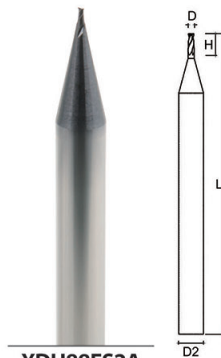




### Micro Diameter Square End Mill

#### Milling parameters

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
2 Flute	D	H	L	D2
ES2A04050-0.2	0.2	0.4	50	4
ES2A04050-0.3	0.3	0.6	50	4
ES2A04050-0.4	0.4	0.8	50	4
ES2A04050-0.5	0.5	1.0	50	4
ES2A04050-0.6	0.6	1.2	50	4
ES2A04050-0.7	0.7	1.4	50	4
ES2A04050-0.8	0.8	1.6	50	4
ES2A04050-0.9	0.9	1.8	50	4



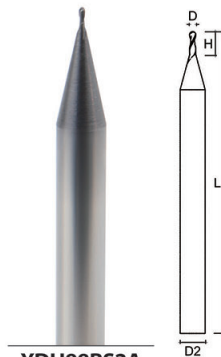
YDH88ES2A



### Micro Diameter Ball Nose End Mill

#### Milling parameters

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
2 Flute	D	H	L	D2
BS2A04050-R0.15	R0.15	0.6	50	4
BS2A04050-R0.20	R0.20	0.8	50	4
BS2A04050-R0.25	R0.25	1.0	50	4
BS2A04050-R0.30	R0.30	1.2	50	4
BS2A04050-R0.35	R0.35	1.4	50	4
BS2A04050-R0.40	R0.40	1.6	50	4
BS2A04050-R0.45	R0.45	1.8	50	4

