

mitsukiTM

Mitsuki Precision Tools

Professional
Quality Assurance
Innovation



Outstanding Performance

Micro Grain Carbide End Mill



Stunning Precision

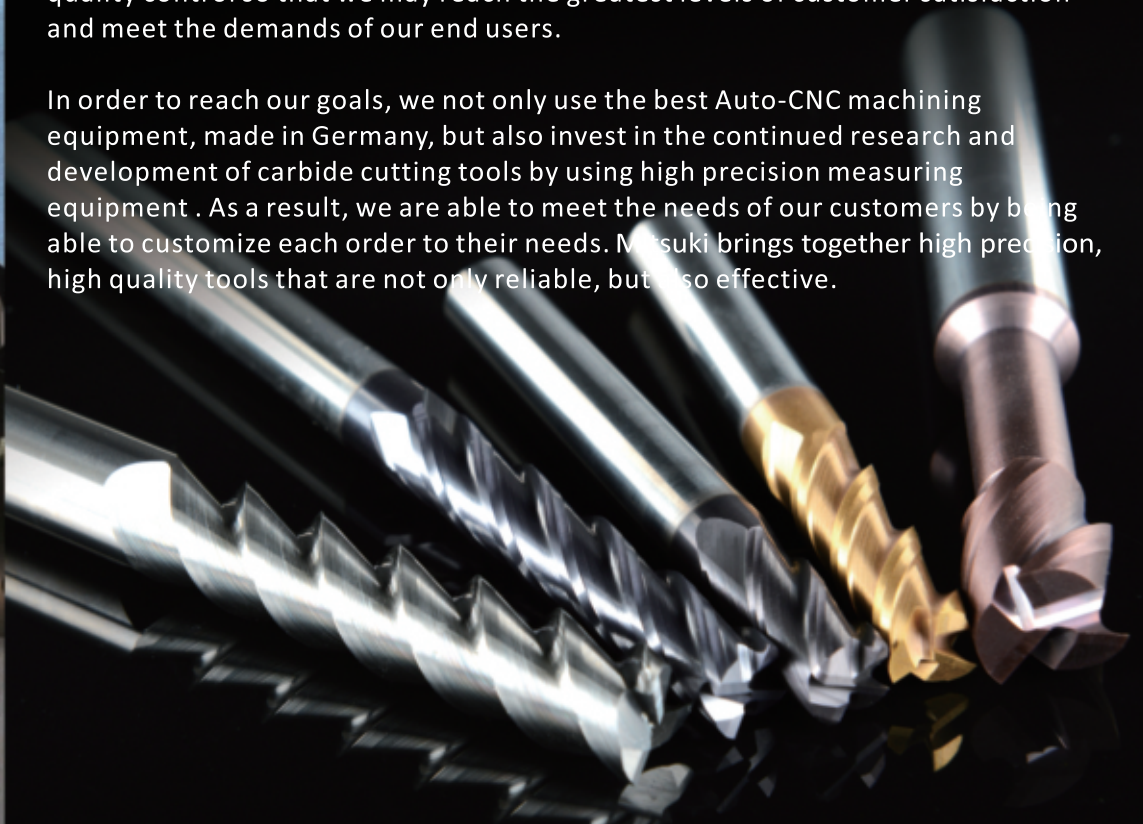
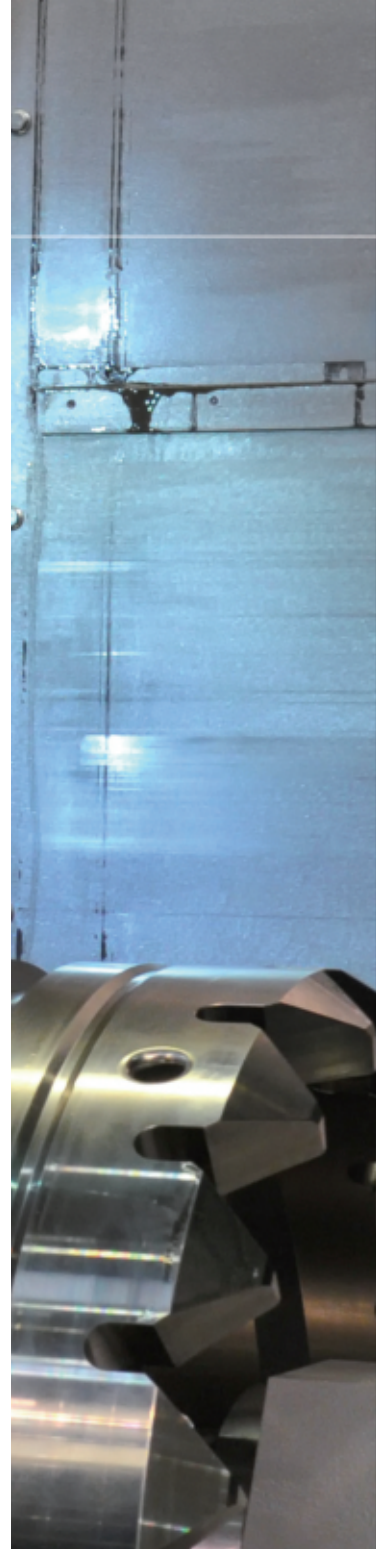
Super Micro Grain Carbide End Mill

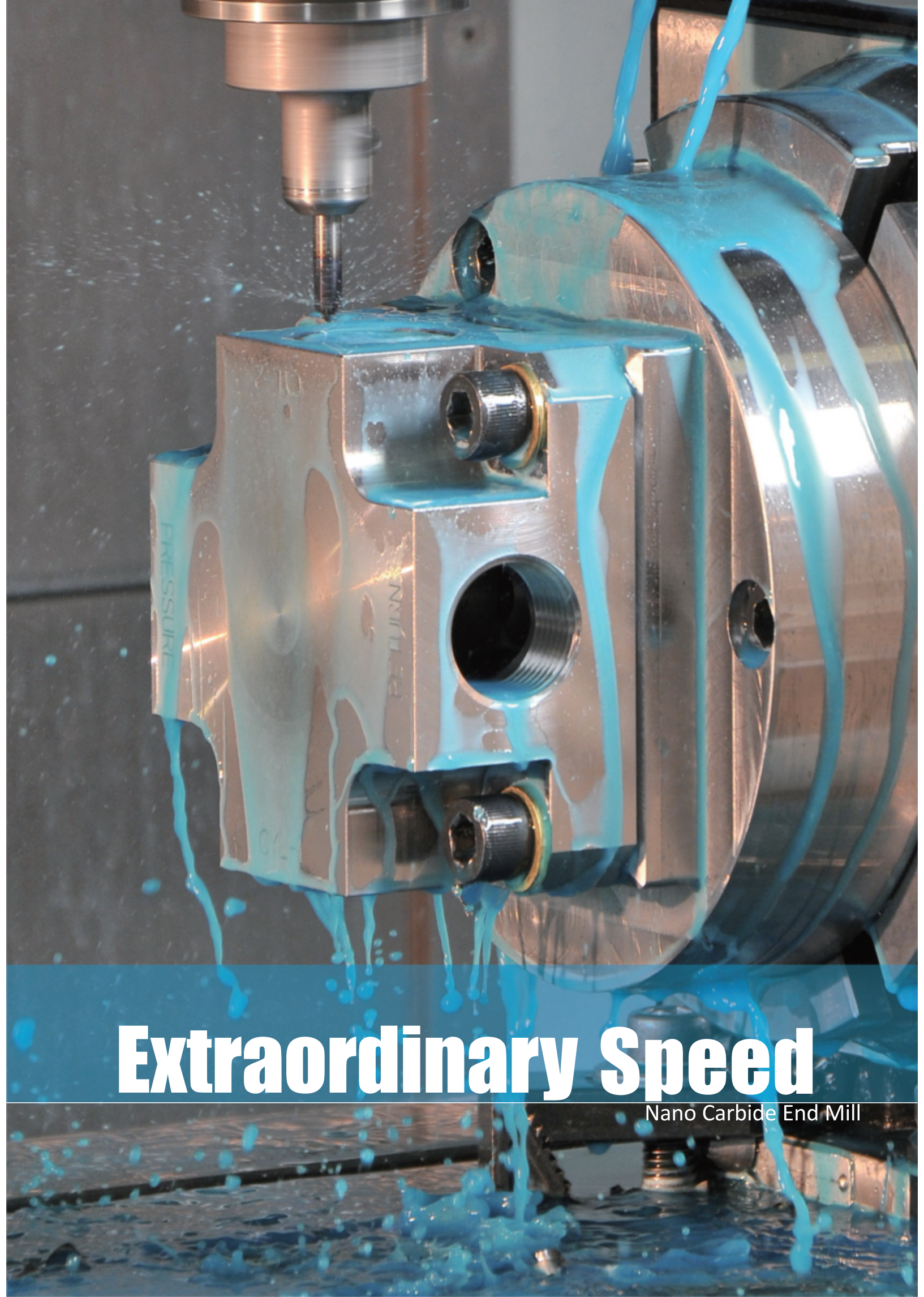
Mitsuki Precision Tools

Established in 2020, Mitsuki Precision tools is located in Gurgaon, India where are surrounded with a bundant industrial resources, founded with the ideal that each step in the process of creating our products should be pursured with innovative ideas and technologies, Mitsuki is committed to manufacturing tools that meet the highest standards of production while remaining cost effective for our demanding customers.

Our highly capable technicians bring with them decades worth of combined experience spanning skills from the traditional welding of cutting tools to expertise in high precision solid carbide end mills used in the creation and manufacture of our production line. Every customer's order passes through a series of inspections . At Mitsuki, we insist on maintaining the highest standards of quality control so that we may reach the greatest levels of customer satisfaction and meet the demands of our end users.

In order to reach our goals, we not only use the best Auto-CNC machining equipment, made in Germany, but also invest in the continued research and development of carbide cutting tools by using high precision measuring equipment . As a result, we are able to meet the needs of our customers by being able to customize each order to their needs. Mitsuki brings together high precision, high quality tools that are not only reliable, but also effective.





Extraordinary Speed

Nano Carbide End Mill



Lion King – YDS10

The Lion King series is a general purpose line used for machining of materials with a HRC below 45, and includes square end mills, ball nose end mills, corner radius end mills and other special designs for softer metals. The Lion King series offers smooth running operation using the best-selling materials available.

ISO code	USA code	Grain Size	Cobalt Percentage	Density	Hardness		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K40	C-2	0.6µm	10.0	14.5	1680	1660	92.3

Eagle Eye – YDH88

The Eagle Eye series is used for machining of materials between HRC 45-55, and "Miniature End Mills" using the same material. Widely used for a variety of purposes, this sophisticated line features a special ultrafine carbide grade for HSC machining.

ISO code	USA code	Grain Size	Cobalt Percentage	Density	Hardness		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K30	C-2	0.4µm	12.0	14.1	1760	1730	92.7

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		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K20	C-2	0.2µm	8.2	14.6	1970	1930	93.7

Hummingbird Series - YDS33

The Hummingbird Series is designed on the basis of processing aluminium. It brings you a smooth chip removal and high performance with optimum surface finish.

ISO code	USA code	Grain Size	Cobalt Percentage	Density	Hardness		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K40	C-2	0.6µm	10.0	14.5	1680	1660	92.3

Products Series

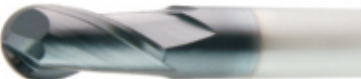
Contents



Lion King Series

Micro Grain Carbide End Mill
General and Economical

YDS10

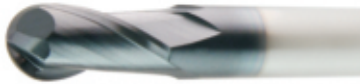
 Square End Mill 4T, 2T YDS10E4A, YDS10E2A	P13	 Long Neck Square End Mill 4T, 2T YDS10EN4A, YDS10EN2A	P18
 Square End Mill 3T YDS10E3A	P14	 Ball Nose End Mill 4T, 2T YDS10B4A, YDS10B2A	P19
 Square End Mill 6T YDS10E6A	P14	 Long Shank Ball Nose End Mill 4T, 2T YDS10BL4A, YDS10BL2A	P20
 Long Shank Square End Mill 4T, 2T YDS10EL4A, YDS10EL2A	P15	 Long Neck Ball Nose End Mill 4T, 2T YDS10BN4A, YDS10BN2A	P21
 Long Flute Square End Mill 4T, 2T YDS10EF4A, YDS10EF2A	P16	 Long Taper-2 Flute Ball Nose End Mill YDS10BLT2A	P22
 Heavy Cutting End Mill 4T YDS10EP4A	P16	 Corner Radius End Mill 4T, 2T YDS10EB4A, YDS10EB2A	P23
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 Unequal Helix Square End Mill 4T YDS10UE4A	P17	 Long Neck Corner Radius End Mill 4T, 2T YDS10EBN4A, YDS10EBN2A	P25

Eagle Eye Series

Super Micro Grain Carbide End Mill

High quality carbide

YDH88

 Square End Mill 4T, 2T YDH88E4A, YDH88E2A	P27	 Ball Nose End Mill 4T, 2T YDH88B4A, YDH88B2A	P33
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 Long Flute Square End Mill 4T, 2T YDH88EF4A, YDH88EF2A	P29	 Corner Radius End Mill 4T, 2T YDH88EB4A, YDH88EB2A	P37
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Leopard Series

Nano Carbide End Mill
High hardness and High Speed

YDH99

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 Long Shank Square End Mill 4T, 2T YDH99EL4A, YDH99EL2A	P44	 Corner Radius End Mill 4T, 2T YDH99EB4A, YDH99EB2A	P49
 Long Flute Square End Mill 4T, 2T YDH99EF4A, YDH99EF2A	P44	 Long Shank Corner Radius End Mill 4T, 2T YDH99EBL4A, YDH99EBL2A	P50
 Long Neck Square End Mill 4T, 2T YDH99EN4A, YDH99EN2A	P45	 Long Neck Corner Radius End Mill 4T, 2T YDH99EBN4A, YDH99EBN2A	P51

