17	NRMS4-050-005-150-S06-L55	5(R0.5)X6X15X55	5	6	R0.5	15	55	4
18	NRMS4-060-003-150-S06-L60	6(R0.3)X6X15X60	6	6	R0.3	15	60	4
19	NRMS4-060-005-150-S06-L60	6(R0.5)X6X15X60	6	6	R0.5	15	60	4
20	NRMS4-060-010-150-S06-L60	6(R1)X6X15X60	6	6	R1	15	60	4
21	NRMS4-080-003-200-S08-L70	8(R0.3)X8X20X70	8	8	R0.3	20	70	4
22	NRMS4-080-005-200-S08-L70	8(R0.5)X8X20X70	8	8	R0.5	20	70	4
23	NRMS4-080-010-200-S08-L70	8(R1)X8X20X70	8	8	R1	20	70	4
24	NRMS4-100-003-250-S10-L75	10(R0.3)X10X25X75	10	10	R0.3	25	75	4
25	NRMS4-100-005-250-S10-L75	10(R0.5)X10X25X75	10	10	R0.5	25	75	4
26	NRMS4-100-010-250-S10-L75	10(R1)X10X25X75	10	10	R1	25	75	4
27	NRMS4-100-015-250-S10-L75	10(R1.5)X10X25X75	10	10	R1.5	25	75	4
28	NRMS4-100-020-250-S10-L75	10(R2)X10X25X75	10	10	R2	25	75	4
29	NRMS4-100-030-250-S10-L75	10(R3)X10X25X75	10	10	R3	25	75	4
30	NRMS4-120-005-300-S12-L80	12(R0.5)X12X30X80	12	12	R0.5	30	80	4

NANO SUS 4 FLUTE CORNER RADIUS ②
NANO 不锈钢 4刃 圆鼻 ②



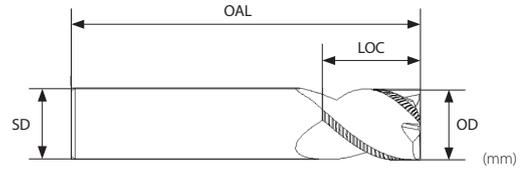
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
31	NRMS4-120-010-300-S12-L80	12(R1)X12X30X80	12	12	R1	30	80	4
32	NRMS4-120-015-300-S12-L80	12(R1.5)X12X30X80	12	12	R1.5	30	80	4
33	NRMS4-120-020-300-S12-L80	12(R2)X12X30X80	12	12	R2	30	80	4
34	NRMS4-120-030-300-S12-L80	12(R3)X12X30X80	12	12	R3	30	80	4
35	NRMS4-120-040-300-S12-L80	12(R4)X12X30X80	12	12	R4	30	80	4
36	NRMS4-140-005-350-S16-L90	14(R0.5)X16X35X90	14	16	R0.5	35	90	4
37	NRMS4-140-010-350-S16-L90	14(R1)X16X35X90	14	16	R1	35	90	4
38	NRMS4-160-005-420-S16-L100	16(R0.5)X16X42X100	16	16	R0.5	42	100	4
39	NRMS4-160-010-420-S16-L100	16(R1)X16X42X100	16	16	R1	42	100	4
40	NRMS4-180-005-450-S16-L100	18(R0.5)X16X45X100	18	16	R0.5	45	100	4
41	NRMS4-200-005-480-S20-L100	20(R0.5)X20X48X100	20	20	R0.5	48	100	4
42	NRMS4-200-010-480-S20-L100	20(R1)X20X48X100	20	20	R1	48	100	4

“N-SM” CARBIDE ENDMILL SERIES FOR STAINLESS STEEL

“N-SM” 不锈钢专用铣刀

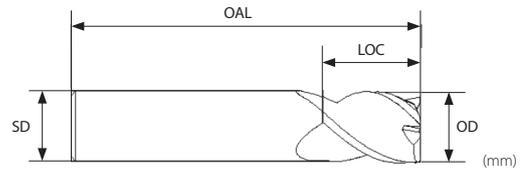
| NANO SUS 3~5 FLUTE ROUGHING

NANO 不锈钢 3~5刃 粗加工



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
1	NRMS3R-030-002-080-S06-L50	3(0.2)X6X8X50	3	6	0.2	8	50		3
2	NRMS3R-040-002-100-S06-L50	4(0.2)X6X10X50	4	6	0.2	10	50		3
3	NRMS4R-050-002-130-S06-L50	5(0.2)X6X13X50	5	6	0.2	13	50		4
4	NRMS4R-060-002-130-S06-L60	6(0.2)X6X13X60	6	6	0.2	13	60		4
5	NRMR4R-060-002-200-S06-L60	6(0.2)X6X10(20)X60	6	6	0.2	10	60	20	4
6	NRMS4R-060-005-130-S06-L60	6(0.5)X6X13X60	6	6	0.5	13	60		4
7	NRMS4R-070-002-180-S08-L70	7(0.2)X8X18X70	7	8	0.2	18	70		4
8	NRMS4R-080-002-190-S08-L70	8(0.2)X8X19X70	8	8	0.2	19	70		4
9	NRMR4R-080-002-250-S08-L70	8(0.2)X8X12(25)X70	8	8	0.2	12	70	25	4
10	NRMS4R-080-005-190-S08-L70	8(0.5)X8X19X70	8	8	0.5	19	70		4
11	NRMS4R-080-010-190-S08-L70	8(1)X8X19X70	8	8	1	19	70		4
12	NRMS4R-090-003-200-S10-L70	9(0.3)X10X20X70	9	10	0.3	20	70		4
13	NRMS4R-100-003-220-S10-L75	10(0.3)X10X22X75	10	10	0.3	22	75		4
14	NRMR4R-100-003-300-S10-L75	10(0.3)X10X15(30)X75	10	10	0.3	15	75	30	4
15	NRMS4R-100-005-220-S10-L75	10(0.5)X10X22X75	10	10	0.5	22	75		4
16	NRMS4R-100-010-220-S10-L75	10(1)X10X22X75	10	10	1	22	75		4
17	NRMS4R-110-003-250-S12-L80	11(0.3)X12X25X80	11	12	0.3	25	80		4
18	NRMS4R-120-003-260-S12-L80	12(0.3)X12X26X80	12	12	0.3	26	80		4
19	NRMS4R-120-010-260-S12-L80	12(1)X12X26X80	12	12	1	26	80		4
20	NRMR4R-120-003-350-S12-L80	12(0.3)X12X20(35)X80	12	12	0.3	20	80	35	4
21	NRMS5R-160-005-320-S16-L100	16(0.5)X16X32X100	16	16	0.5	32	100		5
22	NRMS5R-160-005-420-S16-L100	16(0.5)X16X42X100	16	16	0.5	42	100		5
23	NRMS5R-160-015-320-S16-L100	16(1.5)X16X32X100	16	16	1.5	32	100		5
24	NRMS5R-160-015-420-S16-L100	16(1.5)X16X42X100	16	16	1.5	42	100		5
25	NRMS5R-200-005-380-S20-L100	20(0.5)X20X38X100	20	20	0.5	38	100		5
26	NRMS5R-200-005-450-S20-L100	20(0.5)X20X45X100	20	20	0.5	45	100		5
27	NRMS5R-200-020-380-S20-L100	20(2)X20X38X100	20	20	2	38	100		5
28	NRMS5R-200-020-450-S20-L100	20(2)X20X45X100	20	20	2	45	100		5

NANO SUS 3 FLUTE
NANO 不锈钢 3刃 平头



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFMS3-010-025-S06-L50	1X6X2.5X50	1	6	2.5	50	3
2	NFMS3-012-030-S06-L50	1.2X6X3X50	1.2	6	3	50	3
3	NFMS3-015-040-S06-L50	1.5X6X4X50	1.5	6	4	50	3
4	NFMS3-020-060-S06-L50	2X6X6X50	2	6	6	50	3
5	NFMS3-025-070-S06-L50	2.5X6X7X50	2.5	6	7	50	3
6	NFMS3-030-080-S06-L55	3X6X8X55	3	6	8	55	3
7	NFMS3-030-100-S06-L60	3X6X10X60	3	6	10	60	3
8	NFMS3-040-100-S06-L55	4X6X10X55	4	6	10	55	3
9	NFMS3-040-120-S06-L60	4X6X12X60	4	6	12	60	3
10	NFMS3-050-130-S06-L55	5X6X13X55	5	6	13	55	3
11	NFMS3-060-150-S06-L60	6X6X15X60	6	6	15	60	3
12	NFMS3-060-200-S06-L65	6X6X20X65	6	6	20	65	3
13	NFMS3-080-200-S08-L70	8X8X20X70	8	8	20	70	3
14	NFMS3-080-300-S08-L80	8X8X30X80	8	8	30	80	3
15	NFMS3-100-250-S10-L75	10X10X25X75	10	10	25	75	3
16	NFMS3-100-350-S10-L85	10X10X35X85	10	10	35	85	3
17	NFMS3-120-300-S12-L80	12X12X30X80	12	12	30	80	3
18	NFMS3-120-400-S12-L90	12X12X40X90	12	12	40	90	3
19	NFMS3-160-420-S16-L100	16X16X42X100	16	16	42	100	3
20	NFMS3-200-480-S20-L100	20X20X48X100	20	20	48	100	3

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

N-SH Series / 系列

CARBIDE ENDMILL SERIES FOR HARDENED STEEL

高硬度钢专用铣刀

1. Specially designed for machining high hardened material (HRC45~65)
专为加工高硬度材料而设计(HRC45~65)
2. Excellent quality and performance for automotive and mold industry
为汽车和模具行业提供卓越的质量和性能
3. Apply optimal design for cutting edge and coating improve wear resistance and toughness
对切削刃和涂层进行优化设计, 提高耐磨性和韧性

PRODUCT FEATURE / 产品特点

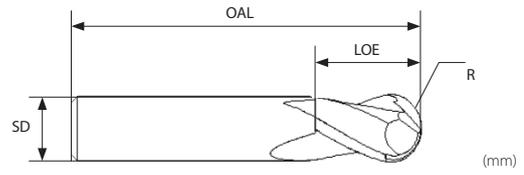
Apply for optimized material and coating guarantee excellent cutting and tool life in automobile and mold industry hardened material machining

适用于优化材料和涂层，
保证优良的切削和刀具寿命在汽车和模具行业硬化材料加工

- Improve productivity and reduce cutting force at high speed machining
- 提高生产率, 降低高速加工时的切削阻力
- Improve surface quality and high precision machining with high quality of end mills
- 用高质量立铣刀提高表面质量和高精度加工
- Stable machining with optimized rake-angle and clearance angle
- 具有最佳前角和间隙角, 可实现稳定的加工
- Excellent tool life with excellent NANO ultrafine grade and coating
- 具有NANO纳米级符合材料和超细涂层, 实现延长刀具寿命



NANO HARDENED STEEL 2 FLUTE BALL ①
NANO 高硬度钢 2刃 球头 ①



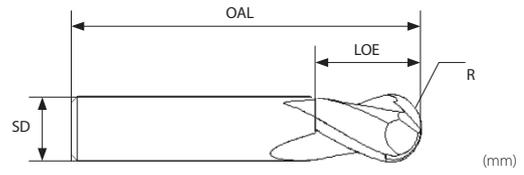
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NBHS2-001-0005-001-S06-L40	0.1X6X0.1X40	0.1	6	0.1	40	2
2	NBHS2-002-001-002-S06-L40	0.2X6X0.2X40	0.2	6	0.2	40	2
3	NBHS2-003-0015-003-S06-L40	0.3X6X0.3X40	0.3	6	0.3	40	2
4	NBHS2-004-002-004-S06-L40	0.4X6X0.4X40	0.4	6	0.4	40	2
5	NBHS2-005-0025-005-S06-L40	0.5X6X0.5X40	0.5	6	0.5	40	2
6	NBHS2-006-003-006-S06-L40	0.6X6X0.6X40	0.6	6	0.6	40	2
7	NBHS2-007-0035-007-S06-L40	0.7X6X0.7X40	0.7	6	0.7	40	2
8	NBHS2-008-004-008-S06-L40	0.8X6X0.8X40	0.8	6	0.8	40	2
9	NBHS2-009-0045-009-S06-L40	0.9X6X0.9X40	0.9	6	0.9	40	2
10	NBHS2-010-005-015-S06-L40	1X6X1.5X40	1	6	1.5	40	2
11	NBHS2-015-0075-025-S06-L40	1.5X6X2.5X40	1.5	6	2.5	40	2
12	NBHS2-020-010-030-S06-L40	2X6X3X40	2	6	3	40	2
13	NBHS2-030-015-045-S06-L50	3X6X4.5X50	3	6	4.5	50	2
14	NBHS2-040-020-060-S06-L50	4X6X6X50	4	6	6	50	2
15	NBHS2-050-025-075-S06-L50	5X6X7.5X50	5	6	7.5	50	2
16	NBHS2-060-030-090-S06-L50	6X6X9X50	6	6	9	50	2
17	NBHS2-080-040-120-S08-L50	8X8X12X50	8	8	12	50	2
18	NBHS2-100-050-150-S10-L60	10X10X15X60	10	10	15	60	2
19	NBHS2-120-060-180-S12-L60	12X12X18X60	12	12	18	60	2
20	NBHS2-001-0005-002-S04-L40	0.1X4X0.2X40	0.1	4	0.2	40	2
21	NBHS2-002-001-004-S04-L40	0.2X4X0.4X40	0.2	4	0.4	40	2
22	NBHS2-003-0015-006-S04-L40	0.3X4X0.6X40	0.3	4	0.6	40	2
23	NBHS2-004-002-008-S04-L40	0.4X4X0.8X40	0.4	4	0.8	40	2
24	NBHS2-005-0025-010-S04-L40	0.5X4X1X40	0.5	4	1	40	2
25	NBHS2-006-003-012-S04-L40	0.6X4X1.2X40	0.6	4	1.2	40	2
26	NBHS2-007-0035-014-S04-L40	0.7X4X1.4X40	0.7	4	1.4	40	2
27	NBHS2-008-004-016-S04-L40	0.8X4X1.6X40	0.8	4	1.6	40	2
28	NBHS2-009-0045-018-S04-L40	0.9X4X1.8X40	0.9	4	1.8	40	2
29	NBHS2-010-005-025-S06-L50	1X6X2.5X50	1	6	2.5	50	2
30	NBHS2-010-005-025-S04-L50	1X4X2.5X50	1	4	2.5	50	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

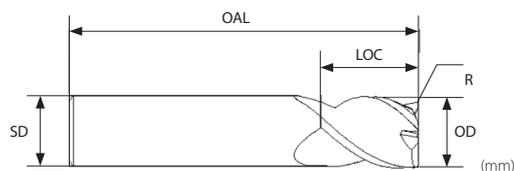
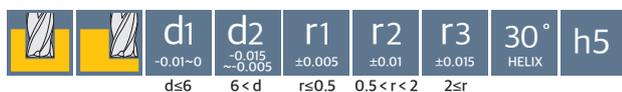
| NANO HARDENED STEEL 2 FLUTE BALL ②

NANO 高硬度钢 2刃 球头 ②



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
31	NBHS2-012-006-030-S06-L50	1.2X6X3X50	1.2	6	3	50	2
32	NBHS2-015-0075-040-S06-L50	1.5X6X4X50	1.5	6	4	50	2
33	NBHS2-015-0075-040-S04-L50	1.5X4X4X50	1.5	4	4	50	2
34	NBHS2-020-010-050-S06-L50	2X6X5X50	2	6	5	50	2
35	NBHS2-020-010-050-S04-L50	2X4X5X50	2	4	5	50	2
36	NBHS2-025-0125-070-S06-L60	2.5X6X7X60	2.5	6	7	60	2
37	NBHS2-030-015-080-S06-L60	3X6X8X60	3	6	8	60	2
38	NBHS2-030-015-080-S03-L70	3X3X8X70	3	3	8	70	2
39	NBHS2-030-015-080-S04-L60	3X4X8X60	3	4	8	60	2
40	NBHS2-035-0175-080-S06-L70	3.5X6X8X70	3.5	6	8	70	2
41	NBHS2-040-020-080-S06-L70	4X6X8X70	4	6	8	70	2
42	NBHS2-040-020-080-S04-L80	4X4X8X80	4	4	8	80	2
43	NBHS2-045-0225-100-S06-L80	4.5X6X10X80	4.5	6	10	80	2
44	NBHS2-050-025-100-S06-L80	5X6X10X80	5	6	10	80	2
45	NBHS2-055-0275-110-S06-L90	5.5X6X11X90	5.5	6	11	90	2
46	NBHS2-060-030-120-S06-L90	6X6X12X90	6	6	12	90	2
47	NBHS2-070-035-140-S08-L90	7X8X14X90	7	8	14	90	2
48	NBHS2-080-040-140-S08-L100	8X8X14X100	8	8	14	100	2
49	NBHS2-090-045-180-S10-L100	9X10X18X100	9	10	18	100	2
50	NBHS2-100-050-180-S10-L100	10X10X18X100	10	10	18	100	2
51	NBHS2-120-060-220-S12-L110	12X12X22X110	12	12	22	110	2

NANO HARDENED STEEL 2 FLUTE CORNER RADIUS ①
NANO 高硬度钢 2刃 圆鼻 ①



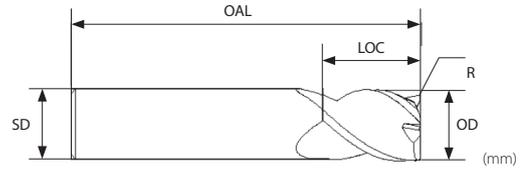
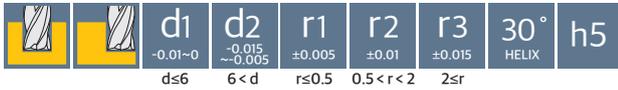
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
1	NRHS2-004-0005-008-S04-L40	0.4(R0.05)X4X0.8X40	0.4	4	R0.05	0.8	40	2
2	NRHS2-004-001-008-S04-L40	0.4(R0.1)X4X0.8X40	0.4	4	R0.1	0.8	40	2
3	NRHS2-005-0005-010-S04-L40	0.5(R0.05)X4X1X40	0.5	4	R0.05	1	40	2
4	NRHS2-005-001-010-S04-L40	0.5(R0.1)X4X1X40	0.5	4	R0.1	1	40	2
5	NRHS2-006-0005-012-S04-L40	0.6(R0.05)X4X1.2X40	0.6	4	R0.05	1.2	40	2
6	NRHS2-006-001-012-S04-L40	0.6(R0.1)X4X1.2X40	0.6	4	R0.1	1.2	40	2
7	NRHS2-007-0005-014-S04-L40	0.7(R0.05)X4X1.4X40	0.7	4	R0.05	1.4	40	2
8	NRHS2-007-001-014-S04-L40	0.7(R0.1)X4X1.4X40	0.7	4	R0.1	1.4	40	2
9	NRHS2-008-0005-016-S04-L40	0.8(R0.05)X4X1.6X40	0.8	4	R0.05	1.6	40	2
10	NRHS2-008-001-016-S04-L40	0.8(R0.1)X4X1.6X40	0.8	4	R0.1	1.6	40	2
11	NRHS2-009-0005-018-S04-L40	0.9(R0.05)X4X1.8X40	0.9	4	R0.05	1.8	40	2
12	NRHS2-009-001-018-S04-L40	0.9(R0.1)X4X1.8X40	0.9	4	R0.1	1.8	40	2
13	NRHS2-010-0005-020-S06-L50	1(R0.05)X6X2X50	1	6	R0.05	2	50	2
14	NRHS2-010-001-020-S06-L50	1(R0.1)X6X2X50	1	6	R0.1	2	50	2
15	NRHS2-010-002-020-S06-L50	1(R0.2)X6X2X50	1	6	R0.2	2	50	2
16	NRHS2-010-003-020-S06-L50	1(R0.3)X6X2X50	1	6	R0.3	2	50	2
17	NRHS2-015-0005-030-S06-L50	1.5(R0.05)X6X3X50	1.5	6	R0.05	3	50	2
18	NRHS2-015-001-030-S06-L50	1.5(R0.1)X6X3X50	1.5	6	R0.1	3	50	2
19	NRHS2-015-002-030-S06-L50	1.5(R0.2)X6X3X50	1.5	6	R0.2	3	50	2
20	NRHS2-015-003-030-S06-L50	1.5(R0.3)X6X3X50	1.5	6	R0.3	3	50	2
21	NRHS2-015-005-030-S06-L50	1.5(R0.5)X6X3X50	1.5	6	R0.5	3	50	2
22	NRHS2-020-001-050-S06-L50	2(R0.1)X6X5X50	2	6	R0.1	5	50	2
23	NRHS2-020-002-050-S06-L50	2(R0.2)X6X5X50	2	6	R0.2	5	50	2
24	NRHS2-020-003-050-S06-L50	2(R0.3)X6X5X50	2	6	R0.3	5	50	2
25	NRHS2-020-004-050-S06-L50	2(R0.4)X6X5X50	2	6	R0.4	5	50	2
26	NRHS2-020-005-050-S06-L50	2(R0.5)X6X5X50	2	6	R0.5	5	50	2
27	NRHS2-025-001-070-S06-L60	2.5(R0.1)X6X7X60	2.5	6	R0.1	7	60	2
28	NRHS2-025-002-070-S06-L60	2.5(R0.2)X6X7X60	2.5	6	R0.2	7	60	2
29	NRHS2-025-003-070-S06-L60	2.5(R0.3)X6X7X60	2.5	6	R0.3	7	60	2
30	NRHS2-025-005-070-S06-L60	2.5(R0.5)X6X7X60	2.5	6	R0.5	7	60	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

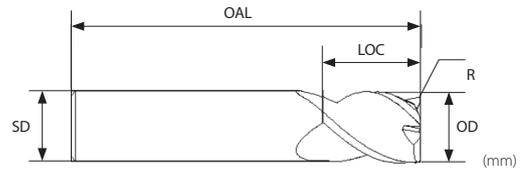
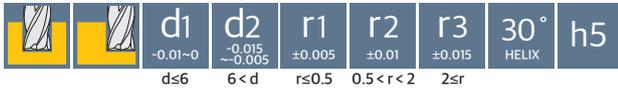
| NANO HARDENED STEEL 2 FLUTE CORNER RADIUS ②