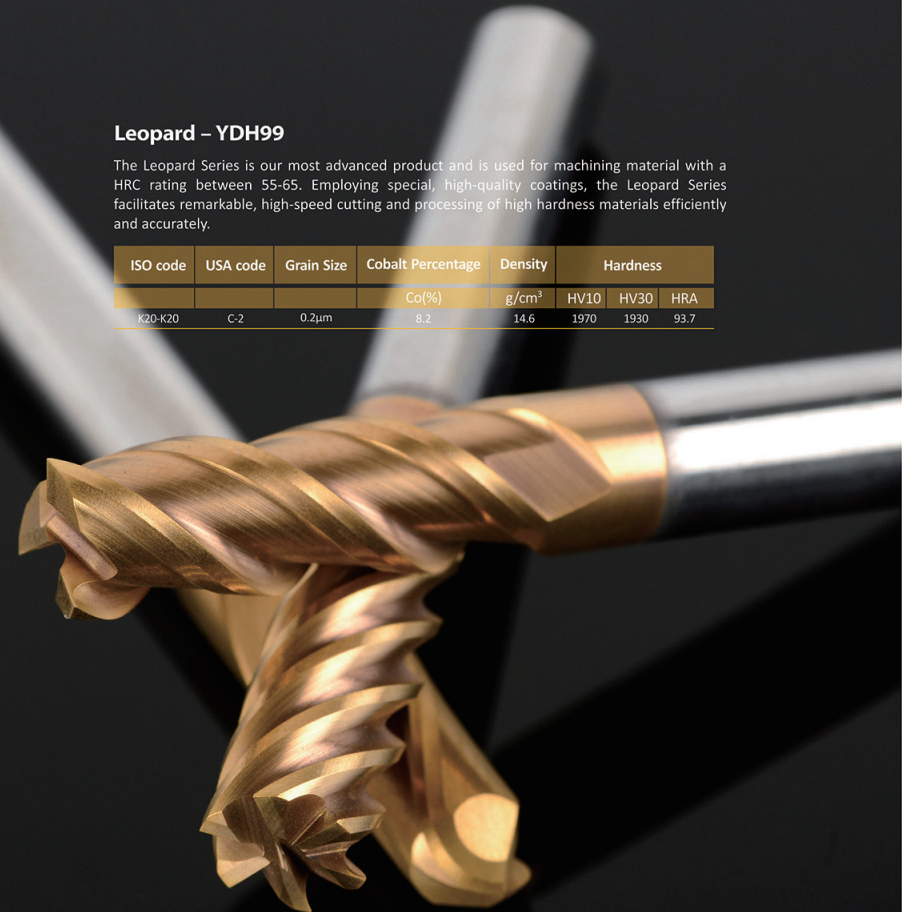


YDH88BS2A

### Leopard – YDH99

The Leopard Series is our most advanced product and is used for machining material with a HRC rating between 55-65. Employing special, high-quality coatings, the Leopard Series facilitates remarkable, high-speed cutting and processing of high hardness materials efficiently and accurately.

ISO code	USA code	Grain Size	Cobalt Percentage	Density	Hardness		
					g/cm <sup>3</sup>	HV10	HV30
K20-K20	C-2	0.2μm	8.2	14.6	1970	1930	93.7





### 4 Flutes Square End Mill 2 Flutes Square End Mill

#### Milling parameters

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	H	L	D2
E4A04050-1.0	E2A04050-1.0	1.0	3	50	4
E4A04050-1.5	E2A04050-1.5	1.5	4	50	4
E4A04050-2.0	E2A04050-2.0	2.0	5	50	4
E4A04050-2.5	E2A04050-2.5	2.5	7	50	4
E4A04050-3.0	E2A04050-3.0	3.0	9	50	4
E4A04050-4.0	E2A04050-4.0	4.0	11	50	4
E4A06050-3.0	E2A06050-3.0	3.0	9	50	6
E4A06050-4.0	E2A06050-4.0	4.0	11	50	6
E4A06050-5.0	E2A06050-5.0	5.0	13	50	6
E4A06050-6.0	E2A06050-6.0	6.0	16	50	6
E4A08060-7.0	E2A08060-7.0	7.0	18	60	8
E4A08060-8.0	E2A08060-8.0	8.0	20	60	8
E4A10075-9.0	E2A10075-9.0	9.0	23	75	10
E4A10075-10.0	E2A10075-10.0	10.0	25	75	10
E4A12075-12.0	E2A12075-12.0	12.0	30	75	12
E4A16100-13.0	E2A16100-13.0	13.0	35	100	16
E4A16100-14.0	E2A16100-14.0	14.0	35	100	16
E4A16100-15.0	E2A16100-15.0	15.0	38	100	16
E4A16100-16.0	E2A16100-16.0	16.0	40	100	16
E4A20100-18.0	E2A20100-18.0	18.0	40	100	20
E4A20100-20.0	E2A20100-20.0	20.0	45	100	20



YDH99E4A  
YDH99E2A



### 3 Flutes Square End Mill

#### Milling parameters

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
3 Flute	D	H	L	D2
E3A04050-3.0	3	9	50	4
E3A04050-4.0	4	11	50	4
E3A06050-5.0	5	13	50	6
E3A06050-6.0	6	16	50	6
E3A08060-8.0	8	20	60	8
E3A10075-10.0	10	25	75	10
E3A12075-12.0	12	30	75	12
E3A16100-16.0	16	40	100	16
E3A20100-20.0	20	45	100	20



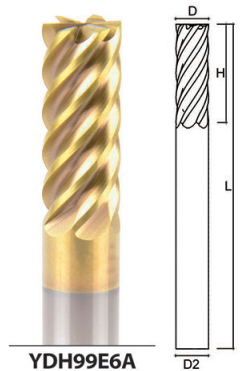
YDH99E3A



### 6 Flutes Square End Mill

#### Milling parameters

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
6 Flute	D	H	L	D2
E6A06050-6.0	6	16	50	6
E6A08060-8.0	8	20	60	8
E6A10075-10.0	10	25	75	10
E6A12075-12.0	12	30	75	12
E6A16100-16.0	16	40	100	16
E6A20100-20.0	20	45	100	20