Hummingbird Series

Micro Grain Carbide End Mill
For Aluminium

YDS33



P53

End Mill for Soft Metal - 45°, 55° 3T

YDS33ED3A, YDS33ED3B



P55

Roughing End Mill for Soft Metal 3T

YDS33HED3A



P53

End Mill for Soft Metal - 45° 2T

YDS33ED2A



P55

Heavy Cutting for Soft Metal 3T

YDS33EDP3A



P54

Long Flute End Mill for Soft Metal - 45°, 55° 3T

YDS33EDF3A, YDS33EDF3B



P56

NC Spot Drill - 90°, 120°

YDS33SD2A, YDS33SD2B



P54

Long Shank End Mill for Soft Metal - 45°, 55° 3T

YDS33EDL3A, YDS33EDL3B



Killer Whale Series

Drill, Reamer and Customized Tools



P58

2 Flutes Carbide Straight Shank Drill

SDR2A



P67

2 Flutes Carbide Coolant Drill 5D

DRW2B



P59

2 Flutes Carbide Flat Drill

FDR2A



P69

2 Flutes Carbide Lollipop Tools

BR2A



P61

2 Flutes Carbide Drill 3D

DR2A



P69

Long Shank 2 Flutes Carbide Lollipop Tools

BRL2A



P63

2 Flutes Carbide Drill 5D

DR2B



P70

2 Flutes Carbide Chamfer End Mill 90°

C2A



P65

2 Flutes Carbide Coolant Drill 3D

DRW2A



P70

Carbide Engraving End Mill
30°, 60°, 90°

EG



Contents



 2 Flutes Carbide Outer Radius End Mill OR2A	P71	 4/6 Flutes Carbide Front and Back Chamfer End Mill 60°、 90° UC4A/UC6A	P74
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 Long Shank 2 Flutes Carbide Multi Function NC Spot Drill 60°、 90°、 120° MSDL2A	P73		

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 Welding carbide T-slot milling cutters / staggered teeth (for mold machining) 4 - 10T YT	P78		



Coating Form

*mitsuki*TM



Coating Form

Coating		AlTiN (AT)	TiAlN (SF)	TiSiN (SI)	nACO (NB)	GA	RB
Features	Surface Hardness (HV)	3800	3000	4500	4200	3200~3500	2000~7000
	Thickness (μm)	2.5~3	2.5~3	1~5	3	2~6	0.5~1
	Max. service temperature (°C)	900	800	1000	1200	450	350
	Coefficient friction Ratio	0.45	0.4	0.45	0.45	0.4	0.25
	Color	Black	Copper	Gold	Blue	Platinum	Rainbow
Work Material	Alloy Steels	●	●	●	●	●	●
	Tool Steels	●	●	●	●	●	●
	High Speed steels	●	●	●	●	●	●
	Carbon Steels	●	●	●	●	●	●
	Stainless Steels	●	●	●	●	●	●
	Alloys	●	●	●	●	●	●
	Copper	●	●	●	●	●	●
	Aluminum	●	●	●	●	●	●
	High Temprature Alloy Steels	●	●	●	●	●	●
	Titanium Alloy	●	●	●	●	●	●
	Plastics	●	●	●	●	●	●
	Composite Materials	●	●	●	●	●	●
	Papers	●	●	●	●	●	●
	Woods	●	●	●	●	●	●
Machining Way	Dry	●	●	●	●	●	●
	Emulsion	●	●	●	●	●	●
	MQL	●	●	●	●	●	●



Icon Guide

Products Series

	Lion King Series Micro Grain Carbide End Mill
	Eagle Eye Series Super Micro Grain Carbide End Mill
	Leopard Series Nano Carbide End Mill
	Hummingbird Series Micro Grain Carbide End Mill
	Killer Whale Series Drill, Reamer and Customized

Flute number



2 Flutes , 3 Flutes, 4 Flutes, 6 Flutes

Helix Angle



Helix Angle is 30°, 35°, 45°, 50°, 55°

Corner R



Corner Radius

Grain Size



Grain Size is
0.6μm

Grain Size is
0.4μm

Grain Size is
0.2μm

Working Material Hardness



Working Material Hardness is
HRC-45

Working Material Hardness is
HRC-45~55

Working Material Hardness is
HRC-55~65

Coating Type



Coating Type is SF, AT, SI, NB, GA, RB

Consistent Performance *mitsuki*[™]



Lion King – YDS10

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ISO code	USA code	Grain Size	Cobalt Percentage	Density	Hardness		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K40	C-2	0.6μm	10.0	14.5	1680	1660	92.3

Consistent Performance

YDS10
General and Economical

YDS10E4A YDS10E2A



4 Flutes Square End Mill 2 Flutes Square End Mill

Type no.	Type no.	Dia.	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
E4A04050-1.0	E2A04050-1.0	1	3	50	4
E4A04050-1.5	E2A04050-1.5	1.5	4	50	4
E4A04050-2.0	E2A04050-2.0	2	5	50	4
E4A04050-2.5	E2A04050-2.5	2.5	7	50	4
E4A03050-3.0	E2A03050-3.0	3	9	50	3
E4A04050-3.0	E2A04050-3.0	3	9	50	4
E4A06050-3.0	E2A06050-3.0	3	9	50	6
E4A04050-4.0	E2A04050-4.0	4	11	50	4
E4A06050-4.0	E2A06050-4.0	4	11	50	6
E4A05050-5.0	E2A05050-5.0	5	13	50	5
E4A06050-5.0	E2A06050-5.0	5	13	50	6
E4A06050-6.0	E2A06050-6.0	6	16	50	6
E4A08060-7.0	E2A08060-7.0	7	18	60	8
E4A08060-8.0	E2A08060-8.0	8	20	60	8
E4A10075-9.0	E2A10075-9.0	9	23	75	10
E4A10075-10.0	E2A10075-10.0	10	25	75	10
E4A12075-12.0	E2A12075-12.0	12	30	75	12
E4A16100-13.0	E2A16100-13.0	13	35	100	16
E4A16100-14.0	E2A16100-14.0	14	35	100	16
E4A16100-15.0	E2A16100-15.0	15	38	100	16
E4A16100-16.0	E2A16100-16.0	16	40	100	16
E4A20100-18.0	E2A20100-18.0	18	40	100	20
E4A20100-20.0	E2A20100-20.0	20	45	100	20
E4A25100-22.0	E2A25100-22.0	22	45	100	25
E4A25100-25.0	E2A25100-25.0	25	45	100	25



Right Angle
Slotted



Full Slot



Side Milling



Lion King Series

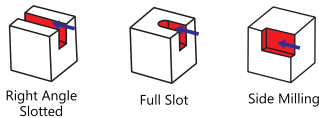
Micro Grain Carbide End Mill

YDS10E3A



3 Flutes Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
3 Flutes	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



YDS10E6A



6 Flutes Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
6 Flutes	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



YDS10
General and Economical

Consistent Performance

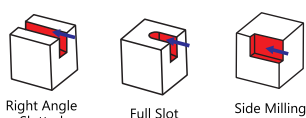
YDS10
General and Economical

YDS10EL4A YDS10EL2A



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

Type no.	Type no.	Dia.	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
EL4A03075-3.0	EL2A03075-3.0	3	9	75	3
EL4A04075-3.0	EL2A04075-3.0	3	9	75	4
EL4A06075-3.0	EL2A06075-3.0	3	9	75	6
EL4A04075-4.0	EL2A04075-4.0	4	11	75	4
EL4A04100-4.0	EL2A04100-4.0	4	11	100	4
EL4A06075-4.0	EL2A06075-4.0	4	11	75	6
EL4A06100-4.0	EL2A06100-4.0	4	11	100	6
EL4A05075-5.0	EL2A05075-5.0	5	13	75	5
EL4A05100-5.0	EL2A05100-5.0	5	13	100	5
EL4A06075-5.0	EL2A06075-5.0	5	13	75	6
EL4A06100-5.0	EL2A06100-5.0	5	13	100	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



Lion King Series

Micro Grain Carbide End Mill

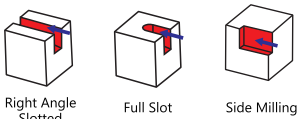
YDS10EF4A

YDS10EF2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
EF4A03075-3.0	EF2A03075-3.0	3	12	75	3
EF4A04075-3.0	EF2A04075-3.0	3	12	75	4
EF4A04075-4.0	EF2A04075-4.0	4	15	75	4
EF4A05075-5.0	EF2A05075-5.0	5	20	75	5
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

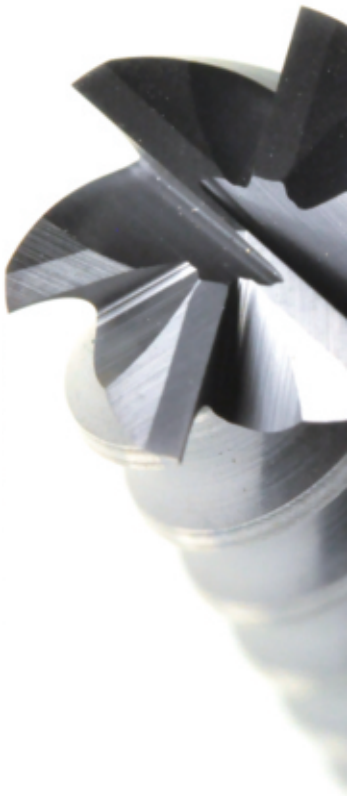
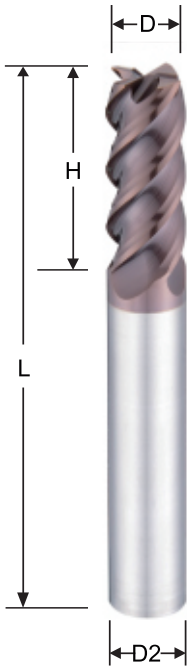
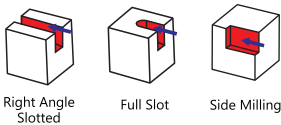


YDS10EP4A



Heavy Cutting End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	D	H	L	D2
EP4A06050-4.0	4	11	50	6
EP4A06050-5.0	5	13	50	6
EP4A06050-6.0	6	16	50	6
EP4A08060-8.0	8	20	60	8
EP4A10075-10.0	10	25	75	10
EP4A12075-12.0	12	30	75	12
EP4A16100-16.0	16	40	100	16
EP4A20100-20.0	20	45	100	20



Consistent Performance

YDS10HE4A YDS10HE3A



4 Flutes Roughing End Mill 3 Flutes Roughing End Mill

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	3 Flutes	D	H	L	D2
HE4A06050-6.0	HE3A06050-6.0	6	16	50	6
HE4A08060-8.0	HE3A08060-8.0	8	20	60	8
HE4A10075-10.0	HE3A10075-10.0	10	25	75	10
HE4A12075-12.0	HE3A12075-12.0	12	30	75	12
HE4A16100-16.0	HE3A16100-16.0	16	40	100	16
HE4A20100-20.0	HE3A20100-20.0	20	45	100	20
HE4A25100-25.0	HE3A25100-25.0	25	45	100	25



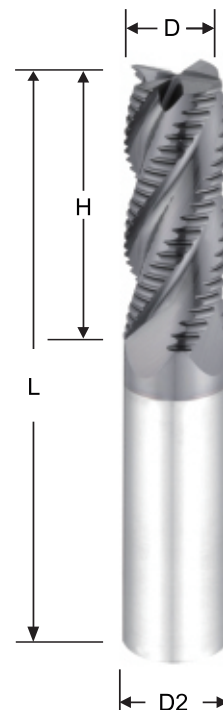
Right Angle
Slotted



Full Slot



Side Milling



YDS10UE4A



4 Flutes Unequal Helix Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	D	H	L	D2
UE4A06050-6.0	6	16	50	6
UE4A08060-7.0	7	18	60	8
UE4A08060-8.0	8	20	60	8
UE4A10075-9.0	9	23	75	10
UE4A10075-10.0	10	25	75	10
UE4A12075-12.0	12	30	75	12
UE4A16100-14.0	14	35	100	16
UE4A16100-15.0	15	38	100	16
UE4A16100-16.0	16	40	100	16
UE4A20100-18.0	18	40	100	20
UE4A20100-20.0	20	45	100	20



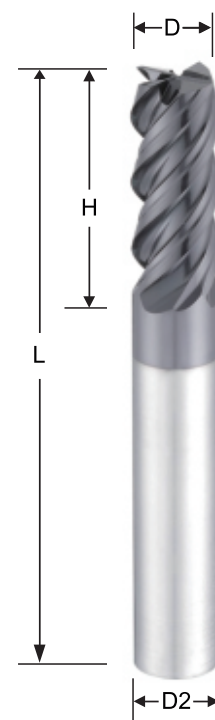
Right Angle
Slotted



Full Slot

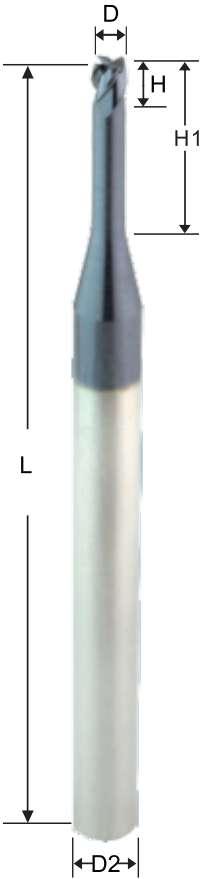


Side Milling



Lion King Series

Micro Grain Carbide End Mill

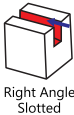


YDS10EN4A
YDS10EN2A



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

Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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



Right Angle Slotted



Full Slot

Consistent Performance



YDS10B4A YDS10B2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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
B4A03050-R1.50	B2A03050-R1.50	R1.50	6	50	3
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	14	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



Surface Milling



R Slot

Lion King Series

Micro Grain Carbide End Mill



YDS10
General and Economical

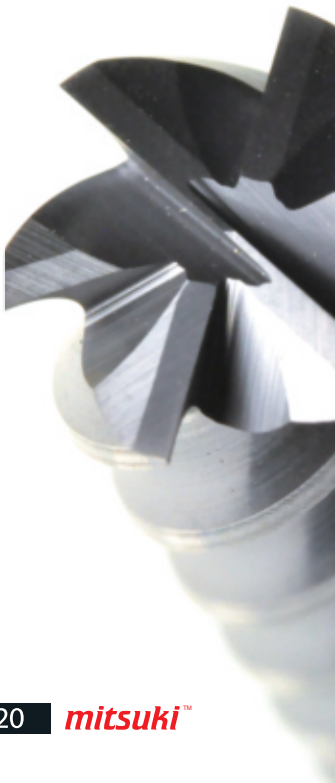


YDS10BL4A
YDS10BL2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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
BL4A06075-R1.00	BL2A06075-R1.00	R1.00	4	75	6
BL4A03075-R1.50	BL2A03075-R1.50	R1.50	6	75	3
BL4A04075-R1.50	BL2A04075-R1.50	R1.50	6	75	4
BL4A06075-R1.50	BL2A06075-R1.50	R1.50	6	75	6
BL4A04075-R2.00	BL2A04075-R2.00	R2.00	8	75	4
BL4A04100-R2.00	BL2A04100-R2.00	R2.00	8	100	4
BL4A06075-R2.00	BL2A06075-R2.00	R2.00	8	75	6
BL4A06100-R2.00	BL2A06100-R2.00	R2.00	8	100	6
BL4A05075-R2.50	BL2A05075-R2.50	R2.50	10	75	5
BL4A05100-R2.50	BL2A05100-R2.50	R2.50	10	100	5
BL4A06075-R2.50	BL2A06075-R2.50	R2.50	10	75	6
BL4A06100-R2.50	BL2A06100-R2.50	R2.50	10	100	6
BL4A06075-R3.00	BL2A06075-R3.00	R3.00	12	75	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
BL4A20150-R10.0	BL2A20150-R10.0	R10.0	40	150	20