NANO 高硬度钢 2刃 圆鼻 ②



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
31	NRHS2-030-001-080-S06-L60	3(R0.1)X6X8X60	3	6	R0.1	8	60	2
32	NRHS2-030-002-080-S06-L60	3(R0.2)X6X8X60	3	6	R0.2	8	60	2
33	NRHS2-030-003-080-S06-L60	3(R0.3)X6X8X60	3	6	R0.3	8	60	2
34	NRHS2-030-005-080-S06-L60	3(R0.5)X6X8X60	3	6	R0.5	8	60	2
35	NRHS2-035-001-090-S06-L70	3.5(R0.1)X6X9X70	3.5	6	R0.1	9	70	2
36	NRHS2-035-002-090-S06-L70	3.5(R0.2)X6X9X70	3.5	6	R0.2	9	70	2
37	NRHS2-035-003-090-S06-L70	3.5(R0.3)X6X9X70	3.5	6	R0.3	9	70	2
38	NRHS2-035-005-090-S06-L70	3.5(R0.5)X6X9X70	3.5	6	R0.5	9	70	2
39	NRHS2-040-001-100-S06-L70	4(R0.1)X6X10X70	4	6	R0.1	10	70	2
40	NRHS2-040-002-100-S06-L70	4(R0.2)X6X10X70	4	6	R0.2	10	70	2
41	NRHS2-040-003-100-S06-L70	4(R0.3)X6X10X70	4	6	R0.3	10	70	2
42	NRHS2-040-005-100-S06-L70	4(R0.5)X6X10X70	4	6	R0.5	10	70	2
43	NRHS2-040-010-100-S06-L70	4(R1)X6X10X70	4	6	R1	10	70	2
44	NRHS2-045-001-120-S06-L80	4.5(R0.1)X6X12X80	4.5	6	R0.1	12	80	2
45	NRHS2-045-002-120-S06-L80	4.5(R0.2)X6X12X80	4.5	6	R0.2	12	80	2
46	NRHS2-045-003-120-S06-L80	4.5(R0.3)X6X12X80	4.5	6	R0.3	12	80	2
47	NRHS2-045-005-120-S06-L80	4.5(R0.5)X6X12X80	4.5	6	R0.5	12	80	2
48	NRHS2-050-001-130-S06-L80	5(R0.1)X6X13X80	5	6	R0.1	13	80	2
49	NRHS2-050-002-130-S06-L80	5(R0.2)X6X13X80	5	6	R0.2	13	80	2
50	NRHS2-050-003-130-S06-L80	5(R0.3)X6X13X80	5	6	R0.3	13	80	2
51	NRHS2-050-005-130-S06-L80	5(R0.5)X6X13X80	5	6	R0.5	13	80	2
52	NRHS2-050-010-130-S06-L80	5(R1)X6X13X80	5	6	R1	13	80	2
53	NRHS2-055-001-140-S06-L90	5.5(R0.1)X6X14X90	5.5	6	R0.1	14	90	2
54	NRHS2-055-002-140-S06-L90	5.5(R0.2)X6X14X90	5.5	6	R0.2	14	90	2
55	NRHS2-055-003-140-S06-L90	5.5(R0.3)X6X14X90	5.5	6	R0.3	14	90	2
56	NRHS2-055-005-140-S06-L90	5.5(R0.5)X6X14X90	5.5	6	R0.5	14	90	2
57	NRHS2-055-010-140-S06-L90	5.5(R1)X6X14X90	5.5	6	R1	14	90	2
58	NRHS2-060-001-150-S06-L90	6(R0.1)X6X15X90	6	6	R0.1	15	90	2
59	NRHS2-060-002-150-S06-L90	6(R0.2)X6X15X90	6	6	R0.2	15	90	2
60	NRHS2-060-003-150-S06-L90	6(R0.3)X6X15X90	6	6	R0.3	15	90	2

NANO HARDENED STEEL 2 FLUTE CORNER RADIUS ③
NANO 高硬度钢 2刃 圆鼻 ③



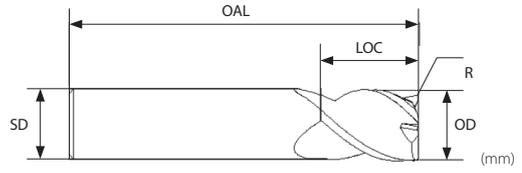
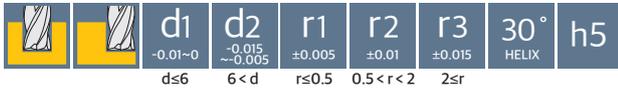
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
61	NRHS2-060-005-150-S06-L90	6(R0.5)X6X15X90	6	6	R0.5	15	90	2
62	NRHS2-060-010-150-S06-L90	6(R1)X6X15X90	6	6	R1	15	90	2
63	NRHS2-070-001-180-S08-L90	7(R0.1)X8X18X90	7	8	R0.1	18	90	2
64	NRHS2-070-002-180-S08-L90	7(R0.2)X8X18X90	7	8	R0.2	18	90	2
65	NRHS2-070-003-180-S08-L90	7(R0.3)X8X18X90	7	8	R0.3	18	90	2
66	NRHS2-070-005-180-S08-L90	7(R0.5)X8X18X90	7	8	R0.5	18	90	2
67	NRHS2-070-010-180-S08-L90	7(R1)X8X18X90	7	8	R1	18	90	2
68	NRHS2-070-020-180-S08-L90	7(R2)X8X18X90	7	8	R2	18	90	2
69	NRHS2-080-001-200-S08-L100	8(R0.1)X8X20X100	8	8	R0.1	20	100	2
70	NRHS2-080-002-200-S08-L100	8(R0.2)X8X20X100	8	8	R0.2	20	100	2
71	NRHS2-080-003-200-S08-L100	8(R0.3)X8X20X100	8	8	R0.3	20	100	2
72	NRHS2-080-005-200-S08-L100	8(R0.5)X8X20X100	8	8	R0.5	20	100	2
73	NRHS2-080-010-200-S08-L100	8(R1)X8X20X100	8	8	R1	20	100	2
74	NRHS2-080-020-200-S08-L100	8(R2)X8X20X100	8	8	R2	20	100	2
75	NRHS2-100-002-250-S10-L100	10(R0.2)X10X25X100	10	10	R0.2	25	100	2
76	NRHS2-100-003-250-S10-L100	10(R0.3)X10X25X100	10	10	R0.3	25	100	2
77	NRHS2-100-005-250-S10-L100	10(R0.5)X10X25X100	10	10	R0.5	25	100	2
78	NRHS2-100-010-250-S10-L100	10(R1)X10X25X100	10	10	R1	25	100	2
79	NRHS2-100-020-250-S10-L100	10(R2)X10X25X100	10	10	R2	25	100	2
80	NRHS2-110-002-280-S12-L110	11(R0.2)X12X28X110	11	12	R0.2	28	110	2
81	NRHS2-110-003-280-S12-L110	11(R0.3)X12X28X110	11	12	R0.3	28	110	2
82	NRHS2-110-005-280-S12-L110	11(R0.5)X12X28X110	11	12	R0.5	28	110	2
83	NRHS2-110-010-280-S12-L110	11(R1)X12X28X110	11	12	R1	28	110	2
84	NRHS2-110-020-280-S12-L110	11(R2)X12X28X110	11	12	R2	28	110	2
85	NRHS2-120-002-300-S12-L110	12(R0.2)X12X30X110	12	12	R0.2	30	110	2
86	NRHS2-120-003-300-S12-L110	12(R0.3)X12X30X110	12	12	R0.3	30	110	2
87	NRHS2-120-005-300-S12-L110	12(R0.5)X12X30X110	12	12	R0.5	30	110	2
88	NRHS2-120-010-300-S12-L110	12(R1)X12X30X110	12	12	R1	30	110	2
89	NRHS2-120-020-300-S12-L110	12(R2)X12X30X110	12	12	R2	30	110	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

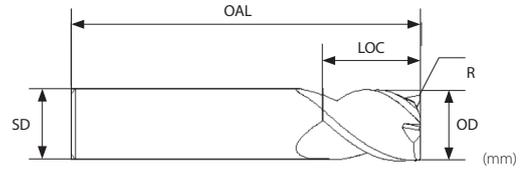
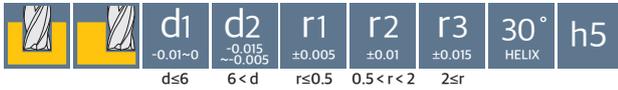
| NANO HARDENED STEEL 4 FLUTE CORNER RADIUS ①

NANO 高硬度钢 4刃 圆鼻 ①



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
1	NRHS4-010-001-020-S06-L50	1(R0.1)X6X2X50	1	6	R0.1	2	50	4
2	NRHS4-010-002-020-S06-L50	1(R0.2)X6X2X50	1	6	R0.2	2	50	4
3	NRHS4-010-003-020-S06-L50	1(R0.3)X6X2X50	1	6	R0.3	2	50	4
4	NRHS4-015-001-030-S06-L50	1.5(R0.1)X6X3X50	1.5	6	R0.1	3	50	4
5	NRHS4-015-002-030-S06-L50	1.5(R0.2)X6X3X50	1.5	6	R0.2	3	50	4
6	NRHS4-015-003-030-S06-L50	1.5(R0.3)X6X3X50	1.5	6	R0.3	3	50	4
7	NRHS4-015-005-030-S06-L50	1.5(R0.5)X6X3X50	1.5	6	R0.5	3	50	4
8	NRHS4-020-001-050-S06-L50	2(R0.1)X6X5X50	2	6	R0.1	5	50	4
9	NRHS4-020-002-050-S06-L50	2(R0.2)X6X5X50	2	6	R0.2	5	50	4
10	NRHS4-020-003-050-S06-L50	2(R0.3)X6X5X50	2	6	R0.3	5	50	4
11	NRHS4-020-004-050-S06-L50	2(R0.4)X6X5X50	2	6	R0.4	5	50	4
12	NRHS4-020-005-050-S06-L50	2(R0.5)X6X5X50	2	6	R0.5	5	50	4
13	NRHS4-025-001-070-S06-L60	2.5(R0.1)X6X7X60	2.5	6	R0.1	7	60	4
14	NRHS4-025-002-070-S06-L60	2.5(R0.2)X6X7X60	2.5	6	R0.2	7	60	4
15	NRHS4-025-003-070-S06-L60	2.5(R0.3)X6X7X60	2.5	6	R0.3	7	60	4
16	NRHS4-025-005-070-S06-L60	2.5(R0.5)X6X7X60	2.5	6	R0.5	7	60	4
17	NRHS4-030-001-080-S06-L60	3(R0.1)X6X8X60	3	6	R0.1	8	60	4
18	NRHS4-030-002-080-S06-L60	3(R0.2)X6X8X60	3	6	R0.2	8	60	4
19	NRHS4-030-003-080-S06-L60	3(R0.3)X6X8X60	3	6	R0.3	8	60	4
20	NRHS4-030-005-080-S06-L60	3(R0.5)X6X8X60	3	6	R0.5	8	60	4
21	NRHS4-040-001-100-S06-L70	4(R0.1)X6X10X70	4	6	R0.1	10	70	4
22	NRHS4-040-002-100-S06-L70	4(R0.2)X6X10X70	4	6	R0.2	10	70	4
23	NRHS4-040-003-100-S06-L70	4(R0.3)X6X10X70	4	6	R0.3	10	70	4
24	NRHS4-040-005-100-S06-L70	4(R0.5)X6X10X70	4	6	R0.5	10	70	4
25	NRHS4-040-010-100-S06-L70	4(R1)X6X10X70	4	6	R1	10	70	4
26	NRHS4-050-001-130-S06-L80	5(R0.1)X6X13X80	5	6	R0.1	13	80	4
27	NRHS4-050-002-130-S06-L80	5(R0.2)X6X13X80	5	6	R0.2	13	80	4
28	NRHS4-050-003-130-S06-L80	5(R0.3)X6X13X80	5	6	R0.3	13	80	4
29	NRHS4-050-005-130-S06-L80	5(R0.5)X6X13X80	5	6	R0.5	13	80	4
30	NRHS4-050-010-130-S06-L80	5(R1)X6X13X80	5	6	R1	13	80	4
31	NRHS4-060-001-150-S06-L90	6(R0.1)X6X15X90	6	6	R0.1	15	90	4

NANO HARDENED STEEL 4 FLUTE CORNER RADIUS ②
NANO 高硬度钢 4刃 圆鼻 ②



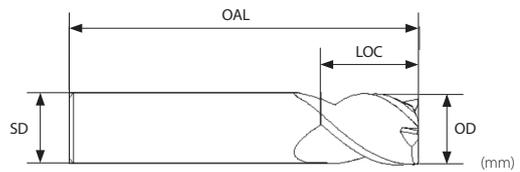
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
32	NRHS4-060-002-150-S06-L90	6(R0.2)X6X15X90	6	6	R0.2	15	90	4
33	NRHS4-060-003-150-S06-L90	6(R0.3)X6X15X90	6	6	R0.3	15	90	4
34	NRHS4-060-005-150-S06-L90	6(R0.5)X6X15X90	6	6	R0.5	15	90	4
35	NRHS4-060-010-150-S06-L90	6(R1)X6X15X90	6	6	R1	15	90	4
36	NRHS4-070-001-180-S08-L90	7(R0.1)X8X18X90	7	8	R0.1	18	90	4
37	NRHS4-070-002-180-S08-L90	7(R0.2)X8X18X90	7	8	R0.2	18	90	4
38	NRHS4-070-003-180-S08-L90	7(R0.3)X8X18X90	7	8	R0.3	18	90	4
39	NRHS4-070-005-180-S08-L90	7(R0.5)X8X18X90	7	8	R0.5	18	90	4
40	NRHS4-070-010-180-S08-L90	7(R1)X8X18X90	7	8	R1	18	90	4
41	NRHS4-070-020-180-S08-L90	7(R2)X8X18X90	7	8	R2	18	90	4
42	NRHS4-080-001-200-S08-L100	8(R0.1)X8X20X100	8	8	R0.1	20	100	4
43	NRHS4-080-002-200-S08-L100	8(R0.2)X8X20X100	8	8	R0.2	20	100	4
44	NRHS4-080-003-200-S08-L100	8(R0.3)X8X20X100	8	8	R0.3	20	100	4
45	NRHS4-080-005-200-S08-L100	8(R0.5)X8X20X100	8	8	R0.5	20	100	4
46	NRHS4-080-010-200-S08-L100	8(R1)X8X20X100	8	8	R1	20	100	4
47	NRHS4-080-020-200-S08-L100	8(R2)X8X20X100	8	8	R2	20	100	4
48	NRHS4-100-002-250-S10-L100	10(R0.2)X10X25X100	10	10	R0.2	25	100	4
49	NRHS4-100-003-250-S10-L100	10(R0.3)X10X25X100	10	10	R0.3	25	100	4
50	NRHS4-100-005-250-S10-L100	10(R0.5)X10X25X100	10	10	R0.5	25	100	4
51	NRHS4-100-010-250-S10-L100	10(R1)X10X25X100	10	10	R1	25	100	4
52	NRHS4-100-020-250-S10-L100	10(R2)X10X25X100	10	10	R2	25	100	4
53	NRHS4-110-002-280-S12-L110	11(R0.2)X12X28X110	11	12	R0.2	28	110	4
54	NRHS4-110-003-280-S12-L110	11(R0.3)X12X28X110	11	12	R0.3	28	110	4
55	NRHS4-110-005-280-S12-L110	11(R0.5)X12X28X110	11	12	R0.5	28	110	4
56	NRHS4-110-010-280-S12-L110	11(R1)X12X28X110	11	12	R1	28	110	4
57	NRHS4-110-020-280-S12-L110	11(R2)X12X28X110	11	12	R2	28	110	4
58	NRHS4-120-002-300-S12-L110	12(R0.2)X12X30X110	12	12	R0.2	30	110	4
59	NRHS4-120-003-300-S12-L110	12(R0.3)X12X30X110	12	12	R0.3	30	110	4
60	NRHS4-120-005-300-S12-L110	12(R0.5)X12X30X110	12	12	R0.5	30	110	4
61	NRHS4-120-010-300-S12-L110	12(R1)X12X30X110	12	12	R1	30	110	4
62	NRHS4-120-020-300-S12-L110	12(R2)X12X30X110	12	12	R2	30	110	4

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

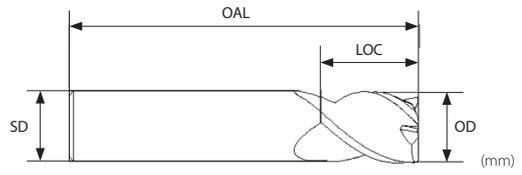
| NANO HARDENED STEEL 2 FLUTE FLAT ①

NANO 高硬度钢 2刃 平头 ①



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFHS2-001-002-S04-L40	0.1X4X0.2X40	0.1	4	0.2	40	2
2	NFHS2-001-001-S04-L40	0.1X4X0.1X40	0.1	4	0.1	40	2
3	NFHS2-002-004-S04-L40	0.2X4X0.4X40	0.2	4	0.4	40	2
4	NFHS2-002-002-S04-L40	0.2X4X0.2X40	0.2	4	0.2	40	2
5	NFHS2-003-006-S04-L40	0.3X4X0.6X40	0.3	4	0.6	40	2
6	NFHS2-003-003-S04-L40	0.3X4X0.3X40	0.3	4	0.3	40	2
7	NFHS2-004-008-S04-L40	0.4X4X0.8X40	0.4	4	0.8	40	2
8	NFHS2-004-004-S04-L40	0.4X4X0.4X40	0.4	4	0.4	40	2
9	NFHS2-005-010-S04-L40	0.5X4X1X40	0.5	4	1	40	2
10	NFHS2-005-005-S04-L40	0.5X4X0.5X40	0.5	4	0.5	40	2
11	NFHS2-006-012-S04-L40	0.6X4X1.2X40	0.6	4	1.2	40	2
12	NFHS2-006-006-S04-L40	0.6X4X0.6X40	0.6	4	0.6	40	2
13	NFHS2-007-014-S04-L40	0.7X4X1.4X40	0.7	4	1.4	40	2
14	NFHS2-007-007-S04-L40	0.7X4X0.7X40	0.7	4	0.7	40	2
15	NFHS2-008-016-S04-L40	0.8X4X1.6X40	0.8	4	1.6	40	2
16	NFHS2-008-008-S04-L40	0.8X4X0.8X40	0.8	4	0.8	40	2
17	NFHS2-009-018-S04-L40	0.9X4X1.8X40	0.9	4	1.8	40	2
18	NFHS2-009-009-S04-L40	0.9X4X0.9X40	0.9	4	0.9	40	2
19	NFHS2-010-025-S06-L50	1X6X2.5X50	1	6	2.5	50	2
20	NFHS2-010-020-S06-L50	1X6X2X50	1	6	2	50	2
21	NFHS2-010-030-S06-L50	1X6X3X50	1	6	3	50	2
22	NFHS2-010-040-S06-L50	1X6X4X50	1	6	4	50	2
23	NFHS2-012-030-S06-L50	1.2X6X3X50	1.2	6	3	50	2
24	NFHS2-015-040-S06-L50	1.5X6X4X50	1.5	6	4	50	2
25	NFHS2-015-030-S06-L50	1.5X6X3X50	1.5	6	3	50	2
26	NFHS2-015-060-S06-L50	1.5X6X6X50	1.5	6	6	50	2
27	NFHS2-015-080-S06-L50	1.5X6X8X50	1.5	6	8	50	2
28	NFHS2-020-060-S06-L50	2X6X6X50	2	6	6	50	2
29	NFHS2-020-040-S06-L50	2X6X4X50	2	6	4	50	2
30	NFHS2-020-080-S06-L50	2X6X8X50	2	6	8	50	2

NANO HARDENED STEEL 2 FLUTE FLAT ②
NANO 高硬度钢 2刃 平头 ②

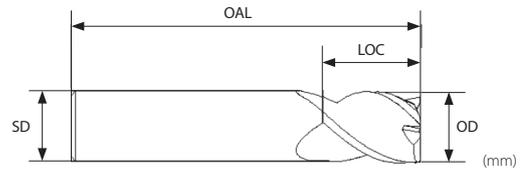


NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
31	NFHS2-020-100-S06-L50	2X6X10X50	2	6	10	50	2
32	NFHS2-025-070-S06-L50	2.5X6X7X50	2.5	6	7	50	2
33	NFHS2-030-080-S06-L60	3X6X8X60	3	6	8	60	2
34	NFHS2-030-060-S03-L70	3X3X6X70	3	3	6	70	2
35	NFHS2-030-100-S06-L60	3X6X10X60	3	6	10	60	2
36	NFHS2-030-120-S06-L60	3X6X12X60	3	6	12	60	2
37	NFHS2-035-090-S06-L60	3.5X6X9X60	3.5	6	9	60	2
38	NFHS2-040-100-S06-L60	4X6X10X60	4	6	10	60	2
39	NFHS2-040-080-S04-L80	4X4X8X80	4	4	8	80	2
40	NFHS2-040-120-S06-L60	4X6X12X60	4	6	12	60	2
41	NFHS2-040-160-S06-L60	4X6X16X60	4	6	16	60	2
42	NFHS2-050-130-S06-L60	5X6X13X60	5	6	13	60	2
43	NFHS2-060-150-S06-L60	6X6X15X60	6	6	15	60	2
44	NFHS2-070-180-S08-L65	7X8X18X65	7	8	18	65	2
45	NFHS2-080-190-S08-L65	8X8X19X65	8	8	19	65	2
46	NFHS2-090-220-S10-L70	9X10X22X70	9	10	22	70	2
47	NFHS2-100-250-S10-L70	10X10X25X70	10	10	25	70	2
48	NFHS2-110-280-S12-L80	11X12X28X80	11	12	28	80	2
49	NFHS2-120-300-S12-L80	12X12X30X80	12	12	30	80	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

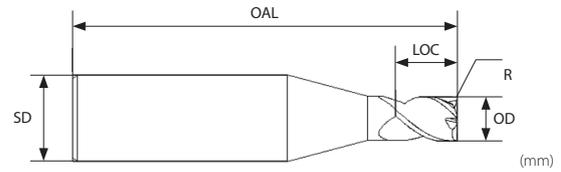
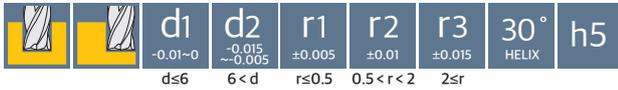
“N-SH” 高硬度钢专用铣刀

NANO HARDENED STEEL 4 FLUTE FLAT
NANO 高硬度钢 4刃 平头



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFHS4-010-025-S06-L50	1X6X2.5X50	1	6	2.5	50	4
2	NFHS4-012-030-S06-L50	1.2X6X3X50	1.2	6	3	50	4
3	NFHS4-015-040-S06-L50	1.5X6X4X50	1.5	6	4	50	4
4	NFHS4-020-060-S06-L50	2X6X6X50	2	6	6	50	4
5	NFHS4-025-070-S06-L50	2.5X6X7X50	2.5	6	7	50	4
6	NFHS4-030-080-S06-L60	3X6X8X60	3	6	8	60	4
7	NFHS4-035-090-S06-L60	3.5X6X9X60	3.5	6	9	60	4
8	NFHS4-040-100-S06-L60	4X6X10X60	4	6	10	60	4
9	NFHS4-050-130-S06-L60	5X6X13X60	5	6	13	60	4
10	NFHS4-060-150-S06-L60	6X6X15X60	6	6	15	60	4
11	NFHS4-070-180-S08-L65	7X8X18X65	7	8	18	65	4
12	NFHS4-080-190-S08-L65	8X8X19X65	8	8	19	65	4
13	NFHS4-090-220-S10-L70	9X10X22X70	9	10	22	70	4
14	NFHS4-100-250-S10-L70	10X10X25X70	10	10	25	70	4
15	NFHS4-110-280-S12-L80	11X12X28X80	11	12	28	80	4
16	NFHS4-120-300-S12-L80	12X12X30X80	12	12	30	80	4