YDH99E6A



### Long Shank, 4 Flutes Square End Mill Long Shank, 2 Flutes Square End Mill

#### Milling parameters

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	H	L	D2
EL4A04075-3.0	EL2A04075-3.0	3	11	75	4
EL4A04075-4.0	EL2A04075-4.0	4	11	75	4
EL4A04100-4.0	EL2A04100-4.0	4	11	100	4
EL4A06075-5.0	EL2A06075-5.0	5	13	75	6
EL4A06075-6.0	EL2A06075-6.0	6	16	75	6
EL4A06100-6.0	EL2A06100-6.0	6	16	100	6
EL4A08075-8.0	EL2A08075-8.0	8	20	75	8
EL4A08100-8.0	EL2A08100-8.0	8	20	100	8
EL4A10100-10.0	EL2A10100-10.0	10	25	100	10
EL4A10150-10.0	EL2A10150-10.0	10	25	150	10
EL4A12100-12.0	EL2A12100-12.0	12	30	100	12
EL4A12150-12.0	EL2A12150-12.0	12	30	150	12
EL4A16150-16.0	EL2A16150-16.0	16	40	150	16
EL4A20150-20.0	EL2A20150-20.0	20	45	150	20



YDH99EL4A  
YDH99EL2A



### Long Flute, 4 Flutes Square End Mill Long Flute, 2 Flutes Square End Mill

#### Milling parameters

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	H	L	D2
EF4A04075-3.0	EF2A04075-3.0	3	12	75	4
EF4A04075-4.0	EF2A04075-4.0	4	15	75	4
EF4A06075-5.0	EF2A06075-5.0	5	20	75	6
EF4A06075-6.0	EF2A06075-6.0	6	25	75	6
EF4A06100-6.0	EF2A06100-6.0	6	30	100	6
EF4A08100-8.0	EF2A08100-8.0	8	40	100	8
EF4A10100-10.0	EF2A10100-10.0	10	45	100	10
EF4A12100-12.0	EF2A12100-12.0	12	50	100	12
EF4A16150-16.0	EF2A16150-16.0	16	75	150	16
EF4A20150-20.0	EF2A20150-20.0	20	80	150	20

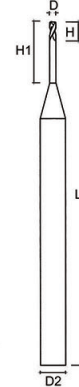


YDH99EF4A  
YDH99EF2A



### Long Neck, 4 Flutes Square End Mill Long Neck, 2 Flutes Square End Mill

YDH99EN4A  
YDH99EN2A



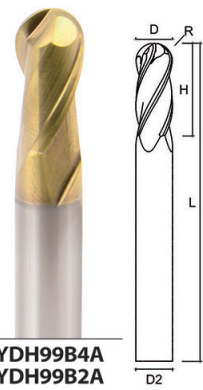
#### Milling parameters

Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	H	H1	L	D2
EN4A0405006-1.0	EN2A0405006-1.0	1	1	6	50	4
EN4A0405008-1.0	EN2A0405008-1.0	1	1	8	50	4
EN4A0405010-1.0	EN2A0405010-1.0	1	1	10	50	4
EN4A0405012-1.0	EN2A0405012-1.0	1	1	12	50	4
EN4A0405008-1.5	EN2A0405008-1.5	1.5	1.5	8	50	4
EN4A0405010-1.5	EN2A0405010-1.5	1.5	1.5	10	50	4
EN4A0405012-1.5	EN2A0405012-1.5	1.5	1.5	12	50	4
EN4A0405016-1.5	EN2A0405016-1.5	1.5	1.5	16	50	4
EN4A0405008-2.0	EN2A0405008-2.0	2	2	8	50	4
EN4A0405010-2.0	EN2A0405010-2.0	2	2	10	50	4
EN4A0405012-2.0	EN2A0405012-2.0	2	2	12	50	4
EN4A0405016-2.0	EN2A0405016-2.0	2	2	16	50	4
EN4A0405020-2.0	EN2A0405020-2.0	2	2	20	50	4
EN4A0405010-2.5	EN2A0405010-2.5	2.5	2.5	10	50	4
EN4A0405012-2.5	EN2A0405012-2.5	2.5	2.5	12	50	4
EN4A0405016-2.5	EN2A0405016-2.5	2.5	2.5	16	50	4
EN4A0405020-2.5	EN2A0405020-2.5	2.5	2.5	20	50	4
EN4A0605012-3.0	EN2A0605012-3.0	3	3	12	50	6
EN4A0605016-3.0	EN2A0605016-3.0	3	3	16	50	6
EN4A0607520-3.0	EN2A0607520-3.0	3	3	20	75	6
EN4A0607525-3.0	EN2A0607525-3.0	3	3	25	75	6