Surface Milling



R Slot

Consistent Performance

YDS10
General and Economical



YDS10BN4A YDS10BN2A



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



Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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-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



Lion King Series

Micro Grain Carbide End Mill



YDS10BLT2A

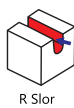


Long Taper-2 Flute Ball Nose End Mill

Type no.	Diameter	Flute Length	Taper Angle	Overall Length	Shank Dia
2 Flutes	D	H	α	L	D2
BLT2A0607503-R0.5	R0.5	2	3°	75	6
BLT2A0607505-R0.5	R0.5	2	5°	75	6
BLT2A0610003-R1.0	R1.0	4	3°	100	6
BLT2A0610005-R1.0	R1.0	4	5°	100	6
BLT2A0610015-R1.5	R1.5	6	1.5°	100	6
BLT2A0610003-R1.5	R1.5	6	3°	100	6
BLT2A0610015-R2.0	R2.0	8	1.5°	100	6
BLT2A0610003-R2.0	R2.0	8	3°	100	6
BLT2A0810003-R3.0	R3.0	12	3°	100	8
BLT2A0815003-R3.0	R3.0	12	3°	150	8
BLT2A1010005-R3.0	R3.0	12	5°	100	10
BLT2A1015005-R3.0	R3.0	12	5°	150	10
BLT2A1010003-R4.0	R4.0	16	3°	100	10
BLT2A1015003-R4.0	R4.0	16	3°	150	10
BLT2A1210005-R4.0	R4.0	16	5°	100	12
BLT2A1215005-R4.0	R4.0	16	5°	150	12
BLT2A1210003-R5.0	R5.0	20	3°	100	12
BLT2A1215003-R5.0	R5.0	20	3°	150	12
BLT2A1610005-R6.0	R6.0	24	5°	100	16
BLT2A1615005-R6.0	R6.0	24	5°	150	16



Surface Milling



R Slot

Consistent Performance

YDS10
General and Economical



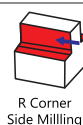
YDS10EB4A YDS10EB2A



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



Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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



R Corner
Side Milling



R Corner



Right Angle
Slotted

Lion King Series

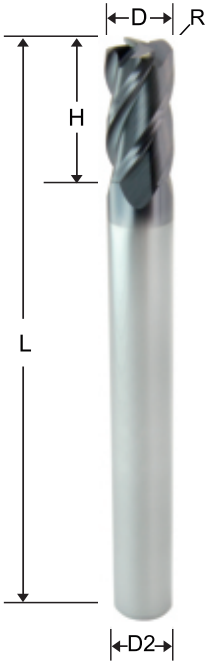
Micro Grain Carbide End Mill



YDS10EBL4A
YDS10EBL2A

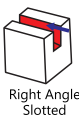
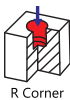
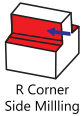


Long Shank, 4 Flutes Corner Radius End Mill
Long Shank, 2 Flutes Corner Radius End Mill



Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	R	H	L	D2
EBL4A030-0.2R A/B	EBL2A030-0.2R A/B	3	0.2R	6	75/100/-	4
EBL4A030-0.5R A/B	EBL2A030-0.5R A/B	3	0.5R	6	75/100/-	4
EBL4A030-1.0R A/B	EBL2A030-1.0R A/B	3	1.0R	6	75/100/-	4
EBL4A040-0.2R A/B	EBL2A040-0.2R A/B	4	0.2R	8	75/100/-	4
EBL4A040-0.5R A/B	EBL2A040-0.5R A/B	4	0.5R	8	75/100/-	4
EBL4A040-1.0R A/B	EBL2A040-1.0R A/B	4	1.0R	8	75/100/-	4
EBL4A050-0.5R A/B/C	EBL2A050-0.5R A/B/C	5	0.5R	10	75/100/150	6
EBL4A050-1.0R A/B/C	EBL2A050-1.0R A/B/C	5	1.0R	10	75/100/150	6
EBL4A060-0.2R A/B/C	EBL2A060-0.2R A/B/C	6	0.2R	12	75/100/150	6
EBL4A060-0.5R A/B/C	EBL2A060-0.5R A/B/C	6	0.5R	12	75/100/150	6
EBL4A060-1.0R A/B/C	EBL2A060-1.0R A/B/C	6	1.0R	12	75/100/150	6
EBL4A060-1.5R A/B/C	EBL2A060-1.5R A/B/C	6	1.5R	12	75/100/150	6
EBL4A060-2.0R A/B/C	EBL2A060-2.0R A/B/C	6	2.0R	12	75/100/150	6
EBL4A080-0.5R A/B/C	EBL2A080-0.5R A/B/C	8	0.5R	16	75/100/150	8
EBL4A080-1.0R A/B/C	EBL2A080-1.0R A/B/C	8	1.0R	16	75/100/150	8
EBL4A080-1.5R A/B/C	EBL2A080-1.5R A/B/C	8	1.5R	16	75/100/150	8
EBL4A080-2.0R A/B/C	EBL2A080-2.0R A/B/C	8	2.0R	16	75/100/150	8
EBL4A100-0.5R B/C	EBL2A100-0.5R B/C	10	0.5R	20	-/100/150	10
EBL4A100-1.0R B/C	EBL2A100-1.0R B/C	10	1.0R	20	-/100/150	10
EBL4A100-1.5R B/C	EBL2A100-1.5R B/C	10	1.5R	20	-/100/150	10
EBL4A100-2.0R B/C	EBL2A100-2.0R B/C	10	2.0R	20	-/100/150	10
EBL4A100-3.0R B/C	EBL2A100-3.0R B/C	10	3.0R	20	-/100/150	10
EBL4A120-0.5R B/C	EBL2A120-0.5R B/C	12	0.5R	24	-/100/150	12
EBL4A120-1.0R B/C	EBL2A120-1.0R B/C	12	1.0R	24	-/100/150	12
EBL4A120-1.5R B/C	EBL2A120-1.5R B/C	12	1.5R	24	-/100/150	12
EBL4A120-2.0R B/C	EBL2A120-2.0R B/C	12	2.0R	24	-/100/150	12
EBL4A120-3.0R B/C	EBL2A120-3.0R B/C	12	3.0R	24	-/100/150	12

Please check and confirm overall length



A=75L B=100L C=150L

Consistent Performance

YDS10
General and Economical

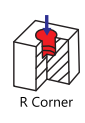
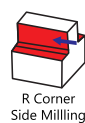


YDS10EBN4A YDS10EBN2A



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

Type no.	Type no.	Diameter	Corner Radius	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	R	H	H1	L	D2
EBN4A01004-0.2R	EBN2A01004-0.2R	1	0.2R	1	4	50	4
EBN4A01006-0.2R	EBN2A01006-0.2R	1	0.2R	1	6	50	4
EBN4A01008-0.2R	EBN2A01008-0.2R	1	0.2R	1	8	50	4
EBN4A01010-0.2R	EBN2A01010-0.2R	1	0.2R	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



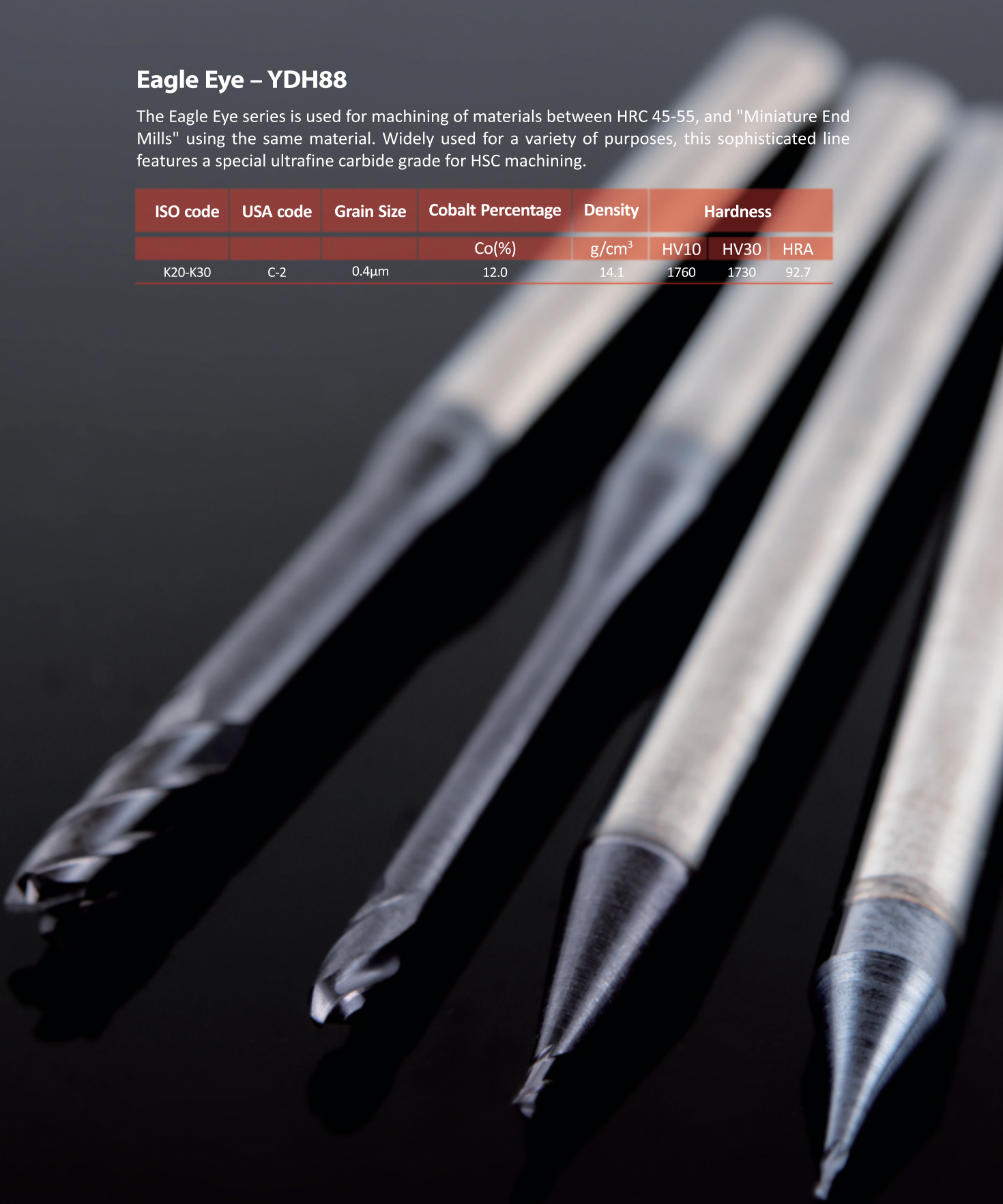
Eagle Eye Series

Super Micro Grain Carbide End Mill

Eagle Eye – YDH88

The Eagle Eye series is used for machining of materials between HRC 45-55, and "Miniature End Mills" using the same material. Widely used for a variety of purposes, this sophisticated line features a special ultrafine carbide grade for HSC machining.

ISO code	USA code	Grain Size	Cobalt Percentage	Density	Hardness		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K30	C-2	0.4μm	12.0	14.1	1760	1730	92.7



Stunning Precision

YDH88

High quality carbide

YDH88E4A YDH88E2A



4 Flutes Square End Mill 2 Flutes Square End Mill

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
E4A04050-1.0	E2A04050-1.0	1	3	50	4
E4A04050-1.5	E2A04050-1.5	1.5	4	50	4
E4A04050-2.0	E2A04050-2.0	2	5	50	4
E4A04050-2.5	E2A04050-2.5	2.5	7	50	4
E4A03050-3.0	E2A03050-3.0	3	9	50	3
E4A04050-3.0	E2A04050-3.0	3	9	50	4
E4A06050-3.0	E2A06050-3.0	3	9	50	6
E4A04050-4.0	E2A04050-4.0	4	11	50	4
E4A06050-4.0	E2A06050-4.0	4	11	50	6
E4A05050-5.0	E2A05050-5.0	5	13	50	5
E4A06050-5.0	E2A06050-5.0	5	13	50	6
E4A06050-6.0	E2A06050-6.0	6	16	50	6
E4A08060-7.0	E2A08060-7.0	7	18	60	8
E4A08060-8.0	E2A08060-8.0	8	20	60	8
E4A10075-9.0	E2A10075-9.0	9	23	75	10
E4A10075-10.0	E2A10075-10.0	10	25	75	10
E4A12075-12.0	E2A12075-12.0	12	30	75	12
E4A16100-13.0	E2A16100-13.0	13	35	100	16
E4A16100-14.0	E2A16100-14.0	14	35	100	16
E4A16100-15.0	E2A16100-15.0	15	38	100	16
E4A16100-16.0	E2A16100-16.0	16	40	100	16
E4A20100-18.0	E2A20100-18.0	18	40	100	20
E4A20100-20.0	E2A20100-20.0	20	45	100	20
E4A25100-22.0	E2A25100-22.0	22	45	100	25
E4A25100-25.0	E2A25100-25.0	25	45	100	25



Right Angle Slotted



Full Slot



Side Milling



Eagle Eye Series

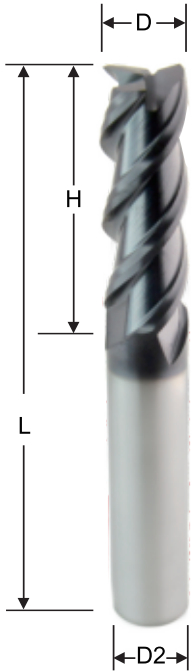
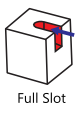
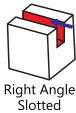
Super Micro Grain Carbide End Mill

