

## Two Flute Ball Nose 二齿球头标准型



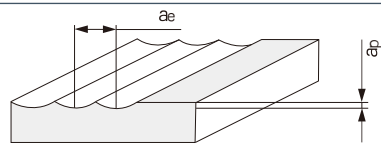
### Type & Specifications/类型与规格

D1	D2 h6	L2 js14	L1 js14	Flute No.	Order No.
R2.0	6	10	50	2	P1980113020
R2.25	6	12	50	2	P1980114020
R2.5	6	12	50	2	P1980115020
R2.75	6	12	50	2	P1980116020
R3.0	6	12	50	2	P1980117020
R3.5	8	15	60	2	P1980118020
R4.0	8	15	60	2	P1980119020
R4.5	10	20	75	2	P1980120020
R5.0	10	20	75	2	P1980121020
R5.5	12	20	75	2	P1980122020
R6.0	12	20	75	2	P1980123020
R6.5	14	30	90	2	P1980124020
R7.0	14	30	90	2	P1980125020
R7.5	16	30	100	2	P1980126020
R8.0	16	30	100	2	P1980127020
R9.0	18	35	100	2	P1980128020
R10.0	20	35	100	2	P1980129020
R12.5	25	40	100	2	P1980130020

### Recommendation/推荐切削条件

Diameter D1 (mm)	Hardened Steel HRC45~55		Hardened Steel HRC55~60	
	Speed n (R/min)	Feed Vf (mm/min)	Speed n (R/min)	Feed Vf (mm/min)
R1.75	12450	1745	10530	1470
R2.0	10890	1850	9215	1380
R2.5	8690	1565	7355	1250
R3.0	6775	1350	5730	1085
R3.5	5800	1220	4910	985
R4.0	5080	1170	4295	965
R4.5	4515	1120	3820	920
R5.0	4065	1095	3440	860
R5.5	3690	1030	3185	825
R6.0	3385	950	2865	745
R8.0	2500	800	2150	650
R10.0	2500	720	1700	560
ap (Depth)	ap=0.1D		ap=0.1D	
ae (Width)	ae=0.2D		ae=0.1D	

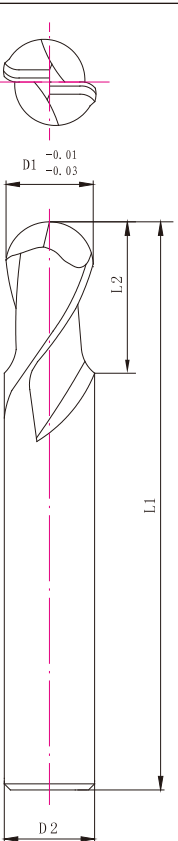
Illustration



- ⊙ Please optimize the over-hang
- ⊙ Be in climb milling. Please lower the recommendations simultaneously in case cutting tools shake badly
- ⊙ Please use suitable coolants

### Work Materials/被加工材质

Steels			Cast Iron	Aluminium Alloys	Copper Alloys	Stainless Steel	Titanium Alloys	Graphite
<HRC45	<HRC60	<HRC65						
○	⊙		○			○		
⊙ Preferential ○ Suitable								



## Two Flute Ball Nose Long Length 二齿球头加长型



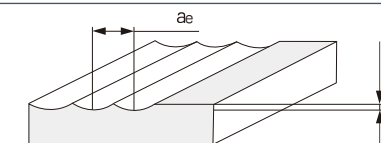
### Type & Specifications/类型与规格

D1	D2 h6	L2 js14	L1 js14	Flute No.	Order No.
R1.0	4	8	60	2	P1982203020
R1.25	4	10	60	2	P1982204020
R1.5	4	12	60	2	P1982205020
R1.75	4	12	60	2	P1982206020
R2.0	4	15	60	2	P1982207020
R2.25	6	20	75	2	P1982208020
R2.5	6	25	75	2	P1982209020
R2.75	6	25	75	2	P1982210020
R3.0	6	25	75	2	P1982211020
R3.5	8	30	75	2	P1982212020
R4.0	8	30	75	2	P1982213020
R4.5	10	40	100	2	P1982214020
R5.0	10	40	100	2	P1982215020
R6.0	12	45	100	2	P1982216020
R7.0	14	45	100	2	P1982217020
R8.0	16	60	150	2	P1982218020
R9.0	18	60	150	2	P1982219020
R10.0	20	60	150	2	P1982220020