### 4 Flutes Ball Nose End Mill 2 Flutes Ball Nose End Mill

Milling parameters						
Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia	
4 Flute	2 Flute	D	H	L	D2	
B4A04050-R0.50	B2A04050-R0.50	R0.50	2	50	4	
B4A04050-R0.75	B2A04050-R0.75	R0.75	3	50	4	
B4A04050-R1.00	B2A04050-R1.00	R1.00	4	50	4	
B4A04050-R1.25	B2A04050-R1.25	R1.25	5	50	4	
B4A04050-R1.50	B2A04050-R1.50	R1.50	6	50	4	
B4A04050-R2.00	B2A04050-R2.00	R2.00	8	50	4	
B4A05050-R2.50	B2A05050-R2.50	R2.50	10	50	5	
B4A06050-R2.50	B2A06050-R2.50	R2.50	10	50	6	
B4A06050-R3.00	B2A06050-R3.00	R3.00	12	50	6	
B4A08060-R3.50	B2A08060-R3.50	R3.50	12	60	8	
B4A08060-R4.00	B2A08060-R4.00	R4.00	16	60	8	
B4A10075-R4.50	B2A10075-R4.50	R4.50	18	75	10	
B4A10075-R5.00	B2A10075-R5.00	R5.00	20	75	10	
B4A12075-R6.00	B2A12075-R6.00	R6.00	24	75	12	
B4A16100-R8.00	B2A16100-R8.00	R8.00	32	100	16	
B4A20100-R10.0	B2A20100-R10.0	R10.0	40	100	20	



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YDH99B2A

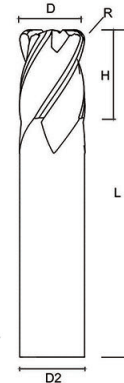


### Long Shank, 4 Flutes Ball Nose End Mill Long Shank, 2 Flutes Ball Nose End Mill

Milling parameters						
Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia	
4 Flute	2 Flute	D	H	L	D2	
BL4A04075-R0.50	BL2A04075-R0.50	R0.50	2	75	4	
BL4A04075-R0.75	BL2A04075-R0.75	R0.75	3	75	4	
BL4A04075-R1.00	BL2A04075-R1.00	R1.00	4	75	4	
BL4A04075-R1.50	BL2A04075-R1.50	R1.50	6	75	4	
BL4A04075-R2.00	BL2A04075-R2.00	R2.00	8	75	4	
BL4A04100-R2.00	BL2A04100-R2.00	R2.00	8	100	4	
BL4A05075-R2.5	BL2A05075-R2.5	R2.50	10	75	5	
BL4A05100-R2.5	BL2A05100-R2.5	R2.50	10	100	5	
BL4A06075-R2.50	BL2A06075-R2.50	R2.50	10	75	6	
BL4A06075-R3.00	BL2A06075-R3.00	R3.00	12	75	6	
BL4A06100-R2.00	BL2A06100-R2.00	R2.00	8	100	6	
BL4A06100-R2.50	BL2A06100-R2.50	R2.50	10	100	6	
BL4A06100-R3.00	BL2A06100-R3.00	R3.00	12	100	6	
BL4A08075-R4.00	BL2A08075-R4.00	R4.00	16	75	8	
BL4A08100-R4.00	BL2A08100-R4.00	R4.00	16	100	8	
BL4A10100-R5.00	BL2A10100-R5.00	R5.00	20	100	10	
BL4A10150-R5.00	BL2A10150-R5.00	R5.00	20	150	10	
BL4A12100-R6.00	BL2A12100-R6.00	R6.00	24	100	12	
BL4A12150-R6.00	BL2A12150-R6.00	R6.00	24	150	12	
BL4A16150-R8.00	BL2A16150-R8.00	R8.00	32	150	16	