YDH88E3A



3 Flutes Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
3 Flutes	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

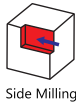


YDH88E6A



6 Flutes Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
6 Flutes	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



Stunning Precision

YDH88

High quality carbide

YDH88EL4A YDH88EL2A



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

Type no.	Type no.	Dia.	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
EL4A03075-3.0	EL2A03075-3.0	3	9	75	3
EL4A04075-3.0	EL2A04075-3.0	3	9	75	4
EL4A06075-3.0	EL2A06075-3.0	3	9	75	6
EL4A04075-4.0	EL2A04075-4.0	4	11	75	4
EL4A04100-4.0	EL2A04100-4.0	4	11	100	4
EL4A06075-4.0	EL2A06075-4.0	4	11	75	6
EL4A06100-4.0	EL2A06100-4.0	4	11	100	6
EL4A05075-5.0	EL2A05075-5.0	5	13	75	5
EL4A05100-5.0	EL2A05100-5.0	5	13	100	5
EL4A06075-5.0	EL2A06075-5.0	5	13	75	6
EL4A06100-5.0	EL2A06100-5.0	5	13	100	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



Right Angle
Slotted



Full Slot



Side Milling



Eagle Eye Series

Super Micro Grain Carbide End Mill

YDH88EF4A

YDH88EF2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
EF4A03075-3.0	EF2A03075-3.0	3	12	75	3
EF4A04075-3.0	EF2A04075-3.0	3	12	75	4
EF4A04075-4.0	EF2A04075-4.0	4	15	75	4
EF4A05075-5.0	EF2A05075-5.0	5	20	75	5
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



Right Angle
Slotted



Full Slot



Side Milling



YDH88EP4A



Heavy Cutting End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	D	H	L	D2
EP4A06050-3.0	3	9	50	6
EP4A06050-4.0	4	11	50	6
EP4A06050-5.0	5	13	50	6
EP4A06050-6.0	6	16	50	6
EP4A08060-8.0	8	20	60	8
EP4A10075-10.0	10	25	75	10
EP4A12075-12.0	12	30	75	12
EP4A16100-16.0	16	40	100	16
EP4A20100-20.0	20	45	100	20



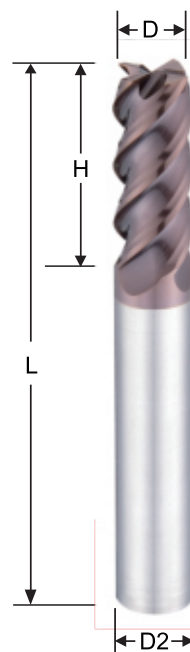
Right Angle
Slotted



Full Slot



Side Milling



Stunning Precision

YDH88

High quality carbide

YDH88HE4A YDH88HE3A



4 Flutes Roughing End Mill 3 Flutes Roughing End Mill

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	3 Flutes	D	H	L	D2
HE4A06050-6.0	HE3A06050-6.0	6	16	50	6
HE4A08060-8.0	HE3A08060-8.0	8	20	60	8
HE4A10075-10.0	HE3A10075-10.0	10	25	75	10
HE4A12075-12.0	HE3A12075-12.0	12	30	75	12
HE4A16100-16.0	HE3A16100-16.0	16	40	100	16
HE4A20100-20.0	HE3A20100-20.0	20	45	100	20



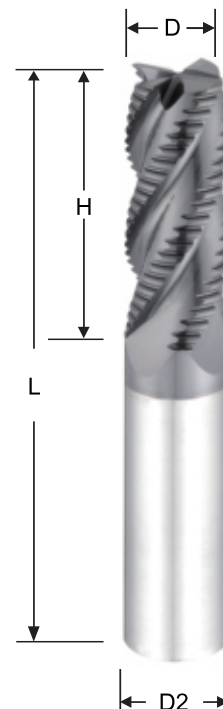
Right Angle Slotted



Full Slot



Side Milling



YDH88UE4A



4 Flutes Unequal Helix Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	D	H	L	D2
UE4A06050-6.0	6	16	50	6
UE4A08060-7.0	7	18	60	8
UE4A08060-8.0	8	20	60	8
UE4A10075-9.0	9	23	75	10
UE4A10075-10.0	10	25	75	10
UE4A12075-12.0	12	30	75	12
UE4A16100-14.0	14	35	100	16
UE4A16100-15.0	15	38	100	16
UE4A16100-16.0	16	40	100	16
UE4A20100-18.0	18	40	100	20
UE4A20100-20.0	20	45	100	20



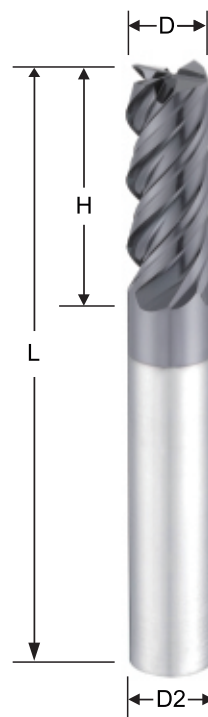
Right Angle Slotted



Full Slot



Side Milling



Eagle Eye Series

Super Micro Grain Carbide End Mill

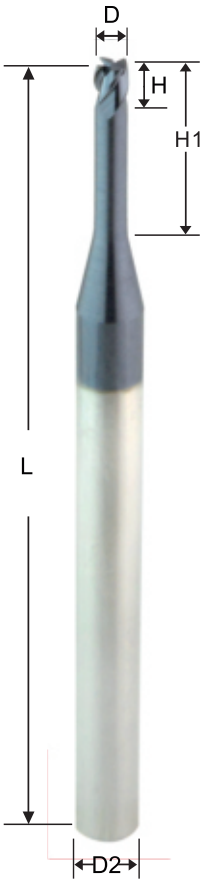


YDH88EN4A
YDH88EN2A



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

Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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



Right Angle
Slotted



Full Slot

Stunning Precision

YDH88

High quality carbide

YDH88B4A YDH88B2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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
B4A03050-R1.50	B2A03050-R1.50	R1.50	6	50	3
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	14	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



Surface Milling



R Slot



Eagle Eye Series

Super Micro Grain Carbide End Mill



YDH88BL4A
YDH88BL2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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
BL4A06075-R1.00	BL2A06075-R1.00	R1.00	4	75	6
BL4A03075-R1.50	BL2A03075-R1.50	R1.50	6	75	3
BL4A04075-R1.50	BL2A04075-R1.50	R1.50	6	75	4
BL4A06075-R1.50	BL2A06075-R1.50	R1.50	6	75	6
BL4A04075-R2.00	BL2A04075-R2.00	R2.00	8	75	4
BL4A04100-R2.00	BL2A04100-R2.00	R2.00	8	100	4
BL4A06075-R2.00	BL2A06075-R2.00	R2.00	8	75	6
BL4A06100-R2.00	BL2A06100-R2.00	R2.00	8	100	6
BL4A05075-R2.50	BL2A05075-R2.50	R2.50	10	75	5
BL4A05100-R2.50	BL2A05100-R2.50	R2.50	10	100	5
BL4A06075-R2.50	BL2A06075-R2.50	R2.50	10	75	6
BL4A06100-R2.50	BL2A06100-R2.50	R2.50	10	100	6
BL4A06075-R3.00	BL2A06075-R3.00	R3.00	12	75	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
BL4A20150-R10.0	BL2A20150-R10.0	R10.0	40	150	20



Surface Milling



R Slot



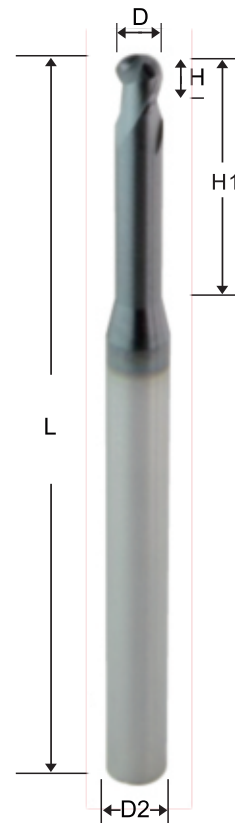
Stunning Precision

YDH88
High quality carbide

YDH88BN4A YDH88BN2A



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



Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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-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



Surface Milling



R Slot

Eagle Eye Series

Super Micro Grain Carbide End Mill



YDH88BLT2A



Long Taper-2 Flute Ball Nose End Mill

Type no.	Diameter	Flute Length	Taper Angle	Overall Length	Shank Dia
2 Flutes	D	H	α	L	D2
BLT2A0607503-R0.5	R0.5	2	3°	75	6
BLT2A0607505-R0.5	R0.5	2	5°	75	6
BLT2A0610003-R1.0	R1.0	4	3°	100	6
BLT2A0610005-R1.0	R1.0	4	5°	100	6
BLT2A0610015-R1.5	R1.5	6	1.5°	100	6
BLT2A0610003-R1.5	R1.5	6	3°	100	6
BLT2A0610015-R2.0	R2.0	8	1.5°	100	6
BLT2A0610003-R2.0	R2.0	8	3°	100	6
BLT2A0810003-R3.0	R3.0	12	3°	100	8
BLT2A0815003-R3.0	R3.0	12	3°	150	8
BLT2A1010005-R3.0	R3.0	12	5°	100	10
BLT2A1015005-R3.0	R3.0	12	5°	150	10
BLT2A1010003-R4.0	R4.0	16	3°	100	10
BLT2A1015003-R4.0	R4.0	16	3°	150	10
BLT2A1210005-R4.0	R4.0	16	5°	100	12
BLT2A1215005-R4.0	R4.0	16	5°	150	12
BLT2A1210003-R5.0	R5.0	20	3°	100	12
BLT2A1215003-R5.0	R5.0	20	3°	150	12
BLT2A1610005-R6.0	R6.0	24	5°	100	16
BLT2A1615005-R6.0	R6.0	24	5°	150	16



Surface Milling



R Slot

Stunning Precision

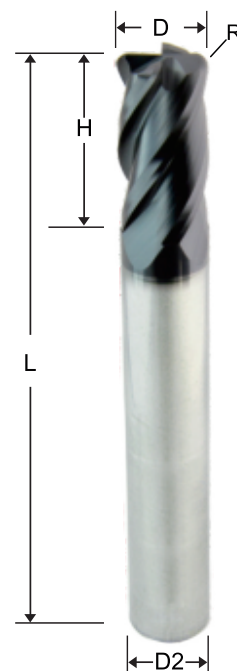
YDH88

High quality carbide

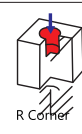
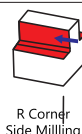
YDH88EB4A YDH88EB2A



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

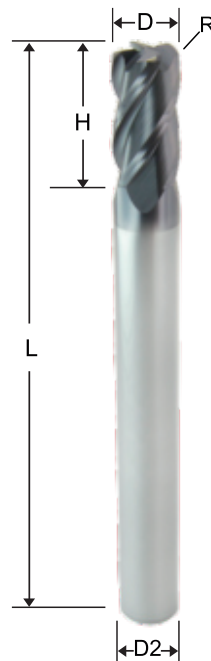


Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	R	H	L	D2
EB4A010-0.2R	EB2A010-0.2R	1	0.2R	2	50	4
EB4A020-0.2R	EB2A020-0.2R	2	0.2R	4	50	4
EB4A020-0.5R	EB2A020-0.5R	2	0.5R	4	50	4
EB4A030-0.2R	EB2A030-0.2R	3	0.2R	6	50	4
EB4A030-0.5R	EB2A030-0.5R	3	0.5R	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



Eagle Eye Series

Super Micro Grain Carbide End Mill



YDH88EBL4A
YDH88EBL2A



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

Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	R	H	L	D2
EBL4A030-0.2R A/B	EBL2A030-0.2R A/B	3	0.2R	6	75/100/-	4
EBL4A030-0.5R A/B	EBL2A030-0.5R A/B	3	0.5R	6	75/100/-	4
EBL4A030-1.0R A/B	EBL2A030-1.0R A/B	3	1.0R	6	75/100/-	4
EBL4A040-0.2R A/B	EBL2A040-0.2R A/B	4	0.2R	8	75/100/-	4
EBL4A040-0.5R A/B	EBL2A040-0.5R A/B	4	0.5R	8	75/100/-	4
EBL4A040-1.0R A/B	EBL2A040-1.0R A/B	4	1.0R	8	75/100/-	4
EBL4A050-0.5R A/B/C	EBL2A050-0.5R A/B/C	5	0.5R	10	75/100/150	6
EBL4A050-1.0R A/B/C	EBL2A050-1.0R A/B/C	5	1.0R	10	75/100/150	6
EBL4A060-0.2R A/B/C	EBL2A060-0.2R A/B/C	6	0.2R	12	75/100/150	6
EBL4A060-0.5R A/B/C	EBL2A060-0.5R A/B/C	6	0.5R	12	75/100/150	6
EBL4A060-1.0R A/B/C	EBL2A060-1.0R A/B/C	6	1.0R	12	75/100/150	6
EBL4A060-1.5R A/B/C	EBL2A060-1.5R A/B/C	6	1.5R	12	75/100/150	6
EBL4A060-2.0R A/B/C	EBL2A060-2.0R A/B/C	6	2.0R	12	75/100/150	6
EBL4A080-0.5R A/B/C	EBL2A080-0.5R A/B/C	8	0.5R	16	75/100/150	8
EBL4A080-1.0R A/B/C	EBL2A080-1.0R A/B/C	8	1.0R	16	75/100/150	8
EBL4A080-1.5R A/B/C	EBL2A080-1.5R A/B/C	8	1.5R	16	75/100/150	8
EBL4A080-2.0R A/B/C	EBL2A080-2.0R A/B/C	8	2.0R	16	75/100/150	8
EBL4A100-0.5R B/C	EBL2A100-0.5R B/C	10	0.5R	20	-/100/150	10
EBL4A100-1.0R B/C	EBL2A100-1.0R B/C	10	1.0R	20	-/100/150	10
EBL4A100-1.5R B/C	EBL2A100-1.5R B/C	10	1.5R	20	-/100/150	10
EBL4A100-2.0R B/C	EBL2A100-2.0R B/C	10	2.0R	20	-/100/150	10
EBL4A100-3.0R B/C	EBL2A100-3.0R B/C	10	3.0R	20	-/100/150	10
EBL4A120-0.5R B/C	EBL2A120-0.5R B/C	12	0.5R	24	-/100/150	12
EBL4A120-1.0R B/C	EBL2A120-1.0R B/C	12	1.0R	24	-/100/150	12
EBL4A120-1.5R B/C	EBL2A120-1.5R B/C	12	1.5R	24	-/100/150	12
EBL4A120-2.0R B/C	EBL2A120-2.0R B/C	12	2.0R	24	-/100/150	12
EBL4A120-3.0R B/C	EBL2A120-3.0R B/C	12	3.0R	24	-/100/150	12