NANO HARDENED STEEL 2 FLUTE RIB CORNER RADIUS ①
NANO 高硬度钢 2刃 长颈 圆鼻 ①



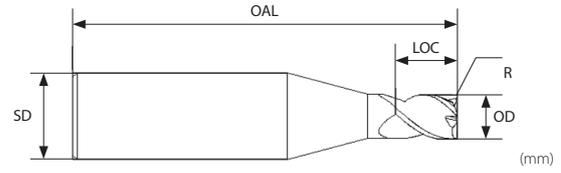
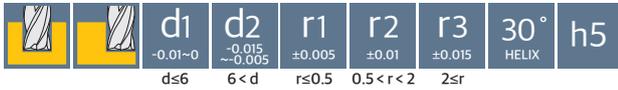
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
1	NRHR2-004-0005-010-S04-L45	0.4(R0.05)X4X0.6(1)X45	0.4	4	R0.05	0.6	45	1	2
2	NRHR2-004-0005-015-S04-L45	0.4(R0.05)X4X0.6(1.5)X45	0.4	4	R0.05	0.6	45	1.5	2
3	NRHR2-004-0005-025-S04-L45	0.4(R0.05)X4X0.6(2.5)X45	0.4	4	R0.05	0.6	45	2.5	2
4	NRHR2-004-0005-030-S04-L45	0.4(R0.05)X4X0.6(3)X45	0.4	4	R0.05	0.6	45	3	2
5	NRHR2-004-0005-040-S04-L45	0.4(R0.05)X4X0.6(4)X45	0.4	4	R0.05	0.6	45	4	2
6	NRHR2-005-0005-010-S04-L45	0.5(R0.05)X4X0.7(1)X45	0.5	4	R0.05	0.7	45	1	2
7	NRHR2-005-0005-015-S04-L45	0.5(R0.05)X4X0.7(1.5)X45	0.5	4	R0.05	0.7	45	1.5	2
8	NRHR2-005-0005-025-S04-L45	0.5(R0.05)X4X0.7(2.5)X45	0.5	4	R0.05	0.7	45	2.5	2
9	NRHR2-005-0005-030-S04-L45	0.5(R0.05)X4X0.7(3)X45	0.5	4	R0.05	0.7	45	3	2
10	NRHR2-005-0005-040-S04-L45	0.5(R0.05)X4X0.7(4)X45	0.5	4	R0.05	0.7	45	4	2
11	NRHR2-006-0005-020-S04-L45	0.6(R0.05)X4X0.9(2)X45	0.6	4	R0.05	0.9	45	2	2
12	NRHR2-006-0005-040-S04-L45	0.6(R0.05)X4X0.9(4)X45	0.6	4	R0.05	0.9	45	4	2
13	NRHR2-006-0005-060-S04-L45	0.6(R0.05)X4X0.9(6)X45	0.6	4	R0.05	0.9	45	6	2
14	NRHR2-006-001-020-S04-L45	0.6(R0.1)X4X0.9(2)X45	0.6	4	R0.1	0.9	45	2	2
15	NRHR2-006-001-040-S04-L45	0.6(R0.1)X4X0.9(4)X45	0.6	4	R0.1	0.9	45	4	2
16	NRHR2-006-001-060-S04-L45	0.6(R0.1)X4X0.9(6)X45	0.6	4	R0.1	0.9	45	6	2
17	NRHR2-006-002-020-S04-L45	0.6(R0.2)X4X0.9(2)X45	0.6	4	R0.2	0.9	45	2	2
18	NRHR2-006-002-040-S04-L45	0.6(R0.2)X4X0.9(4)X45	0.6	4	R0.2	0.9	45	4	2
19	NRHR2-006-002-060-S04-L45	0.6(R0.2)X4X0.9(6)X45	0.6	4	R0.2	0.9	45	6	2
20	NRHR2-008-0005-020-S04-L45	0.8(R0.05)X4X1.2(2)X45	0.8	4	R0.05	1.2	45	2	2
21	NRHR2-008-0005-040-S04-L45	0.8(R0.05)X4X1.2(4)X45	0.8	4	R0.05	1.2	45	4	2
22	NRHR2-008-0005-060-S04-L45	0.8(R0.05)X4X1.2(6)X45	0.8	4	R0.05	1.2	45	6	2
23	NRHR2-008-0005-080-S04-L45	0.8(R0.05)X4X1.2(8)X45	0.8	4	R0.05	1.2	45	8	2
24	NRHR2-008-001-020-S04-L45	0.8(R0.1)X4X1.2(2)X45	0.8	4	R0.1	1.2	45	2	2
25	NRHR2-008-001-040-S04-L45	0.8(R0.1)X4X1.2(4)X45	0.8	4	R0.1	1.2	45	4	2
26	NRHR2-008-001-060-S04-L45	0.8(R0.1)X4X1.2(6)X45	0.8	4	R0.1	1.2	45	6	2
27	NRHR2-008-001-080-S04-L45	0.8(R0.1)X4X1.2(8)X45	0.8	4	R0.1	1.2	45	8	2
28	NRHR2-008-002-020-S04-L45	0.8(R0.2)X4X1.2(2)X45	0.8	4	R0.2	1.2	45	2	2
29	NRHR2-008-002-040-S04-L45	0.8(R0.2)X4X1.2(4)X45	0.8	4	R0.2	1.2	45	4	2
30	NRHR2-008-002-060-S04-L45	0.8(R0.2)X4X1.2(6)X45	0.8	4	R0.2	1.2	45	6	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

| NANO HARDENED STEEL 2 FLUTE RIB CORNER RADIUS ②

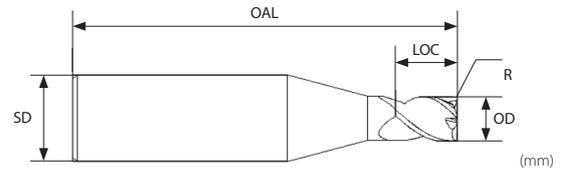
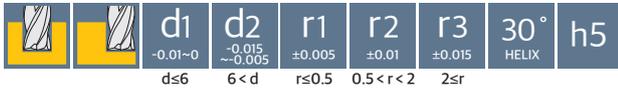
NANO 高硬度钢 2刃 长颈 圆鼻 ②



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
31	NRHR2-008-002-080-S04-L45	0.8(R0.2)X4X1.2(8)X45	0.8	4	R0.2	1.2	45	8	2
32	NRHR2-010-0005-030-S04-L50	1(R0.05)X4X2(3)X50	1	4	R0.05	2	50	3	2
33	NRHR2-010-0005-040-S04-L50	1(R0.05)X4X2(4)X50	1	4	R0.05	2	50	4	2
34	NRHR2-010-0005-060-S04-L50	1(R0.05)X4X2(6)X50	1	4	R0.05	2	50	6	2
35	NRHR2-010-0005-080-S04-L50	1(R0.05)X4X2(8)X50	1	4	R0.05	2	50	8	2
36	NRHR2-010-0005-100-S04-L50	1(R0.05)X4X2(10)X50	1	4	R0.05	2	50	10	2
37	NRHR2-010-001-030-S04-L50	1(R0.1)X4X2(3)X50	1	4	R0.1	2	50	3	2
38	NRHR2-010-001-040-S04-L50	1(R0.1)X4X2(4)X50	1	4	R0.1	2	50	4	2
39	NRHR2-010-001-060-S04-L50	1(R0.1)X4X2(6)X50	1	4	R0.1	2	50	6	2
40	NRHR2-010-001-080-S04-L50	1(R0.1)X4X2(8)X50	1	4	R0.1	2	50	8	2
41	NRHR2-010-001-100-S04-L50	1(R0.1)X4X2(10)X50	1	4	R0.1	2	50	10	2
42	NRHR2-010-002-030-S04-L50	1(R0.2)X4X2(3)X50	1	4	R0.2	2	50	3	2
43	NRHR2-010-002-040-S04-L50	1(R0.2)X4X2(4)X50	1	4	R0.2	2	50	4	2
44	NRHR2-010-002-060-S04-L50	1(R0.2)X4X2(6)X50	1	4	R0.2	2	50	6	2
45	NRHR2-010-002-080-S04-L50	1(R0.2)X4X2(8)X50	1	4	R0.2	2	50	8	2
46	NRHR2-010-002-100-S04-L50	1(R0.2)X4X2(10)X50	1	4	R0.2	2	50	10	2
47	NRHR2-010-003-030-S04-L50	1(R0.3)X4X2(3)X50	1	4	R0.3	2	50	3	2
48	NRHR2-010-003-040-S04-L50	1(R0.3)X4X2(4)X50	1	4	R0.3	2	50	4	2
49	NRHR2-010-003-060-S04-L50	1(R0.3)X4X2(6)X50	1	4	R0.3	2	50	6	2
50	NRHR2-010-003-080-S04-L50	1(R0.3)X4X2(8)X50	1	4	R0.3	2	50	8	2
51	NRHR2-010-003-100-S04-L50	1(R0.3)X4X2(10)X50	1	4	R0.3	2	50	10	2
52	NRHR2-015-0005-040-S04-L50	1.5(R0.05)X4X2.5(4)X50	1.5	4	R0.05	2.5	50	4	2
53	NRHR2-015-0005-060-S04-L50	1.5(R0.05)X4X2.5(6)X50	1.5	4	R0.05	2.5	50	6	2
54	NRHR2-015-0005-080-S04-L50	1.5(R0.05)X4X2.5(8)X50	1.5	4	R0.05	2.5	50	8	2
55	NRHR2-015-0005-100-S04-L50	1.5(R0.05)X4X2.5(10)X50	1.5	4	R0.05	2.5	50	10	2
56	NRHR2-015-0005-120-S04-L50	1.5(R0.05)X4X2.5(12)X50	1.5	4	R0.05	2.5	50	12	2
57	NRHR2-015-001-040-S04-L50	1.5(R0.1)X4X2.5(4)X50	1.5	4	R0.1	2.5	50	4	2
58	NRHR2-015-001-060-S04-L50	1.5(R0.1)X4X2.5(6)X50	1.5	4	R0.1	2.5	50	6	2
59	NRHR2-015-001-080-S04-L50	1.5(R0.1)X4X2.5(8)X50	1.5	4	R0.1	2.5	50	8	2
60	NRHR2-015-001-100-S04-L50	1.5(R0.1)X4X2.5(10)X50	1.5	4	R0.1	2.5	50	10	2

NANO HARDENED STEEL 2 FLUTE RIB CORNER RADIUS ③

NANO 高硬度钢 2刃 长颈 圆鼻 ③



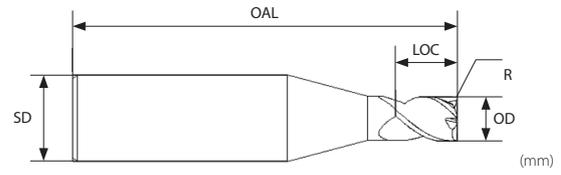
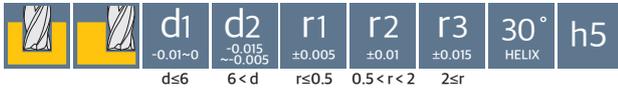
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
61	NRHR2-015-001-120-S04-L50	1.5(R0.1)X4X2.5(12)X50	1.5	4	R0.1	2.5	50	12	2
62	NRHR2-015-002-040-S04-L50	1.5(R0.2)X4X2.5(4)X50	1.5	4	R0.2	2.5	50	4	2
63	NRHR2-015-002-060-S04-L50	1.5(R0.2)X4X2.5(6)X50	1.5	4	R0.2	2.5	50	6	2
64	NRHR2-015-002-080-S04-L50	1.5(R0.2)X4X2.5(8)X50	1.5	4	R0.2	2.5	50	8	2
65	NRHR2-015-002-100-S04-L50	1.5(R0.2)X4X2.5(10)X50	1.5	4	R0.2	2.5	50	10	2
66	NRHR2-015-002-120-S04-L50	1.5(R0.2)X4X2.5(12)X50	1.5	4	R0.2	2.5	50	12	2
67	NRHR2-015-003-040-S04-L50	1.5(R0.3)X4X2.5(4)X50	1.5	4	R0.3	2.5	50	4	2
68	NRHR2-015-003-060-S04-L50	1.5(R0.3)X4X2.5(6)X50	1.5	4	R0.3	2.5	50	6	2
69	NRHR2-015-003-080-S04-L50	1.5(R0.3)X4X2.5(8)X50	1.5	4	R0.3	2.5	50	8	2
70	NRHR2-015-003-100-S04-L50	1.5(R0.3)X4X2.5(10)X50	1.5	4	R0.3	2.5	50	10	2
71	NRHR2-015-003-120-S04-L50	1.5(R0.3)X4X2.5(12)X50	1.5	4	R0.3	2.5	50	12	2
72	NRHR2-015-005-040-S04-L50	1.5(R0.5)X4X2.5(4)X50	1.5	4	R0.5	2.5	50	4	2
73	NRHR2-015-005-060-S04-L50	1.5(R0.5)X4X2.5(6)X50	1.5	4	R0.5	2.5	50	6	2
74	NRHR2-015-005-080-S04-L50	1.5(R0.5)X4X2.5(8)X50	1.5	4	R0.5	2.5	50	8	2
75	NRHR2-015-005-100-S04-L50	1.5(R0.5)X4X2.5(10)X50	1.5	4	R0.5	2.5	50	10	2
76	NRHR2-015-005-120-S04-L50	1.5(R0.5)X4X2.5(12)X50	1.5	4	R0.5	2.5	50	12	2
77	NRHR2-020-001-060-S04-L50	2(R0.1)X4X3(6)X50	2	4	R0.1	3	50	6	2
78	NRHR2-020-001-080-S04-L50	2(R0.1)X4X3(8)X50	2	4	R0.1	3	50	8	2
79	NRHR2-020-001-100-S04-L50	2(R0.1)X4X3(10)X50	2	4	R0.1	3	50	10	2
80	NRHR2-020-001-120-S04-L50	2(R0.1)X4X3(12)X50	2	4	R0.1	3	50	12	2
81	NRHR2-020-001-160-S04-L50	2(R0.1)X4X3(16)X50	2	4	R0.1	3	50	16	2
82	NRHR2-020-001-200-S04-L50	2(R0.1)X4X3(20)X50	2	4	R0.1	3	50	20	2
83	NRHR2-020-002-060-S04-L50	2(R0.2)X4X3(6)X50	2	4	R0.2	3	50	6	2
84	NRHR2-020-002-080-S04-L50	2(R0.2)X4X3(8)X50	2	4	R0.2	3	50	8	2
85	NRHR2-020-002-100-S04-L50	2(R0.2)X4X3(10)X50	2	4	R0.2	3	50	10	2
86	NRHR2-020-002-120-S04-L50	2(R0.2)X4X3(12)X50	2	4	R0.2	3	50	12	2
87	NRHR2-020-002-160-S04-L50	2(R0.2)X4X3(16)X50	2	4	R0.2	3	50	16	2
88	NRHR2-020-002-200-S04-L50	2(R0.2)X4X3(20)X50	2	4	R0.2	3	50	20	2
89	NRHR2-020-003-060-S04-L50	2(R0.3)X4X3(6)X50	2	4	R0.3	3	50	6	2
90	NRHR2-020-003-080-S04-L50	2(R0.3)X4X3(8)X50	2	4	R0.3	3	50	8	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

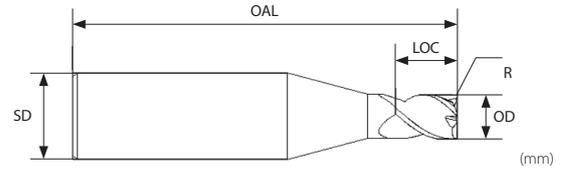
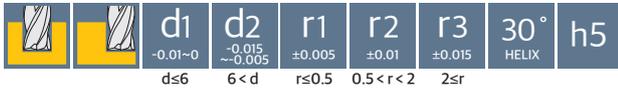
| NANO HARDENED STEEL 2 FLUTE RIB CORNER RADIUS ④

NANO 高硬度钢 2刃 长颈 圆鼻 ④



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
91	NRHR2-020-003-100-S04-L50	2(R0.3)X4X3(10)X50	2	4	R0.3	3	50	10	2
92	NRHR2-020-003-120-S04-L50	2(R0.3)X4X3(12)X50	2	4	R0.3	3	50	12	2
93	NRHR2-020-003-160-S04-L50	2(R0.3)X4X3(16)X50	2	4	R0.3	3	50	16	2
94	NRHR2-020-003-200-S04-L50	2(R0.3)X4X3(20)X50	2	4	R0.3	3	50	20	2
95	NRHR2-020-005-060-S04-L50	2(R0.5)X4X3(6)X50	2	4	R0.5	3	50	6	2
96	NRHR2-020-005-080-S04-L50	2(R0.5)X4X3(8)X50	2	4	R0.5	3	50	8	2
97	NRHR2-020-005-100-S04-L50	2(R0.5)X4X3(10)X50	2	4	R0.5	3	50	10	2
98	NRHR2-020-005-120-S04-L50	2(R0.5)X4X3(12)X50	2	4	R0.5	3	50	12	2
99	NRHR2-020-005-160-S04-L50	2(R0.5)X4X3(16)X50	2	4	R0.5	3	50	16	2
100	NRHR2-020-005-200-S04-L50	2(R0.5)X4X3(20)X50	2	4	R0.5	3	50	20	2
101	NRHR2-025-002-080-S04-L55	2.5(R0.2)X4X3.5(8)X55	2.5	4	R0.2	3.5	55	8	2
102	NRHR2-025-002-100-S04-L55	2.5(R0.2)X4X3.5(10)X55	2.5	4	R0.2	3.5	55	10	2
103	NRHR2-025-002-120-S04-L55	2.5(R0.2)X4X3.5(12)X55	2.5	4	R0.2	3.5	55	12	2
104	NRHR2-025-002-160-S04-L55	2.5(R0.2)X4X3.5(16)X55	2.5	4	R0.2	3.5	55	16	2
105	NRHR2-025-003-080-S04-L55	2.5(R0.3)X4X3.5(8)X55	2.5	4	R0.3	3.5	55	8	2
106	NRHR2-025-003-100-S04-L55	2.5(R0.3)X4X3.5(10)X55	2.5	4	R0.3	3.5	55	10	2
107	NRHR2-025-003-120-S04-L55	2.5(R0.3)X4X3.5(12)X55	2.5	4	R0.3	3.5	55	12	2
108	NRHR2-025-003-160-S04-L55	2.5(R0.3)X4X3.5(16)X55	2.5	4	R0.3	3.5	55	16	2
109	NRHR2-025-005-080-S04-L55	2.5(R0.5)X4X3.5(8)X55	2.5	4	R0.5	3.5	55	8	2
110	NRHR2-025-005-100-S04-L55	2.5(R0.5)X4X3.5(10)X55	2.5	4	R0.5	3.5	55	10	2
111	NRHR2-025-005-120-S04-L55	2.5(R0.5)X4X3.5(12)X55	2.5	4	R0.5	3.5	55	12	2
112	NRHR2-025-005-160-S04-L55	2.5(R0.5)X4X3.5(16)X55	2.5	4	R0.5	3.5	55	16	2
113	NRHR2-030-001-080-S06-L55	3(R0.1)X6X4.5(8)X55	3	6	R0.1	4.5	55	8	2
114	NRHR2-030-001-100-S06-L55	3(R0.1)X6X4.5(10)X55	3	6	R0.1	4.5	55	10	2
115	NRHR2-030-001-120-S06-L55	3(R0.1)X6X4.5(12)X55	3	6	R0.1	4.5	55	12	2
116	NRHR2-030-001-160-S06-L55	3(R0.1)X6X4.5(16)X55	3	6	R0.1	4.5	55	16	2
117	NRHR2-030-001-200-S06-L60	3(R0.1)X6X4.5(20)X60	3	6	R0.1	4.5	60	20	2
118	NRHR2-030-002-080-S06-L55	3(R0.2)X6X4.5(8)X55	3	6	R0.2	4.5	55	8	2
119	NRHR2-030-002-100-S06-L55	3(R0.2)X6X4.5(10)X55	3	6	R0.2	4.5	55	10	2
120	NRHR2-030-002-120-S06-L55	3(R0.2)X6X4.5(12)X55	3	6	R0.2	4.5	55	12	2

NANO HARDENED STEEL 2 FLUTE RIB CORNER RADIUS ⑤
 NANO 高硬度钢 2刃 长颈 圆鼻 ⑤



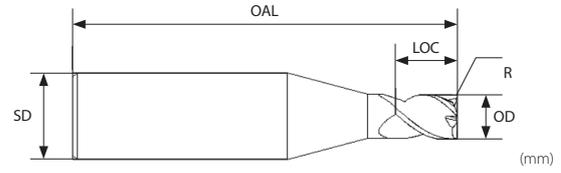
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
121	NRHR2-030-002-160-S06-L55	3(R0.2)X6X4.5(16)X55	3	6	R0.2	4.5	55	16	2
122	NRHR2-030-002-200-S06-L60	3(R0.2)X6X4.5(20)X60	3	6	R0.2	4.5	60	20	2
123	NRHR2-030-003-080-S06-L55	3(R0.3)X6X4.5(8)X55	3	6	R0.3	4.5	55	8	2
124	NRHR2-030-003-100-S06-L55	3(R0.3)X6X4.5(10)X55	3	6	R0.3	4.5	55	10	2
125	NRHR2-030-003-120-S06-L55	3(R0.3)X6X4.5(12)X55	3	6	R0.3	4.5	55	12	2
126	NRHR2-030-003-160-S06-L55	3(R0.3)X6X4.5(16)X55	3	6	R0.3	4.5	55	16	2
127	NRHR2-030-003-200-S06-L60	3(R0.3)X6X4.5(20)X60	3	6	R0.3	4.5	60	20	2
128	NRHR2-030-005-080-S06-L55	3(R0.5)X6X4.5(8)X55	3	6	R0.5	4.5	55	8	2
129	NRHR2-030-005-100-S06-L55	3(R0.5)X6X4.5(10)X55	3	6	R0.5	4.5	55	10	2
130	NRHR2-030-005-120-S06-L55	3(R0.5)X6X4.5(12)X55	3	6	R0.5	4.5	55	12	2
131	NRHR2-030-005-160-S06-L55	3(R0.5)X6X4.5(16)X55	3	6	R0.5	4.5	55	16	2
132	NRHR2-030-005-200-S06-L60	3(R0.5)X6X4.5(20)X60	3	6	R0.5	4.5	60	20	2
133	NRHR2-030-010-080-S06-L55	3(R1)X6X4.5(8)X55	3	6	R1	4.5	55	8	2
134	NRHR2-030-010-100-S06-L55	3(R1)X6X4.5(10)X55	3	6	R1	4.5	55	10	2
135	NRHR2-030-010-120-S06-L55	3(R1)X6X4.5(12)X55	3	6	R1	4.5	55	12	2
136	NRHR2-030-010-160-S06-L55	3(R1)X6X4.5(16)X55	3	6	R1	4.5	55	16	2
137	NRHR2-030-010-200-S06-L60	3(R1)X6X4.5(20)X60	3	6	R1	4.5	60	20	2
138	NRHR2-040-001-100-S06-L55	4(R0.1)X6X6(10)X55	4	6	R0.1	6	55	10	2
139	NRHR2-040-001-120-S06-L55	4(R0.1)X6X6(12)X55	4	6	R0.1	6	55	12	2
140	NRHR2-040-001-160-S06-L55	4(R0.1)X6X6(16)X55	4	6	R0.1	6	55	16	2
141	NRHR2-040-001-200-S06-L60	4(R0.1)X6X6(20)X60	4	6	R0.1	6	60	20	2
142	NRHR2-040-001-250-S06-L60	4(R0.1)X6X6(25)X60	4	6	R0.1	6	60	25	2
143	NRHR2-040-002-100-S06-L55	4(R0.2)X6X6(10)X55	4	6	R0.2	6	55	10	2
144	NRHR2-040-002-120-S06-L55	4(R0.2)X6X6(12)X55	4	6	R0.2	6	55	12	2
145	NRHR2-040-002-160-S06-L55	4(R0.2)X6X6(16)X55	4	6	R0.2	6	55	16	2
146	NRHR2-040-002-200-S06-L60	4(R0.2)X6X6(20)X60	4	6	R0.2	6	60	20	2
147	NRHR2-040-002-250-S06-L60	4(R0.2)X6X6(25)X60	4	6	R0.2	6	60	25	2
148	NRHR2-040-003-100-S06-L55	4(R0.3)X6X6(10)X55	4	6	R0.3	6	55	10	2
149	NRHR2-040-003-120-S06-L55	4(R0.3)X6X6(12)X55	4	6	R0.3	6	55	12	2
150	NRHR2-040-003-160-S06-L55	4(R0.3)X6X6(16)X55	4	6	R0.3	6	55	16	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