YDH99BL4A  
YDH99BL2A



YDH99BN4A  
YDH99BN2A



**Long Neck, 4 Flutes Ball Nose End Mill**  
**Long Neck, 2 Flutes Ball Nose End Mill**

**Milling parameters**

Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	H	H1	L	D2
BN4A0405006-R0.50	BN2A0405006-R0.50	R0.50	1	6	50	4
BN4A0405008-R0.50	BN2A0405008-R0.50	R0.50	1	8	50	4
BN4A0405010-R0.50	BN2A0405010-R0.50	R0.50	1	10	50	4
BN4A0405012-R0.50	BN2A0405012-R0.50	R0.50	1	12	50	4
BN4A0405008-R0.75	BN2A0405008-R0.75	R0.75	1.5	8	50	4
BN4A0405012-R0.75	BN2A0405012-R0.75	R0.75	1.5	12	50	4
BN4A0405016-R0.75	BN2A0405016-R0.75	R0.75	1.5	16	50	4
BN4A0405020-R0.75	BN2A0405020-R0.75	R0.75	1.5	20	50	4
BN4A0405008-R0.80	BN2A0405008-R0.80	R0.80	1.6	8	50	4
BN4A0405012-R0.80	BN2A0405012-R0.80	R0.80	1.6	12	50	4
BN4A0405016-R0.80	BN2A0405016-R0.80	R0.80	1.6	16	50	4
BN4A0405008-R1.00	BN2A0405008-R1.00	R1.00	2	8	50	4
BN4A0405012-R1.00	BN2A0405012-R1.00	R1.00	2	12	50	4
BN4A0405016-R1.00	BN2A0405016-R1.00	R1.00	2	16	50	4
BN4A0405020-R1.00	BN2A0405020-R1.00	R1.00	2	20	50	4
BN4A0605008-R1.50	BN2A0605008-R1.50	R1.50	3	8	50	6
BN4A0605010-R1.50	BN2A0605010-R1.50	R1.50	3	10	50	6
BN4A0605016-R1.50	BN2A0605016-R1.50	R1.50	3	16	50	6
BN4A0607510-R2.00	BN2A0607510-R2.00	R2.00	4	10	75	6
BN4A0607515-R2.00	BN2A0607515-R2.00	R2.00	4	15	75	6
BN4A0607520-R2.00	BN2A0607520-R2.00	R2.00	4	20	75	6
BN4A0607525-R2.00	BN2A0607525-R2.00	R2.00	4	25	75	6
BN4A0607530-R2.00	BN2A0607530-R2.00	R2.00	4	30	75	6