A=75L B=100L C=150L

Please check and confirm overall length



Stunning Precision

YDH88

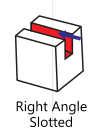
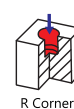
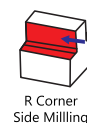
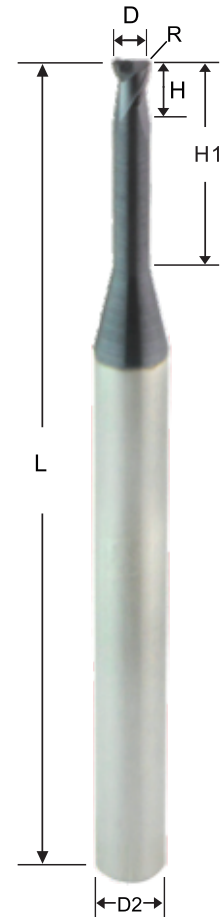
High quality carbide

YDH88EBN4A YDH88EBN2A



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

Type no.	Type no.	Diameter	Corner Radius	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	R	H	H1	L	D2
EBN4A01004-0.2R	EBN2A01004-0.2R	1	0.2R	1	4	50	4
EBN4A01006-0.2R	EBN2A01006-0.2R	1	0.2R	1	6	50	4
EBN4A01008-0.2R	EBN2A01008-0.2R	1	0.2R	1	8	50	4
EBN4A01010-0.2R	EBN2A01010-0.2R	1	0.2R	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



Eagle Eye Series

Super Micro Grain Carbide End Mill

*mitsuki*TM

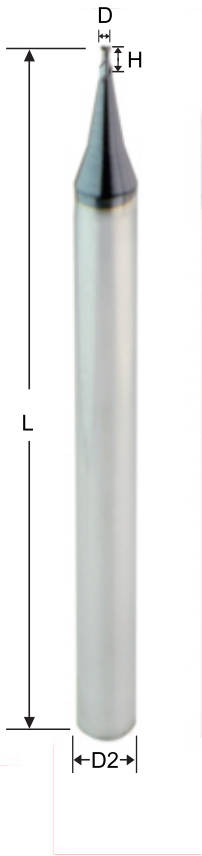


YDH88ES2A



Micro Diameter Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
2 Flutes	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

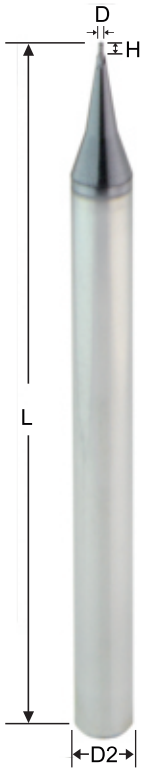


YDH88BS2A



Micro Diameter Ball Nose End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
2 Flutes	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



Leopard Series

Nano Carbide End Mill

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		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K20	C-2	0.2μm	8.2	14.6	1970	1930	93.7



Leopard Series

Nano Carbide End Mill

*mitsuki*TM

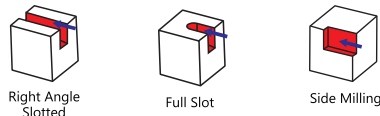
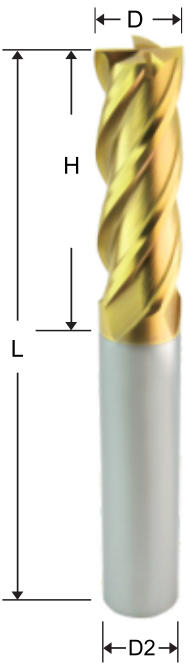


YDH99E4A
YDH99E2A



4 Flutes Square End Mill
2 Flutes Square End Mill

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
E4A04050-1.0	E2A04050-1.0	1	3	50	4
E4A04050-1.5	E2A04050-1.5	1.5	4	50	4
E4A04050-2.0	E2A04050-2.0	2	5	50	4
E4A04050-2.5	E2A04050-2.5	2.5	7	50	4
E4A03050-3.0	E2A03050-3.0	3	9	50	3
E4A04050-3.0	E2A04050-3.0	3	9	50	4
E4A06050-3.0	E2A06050-3.0	3	9	50	6
E4A04050-4.0	E2A04050-4.0	4	11	50	4
E4A06050-4.0	E2A06050-4.0	4	11	50	6
E4A05050-5.0	E2A05050-5.0	5	13	50	5
E4A06050-5.0	E2A06050-5.0	5	13	50	6
E4A06050-6.0	E2A06050-6.0	6	16	50	6
E4A08060-7.0	E2A08060-7.0	7	18	60	8
E4A08060-8.0	E2A08060-8.0	8	20	60	8
E4A10075-9.0	E2A10075-9.0	9	23	75	10
E4A10075-10.0	E2A10075-10.0	10	25	75	10
E4A12075-12.0	E2A12075-12.0	12	30	75	12
E4A16100-13.0	E2A16100-13.0	13	35	100	16
E4A16100-14.0	E2A16100-14.0	14	35	100	16
E4A16100-15.0	E2A16100-15.0	15	38	100	16
E4A16100-16.0	E2A16100-16.0	16	40	100	16
E4A20100-18.0	E2A20100-18.0	18	40	100	20
E4A20100-20.0	E2A20100-20.0	20	45	100	20



Extraordinary Speed

YDH99

High hardness and High Speed

YDH99E3A



3 Flutes Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
3 Flutes	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



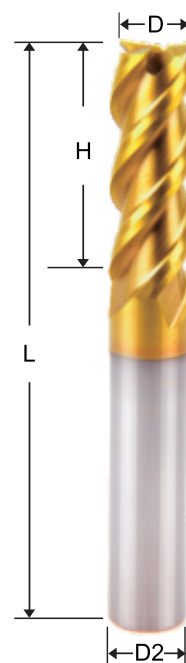
Right Angle Slotted



Full Slot



Side Milling



YDH99E6A

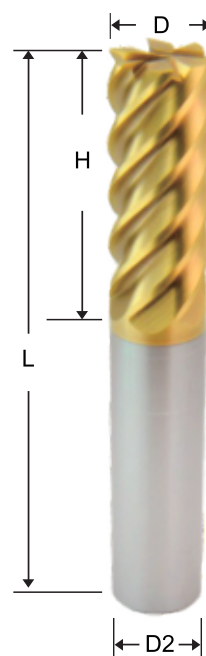


6 Flutes Square End Mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
6 Flutes	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



Side Milling



Leopard Series

Nano Carbide End Mill

YDH99EL4A YDH99EL2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
EL4A04075-3.0	EL2A03075-3.0	3	9	75	3
EL4A04075-3.0	EL2A04075-3.0	3	9	75	4
EL4A06075-3.0	EL2A06075-3.0	3	9	75	6
EL4A04075-4.0	EL2A04075-4.0	4	11	75	4
EL4A04100-4.0	EL2A04100-4.0	4	11	100	4
EL4A06075-4.0	EL2A06075-4.0	4	11	75	6
EL4A06100-4.0	EL2A06100-4.0	4	11	100	6
EL4A05075-5.0	EL2A05075-5.0	5	13	75	5
EL4A05100-5.0	EL2A05100-5.0	5	13	100	5
EL4A06075-5.0	EL2A06075-5.0	5	13	75	6
EL4A06100-5.0	EL2A06100-5.0	5	13	100	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



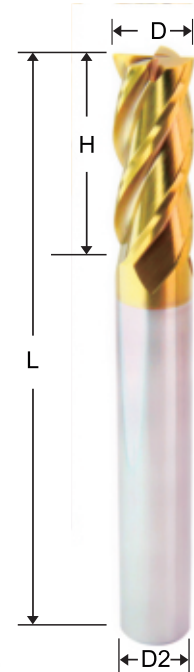
Right Angle Slotted



Full Slot



Side Milling



YDH99EF4A YDH99EF2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
EF4A04075-3.0	EF2A04075-3.0	3	12	75	4
EF4A04075-4.0	EF2A04075-4.0	4	15	75	4
EF4A05075-5.0	EF2A05075-5.0	5	20	75	5
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



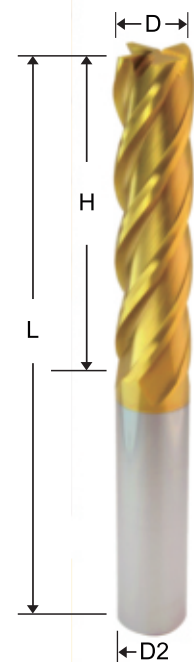
Right Angle Slotted



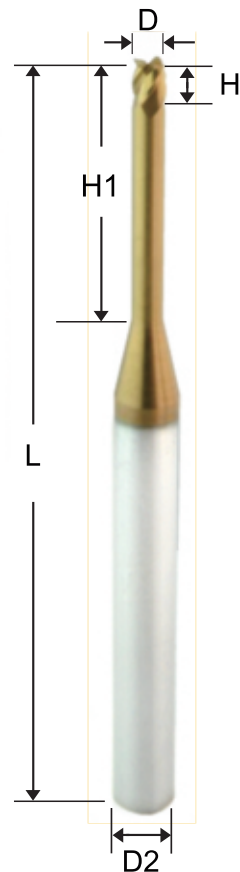
Full Slot



Side Milling



Extraordinary Speed



YDH99EN4A YDH99EN2A



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

Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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



Right Angle
Slotted



Full Slot

Leopard Series

Nano Carbide End Mill



YDH99B4A
YDH99B2A



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

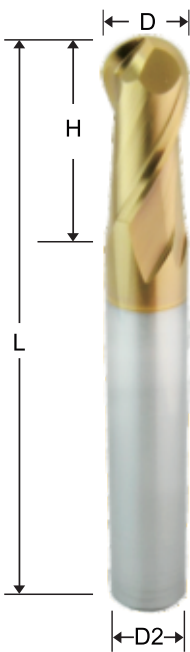
Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	H	L	D2
B4A04050-R0.50	B2A04050-R0.50	R0.50	2	50	4
B4A04050-R0.75	B2A04050-R0.75	R0.75	3	50	4
B4A04050-R1.00	B2A04050-R1.00	R1.00	4	50	4
B4A04050-R1.25	B2A04050-R1.25	R1.25	5	50	4
B4A03050-R1.50	B2A03050-R1.50	R1.50	6	50	3
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	14	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



Surface Milling



R Slot



Extraordinary Speed

YDH99

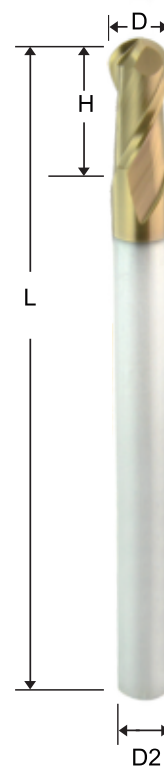
High hardness and High Speed

YDH99BL4A YDH99BL2A



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

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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
BL4A06075-R1.00	BL2A06075-R1.00	R1.00	4	75	6
BL4A03075-R1.50	BL2A03075-R1.50	R1.50	6	75	3
BL4A04075-R1.50	BL2A04075-R1.50	R1.50	6	75	4
BL4A06075-R1.50	BL2A06075-R1.50	R1.50	6	75	6
BL4A04075-R2.00	BL2A04075-R2.00	R2.00	8	75	4
BL4A04100-R2.00	BL2A04100-R2.00	R2.00	8	100	4
BL4A06075-R2.00	BL2A06075-R2.00	R2.00	8	75	6
BL4A06100-R2.00	BL2A06100-R2.00	R2.00	8	100	6
BL4A05075-R2.50	BL2A05075-R2.50	R2.50	10	75	5
BL4A05100-R2.50	BL2A05100-R2.50	R2.50	10	100	5
BL4A06075-R2.50	BL2A06075-R2.50	R2.50	10	75	6
BL4A06100-R2.50	BL2A06100-R2.50	R2.50	10	100	6
BL4A06075-R3.00	BL2A06075-R3.00	R3.00	12	75	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



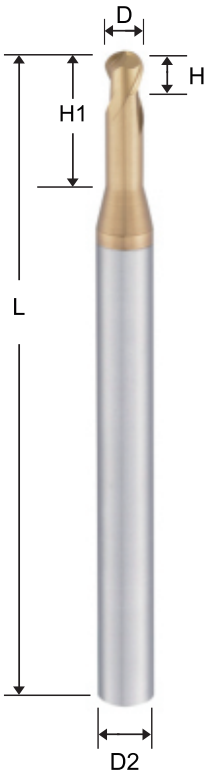
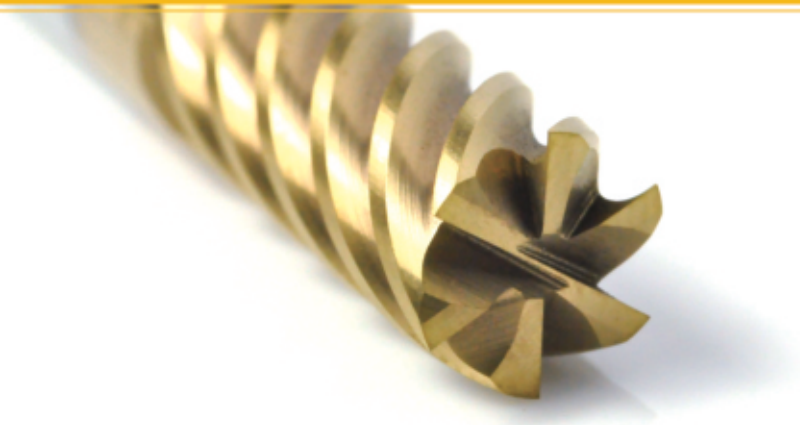
Surface Milling



R Slot

Leopard Series

Nano Carbide End Mill



YDH99BN4A
YDH99BN2A



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

Type no.	Type no.	Diameter	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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-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