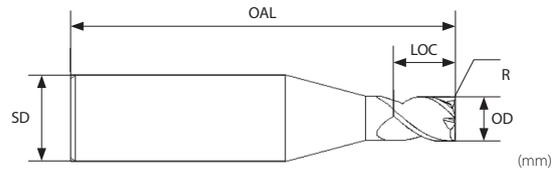
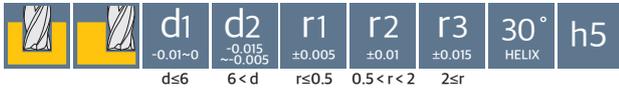
| NANO HARDENED STEEL 2 FLUTE RIB CORNER RADIUS ⑥

NANO 高硬度钢 2刃 长颈 圆鼻 ⑥



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
151	NRHR2-040-003-200-S06-L60	4(R0.3)X6X6(20)X60	4	6	R0.3	6	60	20	2
152	NRHR2-040-003-250-S06-L60	4(R0.3)X6X6(25)X60	4	6	R0.3	6	60	25	2
153	NRHR2-040-005-100-S06-L55	4(R0.5)X6X6(10)X55	4	6	R0.5	6	55	10	2
154	NRHR2-040-005-120-S06-L55	4(R0.5)X6X6(12)X55	4	6	R0.5	6	55	12	2
155	NRHR2-040-005-160-S06-L55	4(R0.5)X6X6(16)X55	4	6	R0.5	6	55	16	2
156	NRHR2-040-005-200-S06-L60	4(R0.5)X6X6(20)X60	4	6	R0.5	6	60	20	2
157	NRHR2-040-005-250-S06-L60	4(R0.5)X6X6(25)X60	4	6	R0.5	6	60	25	2
158	NRHR2-040-010-100-S06-L55	4(R1)X6X6(10)X55	4	6	R1	6	55	10	2
159	NRHR2-040-010-120-S06-L55	4(R1)X6X6(12)X55	4	6	R1	6	55	12	2
160	NRHR2-040-010-160-S06-L55	4(R1)X6X6(16)X55	4	6	R1	6	55	16	2
161	NRHR2-040-010-200-S06-L60	4(R1)X6X6(20)X60	4	6	R1	6	60	20	2
162	NRHR2-040-010-250-S06-L60	4(R1)X6X6(25)X60	4	6	R1	6	60	25	2
163	NRHR2-060-002-150-S06-L60	6(R0.2)X6X9(15)X60	6	6	R0.2	9	60	15	2
164	NRHR2-060-003-150-S06-L60	6(R0.3)X6X9(15)X60	6	6	R0.3	9	60	15	2
165	NRHR2-060-003-200-S06-L60	6(R0.3)X6X9(20)X60	6	6	R0.3	9	60	20	2
166	NRHR2-060-005-150-S06-L60	6(R0.5)X6X9(15)X60	6	6	R0.5	9	60	15	2
167	NRHR2-060-005-200-S06-L60	6(R0.5)X6X9(20)X60	6	6	R0.5	9	60	20	2
168	NRHR2-060-010-150-S06-L60	6(R1)X6X9(15)X60	6	6	R1	9	60	15	2
169	NRHR2-060-010-200-S06-L60	6(R1)X6X9(20)X60	6	6	R1	9	60	20	2
170	NRHR2-060-015-150-S06-L60	6(R1.5)X6X9(15)X60	6	6	R1.5	9	60	15	2
171	NRHR2-060-020-150-S06-L60	6(R2)X6X9(15)X60	6	6	R2	9	60	15	2
172	NRHR2-080-002-200-S08-L65	8(R0.2)X8X12(20)X65	8	8	R0.2	12	65	20	2
173	NRHR2-080-003-200-S08-L65	8(R0.3)X8X12(20)X65	8	8	R0.3	12	65	20	2
174	NRHR2-080-005-200-S08-L65	8(R0.5)X8X12(20)X65	8	8	R0.5	12	65	20	2
175	NRHR2-080-010-200-S08-L65	8(R1)X8X12(20)X65	8	8	R1	12	65	20	2
176	NRHR2-080-015-200-S08-L65	8(R1.5)X8X12(20)X65	8	8	R1.5	12	65	20	2
177	NRHR2-100-002-250-S10-L70	10(R0.2)X10X15(25)X70	10	10	R0.2	15	70	25	2
178	NRHR2-100-003-250-S10-L70	10(R0.3)X10X15(25)X70	10	10	R0.3	15	70	25	2
179	NRHR2-100-005-250-S10-L70	10(R0.5)X10X15(25)X70	10	10	R0.5	15	70	25	2
180	NRHR2-100-010-250-S10-L70	10(R1)X10X15(25)X70	10	10	R1	15	70	25	2

NANO HARDENED STEEL 2 FLUTE RIB CORNER RADIUS ⑦
NANO 高硬度钢 2刃 长颈 圆鼻 ⑦



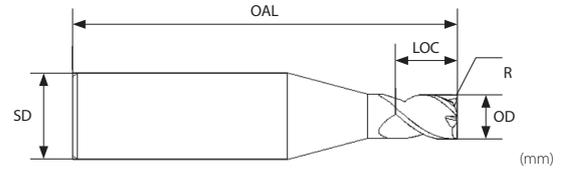
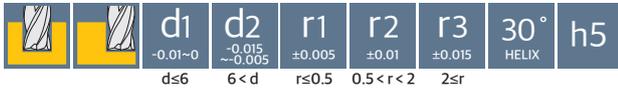
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
181	NRHR2-100-015-250-S10-L70	10(R1.5)X10X15(25)X70	10	10	R1.5	15	70	25	2
182	NRHR2-100-020-250-S10-L70	10(R2)X10X15(25)X70	10	10	R2	15	70	25	2
183	NRHR2-120-003-300-S12-L80	12(R0.3)X12X18(30)X80	12	12	R0.3	18	80	30	2
184	NRHR2-120-005-300-S12-L80	12(R0.5)X12X18(30)X80	12	12	R0.5	18	80	30	2
185	NRHR2-120-010-300-S12-L80	12(R1)X12X18(30)X80	12	12	R1	18	80	30	2
186	NRHR2-120-015-300-S12-L80	12(R1.5)X12X18(30)X80	12	12	R1.5	18	80	30	2
187	NRHR2-120-020-300-S12-L80	12(R2)X12X18(30)X80	12	12	R2	18	80	30	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

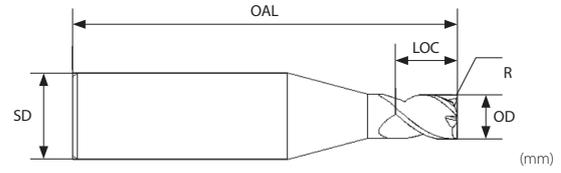
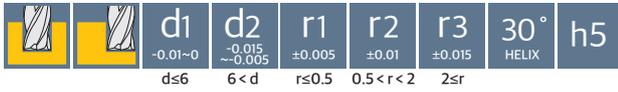
| NANO HARDENED STEEL 4 FLUTE RIB CORNER RADIUS ①

NANO 高硬度钢 4刃 长颈 圆鼻 ①



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
1	NRHR4-010-001-030-S04-L50	1(R0.1)X4X2(3)X50	1	4	R0.1	2	50	3	4
2	NRHR4-010-001-040-S04-L50	1(R0.1)X4X2(4)X50	1	4	R0.1	2	50	4	4
3	NRHR4-010-001-060-S04-L50	1(R0.1)X4X2(6)X50	1	4	R0.1	2	50	6	4
4	NRHR4-010-002-030-S04-L50	1(R0.2)X4X2(3)X50	1	4	R0.2	2	50	3	4
5	NRHR4-010-002-040-S04-L50	1(R0.2)X4X2(4)X50	1	4	R0.2	2	50	4	4
6	NRHR4-010-002-060-S04-L50	1(R0.2)X4X2(6)X50	1	4	R0.2	2	50	6	4
7	NRHR4-010-003-030-S04-L50	1(R0.3)X4X2(3)X50	1	4	R0.3	2	50	3	4
8	NRHR4-010-003-040-S04-L50	1(R0.3)X4X2(4)X50	1	4	R0.3	2	50	4	4
9	NRHR4-010-003-060-S04-L50	1(R0.3)X4X2(6)X50	1	4	R0.3	2	50	6	4
10	NRHR4-015-001-040-S04-L50	1.5(R0.1)X4X2.5(4)X50	1.5	4	R0.1	2.5	50	4	4
11	NRHR4-015-001-060-S04-L50	1.5(R0.1)X4X2.5(6)X50	1.5	4	R0.1	2.5	50	6	4
12	NRHR4-015-002-040-S04-L50	1.5(R0.2)X4X2.5(4)X50	1.5	4	R0.2	2.5	50	4	4
13	NRHR4-015-002-060-S04-L50	1.5(R0.2)X4X2.5(6)X50	1.5	4	R0.2	2.5	50	6	4
14	NRHR4-015-003-040-S04-L50	1.5(R0.3)X4X2.5(4)X50	1.5	4	R0.3	2.5	50	4	4
15	NRHR4-015-003-060-S04-L50	1.5(R0.3)X4X2.5(6)X50	1.5	4	R0.3	2.5	50	6	4
16	NRHR4-020-001-060-S04-L50	2(R0.1)X4X3(6)X50	2	4	R0.1	3	50	6	4
17	NRHR4-020-001-080-S04-L50	2(R0.1)X4X3(8)X50	2	4	R0.1	3	50	8	4
18	NRHR4-020-002-060-S04-L50	2(R0.2)X4X3(6)X50	2	4	R0.2	3	50	6	4
19	NRHR4-020-002-080-S04-L50	2(R0.2)X4X3(8)X50	2	4	R0.2	3	50	8	4
20	NRHR4-020-003-060-S04-L50	2(R0.3)X4X3(6)X50	2	4	R0.3	3	50	6	4
21	NRHR4-020-003-080-S04-L50	2(R0.3)X4X3(8)X50	2	4	R0.3	3	50	8	4
22	NRHR4-020-005-060-S04-L50	2(R0.5)X4X3(6)X50	2	4	R0.5	3	50	6	4
23	NRHR4-020-005-080-S04-L50	2(R0.5)X4X3(8)X50	2	4	R0.5	3	50	8	4
24	NRHR4-030-001-080-S06-L55	3(R0.1)X6X4(8)X55	3	6	R0.1	4	55	8	4
25	NRHR4-030-001-100-S06-L55	3(R0.1)X6X4(10)X55	3	6	R0.1	4	55	10	4
26	NRHR4-030-001-120-S06-L55	3(R0.1)X6X4(12)X55	3	6	R0.1	4	55	12	4
27	NRHR4-030-001-160-S06-L55	3(R0.1)X6X4(16)X55	3	6	R0.1	4	55	16	4
28	NRHR4-030-001-200-S06-L60	3(R0.1)X6X4(20)X60	3	6	R0.1	4	60	20	4
29	NRHR4-030-002-080-S06-L55	3(R0.2)X6X4(8)X55	3	6	R0.2	4	55	8	4
30	NRHR4-030-002-100-S06-L55	3(R0.2)X6X4(10)X55	3	6	R0.2	4	55	10	4

NANO HARDENED STEEL 4 FLUTE RIB CORNER RADIUS ②
 NANO 高硬度钢 4刃 长颈 圆鼻 ②



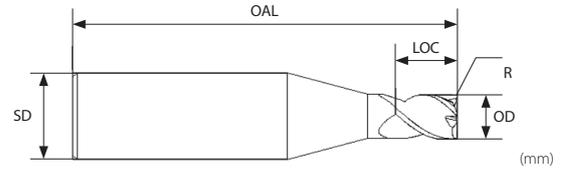
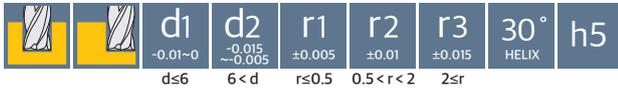
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
31	NRHR4-030-002-120-S06-L55	3(R0.2)X6X4(12)X55	3	6	R0.2	4	55	12	4
32	NRHR4-030-002-160-S06-L55	3(R0.2)X6X4(16)X55	3	6	R0.2	4	55	16	4
33	NRHR4-030-002-200-S06-L60	3(R0.2)X6X4(20)X60	3	6	R0.2	4	60	20	4
34	NRHR4-030-003-080-S06-L55	3(R0.3)X6X4(8)X55	3	6	R0.3	4	55	8	4
35	NRHR4-030-003-100-S06-L55	3(R0.3)X6X4(10)X55	3	6	R0.3	4	55	10	4
36	NRHR4-030-003-120-S06-L55	3(R0.3)X6X4(12)X55	3	6	R0.3	4	55	12	4
37	NRHR4-030-003-160-S06-L55	3(R0.3)X6X4(16)X55	3	6	R0.3	4	55	16	4
38	NRHR4-030-003-200-S06-L60	3(R0.3)X6X4(20)X60	3	6	R0.3	4	60	20	4
39	NRHR4-030-005-080-S06-L55	3(R0.5)X6X4(8)X55	3	6	R0.5	4	55	8	4
40	NRHR4-030-005-100-S06-L55	3(R0.5)X6X4(10)X55	3	6	R0.5	4	55	10	4
41	NRHR4-030-005-120-S06-L55	3(R0.5)X6X4(12)X55	3	6	R0.5	4	55	12	4
42	NRHR4-030-005-160-S06-L55	3(R0.5)X6X4(16)X55	3	6	R0.5	4	55	16	4
43	NRHR4-030-005-200-S06-L60	3(R0.5)X6X4(20)X60	3	6	R0.5	4	60	20	4
44	NRHR4-030-010-080-S06-L55	3(R1)X6X4(8)X55	3	6	R1	4	55	8	4
45	NRHR4-030-010-100-S06-L55	3(R1)X6X4(10)X55	3	6	R1	4	55	10	4
46	NRHR4-030-010-120-S06-L55	3(R1)X6X4(12)X55	3	6	R1	4	55	12	4
47	NRHR4-030-010-160-S06-L55	3(R1)X6X4(16)X55	3	6	R1	4	55	16	4
48	NRHR4-030-010-200-S06-L60	3(R1)X6X4(20)X60	3	6	R1	4	60	20	4
49	NRHR4-040-001-100-S06-L55	4(R0.1)X6X6(10)X55	4	6	R0.1	6	55	10	4
50	NRHR4-040-001-120-S06-L55	4(R0.1)X6X6(12)X55	4	6	R0.1	6	55	12	4
51	NRHR4-040-001-160-S06-L55	4(R0.1)X6X6(16)X55	4	6	R0.1	6	55	16	4
52	NRHR4-040-001-200-S06-L60	4(R0.1)X6X6(20)X60	4	6	R0.1	6	60	20	4
53	NRHR4-040-001-250-S06-L60	4(R0.1)X6X6(25)X60	4	6	R0.1	6	60	25	4
54	NRHR4-040-002-100-S06-L55	4(R0.2)X6X6(10)X55	4	6	R0.2	6	55	10	4
55	NRHR4-040-002-120-S06-L55	4(R0.2)X6X6(12)X55	4	6	R0.2	6	55	12	4
56	NRHR4-040-002-160-S06-L55	4(R0.2)X6X6(16)X55	4	6	R0.2	6	55	16	4
57	NRHR4-040-002-200-S06-L60	4(R0.2)X6X6(20)X60	4	6	R0.2	6	60	20	4
58	NRHR4-040-002-250-S06-L60	4(R0.2)X6X6(25)X60	4	6	R0.2	6	60	25	4
59	NRHR4-040-003-100-S06-L55	4(R0.3)X6X6(10)X55	4	6	R0.3	6	55	10	4
60	NRHR4-040-003-120-S06-L55	4(R0.3)X6X6(12)X55	4	6	R0.3	6	55	12	4

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

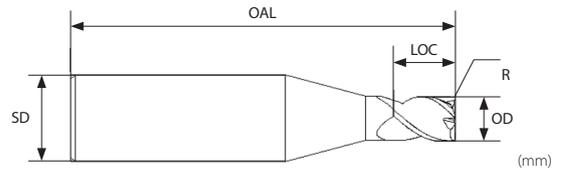
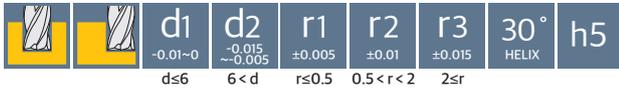
| NANO HARDENED STEEL 4 FLUTE RIB CORNER RADIUS ③

NANO 高硬度钢 4刃 长颈 圆鼻 ③



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
61	NRHR4-040-003-160-S06-L55	4(R0.3)X6X6(16)X55	4	6	R0.3	6	55	16	4
62	NRHR4-040-003-200-S06-L60	4(R0.3)X6X6(20)X60	4	6	R0.3	6	60	20	4
63	NRHR4-040-003-250-S06-L60	4(R0.3)X6X6(25)X60	4	6	R0.3	6	60	25	4
64	NRHR4-040-005-100-S06-L55	4(R0.5)X6X6(10)X55	4	6	R0.5	6	55	10	4
65	NRHR4-040-005-120-S06-L55	4(R0.5)X6X6(12)X55	4	6	R0.5	6	55	12	4
66	NRHR4-040-005-160-S06-L55	4(R0.5)X6X6(16)X55	4	6	R0.5	6	55	16	4
67	NRHR4-040-005-200-S06-L60	4(R0.5)X6X6(20)X60	4	6	R0.5	6	60	20	4
68	NRHR4-040-005-250-S06-L60	4(R0.5)X6X6(25)X60	4	6	R0.5	6	60	25	4
69	NRHR4-040-010-100-S06-L55	4(R1)X6X6(10)X55	4	6	R1	6	55	10	4
70	NRHR4-040-010-120-S06-L55	4(R1)X6X6(12)X55	4	6	R1	6	55	12	4
71	NRHR4-040-010-160-S06-L55	4(R1)X6X6(16)X55	4	6	R1	6	55	16	4
72	NRHR4-040-010-200-S06-L60	4(R1)X6X6(20)X60	4	6	R1	6	60	20	4
73	NRHR4-040-010-250-S06-L60	4(R1)X6X6(25)X60	4	6	R1	6	60	25	4
74	NRHR4-060-002-150-S06-L60	6(R0.2)X6X9(15)X60	6	6	R0.2	9	60	15	4
75	NRHR4-060-003-150-S06-L60	6(R0.3)X6X9(15)X60	6	6	R0.3	9	60	15	4
76	NRHR4-060-005-150-S06-L60	6(R0.5)X6X9(15)X60	6	6	R0.5	9	60	15	4
77	NRHR4-060-010-150-S06-L60	6(R1)X6X9(15)X60	6	6	R1	9	60	15	4
78	NRHR4-060-015-150-S06-L60	6(R1.5)X6X9(15)X60	6	6	R1.5	9	60	15	4
79	NRHR4-060-020-150-S06-L60	6(R2)X6X9(15)X60	6	6	R2	9	60	15	4
80	NRHR4-080-002-200-S08-L70	8(R0.2)X8X12(20)X70	8	8	R0.2	12	70	20	4
81	NRHR4-080-003-200-S08-L70	8(R0.3)X8X12(20)X70	8	8	R0.3	12	70	20	4
82	NRHR4-080-005-200-S08-L70	8(R0.5)X8X12(20)X70	8	8	R0.5	12	70	20	4
83	NRHR4-080-010-200-S08-L70	8(R1)X8X12(20)X70	8	8	R1	12	70	20	4
84	NRHR4-080-015-200-S08-L70	8(R1.5)X8X12(20)X70	8	8	R1.5	12	70	20	4
85	NRHR4-080-020-200-S08-L70	8(R2)X8X12(20)X70	8	8	R2	12	70	20	4
86	NRHR4-100-002-250-S10-L70	10(R0.2)X10X15(25)X70	10	10	R0.2	15	70	25	4
87	NRHR4-100-003-250-S10-L70	10(R0.3)X10X15(25)X70	10	10	R0.3	15	70	25	4
88	NRHR4-100-005-250-S10-L70	10(R0.5)X10X15(25)X70	10	10	R0.5	15	70	25	4
89	NRHR4-100-010-250-S10-L70	10(R1)X10X15(25)X70	10	10	R1	15	70	25	4
90	NRHR4-100-015-250-S10-L70	10(R1.5)X10X15(25)X70	10	10	R1.5	15	70	25	4

NANO HARDENED STEEL 4 FLUTE RIB CORNER RADIUS ④
NANO 高硬度钢 4刃 长颈 圆鼻 ④



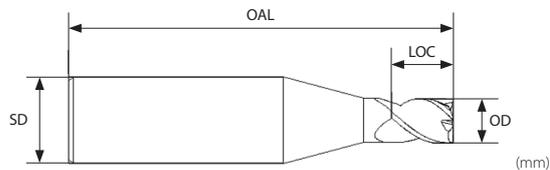
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
91	NRHR4-100-020-250-S10-L70	10(R2)X10X15(25)X70	10	10	R2	15	70	25	4
92	NRHR4-120-003-300-S12-L80	12(R0.3)X12X18(30)X80	12	12	R0.3	18	80	30	4
93	NRHR4-120-005-300-S12-L80	12(R0.5)X12X18(30)X80	12	12	R0.5	18	80	30	4
94	NRHR4-120-010-300-S12-L80	12(R1)X12X18(30)X80	12	12	R1	18	80	30	4
95	NRHR4-120-015-300-S12-L80	12(R1.5)X12X18(30)X80	12	12	R1.5	18	80	30	4
96	NRHR4-120-020-300-S12-L80	12(R2)X12X18(30)X80	12	12	R2	18	80	30	4