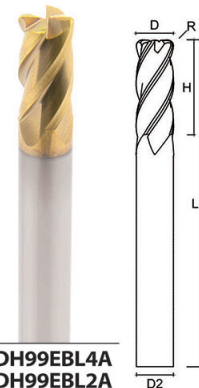


**4 Flutes Corner Radius End Mill**  
**2 Flutes Corner Radius End Mill**

YDH99EB4A  
YDH99EB2A

**Milling parameters**

Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	R	H	L	D2
EB4A010-0.2R	EB2A010-0.2R	1	0.2R	2	50	4
EB4A020-0.2R	EB2A020-0.2R	2	0.2R	4	50	4
EB4A020-0.5R	EB2A020-0.5R	2	0.5R	4	50	4
EB4A030-0.2R	EB2A030-0.2R	3	0.2R	6	50	4
EB4A030-0.5R	EB2A030-0.5R	3	0.5R	6	50	4
EB4A030-1.0R	EB2A030-1.0R	3	1.0R	6	50	4
EB4A040-0.2R	EB2A040-0.2R	4	0.2R	8	50	4
EB4A040-0.5R	EB2A040-0.5R	4	0.5R	8	50	4
EB4A040-1.0R	EB2A040-1.0R	4	1.0R	8	50	4
EB4A050-0.5R	EB2A050-0.5R	5	0.5R	10	50	6
EB4A050-1.0R	EB2A050-1.0R	5	1.0R	10	50	6
EB4A060-0.2R	EB2A060-0.2R	6	0.2R	12	50	6
EB4A060-0.5R	EB2A060-0.5R	6	0.5R	12	50	6
EB4A060-1.0R	EB2A060-1.0R	6	1.0R	12	50	6
EB4A060-1.5R	EB2A060-1.5R	6	1.5R	12	50	6
EB4A060-2.0R	EB2A060-2.0R	6	2.0R	12	50	6
EB4A080-0.5R	EB2A080-0.5R	8	0.5R	16	60	8
EB4A080-1.0R	EB2A080-1.0R	8	1.0R	16	60	8
EB4A080-1.5R	EB2A080-1.5R	8	1.5R	16	60	8
EB4A080-2.0R	EB2A080-2.0R	8	2.0R	16	60	8
EB4A100-0.5R	EB2A100-0.5R	10	0.5R	20	75	10
EB4A100-1.0R	EB2A100-1.0R	10	1.0R	20	75	10
EB4A100-1.5R	EB2A100-1.5R	10	1.5R	20	75	10
EB4A100-2.0R	EB2A100-2.0R	10	2.0R	20	75	10
EB4A100-2.5R	EB2A100-2.5R	10	2.5R	20	75	10
EB4A100-3.0R	EB2A100-3.0R	10	3.0R	20	75	10
EB4A120-0.5R	EB2A120-0.5R	12	0.5R	24	75	12
EB4A120-1.0R	EB2A120-1.0R	12	1.0R	24	75	12
EB4A120-1.5R	EB2A120-1.5R	12	1.5R	24	75	12
EB4A120-2.0R	EB2A120-2.0R	12	2.0R	24	75	12
EB4A120-2.5R	EB2A120-2.5R	12	2.5R	24	75	12
EB4A120-3.0R	EB2A120-3.0R	12	3.0R	24	75	12