Surface Milling



R Slot

Extraordinary Speed

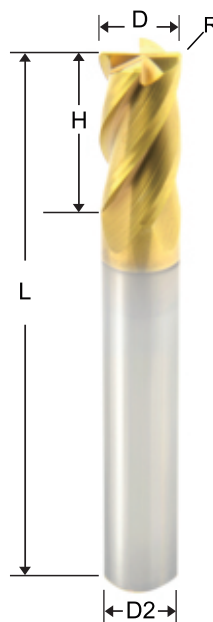
YDH99

High hardness and High Speed

YDH99EB4A YDH99EB2A



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



Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	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



R Corner
Side Milling



R Corner



Right Angle
Slotted

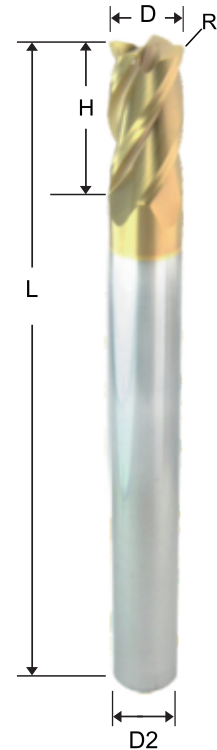
Leopard Series

Nano Carbide End Mill

YDH99EBL4A
YDH99EBL2A



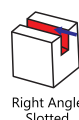
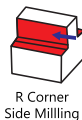
Long Shank, 4 Flutes Corner Radius End Mill
Long Shank, 2 Flutes Corner Radius End Mill



Type no.	Type no.	Diameter	Corner Radius	Flute Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	R	H	L	D2
EBL4A030-0.2R A/B	EBL2A030-0.2R A/B	3	0.2R	6	75/100/-	4
EBL4A030-0.5R A/B	EBL2A030-0.5R A/B	3	0.5R	6	75/100/-	4
EBL4A030-1.0R A/B	EBL2A030-1.0R A/B	3	1.0R	6	75/100/-	4
EBL4A040-0.2R A/B	EBL2A040-0.2R A/B	4	0.2R	8	75/100/-	4
EBL4A040-0.5R A/B	EBL2A040-0.5R A/B	4	0.5R	8	75/100/-	4
EBL4A040-1.0R A/B	EBL2A040-1.0R A/B	4	1.0R	8	75/100/-	4
EBL4A050-0.5R A/B/C	EBL2A050-0.5R A/B/C	5	0.5R	10	75/100/150	6
EBL4A050-1.0R A/B/C	EBL2A050-1.0R A/B/C	5	1.0R	10	75/100/150	6
EBL4A060-0.2R A/B/C	EBL2A060-0.2R A/B/C	6	0.2R	12	75/100/150	6
EBL4A060-0.5R A/B/C	EBL2A060-0.5R A/B/C	6	0.5R	12	75/100/150	6
EBL4A060-1.0R A/B/C	EBL2A060-1.0R A/B/C	6	1.0R	12	75/100/150	6
EBL4A060-1.5R A/B/C	EBL2A060-1.5R A/B/C	6	1.5R	12	75/100/150	6
EBL4A060-2.0R A/B/C	EBL2A060-2.0R A/B/C	6	2.0R	12	75/100/150	6
EBL4A080-0.5R A/B/C	EBL2A080-0.5R A/B/C	8	0.5R	16	75/100/150	8
EBL4A080-1.0R A/B/C	EBL2A080-1.0R A/B/C	8	1.0R	16	75/100/150	8
EBL4A080-1.5R A/B/C	EBL2A080-1.5R A/B/C	8	1.5R	16	75/100/150	8
EBL4A080-2.0R A/B/C	EBL2A080-2.0R A/B/C	8	2.0R	16	75/100/150	8
EBL4A100-0.5R B/C	EBL2A100-0.5R B/C	10	0.5R	20	-/100/150	10
EBL4A100-1.0R B/C	EBL2A100-1.0R B/C	10	1.0R	20	-/100/150	10
EBL4A100-1.5R B/C	EBL2A100-1.5R B/C	10	1.5R	20	-/100/150	10
EBL4A100-2.0R B/C	EBL2A100-2.0R B/C	10	2.0R	20	-/100/150	10
EBL4A100-3.0R B/C	EBL2A100-3.0R B/C	10	3.0R	20	-/100/150	10
EBL4A120-0.5R B/C	EBL2A120-0.5R B/C	12	0.5R	24	-/100/150	12
EBL4A120-1.0R B/C	EBL2A120-1.0R B/C	12	1.0R	24	-/100/150	12
EBL4A120-1.5R B/C	EBL2A120-1.5R B/C	12	1.5R	24	-/100/150	12
EBL4A120-2.0R B/C	EBL2A120-2.0R B/C	12	2.0R	24	-/100/150	12
EBL4A120-3.0R B/C	EBL2A120-3.0R B/C	12	3.0R	24	-/100/150	12

A=75L B=100L C=150L

Please check and confirm overall length



Extraordinary Speed

YDH99

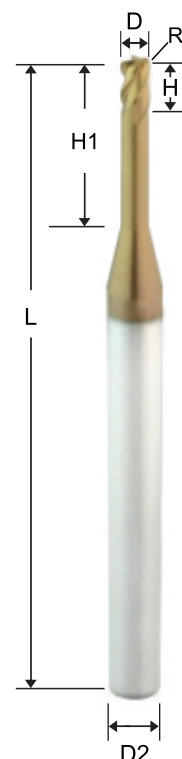
High hardness and High Speed

YDH99EBN4A YDH99EBN2A



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

Type no.	Type no.	Diameter	Corner Radius	Flute Length	Effective Length	Overall Length	Shank Dia
4 Flutes	2 Flutes	D	R	H	H1	L	D2
EBN4A01004-0.2R	EBN2A01004-0.2R	1	0.2R	1	4	50	4
EBN4A01006-0.2R	EBN2A01006-0.2R	1	0.2R	1	6	50	4
EBN4A01008-0.2R	EBN2A01008-0.2R	1	0.2R	1	8	50	4
EBN4A01010-0.2R	EBN2A01010-0.2R	1	0.2R	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



R Corner Side Milling



R Corner



Right Angle Slotted

Strength with Finesse

Hummingbird – YDS33

The Hummingbird Series is designed on the basis of processing aluminium. It brings you a smooth chip removal and high performance with optimum surface finish.

ISO code	USA code	Grain Size	Cobalt Percentage	Density	Hardness		
			Co(%)	g/cm ³	HV10	HV30	HRA
K20-K40	C-2	0.6µm	10.0	14.45	1680	1660	92.3

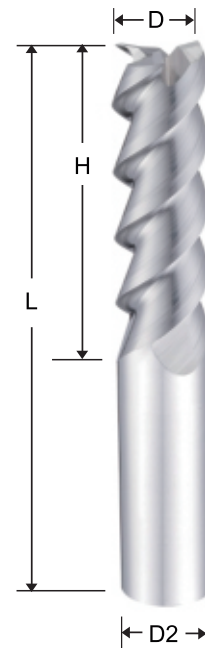
Strength with Finesse

YDS33ED3A YDS33ED3B



3 Flutes End Mill for Soft Metal - 45° (A) 3 Flutes End Mill for Soft Metal - 55° (B)

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
45 Degrees	55 Degrees	D	H	L	D2
ED3A04050-1.0	ED3B04050-1.0	1	3	50	4
ED3A06050-1.0	ED3B06050-1.0	1	3	50	6
ED3A04050-2.0	ED3B04050-2.0	2	5	50	4
ED3A06050-2.0	ED3B06050-2.0	2	5	50	6
ED3A03050-3.0	ED3B03050-3.0	3	9	50	3
ED3A04050-3.0	ED3B04050-3.0	3	9	50	4
ED3A06050-3.0	ED3B06050-3.0	3	9	50	6
ED3A04050-4.0	ED3B04050-4.0	4	11	50	4
ED3A06050-4.0	ED3B06050-4.0	4	11	50	6
ED3A05050-5.0	ED3B05050-5.0	5	13	50	5
ED3A06050-5.0	ED3B06050-5.0	5	13	50	6
ED3A06050-6.0	ED3B06050-6.0	6	16	50	6
ED3A08060-8.0	ED3B08060-8.0	8	20	60	8
ED3A10075-10.0	ED3B10075-10.0	10	25	75	10
ED3A12075-12.0	ED3B12075-12.0	12	30	75	12
ED3A16100-16.0	ED3B16100-16.0	16	40	100	16
ED3A20100-20.0	ED3B20100-20.0	20	45	100	20
ED3A25100-25.0	ED3B25100-25.0	25	45	100	25

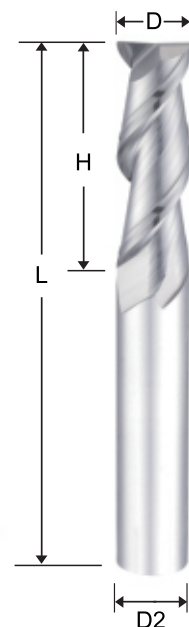


YDS33ED2A



2 Flutes End Mill for Soft Metal - 45°

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
45 Degrees	D	H	L	D2
ED2A04050-1.0	1	3	50	4
ED2A06050-1.0	1	3	50	6
ED2A04050-2.0	2	5	50	4
ED2A06050-2.0	2	5	50	6
ED2A03050-3.0	3	9	50	3
ED2A04050-3.0	3	9	50	4
ED2A06050-3.0	3	9	50	6
ED2A04050-4.0	4	11	50	4
ED2A06050-4.0	4	11	50	6
ED2A05050-5.0	5	13	50	5
ED2A06050-5.0	5	13	50	6
ED2A06050-6.0	6	16	50	6
ED2A08060-8.0	8	20	60	8
ED2A10075-10.0	10	25	75	10
ED2A12075-12.0	12	30	75	12
ED2A16100-16.0	16	40	100	16
ED2A20100-20.0	20	45	100	20
ED2A25100-25.0	25	45	100	25



Hummingbird Series

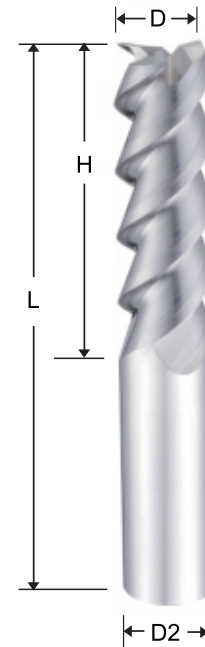
Super Micro Grain Carbide End Mill

YDS33EDF3A YDS33EDF3B



Long Flute, 3 Flutes End Mill for Soft Metal - 45° (A)
Long Flute, 3 Flutes End Mill for Soft Metal - 55° (B)

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
45 Degrees	55 Degrees	D	H	L	D2
EDF3A04075-3.0	EDF3B04075-3.0	3	12	75	4
EDF3A06075-3.0	EDF3B06075-3.0	3	12	75	6
EDF3A04075-4.0	EDF3B04075-4.0	4	15	75	4
EDF3A06075-4.0	EDF3B06075-4.0	4	15	75	6
EDF3A05075-5.0	EDF3B05075-5.0	5	20	75	5
EDF3A06075-5.0	EDF3B06075-5.0	5	20	75	6
EDF3A06075-6.0	EDF3B06075-6.0	6	25	75	6
EDF3A08100-8.0	EDF3B08100-8.0	8	40	100	8
EDF3A10100-10.0	EDF3B10100-10.0	10	45	100	10
EDF3A12100-12.0	EDF3B12100-12.0	12	50	100	12
EDF3A16150-16.0	EDF3B16150-16.0	16	75	150	16
EDF3A20150-20.0	EDF3B20150-20.0	20	80	150	20

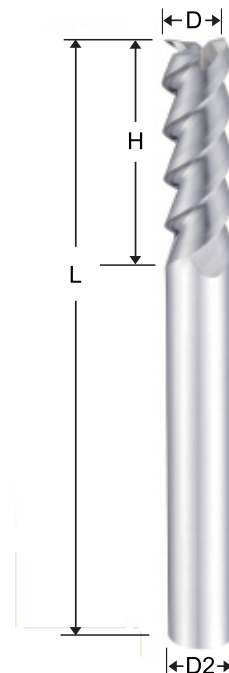


YDS33EDL3A YDS33EDL3B



Long Shank, 3 Flutes End Mill for Soft Metal - 45° (A)
Long Shank, 3 Flutes End Mill for Soft Metal - 55° (B)

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
45 Degrees	55 Degrees	D	H	L	D2
EDL3A04075-3.0	EDL3B04075-3.0	3	9	75	4
EDL3A06075-3.0	EDL3B06075-3.0	3	9	75	6
EDL3A04075-4.0	EDL3B04075-4.0	4	11	75	4
EDL3A06075-4.0	EDL3B06075-4.0	4	11	75	6
EDL3A05075-5.0	EDL3B05075-5.0	5	13	75	5
EDL3A06075-5.0	EDL3B06075-5.0	5	13	75	6
EDL3A06075-6.0	EDL3B06075-6.0	6	16	75	6
EDL3A06100-6.0	EDL3B06100-6.0	6	16	100	6
EDL3A08100-8.0	EDL3B08100-8.0	8	20	100	8
EDL3A10100-10.0	EDL3B10100-10.0	10	25	100	10
EDL3A12100-12.0	EDL3B12100-12.0	12	30	100	12
EDL3A16150-16.0	EDL3B16150-16.0	16	40	150	16
EDL3A20150-20.0	EDL3B20150-20.0	20	45	150	20



Strength with Finesse

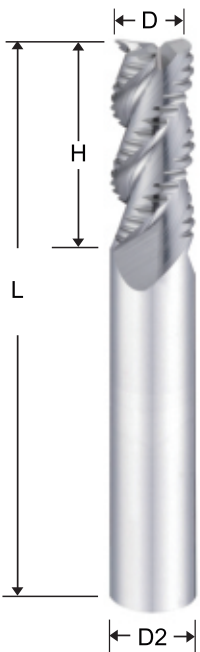


YDS33HED3A



3 Flutes Roughing End Mill for Soft Metal

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
	D	H	L	D2
HED3A06050-6.0	6	16	50	6
HED3A08060-8.0	8	20	60	8
HED3A10075-10.0	10	25	75	10
HED3A12075-12.0	12	30	75	12
HED3A16100-16.0	16	40	100	16
HED3A20100-20.0	20	45	100	20
HED3A25100-25.0	25	45	100	25