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

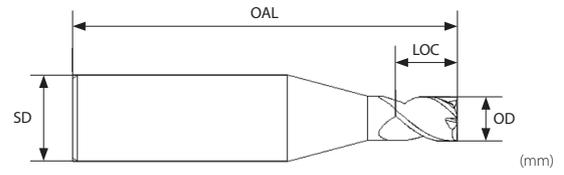
| NANO HARDENED STEEL 2 FLUTE RIB FLAT ①

NANO 高硬度钢 2刃 长颈 平头 ①



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
1	NFHR2-001-003-S04-L45	0.1X4X0.15(0.3)X45	0.1	4	0.15	45	0.3	2
2	NFHR2-001-005-S04-L45	0.1X4X0.15(0.5)X45	0.1	4	0.15	45	0.5	2
3	NFHR2-002-005-S04-L45	0.2X4X0.3(0.5)X45	0.2	4	0.3	45	0.5	2
4	NFHR2-002-006-S04-L45	0.2X4X0.3(0.6)X45	0.2	4	0.3	45	0.6	2
5	NFHR2-002-010-S04-L45	0.2X4X0.3(1)X45	0.2	4	0.3	45	1	2
6	NFHR2-002-015-S04-L45	0.2X4X0.3(1.5)X45	0.2	4	0.3	45	1.5	2
7	NFHR2-003-010-S04-L45	0.3X4X0.45(1)X45	0.3	4	0.45	45	1	2
8	NFHR2-003-015-S04-L45	0.3X4X0.45(1.5)X45	0.3	4	0.45	45	1.5	2
9	NFHR2-003-020-S04-L45	0.3X4X0.45(2)X45	0.3	4	0.45	45	2	2
10	NFHR2-003-025-S04-L45	0.3X4X0.45(2.5)X45	0.3	4	0.45	45	2.5	2
11	NFHR2-003-030-S04-L45	0.3X4X0.45(3)X45	0.3	4	0.45	45	3	2
12	NFHR2-003-040-S04-L45	0.3X4X0.45(4)X45	0.3	4	0.45	45	4	2
13	NFHR2-003-050-S04-L45	0.3X4X0.45(5)X45	0.3	4	0.45	45	5	2
14	NFHR2-004-010-S04-L45	0.4X4X0.6(1)X45	0.4	4	0.6	45	1	2
15	NFHR2-004-015-S04-L45	0.4X4X0.6(1.5)X45	0.4	4	0.6	45	1.5	2
16	NFHR2-004-020-S04-L45	0.4X4X0.6(2)X45	0.4	4	0.6	45	2	2
17	NFHR2-004-025-S04-L45	0.4X4X0.6(2.5)X45	0.4	4	0.6	45	2.5	2
18	NFHR2-004-030-S04-L45	0.4X4X0.6(3)X45	0.4	4	0.6	45	3	2
19	NFHR2-004-040-S04-L45	0.4X4X0.6(4)X45	0.4	4	0.6	45	4	2
20	NFHR2-004-050-S04-L45	0.4X4X0.6(5)X45	0.4	4	0.6	45	5	2
21	NFHR2-004-060-S04-L45	0.4X4X0.6(6)X45	0.4	4	0.6	45	6	2
22	NFHR2-005-010-S04-L45	0.5X4X0.7(1)X45	0.5	4	0.7	45	1	2
23	NFHR2-005-015-S04-L45	0.5X4X0.7(1.5)X45	0.5	4	0.7	45	1.5	2
24	NFHR2-005-020-S04-L45	0.5X4X0.7(2)X45	0.5	4	0.7	45	2	2
25	NFHR2-005-025-S04-L45	0.5X4X0.7(2.5)X45	0.5	4	0.7	45	2.5	2
26	NFHR2-005-030-S04-L45	0.5X4X0.7(3)X45	0.5	4	0.7	45	3	2
27	NFHR2-005-040-S04-L45	0.5X4X0.7(4)X45	0.5	4	0.7	45	4	2
28	NFHR2-005-050-S04-L45	0.5X4X0.7(5)X45	0.5	4	0.7	45	5	2
29	NFHR2-005-060-S04-L45	0.5X4X0.7(6)X45	0.5	4	0.7	45	6	2
30	NFHR2-005-080-S04-L45	0.5X4X0.7(8)X45	0.5	4	0.7	45	8	2

NANO HARDENED STEEL 2 FLUTE RIB FLAT ②
NANO 高硬度钢 2刃 长颈 平头 ②



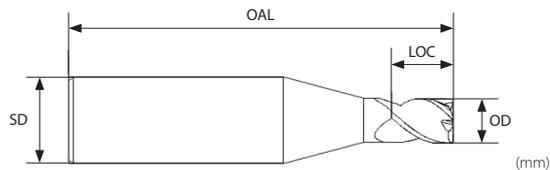
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
31	NFHR2-006-020-S04-L45	0.6X4X0.9(2)X45	0.6	4	0.9	45	2	2
32	NFHR2-006-030-S04-L45	0.6X4X0.9(3)X45	0.6	4	0.9	45	3	2
33	NFHR2-006-040-S04-L45	0.6X4X0.9(4)X45	0.6	4	0.9	45	4	2
34	NFHR2-006-050-S04-L45	0.6X4X0.9(5)X45	0.6	4	0.9	45	5	2
35	NFHR2-006-060-S04-L45	0.6X4X0.9(6)X45	0.6	4	0.9	45	6	2
36	NFHR2-006-080-S04-L45	0.6X4X0.9(8)X45	0.6	4	0.9	45	8	2
37	NFHR2-006-100-S04-L45	0.6X4X0.9(10)X45	0.6	4	0.9	45	10	2
38	NFHR2-007-020-S04-L45	0.7X4X1.2(2)X45	0.7	4	1.2	45	2	2
39	NFHR2-007-040-S04-L45	0.7X4X1.2(4)X45	0.7	4	1.2	45	4	2
40	NFHR2-007-060-S04-L45	0.7X4X1.2(6)X45	0.7	4	1.2	45	6	2
41	NFHR2-007-080-S04-L45	0.7X4X1.2(8)X45	0.7	4	1.2	45	8	2
42	NFHR2-007-100-S04-L45	0.7X4X1.2(10)X45	0.7	4	1.2	45	10	2
43	NFHR2-007-120-S04-L45	0.7X4X1.2(12)X45	0.7	4	1.2	45	12	2
44	NFHR2-008-020-S04-L45	0.8X4X1.2(2)X45	0.8	4	1.2	45	2	2
45	NFHR2-008-030-S04-L45	0.8X4X1.2(3)X45	0.8	4	1.2	45	3	2
46	NFHR2-008-040-S04-L45	0.8X4X1.2(4)X45	0.8	4	1.2	45	4	2
47	NFHR2-008-050-S04-L45	0.8X4X1.2(5)X45	0.8	4	1.2	45	5	2
48	NFHR2-008-060-S04-L45	0.8X4X1.2(6)X45	0.8	4	1.2	45	6	2
49	NFHR2-008-080-S04-L45	0.8X4X1.2(8)X45	0.8	4	1.2	45	8	2
50	NFHR2-008-100-S04-L45	0.8X4X1.2(10)X45	0.8	4	1.2	45	10	2
51	NFHR2-008-120-S04-L45	0.8X4X1.2(12)X45	0.8	4	1.2	45	12	2
52	NFHR2-010-030-S04-L50	1X4X1.5(3)X50	1	4	1.5	50	3	2
53	NFHR2-010-040-S04-L50	1X4X1.5(4)X50	1	4	1.5	50	4	2
54	NFHR2-010-050-S04-L50	1X4X1.5(5)X50	1	4	1.5	50	5	2
55	NFHR2-010-060-S04-L50	1X4X1.5(6)X50	1	4	1.5	50	6	2
56	NFHR2-010-070-S04-L50	1X4X1.5(7)X50	1	4	1.5	50	7	2
57	NFHR2-010-080-S04-L50	1X4X1.5(8)X50	1	4	1.5	50	8	2
58	NFHR2-010-100-S04-L50	1X4X1.5(10)X50	1	4	1.5	50	10	2
59	NFHR2-010-120-S04-L50	1X4X1.5(12)X50	1	4	1.5	50	12	2
60	NFHR2-010-140-S04-L50	1X4X1.5(14)X50	1	4	1.5	50	14	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

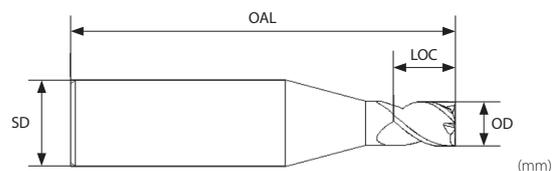
| NANO HARDENED STEEL 2 FLUTE RIB FLAT ③

NANO 高硬度钢 2刃 长颈 平头 ③



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
61	NFHR2-010-160-S04-L50	1X4X1.5(16)X50	1	4	1.5	50	16	2
62	NFHR2-010-180-S04-L55	1X4X1.5(18)X55	1	4	1.5	55	18	2
63	NFHR2-010-200-S04-L55	1X4X1.5(20)X55	1	4	1.5	55	20	2
64	NFHR2-012-040-S04-L50	1.2X4X1.8(4)X50	1.2	4	1.8	50	4	2
65	NFHR2-012-060-S04-L50	1.2X4X1.8(6)X50	1.2	4	1.8	50	6	2
66	NFHR2-012-080-S04-L50	1.2X4X1.8(8)X50	1.2	4	1.8	50	8	2
67	NFHR2-012-100-S04-L50	1.2X4X1.8(10)X50	1.2	4	1.8	50	10	2
68	NFHR2-012-120-S04-L50	1.2X4X1.8(12)X50	1.2	4	1.8	50	12	2
69	NFHR2-012-160-S04-L50	1.2X4X1.8(16)X50	1.2	4	1.8	50	16	2
70	NFHR2-015-040-S04-L50	1.5X4X2.3(4)X50	1.5	4	2.3	50	4	2
71	NFHR2-015-060-S04-L50	1.5X4X2.3(6)X50	1.5	4	2.3	50	6	2
72	NFHR2-015-080-S04-L50	1.5X4X2.3(8)X50	1.5	4	2.3	50	8	2
73	NFHR2-015-100-S04-L50	1.5X4X2.3(10)X50	1.5	4	2.3	50	10	2
74	NFHR2-015-120-S04-L50	1.5X4X2.3(12)X50	1.5	4	2.3	50	12	2
75	NFHR2-015-140-S04-L50	1.5X4X2.3(14)X50	1.5	4	2.3	50	14	2
76	NFHR2-015-160-S04-L50	1.5X4X2.3(16)X50	1.5	4	2.3	50	16	2
77	NFHR2-015-180-S04-L55	1.5X4X2.3(18)X55	1.5	4	2.3	55	18	2
78	NFHR2-015-200-S04-L55	1.5X4X2.3(20)X55	1.5	4	2.3	55	20	2
79	NFHR2-020-060-S04-L50	2X4X3(6)X50	2	4	3	50	6	2
80	NFHR2-020-080-S04-L50	2X4X3(8)X50	2	4	3	50	8	2
81	NFHR2-020-100-S04-L50	2X4X3(10)X50	2	4	3	50	10	2
82	NFHR2-020-120-S04-L50	2X4X3(12)X50	2	4	3	50	12	2
83	NFHR2-020-140-S04-L50	2X4X3(14)X50	2	4	3	50	14	2
84	NFHR2-020-160-S04-L50	2X4X3(16)X50	2	4	3	50	16	2
85	NFHR2-020-180-S04-L55	2X4X3(18)X55	2	4	3	55	18	2
86	NFHR2-020-200-S04-L55	2X4X3(20)X55	2	4	3	55	20	2
87	NFHR2-020-250-S04-L60	2X4X3(25)X60	2	4	3	60	25	2
88	NFHR2-020-300-S04-L70	2X4X3(30)X70	2	4	3	70	30	2
89	NFHR2-025-080-S04-L50	2.5X4X4(8)X50	2.5	4	4	50	8	2
90	NFHR2-025-100-S04-L50	2.5X4X4(10)X50	2.5	4	4	50	10	2

NANO HARDENED STEEL 2 FLUTE RIB FLAT ④
NANO 高硬度钢 2刃 长颈 平头 ④



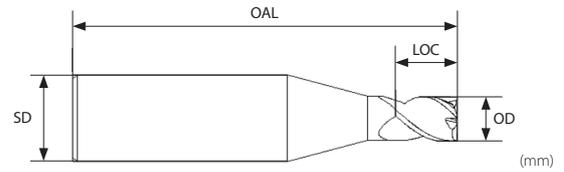
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
91	NFHR2-025-120-S04-L50	2.5X4X4(12)X50	2.5	4	4	50	12	2
92	NFHR2-025-160-S04-L50	2.5X4X4(16)X50	2.5	4	4	50	16	2
93	NFHR2-025-200-S04-L55	2.5X4X4(20)X55	2.5	4	4	55	20	2
94	NFHR2-030-080-S06-L55	3X6X4.5(8)X55	3	6	4.5	55	8	2
95	NFHR2-030-100-S06-L55	3X6X4.5(10)X55	3	6	4.5	55	10	2
96	NFHR2-030-120-S06-L55	3X6X4.5(12)X55	3	6	4.5	55	12	2
97	NFHR2-030-140-S06-L55	3X6X4.5(14)X55	3	6	4.5	55	14	2
98	NFHR2-030-160-S06-L55	3X6X4.5(16)X55	3	6	4.5	55	16	2
99	NFHR2-030-180-S06-L60	3X6X4.5(18)X60	3	6	4.5	60	18	2
100	NFHR2-030-200-S06-L60	3X6X4.5(20)X60	3	6	4.5	60	20	2
101	NFHR2-030-250-S06-L60	3X6X4.5(25)X60	3	6	4.5	60	25	2
102	NFHR2-030-300-S06-L70	3X6X4.5(30)X70	3	6	4.5	70	30	2
103	NFHR2-030-350-S06-L75	3X6X4.5(35)X75	3	6	4.5	75	35	2
104	NFHR2-030-400-S06-L80	3X6X4.5(40)X80	3	6	4.5	80	40	2
105	NFHR2-040-100-S06-L55	4X6X6(10)X55	4	6	6	55	10	2
106	NFHR2-040-120-S06-L55	4X6X6(12)X55	4	6	6	55	12	2
107	NFHR2-040-160-S06-L55	4X6X6(16)X55	4	6	6	55	16	2
108	NFHR2-040-200-S06-L60	4X6X6(20)X60	4	6	6	60	20	2
109	NFHR2-040-250-S06-L60	4X6X6(25)X60	4	6	6	60	25	2
110	NFHR2-040-300-S06-L70	4X6X6(30)X70	4	6	6	70	30	2
111	NFHR2-040-350-S06-L75	4X6X6(35)X75	4	6	6	75	35	2
112	NFHR2-040-400-S06-L80	4X6X6(40)X80	4	6	6	80	40	2
113	NFHR2-050-130-S06-L60	5X6X8(13)X60	5	6	8	60	13	2
114	NFHR2-050-300-S06-L90	5X6X8(30)X90	5	6	8	90	30	2
115	NFHR2-060-150-S06-L60	6X6X9(15)X60	6	6	9	60	15	2
116	NFHR2-060-200-S06-L80	6X6X9(20)X80	6	6	9	80	20	2
117	NFHR2-060-300-S06-L100	6X6X9(30)X100	6	6	9	100	30	2
118	NFHR2-080-200-S08-L65	8X8X12(20)X65	8	8	12	65	20	2
119	NFHR2-080-300-S08-L80	8X8X12(30)X80	8	8	12	80	30	2
120	NFHR2-080-400-S08-L100	8X8X12(40)X100	8	8	12	100	40	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

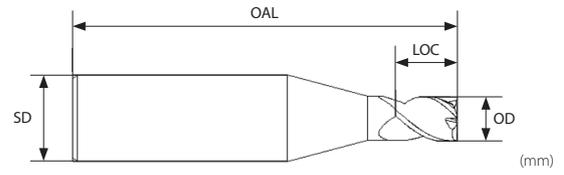
| NANO HARDENED STEEL 2 FLUTE RIB FLAT ⑤

NANO 高硬度钢 2刃 长颈 平头 ⑤



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
121	NFHR2-100-250-S10-L70	10X10X15(25)X70	10	10	15	70	25	2
122	NFHR2-100-350-S10-L80	10X10X15(35)X80	10	10	15	80	35	2
123	NFHR2-100-450-S10-L100	10X10X15(45)X100	10	10	15	100	45	2
124	NFHR2-120-300-S12-L80	12X12X18(30)X80	12	12	18	80	30	2
125	NFHR2-120-400-S12-L100	12X12X18(40)X100	12	12	18	100	40	2
126	NFHR2-120-500-S12-L120	12X12X18(50)X120	12	12	18	120	50	2

NANO HARDENED STEEL 2 FLUTE RIB BALL ①
NANO 高硬度钢 2刃 长颈 球头 ①



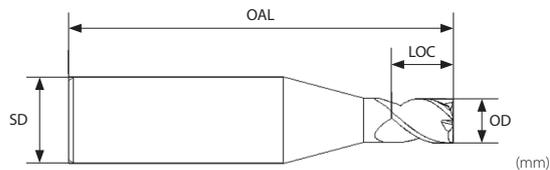
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
1	NBHR2-001-0005-002-S04-L45	0.1X4X0.1(0.2)X45	0.1	4	0.05	0.1	45	0.2	2
2	NBHR2-001-0005-003-S04-L45	0.1X4X0.1(0.3)X45	0.1	4	0.05	0.1	45	0.3	2
3	NBHR2-001-0005-005-S04-L45	0.1X4X0.1(0.5)X45	0.1	4	0.05	0.1	45	0.5	2
4	NBHR2-002-001-006-S04-L45	0.2X4X0.2(0.6)X45	0.2	4	0.1	0.2	45	0.6	2
5	NBHR2-002-001-010-S04-L45	0.2X4X0.2(1)X45	0.2	4	0.1	0.2	45	1	2
6	NBHR2-002-001-015-S04-L45	0.2X4X0.2(1.5)X45	0.2	4	0.1	0.2	45	1.5	2
7	NBHR2-003-0015-010-S04-L45	0.3X4X0.3(1)X45	0.3	4	0.15	0.3	45	1	2
8	NBHR2-003-0015-015-S04-L45	0.3X4X0.3(1.5)X45	0.3	4	0.15	0.3	45	1.5	2
9	NBHR2-003-0015-020-S04-L45	0.3X4X0.3(2)X45	0.3	4	0.15	0.3	45	2	2
10	NBHR2-003-0015-025-S04-L45	0.3X4X0.3(2.5)X45	0.3	4	0.15	0.3	45	2.5	2
11	NBHR2-003-0015-030-S04-L45	0.3X4X0.3(3)X45	0.3	4	0.15	0.3	45	3	2
12	NBHR2-004-002-010-S04-L45	0.4X4X0.4(1)X45	0.4	4	0.2	0.4	45	1	2
13	NBHR2-004-002-015-S04-L45	0.4X4X0.4(1.5)X45	0.4	4	0.2	0.4	45	1.5	2
14	NBHR2-004-002-020-S04-L45	0.4X4X0.4(2)X45	0.4	4	0.2	0.4	45	2	2
15	NBHR2-004-002-025-S04-L45	0.4X4X0.4(2.5)X45	0.4	4	0.2	0.4	45	2.5	2
16	NBHR2-004-002-030-S04-L45	0.4X4X0.4(3)X45	0.4	4	0.2	0.4	45	3	2
17	NBHR2-004-002-040-S04-L45	0.4X4X0.4(4)X45	0.4	4	0.2	0.4	45	4	2
18	NBHR2-004-002-050-S04-L45	0.4X4X0.4(5)X45	0.4	4	0.2	0.4	45	5	2
19	NBHR2-005-0025-010-S04-L45	0.5X4X0.5(1)X45	0.5	4	0.25	0.5	45	1	2
20	NBHR2-005-0025-015-S04-L45	0.5X4X0.5(1.5)X45	0.5	4	0.25	0.5	45	1.5	2
21	NBHR2-005-0025-020-S04-L45	0.5X4X0.5(2)X45	0.5	4	0.25	0.5	45	2	2
22	NBHR2-005-0025-025-S04-L45	0.5X4X0.5(2.5)X45	0.5	4	0.25	0.5	45	2.5	2
23	NBHR2-005-0025-030-S04-L45	0.5X4X0.5(3)X45	0.5	4	0.25	0.5	45	3	2
24	NBHR2-005-0025-040-S04-L45	0.5X4X0.5(4)X45	0.5	4	0.25	0.5	45	4	2
25	NBHR2-005-0025-050-S04-L45	0.5X4X0.5(5)X45	0.5	4	0.25	0.5	45	5	2
26	NBHR2-005-0025-060-S04-L45	0.5X4X0.5(6)X45	0.5	4	0.25	0.5	45	6	2
27	NBHR2-005-0025-080-S04-L45	0.5X4X0.5(8)X45	0.5	4	0.25	0.5	45	8	2
28	NBHR2-006-003-020-S04-L45	0.6X4X0.6(2)X45	0.6	4	0.3	0.6	45	2	2
29	NBHR2-006-003-030-S04-L45	0.6X4X0.6(3)X45	0.6	4	0.3	0.6	45	3	2
30	NBHR2-006-003-040-S04-L45	0.6X4X0.6(4)X45	0.6	4	0.3	0.6	45	4	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

| NANO HARDENED STEEL 2 FLUTE RIB BALL ②

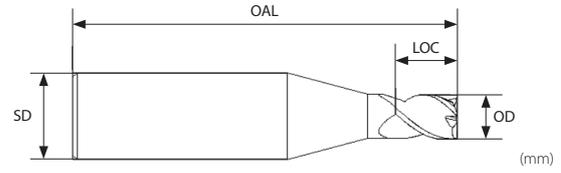
NANO 高硬度钢 2刃 长颈 球头 ②



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
31	NBHR2-006-003-050-S04-L45	0.6X4X0.6(5)X45	0.6	4	0.3	0.6	45	5	2
32	NBHR2-006-003-060-S04-L45	0.6X4X0.6(6)X45	0.6	4	0.3	0.6	45	6	2
33	NBHR2-006-003-080-S04-L45	0.6X4X0.6(8)X45	0.6	4	0.3	0.6	45	8	2
34	NBHR2-006-003-100-S04-L45	0.6X4X0.6(10)X45	0.6	4	0.3	0.6	45	10	2
35	NBHR2-008-004-020-S04-L45	0.8X4X0.8(2)X45	0.8	4	0.4	0.8	45	2	2
36	NBHR2-008-004-030-S04-L45	0.8X4X0.8(3)X45	0.8	4	0.4	0.8	45	3	2
37	NBHR2-008-004-040-S04-L45	0.8X4X0.8(4)X45	0.8	4	0.4	0.8	45	4	2
38	NBHR2-008-004-050-S04-L45	0.8X4X0.8(5)X45	0.8	4	0.4	0.8	45	5	2
39	NBHR2-008-004-060-S04-L45	0.8X4X0.8(6)X45	0.8	4	0.4	0.8	45	6	2
40	NBHR2-008-004-080-S04-L45	0.8X4X0.8(8)X45	0.8	4	0.4	0.8	45	8	2
41	NBHR2-008-004-100-S04-L45	0.8X4X0.8(10)X45	0.8	4	0.4	0.8	45	10	2
42	NBHR2-008-004-120-S04-L45	0.8X4X0.8(12)X45	0.8	4	0.4	0.8	45	12	2
43	NBHR2-010-005-030-S04-L50	1X4X1(3)X50	1	4	0.5	1	50	3	2
44	NBHR2-010-005-040-S04-L50	1X4X1(4)X50	1	4	0.5	1	50	4	2
45	NBHR2-010-005-050-S04-L50	1X4X1(5)X50	1	4	0.5	1	50	5	2
46	NBHR2-010-005-060-S04-L50	1X4X1(6)X50	1	4	0.5	1	50	6	2
47	NBHR2-010-005-070-S04-L50	1X4X1(7)X50	1	4	0.5	1	50	7	2
48	NBHR2-010-005-080-S04-L50	1X4X1(8)X50	1	4	0.5	1	50	8	2
49	NBHR2-010-005-090-S04-L50	1X4X1(9)X50	1	4	0.5	1	50	9	2
50	NBHR2-010-005-100-S04-L50	1X4X1(10)X50	1	4	0.5	1	50	10	2
51	NBHR2-010-005-120-S04-L50	1X4X1(12)X50	1	4	0.5	1	50	12	2
52	NBHR2-010-005-140-S04-L50	1X4X1(14)X50	1	4	0.5	1	50	14	2
53	NBHR2-010-005-160-S04-L50	1X4X1(16)X50	1	4	0.5	1	50	16	2
54	NBHR2-010-005-180-S04-L55	1X4X1(18)X55	1	4	0.5	1	55	18	2
55	NBHR2-010-005-200-S04-L55	1X4X1(20)X55	1	4	0.5	1	55	20	2
56	NBHR2-012-006-040-S04-L50	1.2X4X1.2(4)X50	1.2	4	0.6	1.2	50	4	2
57	NBHR2-012-006-060-S04-L50	1.2X4X1.2(6)X50	1.2	4	0.6	1.2	50	6	2
58	NBHR2-012-006-080-S04-L50	1.2X4X1.2(8)X50	1.2	4	0.6	1.2	50	8	2
59	NBHR2-012-006-100-S04-L50	1.2X4X1.2(10)X50	1.2	4	0.6	1.2	50	10	2
60	NBHR2-012-006-120-S04-L50	1.2X4X1.2(12)X50	1.2	4	0.6	1.2	50	12	2