### Long Shank, 4 Flutes Corner Radius End Mill Long Shank, 2 Flutes Corner Radius End Mill

**YDH99EBL4A**  
**YDH99EBL2A**

#### Milling parameters

Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	R	H	L	D2
EBL4A030-0.2R	EBL2A030-0.2R	3	0.2R	6	75	4
EBL4A030-0.5R	EBL2A030-0.5R	3	0.5R	6	75	4
EBL4A030-1.0R	EBL2A030-1.0R	3	1.0R	6	75	4
EBL4A040-0.2R	EBL2A040-0.2R	4	0.2R	8	75	4
EBL4A040-0.5R	EBL2A040-0.5R	4	0.5R	8	75	4
EBL4A040-1.0R	EBL2A040-1.0R	4	1.0R	8	75	4
EBL4A050-0.5R	EBL2A050-0.5R	5	0.5R	10	75	6
EBL4A050-1.0R	EBL2A050-1.0R	5	1.0R	10	75	6
EBL4A060-0.2R	EBL2A060-0.2R	6	0.2R	12	75	6
EBL4A060-0.5R	EBL2A060-0.5R	6	0.5R	12	75	6
EBL4A060-1.0R	EBL2A060-1.0R	6	1.0R	12	100	6
EBL4A060-1.5R	EBL2A060-1.5R	6	1.5R	12	100	6
EBL4A060-2.0R	EBL2A060-2.0R	6	2.0R	12	100	6
EBL4A080-0.5R	EBL2A080-0.5R	8	0.5R	16	75	8
EBL4A080-1.0R	EBL2A080-1.0R	8	1.0R	16	75	8
EBL4A080-1.5R	EBL2A080-1.5R	8	1.5R	16	100	8
EBL4A080-2.0R	EBL2A080-2.0R	8	2.0R	16	100	8
EBL4A100-0.5R	EBL2A100-0.5R	10	0.5R	20	100	10
EBL4A100-1.0R	EBL2A100-1.0R	10	1.0R	20	100	10
EBL4A100-1.5R	EBL2A100-1.5R	10	1.5R	20	100	10
EBL4A100-2.0R	EBL2A100-2.0R	10	2.0R	20	100	10
EBL4A100-3.0R	EBL2A100-3.0R	10	3.0R	20	100	10
EBL4A120-0.5R	EBL2A120-0.5R	12	0.5R	24	100	12
EBL4A120-1.0R	EBL2A120-1.0R	12	1.0R	24	100	12
EBL4A120-1.5R	EBL2A120-1.5R	12	1.5R	24	100	12
EBL4A120-2.0R	EBL2A120-2.0R	12	2.0R	24	100	12
EBL4A120-3.0R	EBL2A120-3.0R	12	3.0R	24	100	12



### Long Neck, 4 Flutes Corner Radius End Mill Long Neck, 2 Flutes Corner Radius End Mill

**YDH99EBN4A**  
**YDH99EBN2A**

#### Milling parameters

Type no.	Type no.	Diameter	Corner Radius	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flute	2 Flute	D	R	H	H1	L	D2
EBN4A01004-0.1R	EBN2A01004-0.1R	1	0.1R	1	4	50	4
EBN4A01006-0.1R	EBN2A01006-0.1R	1	0.1R	1	6	50	4
EBN4A01008-0.1R	EBN2A01008-0.1R	1	0.1R	1	8	50	4
EBN4A01010-0.1R	EBN2A01010-0.1R	1	0.1R	1	10	50	4
EBN4A01504-0.2R	EBN2A01504-0.2R	1.5	0.2R	1.5	4	50	4
EBN4A01506-0.2R	EBN2A01506-0.2R	1.5	0.2R	1.5	6	50	4
EBN4A01508-0.2R	EBN2A01508-0.2R	1.5	0.2R	1.5	8	50	4
EBN4A01510-0.2R	EBN2A01510-0.2R	1.5	0.2R	1.5	10	50	4
EBN4A01512-0.2R	EBN2A01512-0.2R	1.5	0.2R	1.5	12	50	4
EBN4A02008-0.2R	EBN2A02008-0.2R	2	0.2R	2	8	50	4
EBN4A02010-0.2R	EBN2A02010-0.2R	2	0.2R	2	10	50	4
EBN4A02012-0.2R	EBN2A02012-0.2R	2	0.2R	2	12	50	4
EBN4A02016-0.2R	EBN2A02016-0.2R	2	0.2R	2	16	50	4
EBN4A03008-0.2R	EBN2A03008-0.2R	3	0.2R	3	8	50	6
EBN4A03010-0.2R	EBN2A03010-0.2R	3	0.2R	3	10	50	6
EBN4A03012-0.2R	EBN2A03012-0.2R	3	0.2R	3	12	50	6
EBN4A03016-0.2R	EBN2A03016-0.2R	3	0.2R	3	16	50	6
EBN4A03020-0.2R	EBN2A03020-0.2R	3	0.2R	3	20	50	6