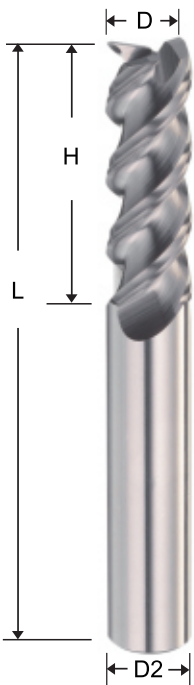


YDS33EDP3A



3 Flutes Heavy Cutting for Soft Metal

Type no.	Diameter	Flute Length	Overall Length	Shank Dia
	D	H	L	D2
EDP3A06050-4.0	4	11	50	6
EDP3A06050-5.0	5	13	50	6
EDP3A06050-6.0	6	16	50	6
EDP3A08060-8.0	8	20	60	8
EDP3A10075-10.0	10	25	75	10
EDP3A12075-12.0	12	30	75	12
EDP3A16100-16.0	16	40	100	16
EDP3A20100-20.0	20	45	100	20
EDP3A25100-25.0	25	45	100	25



Hummingbird Series

Super Micro Grain Carbide End Mill



YDS33SD2A YDS33SD2B



NC Spot Drill - 90° (A)
NC Spot Drill - 120° (B)

Type no.	Type no.	Diameter	Flute Length	Overall Length	Shank Dia
90°	120°	D	H	L	D2
SD2A03050-3.0	SD2B03050-3.0	3	6	50	3
SD2A04050-4.0	SD2B04050-4.0	4	8	50	4
SD2A04075-4.0	SD2B04075-4.0	4	8	75	4
SD2A06050-6.0	SD2B06050-6.0	6	12	50	6
SD2A06075-6.0	SD2B06075-6.0	6	12	75	6
SD2A08060-8.0	SD2B08060-8.0	8	16	60	8
SD2A08100-8.0	SD2B08100-8.0	8	16	100	8
SD2A10075-10.0	SD2B10075-10.0	10	20	75	10
SD2A10100-10.0	SD2B10100-10.0	10	20	100	10
SD2A10150-10.0	SD2B10150-10.0	10	20	150	10
SD2A12075-12.0	SD2B12075-12.0	12	24	75	12
SD2A12100-12.0	SD2B12100-12.0	12	24	100	12
SD2A12150-12.0	SD2B12150-12.0	12	24	150	12
SD2A16100-16.0	SD2B16100-16.0	16	32	100	16
SD2A16150-16.0	SD2B16150-16.0	16	32	150	16
SD2A20100-20.0	SD2B20100-20.0	20	40	100	20
SD2A20150-20.0	SD2B20150-20.0	20	40	150	20



Remarkable Efficiency



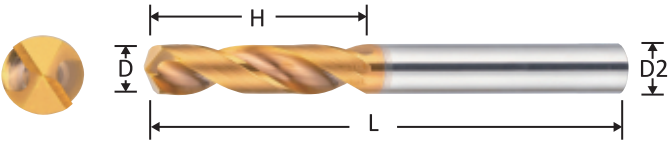
Killer Whale

Customized

Killer Whale Series is a Drill, Reamer and Customized Tools, with your specifications in mind, Mitsuki can manufacture a high precision instrument to meet your needs.

Killer Whale Series

Drill, Reamer and Customized Tools



SDR2A

2 Flutes Carbide Straight Shank Drill

Type no.	D	H	Flutes	L	D2
SDR2A030	3.0	16	2	46	3.0
SDR2A031	3.1	16	2	49	3.1
SDR2A032	3.2	18	2	49	3.2
SDR2A033	3.3	18	2	49	3.3
SDR2A034	3.4	20	2	52	3.4
SDR2A035	3.5	20	2	52	3.5
SDR2A036	3.6	20	2	52	3.6
SDR2A037	3.7	20	2	52	3.7
SDR2A038	3.8	22	2	55	3.8
SDR2A039	3.9	22	2	55	3.9
SDR2A040	4.0	22	2	55	4.0
SDR2A041	4.1	22	2	55	4.1
SDR2A042	4.2	22	2	55	4.2
SDR2A043	4.3	24	2	58	4.3
SDR2A044	4.4	24	2	58	4.4
SDR2A045	4.5	24	2	58	4.5
SDR2A046	4.6	24	2	58	4.6
SDR2A047	4.7	24	2	58	4.7
SDR2A048	4.8	26	2	62	4.8
SDR2A049	4.9	26	2	62	4.9
SDR2A050	5.0	26	2	62	5.0
SDR2A051	5.1	26	2	62	5.1
SDR2A052	5.2	26	2	62	5.2
SDR2A053	5.3	26	2	62	5.3
SDR2A054	5.4	28	2	66	5.4
SDR2A055	5.5	28	2	66	5.5
SDR2A056	5.6	28	2	66	5.6
SDR2A057	5.7	28	2	66	5.7
SDR2A058	5.8	28	2	66	5.8
SDR2A059	5.9	28	2	66	5.9
SDR2A060	6.0	28	2	66	6.0
SDR2A061	6.1	31	2	70	6.1
SDR2A062	6.2	31	2	70	6.2
SDR2A063	6.3	31	2	70	6.3
SDR2A064	6.4	31	2	70	6.4
SDR2A065	6.5	31	2	70	6.5
SDR2A066	6.6	31	2	70	6.6
SDR2A067	6.7	31	2	70	6.7
SDR2A068	6.8	34	2	74	6.8
SDR2A069	6.9	34	2	74	6.9
SDR2A070	7.0	34	2	74	7.0
SDR2A071	7.1	34	2	74	7.1
SDR2A072	7.2	34	2	74	7.2
SDR2A073	7.3	34	2	74	7.3
SDR2A074	7.4	34	2	74	7.4
SDR2A075	7.5	34	2	74	7.5

Type no.	D	H	Flutes	L	D2
SDR2A076	7.6	37	2	79	7.6
SDR2A077	7.7	37	2	79	7.7
SDR2A078	7.8	37	2	79	7.8
SDR2A079	7.9	37	2	79	7.9
SDR2A080	8.0	37	2	79	8.0
SDR2A081	8.1	37	2	79	8.1
SDR2A082	8.2	37	2	79	8.2
SDR2A083	8.3	37	2	79	8.3
SDR2A084	8.4	37	2	79	8.4
SDR2A085	8.5	37	2	79	8.5
SDR2A086	8.6	40	2	84	8.6
SDR2A087	8.7	40	2	84	8.7
SDR2A088	8.8	40	2	84	8.8
SDR2A089	8.9	40	2	84	8.9
SDR2A090	9.0	40	2	84	9.0
SDR2A091	9.1	40	2	84	9.1
SDR2A092	9.2	40	2	84	9.2
SDR2A093	9.3	40	2	84	9.3
SDR2A094	9.4	40	2	84	9.4
SDR2A095	9.5	40	2	84	9.5
SDR2A096	9.6	43	2	89	9.6
SDR2A097	9.7	43	2	89	9.7
SDR2A098	9.8	43	2	89	9.8
SDR2A099	9.9	43	2	89	9.9
SDR2A100	10.0	43	2	89	10.0
SDR2A101	10.1	43	2	89	10.1
SDR2A102	10.2	43	2	89	10.2
SDR2A103	10.3	43	2	89	10.3
SDR2A104	10.4	43	2	89	10.4
SDR2A105	10.5	43	2	89	10.5
SDR2A106	10.6	43	2	89	10.6
SDR2A107	10.7	47	2	95	10.7
SDR2A108	10.8	47	2	95	10.8
SDR2A109	10.9	47	2	95	10.9
SDR2A110	11.0	47	2	95	11.0
SDR2A111	11.1	47	2	95	11.1
SDR2A112	11.2	47	2	95	11.2
SDR2A113	11.3	47	2	95	11.3
SDR2A114	11.4	47	2	95	11.4
SDR2A115	11.5	47	2	95	11.5
SDR2A116	11.6	47	2	95	11.6
SDR2A117	11.7	47	2	95	11.7
SDR2A118	11.8	47	2	95	11.8
SDR2A119	11.9	47	2	95	11.9
SDR2A120	12.0	51	2	102	12.0
SDR2A121	12.1	51	2	102	12.1
SDR2A122	12.2	51	2	102	12.2
SDR2A123	12.3	51	2	102	12.3
SDR2A124	12.4	51	2	102	12.4
SDR2A125	12.5	51	2	102	12.5
SDR2A126	12.6	51	2	102	12.6
SDR2A127	12.7	51	2	102	12.7
SDR2A128	12.8	51	2	102	12.8
SDR2A129	12.9	51	2	102	12.9
SDR2A130	13.0	51	2	102	13.0

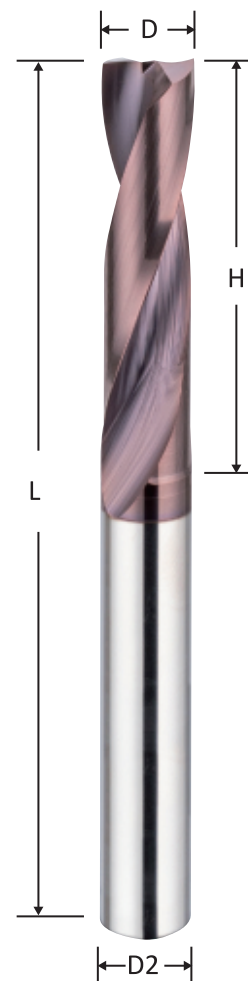


Remarkable Efficiency

Customization
Special for customized

FDR2A 2 Flutes Flat Drill

Type no.	D	H	NL	Flutes	L	D2
FDR2A010	1.0	3.3	3.6	2	50	3
FDR2A011	1.1	3.5	3.9	2	50	3
FDR2A012	1.2	3.9	4.2	2	50	3
FDR2A013	1.3	4.2	4.5	2	50	3
FDR2A014	1.4	4.6	4.9	2	50	3
FDR2A015	1.5	4.9	5.2	2	50	3
FDR2A016	1.6	5.2	5.5	2	50	3
FDR2A017	1.7	5.5	5.8	2	50	3
FDR2A018	1.8	5.8	6.1	2	50	3
FDR2A019	1.9	6.2	6.5	2	50	3
FDR2A020	2.0	9	9.8	2	50	4
FDR2A021	2.1	11	11.4	2	50	4
FDR2A022	2.2	11	11.4	2	50	4
FDR2A023	2.3	11	11.5	2	50	4
FDR2A024	2.4	12	12.6	2	50	4
FDR2A025	2.5	12	12.7	2	50	4
FDR2A026	2.6	12	12.8	2	50	4
FDR2A027	2.7	14	14.9	2	50	4
FDR2A028	2.8	14	15	2	50	4
FDR2A029	2.9	14	15	2	50	4
FDR2A030	3.0	14	14.4	2	60	6
FDR2A031	3.1	15	15.5	2	60	6
FDR2A032	3.2	15	15.6	2	60	6
FDR2A033	3.3	15	15.7	2	60	6
FDR2A034	3.4	16	16.2	2	60	6
FDR2A035	3.5	16	16.3	2	60	6
FDR2A036	3.6	16	16.4	2	60	6
FDR2A037	3.7	18	18	2	60	6
FDR2A038	3.8	18	18.1	2	60	6
FDR2A039	3.9	18	18.2	2	60	6
FDR2A040	4.0	18	18.3	2	60	6
FDR2A041	4.1	19	20.4	2	60	6



Killer Whale Series

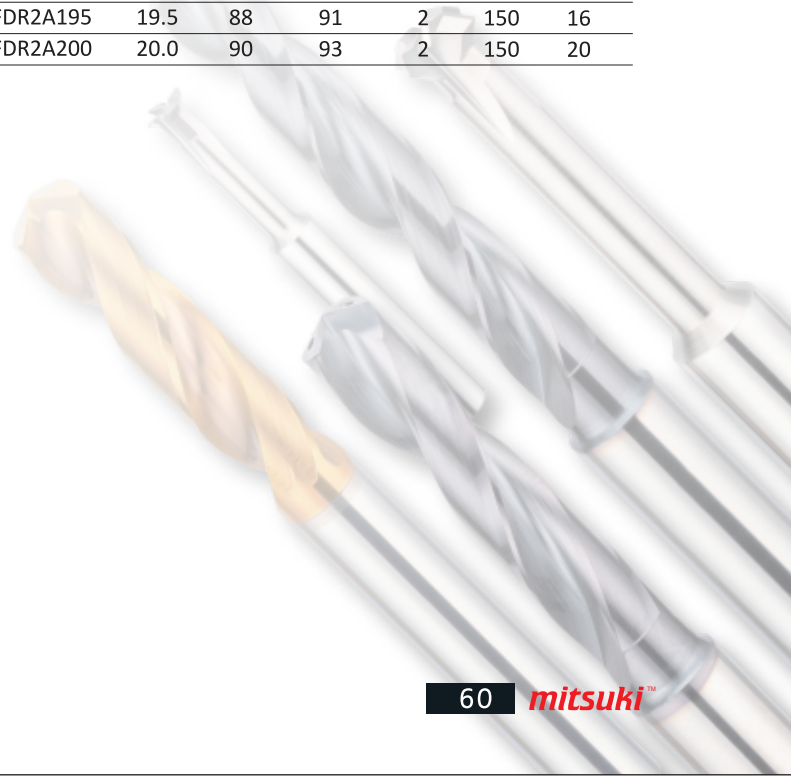
Drill, Reamer and Customized Tools

Type no.	D	H	NL	Flutes	L	D2
FDR2A042	4.2	19	20.4	2	60	6
FDR2A043	4.3	19	20.5	2	60	6
FDR2A044	4.4	21	22.6	2	60	6
FDR2A045	4.5	21	22.7	2	60	6
FDR2A046	4.6	21	22.8	2	60	6
FDR2A047	4.7	22	22.9	2	60	6
FDR2A048	4.8	22	23	2	60	6
FDR2A049	4.9	22	23	2	60	6
FDR2A050	5.0	23	23.1	2	75	6
FDR2A051	5.1	24	26.2	2	75	6
FDR2A052	5.2	24	26.3	2	75	6
FDR2A053	5.3	24	26.4	2	75	6
FDR2A054	5.4	25	27.5	2	75	6
FDR2A055	5.5	25	27.6	2	75	6
FDR2A056	5.6	25	27.7	2	75	6
FDR2A057	5.7	27	29.7	2	75	6
FDR2A058	5.8	27	29.8	2	75	6
FDR2A059	5.9	27	29.9	2	75	6
FDR2A060	6.0	27	30	2	75	6
FDR2A061	6.1	28	31	2	75	8
FDR2A062	6.2	28	31	2	75	8
FDR2A063	6.3	28	31	2	75	8
FDR2A064	6.4	30	33	2	75	8
FDR2A065	6.5	30	33	2	75	8
FDR2A066	6.6	30	33	2	75	8
FDR2A067	6.7	31	33	2	75	8
FDR2A068	6.8	31	33	2	75	8
FDR2A069	6.9	31	33	2	75	8
FDR2A070	7.0	32	33	2	75	8
FDR2A071	7.1	33	36	2	75	8
FDR2A072	7.2	33	36	2	75	8
FDR2A073	7.3	33	36	2	75	8
FDR2A074	7.4	34	39	2	75	8
FDR2A075	7.5	34	39	2	75	8
FDR2A076	7.6	34	39	2	75	8
FDR2A077	7.7	36	39	2	75	8
FDR2A078	7.8	36	40	2	80	8
FDR2A079	7.9	36	40	2	80	8
FDR2A080	8.0	36	40	2	80	8
FDR2A081	8.1	37	42	2	100	10
FDR2A082	8.2	37	42	2	100	10
FDR2A083	8.3	37	42	2	100	10
FDR2A084	8.4	39	42	2	100	10
FDR2A085	8.5	39	42	2	100	10
FDR2A086	8.6	39	42	2	100	10
FDR2A087	8.7	40	42	2	100	10
FDR2A088	8.8	40	42	2	100	10
FDR2A089	8.9	40	42	2	100	10
FDR2A090	9.0	41	42	2	100	10
FDR2A091	9.1	42	45	2	100	10
FDR2A092	9.2	42	45	2	100	10
FDR2A093	9.3	42	45	2	100	10
FDR2A094	9.4	43	45	2	100	10
FDR2A095	9.5	43	45	2	100	10
FDR2A096	9.6	43	45	2	100	10
FDR2A097	9.7	45	48	2	100	10
FDR2A098	9.8	45	48	2	100	10
FDR2A099	9.9	45	48	2	100	10