NANO HARDENED STEEL 2 FLUTE RIB BALL ③

NANO 高硬度钢 2刃 长颈 球头 ③



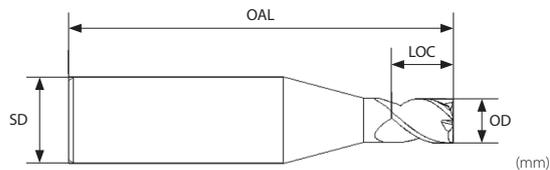
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
61	NBHR2-015-0075-040-S04-L50	1.5X4X1.5(4)X50	1.5	4	0.75	1.5	50	4	2
62	NBHR2-015-0075-060-S04-L50	1.5X4X1.5(6)X50	1.5	4	0.75	1.5	50	6	2
63	NBHR2-015-0075-080-S04-L50	1.5X4X1.5(8)X50	1.5	4	0.75	1.5	50	8	2
64	NBHR2-015-0075-100-S04-L50	1.5X4X1.5(10)X50	1.5	4	0.75	1.5	50	10	2
65	NBHR2-015-0075-120-S04-L50	1.5X4X1.5(12)X50	1.5	4	0.75	1.5	50	12	2
66	NBHR2-015-0075-140-S04-L50	1.5X4X1.5(14)X50	1.5	4	0.75	1.5	50	14	2
67	NBHR2-015-0075-160-S04-L50	1.5X4X1.5(16)X50	1.5	4	0.75	1.5	50	16	2
68	NBHR2-015-0075-180-S04-L55	1.5X4X1.5(18)X55	1.5	4	0.75	1.5	55	18	2
69	NBHR2-015-0075-200-S04-L55	1.5X4X1.5(20)X55	1.5	4	0.75	1.5	55	20	2
70	NBHR2-020-010-060-S04-L50	2X4X3(6)X50	2	4	1	3	50	6	2
71	NBHR2-020-010-080-S04-L50	2X4X3(8)X50	2	4	1	3	50	8	2
72	NBHR2-020-010-100-S04-L50	2X4X3(10)X50	2	4	1	3	50	10	2
73	NBHR2-020-010-120-S04-L50	2X4X3(12)X50	2	4	1	3	50	12	2
74	NBHR2-020-010-140-S04-L50	2X4X3(14)X50	2	4	1	3	50	14	2
75	NBHR2-020-010-160-S04-L50	2X4X3(16)X50	2	4	1	3	50	16	2
76	NBHR2-020-010-180-S04-L55	2X4X3(18)X55	2	4	1	3	55	18	2
77	NBHR2-020-010-200-S04-L55	2X4X3(20)X55	2	4	1	3	55	20	2
78	NBHR2-020-010-250-S04-L60	2X4X3(25)X60	2	4	1	3	60	25	2
79	NBHR2-020-010-300-S04-L70	2X4X3(30)X70	2	4	1	3	70	30	2
80	NBHR2-025-0125-080-S04-L55	2.5X4X3.5(8)X55	2.5	4	1.25	3.5	55	8	2
81	NBHR2-025-0125-100-S04-L55	2.5X4X3.5(10)X55	2.5	4	1.25	3.5	55	10	2
82	NBHR2-025-0125-120-S04-L55	2.5X4X3.5(12)X55	2.5	4	1.25	3.5	55	12	2
83	NBHR2-025-0125-160-S04-L55	2.5X4X3.5(16)X55	2.5	4	1.25	3.5	55	16	2
84	NBHR2-025-0125-200-S04-L55	2.5X4X3.5(20)X55	2.5	4	1.25	3.5	55	20	2
85	NBHR2-030-015-080-S06-L55	3X6X4(8)X55	3	6	1.5	4	55	8	2
86	NBHR2-030-015-100-S06-L55	3X6X4(10)X55	3	6	1.5	4	55	10	2
87	NBHR2-030-015-120-S06-L55	3X6X4(12)X55	3	6	1.5	4	55	12	2
88	NBHR2-030-015-140-S06-L55	3X6X4(14)X55	3	6	1.5	4	55	14	2
89	NBHR2-030-015-160-S06-L55	3X6X4(16)X55	3	6	1.5	4	55	16	2
90	NBHR2-030-015-180-S06-L60	3X6X4(18)X60	3	6	1.5	4	60	18	2

“N-SH” CARBIDE ENDMILL SERIES FOR HARDENED STEEL

“N-SH” 高硬度钢专用铣刀

| NANO HARDENED STEEL 2 FLUTE RIB BALL ④

NANO 高硬度钢 2刃 长颈 球头 ④



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	LOE 有效长	FL.No 刃数
91	NBHR2-030-015-200-S06-L60	3X6X4(20)X60	3	6	1.5	4	60	20	2
92	NBHR2-030-015-250-S06-L60	3X6X4(25)X60	3	6	1.5	4	60	25	2
93	NBHR2-030-015-300-S06-L70	3X6X4(30)X70	3	6	1.5	4	70	30	2
94	NBHR2-030-015-350-S06-L75	3X6X4(35)X75	3	6	1.5	4	75	35	2
95	NBHR2-040-020-100-S06-L55	4X6X5(10)X55	4	6	2	5	55	10	2
96	NBHR2-040-020-120-S06-L55	4X6X5(12)X55	4	6	2	5	55	12	2
97	NBHR2-040-020-160-S06-L55	4X6X5(16)X55	4	6	2	5	55	16	2
98	NBHR2-040-020-200-S06-L60	4X6X5(20)X60	4	6	2	5	60	20	2
99	NBHR2-040-020-250-S06-L60	4X6X5(25)X60	4	6	2	5	60	25	2
100	NBHR2-040-020-300-S06-L70	4X6X5(30)X70	4	6	2	5	70	30	2
101	NBHR2-040-020-350-S06-L75	4X6X5(35)X75	4	6	2	5	75	35	2
102	NBHR2-040-020-400-S06-L80	4X6X5(40)X80	4	6	2	5	80	40	2
103	NBHR2-050-025-120-S06-L60	5X6X6(12)X60	5	6	2.5	6	60	12	2
104	NBHR2-050-025-300-S06-L60	5X6X6(30)X60	5	6	2.5	6	60	30	2
105	NBHR2-060-030-150-S06-L60	6X6X8(15)X60	6	6	3	8	60	15	2
106	NBHR2-060-030-200-S06-L60	6X6X8(20)X60	6	6	3	8	60	20	2
107	NBHR2-060-030-300-S06-L60	6X6X8(30)X60	6	6	3	8	60	30	2
108	NBHR2-060-030-320-S06-L90	6X6X8(32)X90	6	6	3	8	90	32	2
109	NBHR2-080-040-200-S08-L80	8X8X10(20)X80	8	8	4	10	80	20	2
110	NBHR2-080-040-150-S08-L65	8X8X10(15)X65	8	8	4	10	65	15	2
111	NBHR2-080-040-300-S08-L100	8X8X10(30)X100	8	8	4	10	100	30	2
112	NBHR2-100-050-250-S10-L80	10X10X12(25)X80	10	10	5	12	80	25	2
113	NBHR2-100-050-200-S10-L60	10X10X12(20)X60	10	10	5	12	60	20	2
114	NBHR2-100-050-350-S10-L100	10X10X12(35)X100	10	10	5	12	100	35	2
115	NBHR2-120-060-250-S12-L80	12X12X14(25)X80	12	12	6	14	80	25	2
116	NBHR2-120-060-400-S12-L110	12X12X14(40)X110	12	12	6	14	110	40	2

“N-SG” CARBIDE ENDMILL SERIES FOR GENERAL PURPOSE

“N-SG” 普通钢专用铣刀

“END MILL” series | **NANOLOY**

END MILL SERIES

INDEXABLE END MILL

RESULTS OF USER TEST

N-SH Series / 系列

CARBIDE ENDMILL SERIES FOR HARDENED STEEL 高硬度钢专用铣刀

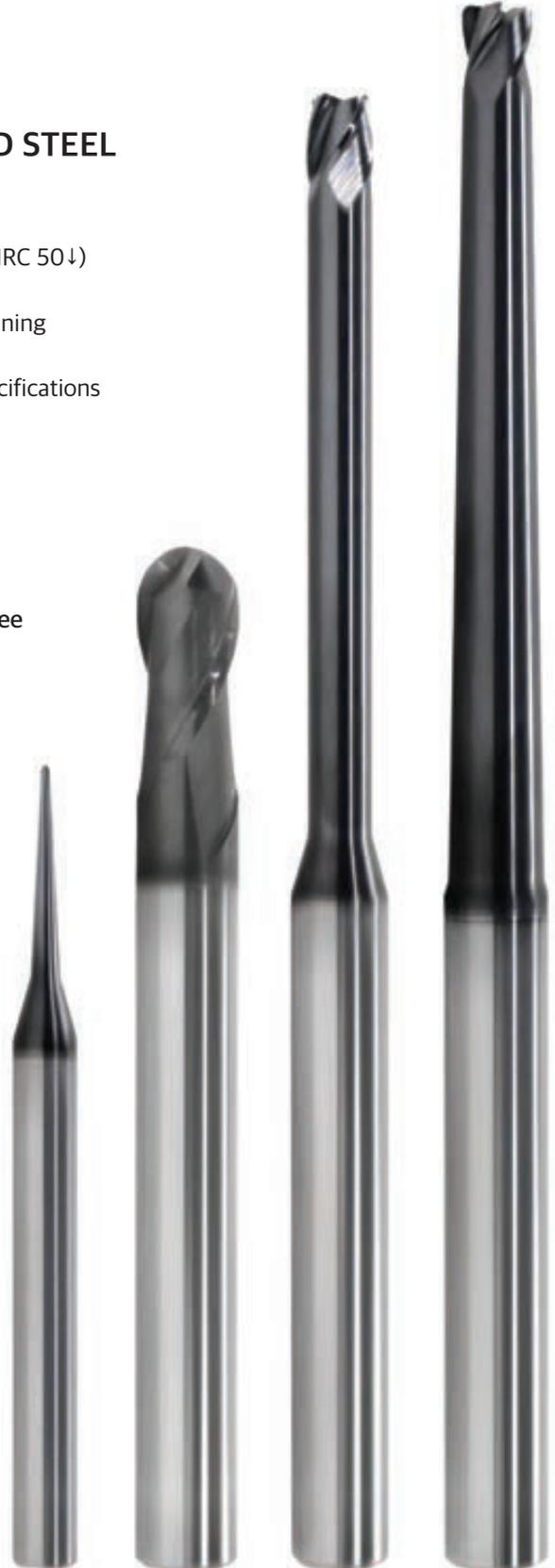
1. Superior material, coating, geometry for general materials (HRC 50↓)
适合 HRc50以下通用材料使用的涂层、形状。
2. Excellent quality and performance for mold and parts machining
在模具加工及配件加工产业中拥有卓越的品质及性能
3. Wide range of applications with various geometries and specifications
多种形态和产品可适用于大范围的加工

PRODUCT FEATURE

Optimized coating and made by high quality material guarantee excellent cutting and tool life in mold and parts for general material machining.

采用最优化的涂层及再加工，
拥有模具加工等一般性效果卓越的工具寿命

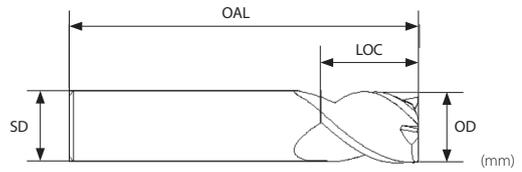
- Improve wear resistance with NANO ultrafine grade
- 采用了NANOLOY超微粒材料提高耐磨性
- Improve surface quality, high precision machining with high quality of end mills
- 拥有卓越的品质，加工物的表面照度及精密度优秀
- Stable machining with optimized rake-angle and clearance
- 采用最佳余角和湖边角，可实现稳定的加工



“N-SG” CARBIDE ENDMILL SERIES FOR GENERAL PURPOSE

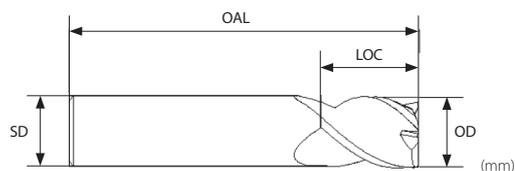
“N-SG” 普通钢专用铣刀

| NANO GENERAL PURPOSE 2 FLUTE FLAT
NANO 普通刚钢 2刃 平头



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFGS2-010-025-S04-L40	1X4X2.5X40	1	4	2.5	40	2
2	NFGS2-010-060-S06-L50	1X6X6X50	1	6	6	50	2
3	NFGS2-010-040-S06-L60	1X6X4X60	1	6	4	60	2
4	NFGS2-012-030-S04-L40	1.2X4X3X40	1.2	4	3	40	2
5	NFGS2-014-035-S04-L40	1.4X4X3.5X40	1.4	4	3.5	40	2
6	NFGS2-016-040-S04-L40	1.6X4X4X40	1.6	4	4	40	2
7	NFGS2-018-045-S04-L40	1.8X4X4.5X40	1.8	4	4.5	40	2
8	NFGS2-020-060-S04-L40	2X4X6X40	2	4	6	40	2
9	NFGS2-020-100-S06-L60	2X0X10X60	2	0	10	60	2
10	NFGS2-025-080-S04-L45	2.5X4X8X45	2.5	4	8	45	2
11	NFGS2-030-080-S06-L45	3X6X8X45	3	6	8	45	2
12	NFGS2-030-120-S06-L70	3X6X12X70	3	6	12	70	2
13	NFGS2-040-110-S06-L45	4X6X11X45	4	6	11	45	2
14	NFGS2-050-130-S06-L50	5X6X13X50	5	6	13	50	2
15	NFGS2-060-130-S06-L50	6X6X13X50	6	6	13	50	2
16	NFGS2-080-190-S08-L60	8X8X19X60	8	8	19	60	2
17	NFGS2-100-220-S10-L70	10X10X22X70	10	10	22	70	2
18	NFGS2-120-260-S12-L75	12X12X26X75	12	12	26	75	2

NANO GENERAL PURPOSE 4 FLUTE FLAT ①
NANO 普通刚钢 4刃 平头 ①

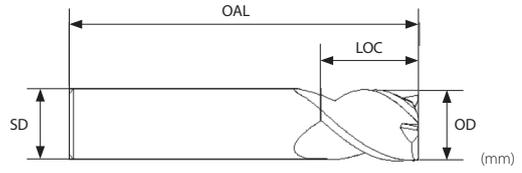


NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFGS4-010-025-S04-L40	1X4X2.5X40	1	4	2.5	40	4
2	NFGS4-012-030-S04-L40	1.2X4X3X40	1.2	4	3	40	4
3	NFGS4-015-040-S04-L40	1.5X4X4X40	1.5	4	4	40	4
4	NFGS4-020-060-S04-L40	2X4X6X40	2	4	6	40	4
5	NFGS4-025-080-S04-L45	2.5X4X8X45	2.5	4	8	45	4
6	NFGS4-030-080-S06-L45	3X6X8X45	3	6	8	45	4
7	NFGS4-040-110-S06-L45	4X6X11X45	4	6	11	45	4
8	NFGS4-050-130-S06-L50	5X6X13X50	5	6	13	50	4
9	NFGS4-060-130-S06-L50	6X6X13X50	6	6	13	50	4
10	NFGS4-060-150-S06-L50	6X6X15X50	6	6	15	50	4
11	NFGS4-060-150-S06-L60	6X6X15X60	6	6	15	60	4
12	NFGS4-080-190-S08-L60	8X8X19X60	8	8	19	60	4
13	NFGS4-080-200-S08-L60	8X8X20X60	8	8	20	60	4
14	NFGS4-080-200-S08-L70	8X8X20X70	8	8	20	70	4
15	NFGS4-100-220-S10-L70	10X10X22X70	10	10	22	70	4
16	NFGS4-100-350-S10-L75	10X10X35X75	10	10	35	75	4
17	NFGS4-100-300-S10-L75	10X10X30X75	10	10	30	75	4
18	NFGS4-120-260-S12-L75	12X12X26X75	12	12	26	75	4
19	NFGS4-010-025-S06-L40	1X6X2.5X40	1	6	2.5	40	4
20	NFGS4-010-025-S06-L60	1X6X2.5X60	1	6	2.5	60	4
21	NFGS4-010-025-S06-L80	1X6X2.5X80	1	6	2.5	80	4
22	NFGS4-010-040-S06-L50	1X6X4X50	1	6	4	50	4
23	NFGS4-020-060-S06-L40	2X6X6X40	2	6	6	40	4
24	NFGS4-020-060-S06-L60	2X6X6X60	2	6	6	60	4
25	NFGS4-020-060-S06-L100	2X6X6X100	2	6	6	100	4
26	NFGS4-030-080-S04-L45	3X4X8X45	3	4	8	45	4
27	NFGS4-030-080-S06-L70	3X6X8X70	3	6	8	70	4
28	NFGS4-030-080-S06-L100	3X6X8X100	3	6	8	100	4
29	NFGS4-035-100-S06-L45	3.5X6X10X45	3.5	6	10	45	4
30	NFGS4-040-110-S04-L45	4X4X11X45	4	4	11	45	4

“N-SG” CARBIDE ENDMILL SERIES FOR GENERAL PURPOSE

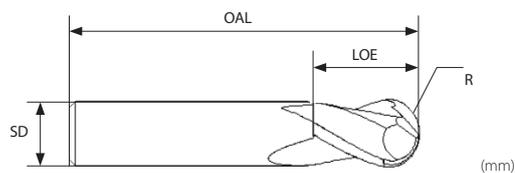
“N-SG” 普通钢专用铣刀

| NANO GENERAL PURPOSE 4 FLUTE FLAT ②
NANO 普通刚钢 4刃 平头 ②



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
31	NFGS4-040-110-S06-L70	4X6X11X70	4	6	11	70	4
32	NFGS4-040-110-S06-L100	4X6X11X100	4	6	11	100	4
33	NFGS4-045-110-S06-L45	4.5X6X11X45	4.5	6	11	45	4
34	NFGS4-050-130-S06-L80	5X6X13X80	5	6	13	80	4
35	NFGS4-050-130-S06-L100	5X6X13X100	5	6	13	100	4
36	NFGS4-055-130-S06-L50	5.5X6X13X50	5.5	6	13	50	4
37	NFGS4-060-130-S06-L80	6X6X13X80	6	6	13	80	4
38	NFGS4-060-130-S06-L100	6X6X13X100	6	6	13	100	4
39	NFGS4-065-160-S08-L60	6.5X8X16X60	6.5	8	16	60	4
40	NFGS4-070-160-S08-L60	7X8X16X60	7	8	16	60	4
41	NFGS4-075-160-S08-L60	7.5X8X16X60	7.5	8	16	60	4
42	NFGS4-085-190-S10-L70	8.5X10X19X70	8.5	10	19	70	4
43	NFGS4-090-190-S10-L70	9X10X19X70	9	10	19	70	4
44	NFGS4-095-190-S10-L70	9.5X10X19X70	9.5	10	19	70	4
45	NFGS4-100-250-S10-L70	10X10X25X70	10	10	25	70	4
46	NFGS4-100-250-S10-L75	10X10X25X75	10	10	25	75	4
47	NFGS4-105-220-S12-L75	10.5X12X22X75	10.5	12	22	75	4
48	NFGS4-110-220-S12-L75	11X12X22X75	11	12	22	75	4
49	NFGS4-120-300-S12-L75	12X12X30X75	12	12	30	75	4
50	NFGS4-120-300-S12-L80	12X12X30X80	12	12	30	80	4
51	NFGS4-140-260-S14-L80	14X14X26X80	14	14	26	80	4
52	NFGS4-140-260-S16-L85	14X16X26X85	14	16	26	85	4
53	NFGS4-160-350-S16-L100	16X16X35X100	16	16	35	100	4
54	NFGS4-160-400-S16-L100	16X16X40X100	16	16	40	100	4
55	NFGS4-180-350-S18-L100	18X18X35X100	18	18	35	100	4
56	NFGS4-200-400-S20-L100	20X20X40X100	20	20	40	100	4
57	NFGS4-200-450-S20-L100	20X20X45X100	20	20	45	100	4