### Recommendation/推荐切削条件

Diameter D1 (mm)	Hardened Steel HRC45~55		Hardened Steel HRC55~60	
	Speed n (R/min)	Feed Vf (mm/min)	Speed n (R/min)	Feed Vf (mm/min)
R1.5	6969	768	5895	710
R1.75	5973	714	5055	710
R2.0	5226	888	4420	660
R2.5	4170	750	3530	600
R3.0	3249	651	2750	660
R3.5	3180	615	2355	710
R4.0	2784	561	2065	620
R4.5	2169	561	2310	580
R5.0	1950	522	2080	415
R5.5	1776	480	1500	390
R6.0	1626	456	1380	360
R8.0	1220	390	1030	300
R10.0	980	340	820	260
ap (Depth)	ap=0.2D		ap=0.1D	
ae (Width)	ae=0.1D		ae=0.1D	

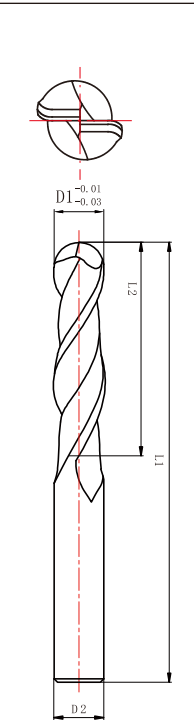
Illustration



- ⊙ Please optimize the over-hang
- ⊙ Be in climb milling. Please lower the recommendations simultaneously in case cutting tools shake badly
- ⊙ Please use suitable coolants

### Work Materials/被加工材质

Steels			Cast Iron	Aluminium Alloys	Copper Alloys	Stainless Steel	Titanium Alloys	Graphite
<HRC45	<HRC60	<HRC65						
○	⊙		○			○		
⊙ Preferential ○ Suitable								



## Two Flute Ball Nose Standard 二齿球头标准型



### Type & Specifications / 类型与规格

D1 h10	D2 h6	L2 js14	L1 js14	Flute No.	Order No.
1.0	3	3	38	2	1980130020
1.5	3	5	38	2	1980130520
2.0	3	6	38	2	1980131020
2.5	3	7	38	2	1980131520
3.0	3	7	38	2	1980132020
3.5	4	10	50	2	1980132520
4.0	4	10	50	2	1980133020
5.0	5	11	50	2	1980133520
6.0	6	13	57	2	1980134020
7.0	8	13	63	2	1980134520
8.0	8	16	63	2	1980135020
9.0	10	16	72	2	1980135520
10.0	10	19	72	2	1980136020
12.0	12	22	83	2	1980136520
14.0	14	22	83	2	1980137020
16.0	16	26	92	2	1980137520
18.0	18	26	92	2	1980138020
20.0	20	32	104	2	1980138520



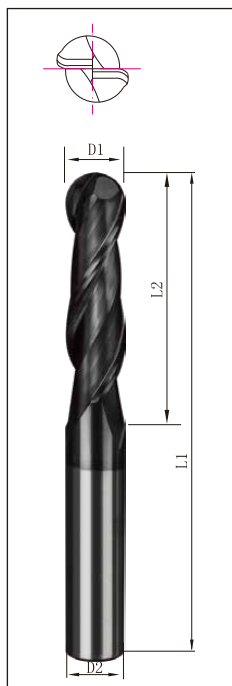
Carbide End Mills

## Two Flute Ball Nose Long Length

二齿球头加长型



### Type & Specifications / 类型与规格



D1	D2 h6	L2 js14	L1 js14	Flute No.	Order No.
3.0	3	15	57	2	1982241120
4.0	4	19	57	2	1982241620
5.0	5	25	63	2	1982242120
6.0	6	25	75	2	1982242620
8.0	8	30	75	2	1982243120
10.0	10	35	90	2	1982243620
12.0	12	45	100	2	1982244120
14.0	14	45	100	2	1982244620
16.0	16	50	100	2	1988245120
18.0	18	50	100	2	1982245620
20.0	20	60	120	2	1982246120
25.0	25	60	120	2	1982246620