NANO GENERAL PURPOSE 2 FLUTE BALL ①
NANO 普通刚钢 2刃 球头 ①



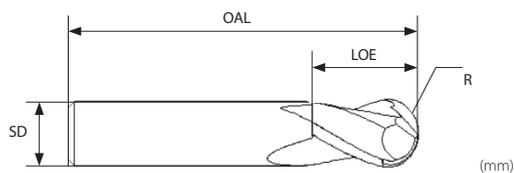
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
1	NBGS2-010-005-025-S04-L50	1(R0.5)X4X2.5X50	1	4	0.5	2.5	50	2
2	NBGS2-020-010-050-S04-L50	2(R1)X4X5X50	2	4	1	5	50	2
3	NBGS2-040-020-080-S04-L60	4(R2)X4X8X60	4	4	2	8	60	2
4	NBGS2-060-030-120-S06-L80	6(R3)X6X12X80	6	6	3	12	80	2
5	NBGS2-060-030-120-S06-L90	6(R3)X6X12X90	6	6	3	12	90	2
6	NBGS2-080-040-120-S08-L60	8(R4)X8X12X60	8	8	4	12	60	2
7	NBGS2-080-040-140-S08-L90	8(R4)X8X14X90	8	8	4	14	90	2
8	NBGS2-080-040-140-S08-L100	8(R4)X8X14X100	8	8	4	14	100	2
9	NBGS2-100-050-180-S10-L100	10(R5)X10X18X100	10	10	5	18	100	2
10	NBGS2-120-060-220-S12-L110	12(R6)X12X22X110	12	12	6	22	110	2
11	NBGS2-010-005-025-S06-L50	1(R0.5)X6X2.5X50	1	6	0.5	2.5	50	2
12	NBGS2-010-005-025-S06-L70	1(R0.5)X6X2.5X70	1	6	0.5	2.5	70	2
13	NBGS2-010-005-025-S06-L100	1(R0.5)X6X2.5X100	1	6	0.5	2.5	100	2
14	NBGS2-012-006-030-S04-L50	1.2(R0.6)X4X3X50	1.2	4	0.6	3	50	2
15	NBGS2-015-0075-040-S04-L50	1.5(R0.75)X4X4X50	1.5	4	0.75	4	50	2
16	NBGS2-015-0075-040-S06-L50	1.5(R0.75)X6X4X50	1.5	6	0.75	4	50	2
17	NBGS2-015-0075-040-S06-L70	1.5(R0.75)X6X4X70	1.5	6	0.75	4	70	2
18	NBGS2-015-0075-040-S06-L100	1.5(R0.75)X6X4X100	1.5	6	0.75	4	100	2
19	NBGS2-020-010-050-S06-L50	2(R1)X6X5X50	2	6	1	5	50	2
20	NBGS2-020-010-050-S06-L75	2(R1)X6X5X75	2	6	1	5	75	2
21	NBGS2-020-010-050-S06-L100	2(R1)X6X5X100	2	6	1	5	100	2
22	NBGS2-025-0125-060-S04-L50	2.5(R1.25)X4X6X50	2.5	4	1.25	6	50	2
23	NBGS2-025-0125-060-S06-L60	2.5(R1.25)X6X6X60	2.5	6	1.25	6	60	2
24	NBGS2-025-0125-060-S06-L75	2.5(R1.25)X6X6X75	2.5	6	1.25	6	75	2
25	NBGS2-025-0125-060-S06-L100	2.5(R1.25)X6X6X100	2.5	6	1.25	6	100	2
26	NBGS2-030-015-080-S04-L50	3(R1.5)X4X8X50	3	4	1.5	8	50	2
27	NBGS2-030-015-080-S06-L60	3(R1.5)X6X8X60	3	6	1.5	8	60	2
28	NBGS2-030-015-080-S06-L80	3(R1.5)X6X8X80	3	6	1.5	8	80	2
29	NBGS2-030-015-080-S06-L100	3(R1.5)X6X8X100	3	6	1.5	8	100	2
30	NBGS2-035-0175-080-S06-L60	3.5(R1.75)X6X8X60	3.5	6	1.75	8	60	2

“N-SG” CARBIDE ENDMILL SERIES FOR GENERAL PURPOSE

“N-SG” 普通钢专用铣刀

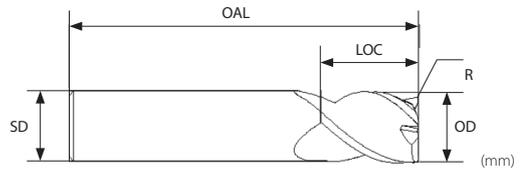
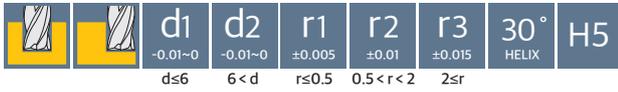
| NANO GENERAL PURPOSE 2 FLUTE BALL ②

NANO 普通刚钢 2刃 球头 ②



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
31	NBGS2-040-020-080-S04-L80	4(R2)X4X8X80	4	4	2	8	80	2
32	NBGS2-040-020-080-S06-L70	4(R2)X6X8X70	4	6	2	8	70	2
33	NBGS2-040-020-080-S06-L90	4(R2)X6X8X90	4	6	2	8	90	2
34	NBGS2-040-020-080-S06-L120	4(R2)X6X8X120	4	6	2	8	120	2
35	NBGS2-045-0225-080-S06-L70	4.5(R2.25)X6X8X70	4.5	6	2.25	8	70	2
36	NBGS2-050-025-100-S06-L75	5(R2.5)X6X10X75	5	6	2.5	10	75	2
37	NBGS2-055-0275-100-S06-L75	5.5(R2.75)X6X10X75	5.5	6	2.75	10	75	2
38	NBGS2-060-030-100-S06-L60	6(R3)X6X10X60	6	6	3	10	60	2
39	NBGS2-060-030-120-S06-L100	6(R3)X6X12X100	6	6	3	12	100	2
40	NBGS2-060-030-120-S06-L120	6(R3)X6X12X120	6	6	3	12	120	2
41	NBGS2-070-035-140-S08-L80	7(R3.5)X8X14X80	7	8	3.5	14	80	2
42	NBGS2-080-040-140-S08-L110	8(R4)X8X14X110	8	8	4	14	110	2
43	NBGS2-080-040-140-S08-L150	8(R4)X8X14X150	8	8	4	14	150	2
44	NBGS2-090-045-160-S10-L100	9(R4.5)X10X16X100	9	10	4.5	16	100	2
45	NBGS2-100-050-150-S10-L70	10(R5)X10X15X70	10	10	5	15	70	2
46	NBGS2-100-050-180-S10-L120	10(R5)X10X18X120	10	10	5	18	120	2
47	NBGS2-100-050-180-S10-L150	10(R5)X10X18X150	10	10	5	18	150	2
48	NBGS2-100-050-180-S10-L180	10(R5)X10X18X180	10	10	5	18	180	2
49	NBGS2-110-055-200-S12-L110	11(R5.5)X12X20X110	11	12	5.5	20	110	2
50	NBGS2-120-060-180-S12-L70	12(R6)X12X18X70	12	12	6	18	70	2
51	NBGS2-120-060-220-S12-L130	12(R6)X12X22X130	12	12	6	22	130	2
52	NBGS2-120-060-220-S12-L150	12(R6)X12X22X150	12	12	6	22	150	2
53	NBGS2-120-060-220-S12-L200	12(R6)X12X22X200	12	12	6	22	200	2
54	NBGS2-130-065-240-S14-L110	13(R6.5)X14X24X110	13	14	6.5	24	110	2
55	NBGS2-140-070-240-S14-L110	14(R7)X14X24X110	14	14	7	24	110	2
56	NBGS2-160-080-300-S16-L130	16(R8)X16X30X130	16	16	8	30	130	2
57	NBGS2-160-080-300-S16-L160	16(R8)X16X30X160	16	16	8	30	160	2
58	NBGS2-160-080-300-S16-L200	16(R8)X16X30X200	16	16	8	30	200	2
59	NBGS2-200-100-380-S20-L160	20(R10)X20X38X160	20	20	10	38	160	2
60	NBGS2-200-100-380-S20-L200	20(R10)X20X38X200	20	20	10	38	200	2

NANO GENERAL PURPOSE 2 FLUTE CORNER RADIUS
NANO 普通刚钢 2刃 圆鼻



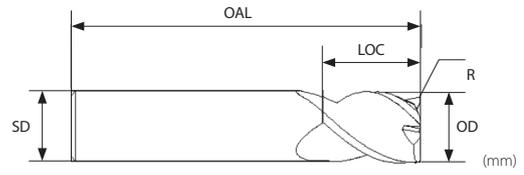
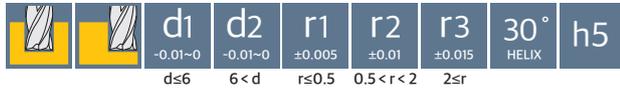
NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
1	NRGS2-010-001-025-S04-L45	1(R0.1)X4X2.5X45	1	4	0.1	2.5	45	2
2	NRGS2-020-002-060-S04-L45	2(R0.2)X4X6X45	2	4	0.2	6	45	2
3	NRGS2-030-002-080-S06-L60	3(R0.2)X6X8X60	3	6	0.2	8	60	2
4	NRGS2-040-002-090-S04-L60	4(R0.2)X4X9X60	4	4	0.2	9	60	2
5	NRGS2-040-002-100-S06-L70	4(R0.2)X6X10X70	4	6	0.2	10	70	2
6	NRGS2-040-003-090-S04-L80	4(R0.3)X4X9X80	4	4	0.3	9	80	2
7	NRGS2-050-002-130-S06-L75	5(R0.2)X6X13X75	5	6	0.2	13	75	2
8	NRGS2-060-003-130-S06-L90	6(R0.3)X6X13X90	6	6	0.3	13	90	2
9	NRGS2-060-010-130-S06-L90	6(R1)X6X13X90	6	6	1	13	90	2
10	NRGS2-080-005-190-S08-L100	8(R0.5)X8X19X100	8	8	0.5	19	100	2
11	NRGS2-080-010-190-S08-L120	8(R1)X8X19X120	8	8	1	19	120	2
12	NRGS2-100-005-220-S10-L100	10(R0.5)X10X22X100	10	10	0.5	22	100	2
13	NRGS2-100-010-220-S10-L130	10(R1)X10X22X130	10	10	1	22	130	2
14	NRGS2-120-005-260-S12-L110	12(R0.5)X12X26X110	12	12	0.5	26	110	2

“N-SG” CARBIDE ENDMILL SERIES FOR GENERAL PURPOSE

“N-SG” 普通钢专用铣刀

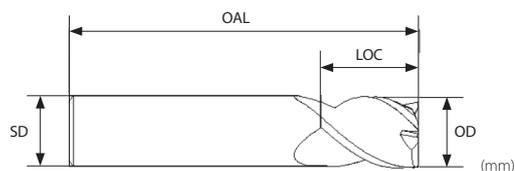
NANO GENERAL PURPOSE 4 FLUTE CORNER RADIUS

NANO 普通刚钢 4刃 圆鼻



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	R 角	LOC 刃长	OAL 全长	FL.No 刃数
1	NRGS4-010-001-025-S04-L45	1(R0.1)X4X2.5X45	1	4	0.1	2.5	45	4
2	NRGS4-015-001-040-S04-L45	1.5(R0.1)X4X4X45	1.5	4	0.1	4	45	4
3	NRGS4-020-002-060-S04-L45	2(R0.2)X4X6X45	2	4	0.2	6	45	4
4	NRGS4-030-002-080-S06-L60	3(R0.2)X6X8X60	3	6	0.2	8	60	4
5	NRGS4-040-002-090-S04-L60	4(R0.2)X4X9X60	4	4	0.2	9	60	4
6	NRGS4-040-002-100-S06-L70	4(R0.2)X6X10X70	4	6	0.2	10	70	4
7	NRGS4-040-003-090-S04-L80	4(R0.3)X4X9X80	4	4	0.3	9	80	4
8	NRGS4-040-005-100-S06-L70	4(R0.5)X6X10X70	4	6	0.5	10	70	4
9	NRGS4-050-002-130-S06-L75	5(R0.2)X6X13X75	5	6	0.2	13	75	4
10	NRGS4-060-002-110-S06-L60	6(R0.2)X6X11X60	6	6	0.2	11	60	4
11	NRGS4-060-003-130-S06-L80	6(R0.3)X6X13X80	6	6	0.3	13	80	4
12	NRGS4-060-005-130-S06-L80	6(R0.5)X6X13X80	6	6	0.5	13	80	4
13	NRGS4-060-010-130-S06-L80	6(R1)X6X13X80	6	6	1	13	80	4
14	NRGS4-080-002-160-S08-L70	8(R0.2)X8X16X70	8	8	0.2	16	70	4
15	NRGS4-080-005-190-S08-L90	8(R0.5)X8X19X90	8	8	0.5	19	90	4
16	NRGS4-080-010-190-S08-L110	8(R1)X8X19X110	8	8	1	19	110	4
17	NRGS4-100-002-190-S10-L75	10(R0.2)X10X19X75	10	10	0.2	19	75	4
18	NRGS4-100-005-220-S10-L100	10(R0.5)X10X22X100	10	10	0.5	22	100	4
19	NRGS4-100-010-220-S10-L70	10(R1)X10X22X70	10	10	1	22	70	4
20	NRGS4-100-010-220-S10-L120	10(R1)X10X22X120	10	10	1	22	120	4
21	NRGS4-120-003-220-S12-L80	12(R0.3)X12X22X80	12	12	0.3	22	80	4
22	NRGS4-120-010-260-S12-L75	12(R1)X12X26X75	12	12	1	26	75	4
23	NRGS4-120-010-260-S12-L110	12(R1)X12X26X110	12	12	1	26	110	4
24	NRGS4-120-020-260-S12-L130	12(R2)X12X26X130	12	12	2	26	130	4

NANO GENERAL PURPOSE 4 FLUTE LONG FLAT ①
NANO 普通刚钢 4刃 长刃 平头 ①

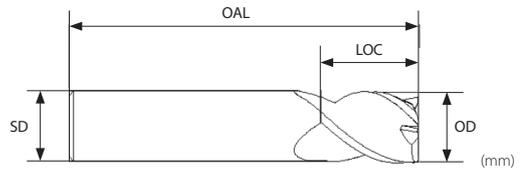


NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFGL4-010-030-S06-L60	1X6X3X60	1	6	3	60	4
2	NFGL4-010-050-S06-L60	1X6X5X60	1	6	5	60	4
3	NFGL4-015-060-S06-L60	1.5X6X6X60	1.5	6	6	60	4
4	NFGL4-015-080-S06-L60	1.5X6X8X60	1.5	6	8	60	4
5	NFGL4-020-080-S06-L60	2X6X8X60	2	6	8	60	4
6	NFGL4-020-100-S06-L60	2X6X10X60	2	6	10	60	4
7	NFGL4-030-100-S06-L70	3X6X10X70	3	6	10	70	4
8	NFGL4-030-150-S06-L70	3X6X15X70	3	6	15	70	4
9	NFGL4-030-200-S06-L70	3X6X20X70	3	6	20	70	4
10	NFGL4-030-250-S06-L70	3X6X25X70	3	6	25	70	4
11	NFGL4-040-120-S06-L70	4X6X12X70	4	6	12	70	4
12	NFGL4-040-150-S06-L70	4X6X15X70	4	6	15	70	4
13	NFGL4-040-200-S06-L70	4X6X20X70	4	6	20	70	4
14	NFGL4-040-250-S06-L70	4X6X25X70	4	6	25	70	4
15	NFGL4-040-300-S06-L75	4X6X30X75	4	6	30	75	4
16	NFGL4-050-200-S06-L70	5X6X20X70	5	6	20	70	4
17	NFGL4-050-250-S06-L75	5X6X25X75	5	6	25	75	4
18	NFGL4-050-300-S06-L80	5X6X30X80	5	6	30	80	4
19	NFGL4-060-200-S06-L75	6X6X20X75	6	6	20	75	4
20	NFGL4-060-200-S06-L100	6X6X20X100	6	6	20	100	4
21	NFGL4-060-250-S06-L75	6X6X25X75	6	6	25	75	4
22	NFGL4-060-300-S06-L80	6X6X30X80	6	6	30	80	4
23	NFGL4-060-350-S06-L80	6X6X35X80	6	6	35	80	4
24	NFGL4-080-250-S08-L75	8X8X25X75	8	8	25	75	4
25	NFGL4-080-250-S08-L100	8X8X25X100	8	8	25	100	4
26	NFGL4-080-300-S08-L80	8X8X30X80	8	8	30	80	4
27	NFGL4-080-350-S08-L90	8X8X35X90	8	8	35	90	4
28	NFGL4-080-400-S08-L90	8X8X40X90	8	8	40	90	4
29	NFGL4-080-450-S08-L100	8X8X45X100	8	8	45	100	4
30	NFGL4-100-300-S10-L80	10X10X30X80	10	10	30	80	4

“N-SG” CARBIDE ENDMILL SERIES FOR GENERAL PURPOSE

“N-SG” 普通钢专用铣刀

| NANO GENERAL PURPOSE 4 FLUTE LONG FLAT ②
NANO 普通刚钢 4刃 长刃 平头 ②



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
31	NFGL4-100-300-S10-L110	10X10X30X110	10	10	30	110	4
32	NFGL4-100-350-S10-L90	10X10X35X90	10	10	35	90	4
33	NFGL4-100-400-S10-L90	10X10X40X90	10	10	40	90	4
34	NFGL4-100-500-S10-L100	10X10X50X100	10	10	50	100	4
35	NFGL4-100-600-S10-L110	10X10X60X110	10	10	60	110	4
36	NFGL4-120-300-S12-L90	12X12X30X90	12	12	30	90	4
37	NFGL4-120-350-S12-L110	12X12X35X110	12	12	35	110	4
38	NFGL4-120-400-S12-L100	12X12X40X100	12	12	40	100	4
39	NFGL4-120-500-S12-L100	12X12X50X100	12	12	50	100	4
40	NFGL4-120-600-S12-L110	12X12X60X110	12	12	60	110	4
41	NFGL4-120-700-S12-L130	12X12X70X130	12	12	70	130	4
42	NFGL4-140-500-S14-L110	14X14X50X110	14	14	50	110	4
43	NFGL4-160-550-S16-L120	16X16X55X120	16	16	55	120	4
44	NFGL4-160-700-S16-L130	16X16X70X130	16	16	70	130	4
45	NFGL4-180-800-S18-L160	18X18X80X160	18	18	80	160	4
46	NFGL4-200-500-S20-L160	20X20X50X160	20	20	50	160	4
47	NFGL4-200-600-S20-L130	20X20X60X130	20	20	60	130	4
48	NFGL4-200-1000-S20-L200	20X20X100X200	20	20	100	200	4

“N-SN” CARBIDE ENDMILL SERIES FOR ALUMINUM

“END MILL” series | **NANOLOY**

END MILL SERIES

INDEXABLE END MILL

RESULTS OF USER TEST

“N-SN” 铝专用铣刀

N-SN Series 系列

CARBIDE ENDMILL SERIES FOR ALUMINUM 铝专用铣刀

1. Solution for machining “Aluminium alloy” and “Nonferrous metal”
最佳方案为铝合金及有色金属
2. Applying proper geometry for preventing B.U.E and high surface roughness
采用合适的形状为防止沾屑
3. Using NANOLOY powder technology for reducing sudden break and increasing wearness
为了提升耐磨性和防止破损，应用NANOLOY独自原料技术

PRODUCT FEATURE

- Optimal design for reducing cutting resistance and increasing surface roughness
- 应用优秀的形状为减少切削阻力和提高粗糙度
- Using NANOLOY powder technology for improving tool life
- 为提升铣刀寿命应用NANOLOY独自原料技术
- Suitable geometry for preventing B.U.E. and breaking
- 防止沾屑和突然性破损，采用最佳的形状
- Solution for machining Aluminium and Aluminium alloy, Non-ferrous metal.
- 适合加工铝，铝，铝合金，有色金属

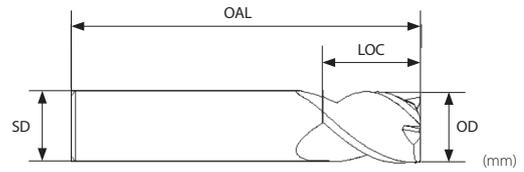


“N-SN” CARBIDE ENDMILL SERIES FOR ALUMINUM

“N-SN” 铝专用铣刀

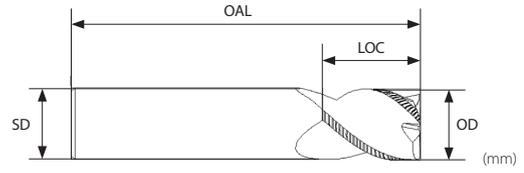
| NANO ALU 3 FLUTE FLAT

“N-SN” 铝专用铣刀



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFNS3-010-030-S06-L50	1X6X3X50	1	6	3	50	3
2	NFNS3-010-060-S06-L60	1X6X6X60	1	6	6	60	3
3	NFNS3-015-050-S06-L50	1.5X6X5X50	1.5	6	5	50	3
4	NFNS3-015-060-S06-L60	1.5X6X6X60	1.5	6	6	60	3
5	NFNS3-020-060-S06-L50	2X6X6X50	2	6	6	50	3
6	NFNS3-020-080-S06-L60	2X6X8X60	2	6	8	60	3
7	NFNS3-020-100-S06-L60	2X6X10X60	2	6	10	60	3
8	NFNS3-020-120-S06-L60	2X6X12X60	2	6	12	60	3
9	NFNS3-025-100-S06-L55	2.5X6X10X55	2.5	6	10	55	3
10	NFNS3-030-110-S06-L55	3X6X11X55	3	6	11	55	3
11	NFNS3-030-150-S06-L65	3X6X15X65	3	6	15	65	3
12	NFNS3-030-200-S06-L70	3X6X20X70	3	6	20	70	3
13	NFNS3-040-130-S06-L55	4X6X13X55	4	6	13	55	3
14	NFNS3-040-160-S06-L65	4X6X16X65	4	6	16	65	3
15	NFNS3-040-200-S06-L70	4X6X20X70	4	6	20	70	3
16	NFNS3-050-170-S06-L55	5X6X17X55	5	6	17	55	3
17	NFNS3-060-170-S06-L60	6X6X17X60	6	6	17	60	3
18	NFNS3-060-220-S06-L60	6X6X22X60	6	6	22	60	3
19	NFNS3-060-250-S06-L70	6X6X25X70	6	6	25	70	3
20	NFNS3-060-300-S06-L75	6X6X30X75	6	6	30	75	3
21	NFNS3-080-220-S08-L70	8X8X22X70	8	8	22	70	3
22	NFNS3-080-300-S08-L80	8X8X30X80	8	8	30	80	3
23	NFNS3-100-270-S10-L75	10X10X27X75	10	10	27	75	3
24	NFNS3-100-320-S10-L90	10X10X32X90	10	10	32	90	3
25	NFNS3-100-350-S10-L90	10X10X35X90	10	10	35	90	3
26	NFNS3-100-400-S10-L90	10X10X40X90	10	10	40	90	3
27	NFNS3-120-320-S12-L80	12X12X32X80	12	12	32	80	3
28	NFNS3-120-400-S12-L95	12X12X40X95	12	12	40	95	3
29	NFNS3-120-450-S12-L100	12X12X45X100	12	12	45	100	3

NANO ALU 3 FLUTE ROUGHING
NANO 铝 3刃 粗加工



NO 编号	Item Code 产品型号	Dimension 规格	OD 直径	SD 柄径	LOC 刃长	OAL 全长	FL.No 刃数
1	NFNS3R-040-100-S06-L55	4X6X10X55	4	6	10	55	3
2	NFNS3R-050-150-S06-L55	5X6X15X55	5	6	15	55	3
3	NFNS3R-060-150-S06-L60	6X6X15X60	6	6	15	60	3
4	NFNS3R-060-200(8)-S06-L70	6X6X8(20)X70	6	6	8(20)	70	3
5	NFNS3R-060-250-S06-L80	6X6X25X80	6	6	25	80	3
6	NFNS3R-080-200-S08-L65	8X8X20X65	8	8	20	65	3
7	NFNS3R-080-260(10)-S08-L80	8X8X10(26)X80	8	8	10(26)	80	3
8	NFNS3R-080-300-S08-L90	8X8X30X90	8	8	30	90	3
9	NFNS3R-100-250-S10-L70	10X10X25X70	10	10	25	70	3
10	NFNS3R-100-320(12)-S10-L90	10X10X12(32)X90	10	10	12(32)	90	3
11	NFNS3R-100-400-S10-L100	10X10X40X100	10	10	40	100	3
12	NFNS3R-120-300-S12-L80	12X12X30X80	12	12	30	80	3
13	NFNS3R-120-360(14)-S12-L100	12X12X14(36)X100	12	12	14(36)	100	3
14	NFNS3R-120-500-S12-L110	12X12X50X110	12	12	50	110	3



INDEXABLE ENDMILL INSERTS

高硬度模具钢专用可转位铣刀片

"N-IB/IR" INDEXABLE ENDMILL INSERTS

"N-IB/IR" 高硬度模具 钢专用可转位铣刀片

Indexable end mill series for hardened materials
of mold steel machining

高硬度模具钢材料加工可转位铣刀片系列

1. New coating layer with nano grade
: specially designed for mold steel machining
1. 采用NANOLOY超微符合粉末材料以及新
型纳米级涂层适合加工高硬度钢材料
2. Excellent performance with optimal geometry
2. 具有最佳几何结构的卓越性能
3. Wide range of machining application
: various geometries and specifications
3. 拥有多种形状, 可适用于宽阔的加工领域

“N-IB/IR” INDEXABLE ENDMILL INSERTS

“N-IB/IR” 高硬度模具钢专用可转位铣刀片

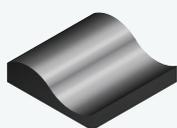
| Features / 特点

Excellent tool life for high hardened materials machining with superior NANO ultrafine grade

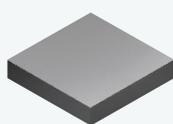
采用了NANOLOY超微粒材料提高耐磨性适合加工高硬度材料

1. High precision in R (ball type : ± 0.01 / corner R type : ± 0.015) / 高精密度,刀片安装R精度
2. Wide range of applications with various geometries and specifications / 拥有多种形状,可适用于宽阔的加工领域
3. Excellent quality and performance for mold and parts machining / 确保模具及配件加工的卓越性能和质量

APPLICATION / 应用



Profiling
仿形铣



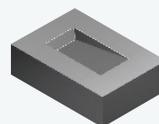
Face milling
面铣



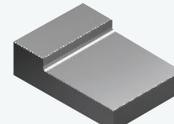
Helical milling
螺旋铣



Slotting
开槽



Ramping
线性坡走铣



Shouldering
侧铣

CLAMPING PROCEDURE / 装配顺序

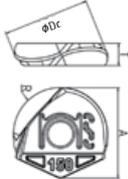


- ① Cleaning the clamping area. (Use air blow)
清扫刀片座, 通过气冷等方法清扫刀片座面
- ② Inserts the engraving side of indexable endmills insert to be forward into the holder and tighten the screw.
将刀片的数字面标记对准刀具本体的螺钉紧固侧, 插入刀片
- ③ Tighten the screw using the torque wrench at a given torque. Don't push the insert during tightening.
用专用扳手紧固高精度螺钉, 此时请无按压刀片
- ④ Clamping complete
紧固结束

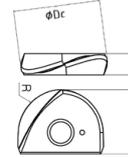
※ Follow this procedure for optimal precision / 请根据如下夹紧为最佳精度

ITEM CODE / 型号		CLAMPING TORQUE / 夹紧扭矩 (N·M)
BALL TYPE / 球形	CORNER RADIUS TYPE / 圆鼻型	
NBGT-XX-5R	JRGT-HS-100(110)-Rx.x	1.8
NBGT-XX-6R	JRGT-HS-120(130)-Rx.x	3.7
NBGT-XX-8R	JRGT-HS-160(170)-Rx.x	3.7
NBGT-XX-10R	JRGT-HS-200(210)-Rx.x	3.8
NBGT-XX-12.5R	JRGT-HS-250(260)-Rx.x	5.2
NBGT-XX-15R	JRGT-HS-300-Rx.x	5.7

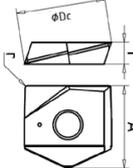
N-IB SERIES (BALL TYPE)
N-IB 系列 (球头刀片)

SHAPE 形状	ITEM CODE 型号	SPECIFICATION / 规格				Configuration 主要尺寸
		R	ØDc	A	T	
	NBGT-NHS-5R/5.5R	5.0/5.5	10.0/11.0	12.2/12.0	2.7	
	NBGT-NHS-6R/6.5R	6.0/6.5	12.0/13.0	14.6	3.2	
	NBGT-NHS-8R/8.5R	8.0/8.5	16.0/17	16.6/17.1	4.2	
	NBGT-NHS-10R/10.5R	10.0/10.5	20.0/21.0	20.3/20.8	5.2	
	NBGT-NHS-12.5R	12.5	25.0	24.1	6.2	
	NBGT-NHS-13R	13.0	26.0	24.6	6.2	
	NBGT-NHS-15R	15.0	30.0	29.2	7.2	
	NBGT-NHS-16R	16.0	32.0	30.2	7.2	

N-IB SERIES (BALL TYPE)
N-IB 系列 (球头刀片)

SHAPE 形状	ITEM CODE 型号	SPECIFICATION / 规格				Configuration 主要尺寸
		R	ØDc	A	T	
	HBGT-HS-5R	5.0	10.0	8.5	2.3	
	HBGT-HS-6R	6.0	12.0	10.0	3.0	
	HBGT-HS-8R	8.0	16.0	12.0	4.0	
	HBGT-HS-10R	10.0	20.0	15.0	5.0	
	HBGT-HS-12.5R	12.5	25.0	18.5	6.0	
	HBGT-HS-15R	15.0	30.0	22.5	7.0	

N-IR SERIES (CORNER RADIUS TYPE)
N-IR 系列 (圆鼻刀片)

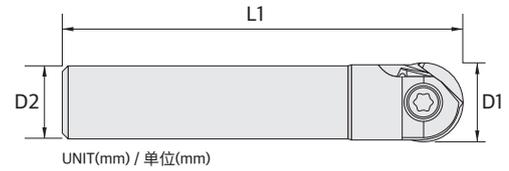
SHAPE 形状	ITEM CODE 型号	SPECIFICATION / 规格				Configuration 主要尺寸
		R	ØDc	A	T	
	JRGT-HS-100-R0.5	0.5	10.0	12.0	2.7	
	JRGT-HS-100-R1.0	1.0	10.0	12.0	2.7	
	JRGT-HS-110-R0.5	0.5	11	12.1	2.7	
	JRGT-HS-110-R1.0	1.0	11	12.1	2.7	
	JRGT-HS-120-R0.5	0.5	12	14.6	3.2	
	JRGT-HS-120-R1.0	1.0	12	14.6	3.2	
	JRGT-HS-130-R0.5	0.5	13	14.6	3.2	
	JRGT-HS-130-R1.0	1.0	13	14.6	3.2	
	JRGT-HS-160-R0.5	0.5	16	16.6	4.2	
	JRGT-HS-160-R1.0	1.0	16	16.6	4.2	
	JRGT-HS-170-R0.5	0.5	17	16.4	4.2	
	JRGT-HS-170-R1.0	1.0	17	16.4	4.2	
	JRGT-HS-200-R0.5	0.5	20	19.8	5.2	
	JRGT-HS-200-R1.0	1.0	20	19.8	5.2	
	JRGT-HS-210-R0.5	0.5	21	19.8	5.2	
	JRGT-HS-210-R1.0	1.0	21	19.8	5.2	
	JRGT-HS-260-R0.5	0.5	26	22.6	6.2	
	JRGT-HS-260-R1.0	1.0	26	22.6	6.2	
	JRGT-HS-300-R0.5	0.5	30	27.2	7.2	
	JRGT-HS-300-R1.0	1.0	30	27.2	7.2	

“N-IB/IR” HOLDER

“N-IB/IR” 刀杆

| Steel type and cemented carbide type / 钢种类和钨钢种类的刀杆

| Both ball and corner R inserts are available / 球刀片和圆弧刀片都能受用



ITEM CODE		OD	SD	OAL	SCREW	WRENCH	
型号		直径	柄径	全长	螺钉	扳手	
NMC (CARBIDE/钨钢)	100 10 145	10	10	2.5	TPM35082	T10-T	
	100 10 200	10	10	2.5			
	120 12 155	12	12	2.5			
	120 12 200	12	12	3	TPM50098	T20-T	
	160 16 200	16	16	3			
	160 16 250	16	16	3	TPM50136	T20-T	
	200 20 220	20	20	3			
	200 20 250	20	20	3			
	200 20 300	20	20	3	TPM60168	T25-T	
	250 25 250	25	25	3			
	250 25 300	25	25	3			
	300 30 300	30	30	3	TPM80251	T30-T	
300 30 350	30	30	3				
160 16 220	16	16	3	TPM50136			T20-T
160 16 250	16	16	4				
200 20 220	20	20	4				
200 20 250	20	20	4		TPM60168	T25-T	
250 25 220	25	25	4				
250 25 250	25	25	4				
250 25 300	25	25	4		TPM60219	T30-T	
300 32 220	30	30	4				
300 32 250	30	30	4				
300 32 300	30	30	5		TPM80251	T30-T	
300 32 350	30	30	5				
300 32 400	30	30	6				

RECOMMENDED CUTTING CONDITION

推荐加工参数

"INDEXABLE END MILL" series | **NANOLOY**

END MILL SERIES

INDEXABLE END MILL

RESULTS OF USER TEST

| N-IB SERIES (BALL TYPE) / N-IB 系列 (球头刀片)
[HARDED STEEL (HRC 45~63) / 高硬度钢 (HRC 45~63)]

H	Hardness 硬度	Cutting condition TEST 参数条件	5R		6R		8R		10R		12.5R		15R	
			Semi Finishing 半精加工	Finishing 精加工										
HRC 45~55	vc (m/min)		100~210	260	100~200	290	100~150	350	100~150	400	100~150	450	100~150	500
	fz (mm/t)		0.10~0.20	0.2	0.10~0.20	0.2	0.12~0.24	0.3	0.12~0.24	0.4	0.12~0.24	0.5	0.12~0.24	0.6
	ap (mm)		0.15~0.25	0.1	0.20~0.30	0.1	0.60~0.80	0.1	0.70~1.00	0.1	0.90~1.25	0.1	1.10~1.60	0.1
	ae (mm)		0.80~1.00	0.25	0.90~1.20	0.3	1.10~1.60	0.3	1.50~2.00	0.4	1.80~2.50	0.5	2.40~3.20	0.6
HRC 55~63	vc (m/min)		80~170	200	80~160	230	80~200	280	80~120	320	80~120	360	80~120	400
	fz (mm/t)		0.10~0.20	0.2	0.10~0.20	0.2	0.12~0.24	0.3	0.12~0.24	0.4	0.12~0.24	0.5	0.12~0.24	0.6
	ap (mm)		0.15~0.25	0.1	0.20~0.30	0.1	0.60~0.80	0.1	0.70~1.00	0.1	0.90~1.25	0.1	1.10~1.60	0.1
	ae (mm)		0.80~1.00	0.25	0.90~1.20	0.3	1.10~1.60	0.3	1.50~2.00	0.4	1.80~2.50	0.5	2.40~3.20	0.6

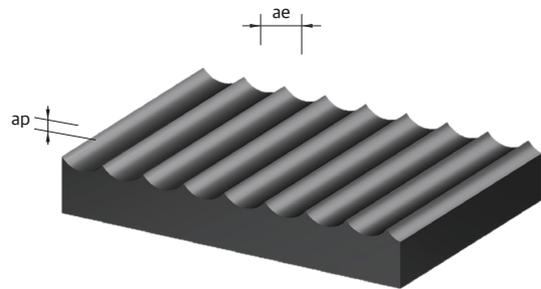
※Caution / 备注

- Using suitable coolant for the cutting materials and machining types
按照被加工材料和加工条件, 请使用适当的冷却液
- Conditions shown in above table are general guidance.
Adjust the parameters by the user's processing conditions.
表上推荐的加工条件是参考用, 请按照贵司的条件来调整参数
- Tools are possible to damaged during machining
Please follow the safety caution (safety glasses, cover, shoes, etc)
加工时工具可能会受伤, 为了安全请戴保护装备 (安全眼镜, 鞋子等等)

Overhang	vc (m/min)	fz (mm/t)
0~3D	100%	100%
3D~5D	70%	70%
5D~8D	60%	60%
8D~10D	50%	50%

※ If overhang length is 3 times over than diameter,
Please adjust the speed and feed condition lower
to use shown in right table

※ 如果悬伸比外径大于3倍的话, 请减速和减进给率, 如图所示



RECOMMENDED CUTTING CONDITION

推荐加工参数

| N-IR SERIES (CORNER RADIUS TYPE) / N-IR 系列 (圆鼻刀片)

[HARDED STEEL (HRC 45~63) / 高硬度钢 (HRC 45~63)]

H	Hardness 硬度	Cutting condition TEST 参数条件	Φ10		Φ11		Φ12		Φ13		Φ16		Φ17	
			Semi Finishing 半精加工	Finishing 精加工										
			HRC 45~55	vc (m/min)	100~280	280	110~310	310	100~280	280	110~300	300	100~280	280
	fz (mm/t)	0.05~0.10	0.05	0.05~0.10	0.05	0.05~0.10	0.05	0.05~0.10	0.05	0.06~0.12	0.06	0.06~0.12	0.06	
	ap (mm)	0.25	0.1	0.25	0.1	0.3	0.1	0.3	0.1	0.8	0.2	0.8	0.2	
	ae (mm)	0.25~1.00	0.2	0.25~1.00	0.2	0.30~1.20	0.2	0.30~1.20	0.2	0.80~1.60	0.2	0.80~1.60	0.2	
HRC 55~63	vc (m/min)	80~220	220	90~240	240	80~220	220	90~240	240	80~220	220	80~230	230	
	fz (mm/t)	0.05~0.10	0.05	0.05~0.10	0.05	0.05~0.10	0.05	0.05~0.10	0.05	0.06~0.12	0.06	0.06~0.13	0.06	
	ap (mm)	0.25	0.1	0.25	0.1	0.3	0.1	0.3	0.1	0.8	0.2	0.8	0.2	
	ae (mm)	0.25~1.00	0.2	0.25~1.00	0.2	0.30~1.20	0.2	0.30~1.20	0.2	0.80~1.60	0.2	0.80~1.60	0.2	

H	Hardness 硬度	Cutting condition TEST 参数条件	Φ20		Φ21		Φ25		Φ26		Φ30	
			Semi Finishing 半精加工	Finishing 精加工								
			HRC 45~55	vc (m/min)	100~280	280	100~290	290	100~280	280	100~290	290
	fz (mm/t)	0.06~0.12	0.06	0.06~0.13	0.06	0.06~0.12	0.06	0.06~0.12	0.06	0.06~0.12	0.06	
	ap (mm)	1.0	0.2	1.0	0.2	1.25	0.2	1.25	0.2	1.6	0.2	
	ae (mm)	1.00~2.00	0.2	1.00~2.00	0.2	1.25~2.50	0.2	1.25~2.50	0.2	1.60~3.20	0.2	
HRC 55~63	vc (m/min)	80~220	220	80~230	230	80~220	220	80~230	230	80~220	220	
	fz (mm/t)	0.06~0.12	0.06	0.06~0.12	0.06	0.06~0.12	0.06	0.06~0.12	0.06	0.06~0.12	0.06	
	ap (mm)	1.0	0.2	1.0	0.2	1.25	0.2	1.25	0.2	1.6	0.2	
	ae (mm)	1.00~2.00	0.2	1.00~2.00	0.2	1.25~2.50	0.2	1.25~2.50	0.2	1.60~3.20	0.2	

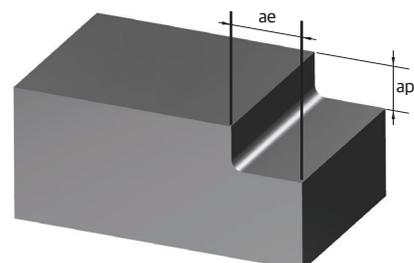
※Caution / 备注

- Using suitable coolant for the cutting materials and machining types
按照被加工材料和加工条件, 请使用适当的冷却液
- Conditions shown in above table are general guidance.
Adjust the parameters by the user's processing conditions.
表上推荐的加工条件是参考用, 请按照贵司的条件来调整参数
- Tools are possible to damaged during machining
Please follow the safety caution (safety glasses, cover, shoes, etc)
加工时工具可能会受伤, 为了安全请戴保护装备 (安全眼镜, 鞋子等等)

※ If overhang length is 3 times over than diameter,
Please adjust the speed and feed condition lower
to use shown in right table

※ 如果悬伸比外径大于3倍的话, 请减速和减进给率, 如图所示

Overhang	vc	fz
	(m/min)	(mm/t)
0~3D	100%	100%
3D~5D	70%	70%
5D~8D	60%	60%
8D~10D	50%	50%



终端客户实地测试结果

RESULTS OF USER TEST



RESULTS OF USER TEST

终端客户实地测试结果

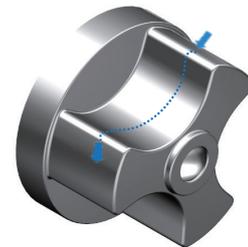
N-SM TEST REPORT 1 / N-SM 测试报告 1 FOR HARDENED STEEL / 高硬度钢 ISO H GRADE / ISO H系列



ITEM CODE / 产品型号	NRHR2-080-002-200-S08-L65
WOEKPICE / 被加工材料	SKD11(HRC60)
CONDITION / 参数	V_c 100m/min f_z 0.037mm/tooth ap 8mm ae 0.24mm
APPLICATION / 应用	SHOULDERING

Division / 区分	NANOLOY	COMPETITOR / 竞争对手				
WEAR IMAGE 磨损对比						
TOOL LIFE (PATH) 寿命 (路径)	<table border="1"> <tr> <td>Nanoloy</td> <td>360 min</td> </tr> <tr> <td>Competitor 对手</td> <td>240 min</td> </tr> </table>	Nanoloy	360 min	Competitor 对手	240 min	
Nanoloy	360 min					
Competitor 对手	240 min					
RESULT / 结果	NANOLOY比竞争对手产品寿命高于50%					

N-SH TEST REPORT 2 / N-SM 测试报告 2 FOR HARDENED STEEL / 高硬度钢 ISO H GRADE / ISO H系列

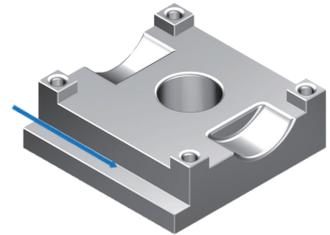


ITEM CODE / 产品型号	NBHS2-040-020-060-S06-L70
WOEKPICE / 被加工材料	SKD11(HRC60)
CONDITION / 参数	V_c 120m/min f_z 0.075mm/tooth ap 0.1mm ae 0.08mm
APPLICATION / 应用	SHOULDERING

Division / 区分	NANOLOY	COMPETITOR / 竞争对手				
WEAR IMAGE 磨损对比						
TOOL LIFE (PATH) 寿命 (路径)	<table border="1"> <tr> <td>Nanoloy</td> <td>76 min</td> </tr> <tr> <td>Competitor 对手</td> <td>51 min</td> </tr> </table>	Nanoloy	76 min	Competitor 对手	51 min	
Nanoloy	76 min					
Competitor 对手	51 min					
RESULT / 结果	NANOLOY比竞争对手产品寿命高于50%					

N-SM TEST REPORT 1 / N-SM 测试报告 1 **FOR STAINLESS STEE / 不锈钢** ISO M GRADE / ISO M系列

ITEM CODE / 产品型号	NFMS-120-300-S12-L80
WOEKPIECE / 被加工材料	INCONEL 718
CONDITION / 参数	$V_c 110\text{m/min}$ $f_z 0.085\text{mm/tooth}$ $ap 12\text{mm}$ $ae 0.48\text{mm}$
APPLICATION / 应用	SIDE CUTTING



Division / 区分	NANOLOY	COMPETITOR / 竞争对手				
WEAR IMAGE 磨损对比						
TOOL LIFE (PATH) 寿命 (路径)	<table border="1"> <tr> <td>Nanoloy</td> <td>180%</td> </tr> <tr> <td>Competitor 对手</td> <td>100%</td> </tr> </table>	Nanoloy	180%	Competitor 对手	100%	
Nanoloy	180%					
Competitor 对手	100%					
RESULT / 结果	NANOLOY品牌稳定的加工和优秀的耐磨性					

N-SH TEST REPORT 2 / N-SM 测试报告 2 **FOR STAINLESS STEEL / 不锈钢** ISO M GRADE / ISO M系列

ITEM CODE / 产品型号	NRMR4R-120-003-350-S12-L80
WOEKPIECE / 被加工材料	SUS36
CONDITION / 参数	$V_c 60\text{m/min}$ $f_z 0.15\text{mm/tooth}$ $ap 12\text{mm}$ $ae 6\text{mm}$
APPLICATION / 应用	SLOTING



Division / 区分	NANOLOY	COMPETITOR / 竞争对手				
WEAR IMAGE 磨损对比						
TOOL LIFE (PATH) 寿命 (路径)	<table border="1"> <tr> <td>Nanoloy</td> <td>220%</td> </tr> <tr> <td>Competitor 对手</td> <td>100%</td> </tr> </table>	Nanoloy	220%	Competitor 对手	100%	
Nanoloy	220%					
Competitor 对手	100%					
RESULT / 结果	NANOLOY品牌优秀的耐磨性及排屑					

RESULTS OF USER TEST

终端客户实地测试结果

User test (automobile) / NANOLOY测试成功案例 (汽车行业)		Indexable endmill / 球刀片	H grade (high hardness) / H系列(高硬度钢)
Workpiece name / 被加工材料名称	Automobile mold parts / 汽车模具加工	Workpiece material/ 被加工材料	SKD11 (HRC55~62)
Machining type / TEST摘要	Face milling / Finishing / Dry 面加工/ 精加工 / Dry Cut		
Cutting condition / TEST参数条件	vc 330m/min fr 0.42mm/tooth ap 0.15mm 速度 330m/min 单刃进给 0.42mm/tooth 切削深度 0.15mm		
Item / 产品型号	NBGT-HS-15R TS114NBGT-HS-15R TS1145		



Division / 区分	NANOLOY	COMPETITOR / 竞争对手
Tool life / Wear image (8 hours) 寿命 / 磨损 对比 (8小时加工)		
Status comparison 现象对比	After 9 hours machining (normal wear) 最终加工9个小时加工完成 (正常磨损)	After 8 hours machining (side edge chipping) 最终加工8个小时加工(侧面崩刃发生_刀片交换)
Result 判断标准/结果	Wear and damage comparison → 1.5 times better wear resistance performance than competitor 同等时间加工后磨损量对比 → NANOLOY产品比竞争对手耐磨性优秀 (比竞争对手高10%)	

User test (automobile) / NANOLOY测试成功案例 (汽车行业)		Indexable endmill / 球刀片	H grade (high hardness) / H系列(高硬度钢)
Workpiece name / 被加工材料名称	Automobile door mold / 汽车模具加工	Workpiece material/ 被加工材料	SKD11 (HRC55)
Machining type / TEST摘要	Face milling / Finishing / Dry 面加工/ 精加工 / Dry Cut		
Cutting condition / TEST参数条件	vc 500m/min fr 0.47mm/tooth ap 0.15mm 速度 500m/min 单刃进给 0.47mm/tooth 切削深度 0.15mm		
Item / 产品型号	NBGT-HS-15R TS1145		



Division / 区分	NANOLOY	COMPETITOR / 竞争对手
Tool life / Wear image (16 hours) 寿命 / 磨损 对比 (16小时加工)		
Status comparison 现象对比	After 24 hours machining 最终 24个小时 加工完成	After 16 hours machining 最终 16个小时 加工完成
Result 判断标准/结果	Wear and damage comparison → 1.5 times better wear resistance performance than competitor 同等时间加工后磨损量对比 → NANOLOY产品比竞争对手耐磨性优秀 (比竞争对手高50%)	

“Beyond the cutting Tools”
The Solution Provider for Difficult to cut Materials

总公司 NANOTECH

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