Type no.	D	H	NL	Flutes	L	D2
FDR2A100	10.0	45	48	2	100	10
FDR2A101	10.1	46	49	2	100	12
FDR2A102	10.2	46	49	2	100	12
FDR2A103	10.3	46	49	2	100	12
FDR2A104	10.4	48	51	2	100	12
FDR2A105	10.5	48	51	2	100	12
FDR2A106	10.6	48	51	2	100	12
FDR2A107	10.7	49	51	2	100	12
FDR2A108	10.8	49	51	2	100	12
FDR2A109	10.9	49	51	2	100	12
FDR2A110	11.0	50	51	2	100	12
FDR2A111	11.1	51	54	2	100	12
FDR2A112	11.2	51	54	2	100	12
FDR2A113	11.3	51	54	2	100	12
FDR2A114	11.4	52	54	2	100	12
FDR2A115	11.5	52	54	2	100	12
FDR2A116	11.6	52	54	2	100	12
FDR2A117	11.7	54	57	2	100	12
FDR2A118	11.8	54	57	2	100	12
FDR2A119	11.9	54	57	2	100	12
FDR2A120	12.0	54	57	2	100	12
FDR2A125	12.5	57	60	2	125	12
FDR2A130	13.0	59	60	2	125	12
FDR2A135	13.5	61	63	2	125	12
FDR2A140	14.0	63	66	2	125	12
FDR2A145	14.5	66	69	2	125	12
FDR2A150	15.0	68	69	2	125	12
FDR2A155	15.5	70	72	2	125	12
FDR2A160	16.0	72	75	2	125	16
FDR2A165	16.5	75	78	2	125	16
FDR2A170	17.0	77	79	2	150	16
FDR2A175	17.5	79	81	2	150	16
FDR2A180	18.0	81	84	2	150	16
FDR2A185	18.5	84	87	2	150	16
FDR2A190	19.0	86	87	2	150	16
FDR2A195	19.5	88	91	2	150	16
FDR2A200	20.0	90	93	2	150	20



Customization
Special for customized



Remarkable Efficiency

Customization
Special for customized



DR2A 2 Flutes Carbide Drill (3D)

Type no.	D	H	Flutes	L	D2
DR2A0300	3.0	20	2	62	6
DR2A0310	3.1	20	2	62	6
DR2A0320	3.2	20	2	62	6
DR2A0330	3.3	20	2	62	6
DR2A0340	3.4	20	2	62	6
DR2A0350	3.5	20	2	62	6
DR2A0360	3.6	20	2	62	6
DR2A0370	3.7	20	2	62	6
DR2A0380	3.8	24	2	66	6
DR2A0390	3.9	24	2	66	6
DR2A0400	4.0	24	2	66	6
DR2A0410	4.1	24	2	66	6
DR2A0420	4.2	24	2	66	6
DR2A0430	4.3	24	2	66	6
DR2A0440	4.4	24	2	66	6
DR2A0450	4.5	24	2	66	6
DR2A0460	4.6	24	2	66	6
DR2A0470	4.7	24	2	66	6
DR2A0480	4.8	28	2	66	6
DR2A0490	4.9	28	2	66	6
DR2A0500	5.0	28	2	66	6
DR2A0510	5.1	28	2	66	6
DR2A0520	5.2	28	2	66	6
DR2A0530	5.3	28	2	66	6
DR2A0540	5.4	28	2	66	6
DR2A0550	5.5	28	2	66	6
DR2A0560	5.6	28	2	66	6
DR2A0570	5.7	28	2	66	6
DR2A0580	5.8	28	2	66	6
DR2A0590	5.9	28	2	66	6
DR2A0600	6.0	28	2	66	6
DR2A0610	6.1	34	2	79	8
DR2A0620	6.2	34	2	79	8
DR2A0630	6.3	34	2	79	8

Killer Whale Series

Drill, Reamer and Customized Tools

Type no.	D	H	Flutes	L	D2
DR2A0640	6.4	34	2	79	8
DR2A0650	6.5	34	2	79	8
DR2A0660	6.6	34	2	79	8
DR2A0670	6.7	34	2	79	8
DR2A0680	6.8	34	2	79	8
DR2A0690	6.9	34	2	79	8
DR2A0700	7.0	34	2	79	8
DR2A0710	7.1	41	2	79	8
DR2A0720	7.2	41	2	79	8
DR2A0730	7.3	41	2	79	8
DR2A0740	7.4	41	2	79	8
DR2A0750	7.5	41	2	79	8
DR2A0760	7.6	41	2	79	8
DR2A0770	7.7	41	2	79	8
DR2A0780	7.8	41	2	79	8
DR2A0790	7.9	41	2	79	8
DR2A0800	8.0	41	2	79	8
DR2A0810	8.1	47	2	89	10
DR2A0820	8.2	47	2	89	10
DR2A0830	8.3	47	2	89	10
DR2A0840	8.4	47	2	89	10
DR2A0850	8.5	47	2	89	10
DR2A0860	8.6	47	2	89	10
DR2A0870	8.7	47	2	89	10
DR2A0880	8.8	47	2	89	10
DR2A0890	8.9	47	2	89	10
DR2A0900	9.0	47	2	89	10
DR2A0910	9.1	47	2	89	10
DR2A0920	9.2	47	2	89	10
DR2A0930	9.3	47	2	89	10
DR2A0940	9.4	47	2	89	10
DR2A0950	9.5	47	2	89	10
DR2A0960	9.6	47	2	89	10
DR2A0970	9.7	47	2	89	10
DR2A0980	9.8	47	2	89	10
DR2A0990	9.9	47	2	89	10
DR2A1000	10.0	47	2	89	10
DR2A1010	10.1	55	2	102	12
DR2A1020	10.2	55	2	102	12
DR2A1030	10.3	55	2	102	12
DR2A1040	10.4	55	2	102	12
DR2A1050	10.5	55	2	102	12
DR2A1060	10.6	55	2	102	12
DR2A1070	10.7	55	2	102	12
DR2A1080	10.8	55	2	102	12
DR2A1090	10.9	55	2	102	12
DR2A1100	11.0	55	2	102	12
DR2A1110	11.1	55	2	102	12
DR2A1120	11.2	55	2	102	12
DR2A1130	11.3	55	2	102	12
DR2A1140	11.4	55	2	102	12
DR2A1150	11.5	55	2	102	12
DR2A1160	11.6	55	2	102	12
DR2A1170	11.7	55	2	102	12

Type no.	D	H	Flutes	L	D2
DR2A1180	11.8	55	2	102	12
DR2A1190	11.9	55	2	102	12
DR2A1200	12.0	55	2	102	12
DR2A1250	12.5	60	2	107	14
DR2A1280	12.8	60	2	107	14
DR2A1300	13.0	60	2	107	14
DR2A1350	13.5	60	2	107	14
DR2A1380	13.8	60	2	107	14
DR2A1400	14.0	60	2	107	14
DR2A1450	14.5	65	2	115	16
DR2A1480	14.8	65	2	115	16
DR2A1500	15.0	65	2	115	16
DR2A1550	15.5	65	2	115	16
DR2A1580	15.8	65	2	115	16
DR2A1600	16.0	65	2	115	16



Remarkable Efficiency

Customization
Special for customized



DR2B 2 Flutes Carbide Drill (5D)

Type no.	D	H	Flutes	L	D2
DR2B0300	3.0	28	2	66	6
DR2B0310	3.1	28	2	66	6
DR2B0320	3.2	28	2	66	6
DR2B0330	3.3	28	2	66	6
DR2B0340	3.4	28	2	66	6
DR2B0350	3.5	28	2	66	6
DR2B0360	3.6	28	2	66	6
DR2B0370	3.7	28	2	66	6
DR2B0380	3.8	36	2	74	6
DR2B0390	3.9	36	2	74	6
DR2B0400	4.0	36	2	74	6
DR2B0410	4.1	36	2	74	6
DR2B0420	4.2	36	2	74	6
DR2B0430	4.3	36	2	74	6
DR2B0440	4.4	36	2	74	6
DR2B0450	4.5	36	2	74	6
DR2B0460	4.6	36	2	74	6
DR2B0470	4.7	36	2	74	6
DR2B0480	4.8	44	2	82	6
DR2B0490	4.9	44	2	82	6
DR2B0500	5.0	44	2	82	6
DR2B0510	5.1	44	2	82	6
DR2B0520	5.2	44	2	82	6
DR2B0530	5.3	44	2	82	6
DR2B0540	5.4	44	2	82	6
DR2B0550	5.5	44	2	82	6
DR2B0560	5.6	44	2	82	6
DR2B0570	5.7	44	2	82	6
DR2B0580	5.8	44	2	82	6
DR2B0590	5.9	44	2	82	6
DR2B0600	6.0	44	2	82	6
DR2B0610	6.1	53	2	91	8
DR2B0620	6.2	53	2	91	8
DR2B0630	6.3	53	2	91	8

Killer Whale Series

Drill, Reamer and Customized Tools

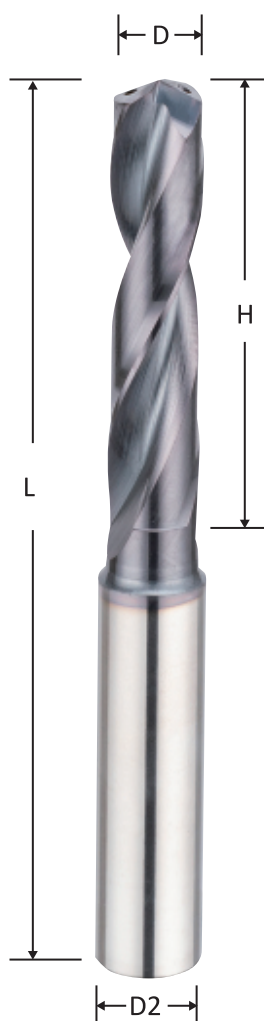
Type no.	D	H	Flutes	L	D2
DR2B0640	6.4	53	2	91	8
DR2B0650	6.5	53	2	91	8
DR2B0660	6.6	53	2	91	8
DR2B0670	6.7	53	2	91	8
DR2B0680	6.8	53	2	91	8
DR2B0690	6.9	53	2	91	8
DR2B0700	7.0	53	2	91	8
DR2B0710	7.1	53	2	91	8
DR2B0720	7.2	53	2	91	8
DR2B0730	7.3	53	2	91	8
DR2B0740	7.4	53	2	91	8
DR2B0750	7.5	53	2	91	8
DR2B0760	7.6	53	2	91	8
DR2B0770	7.7	53	2	91	8
DR2B0780	7.8	53	2	91	8
DR2B0790	7.9	53	2	91	8
DR2B0800	8.0	53	2	91	8
DR2B0810	8.1	61	2	103	10
DR2B0820	8.2	61	2	103	10
DR2B0830	8.3	61	2	103	10
DR2B0840	8.4	61	2	103	10
DR2B0850	8.5	61	2	103	10
DR2B0860	8.6	61	2	103	10
DR2B0870	8.7	61	2	103	10
DR2B0880	8.8	61	2	103	10
DR2B0890	8.9	61	2	103	10
DR2B0900	9.0	61	2	103	10
DR2B0910	9.1	61	2	103	10
DR2B0920	9.2	61	2	103	10
DR2B0930	9.3	61	2	103	10
DR2B0940	9.4	61	2	103	10
DR2B0950	9.5	61	2	103	10
DR2B0960	9.6	61	2	103	10
DR2B0970	9.7	61	2	103	10
DR2B0980	9.8	61	2	103	10
DR2B0990	9.9	61	2	103	10
DR2B1000	10.0	61	2	103	10
DR2B1010	10.1	71	2	118	12
DR2B1020	10.2	71	2	118	12
DR2B1030	10.3	71	2	118	12
DR2B1040	10.4	71	2	118	12
DR2B1050	10.5	71	2	118	12
DR2B1060	10.6	71	2	118	12
DR2B1070	10.7	71	2	118	12
DR2B1080	10.8	71	2	118	12
DR2B1090	10.9	71	2	118	12
DR2B1100	11.0	71	2	118	12
DR2B1110	11.1	71	2	118	12
DR2B1120	11.2	71	2	118	12
DR2B1130	11.3	71	2	118	12
DR2B1140	11.4	71	2	118	12
DR2B1150	11.5	71	2	118	12
DR2B1160	11.6	71	2	118	12
DR2B1170	11.7	71	2	118	12

Type no.	D	H	Flutes	L	D2
DR2B1180	11.8	71	2	118	12
DR2B1190	11.9	71	2	118	12
DR2B1200	12.0	71	2	118	12
DR2B1250	12.5	77	2	124	14
DR2B1280	12.8	77	2	124	14
DR2B1300	13.0	77	2	124	14
DR2B1350	13.5	77	2	124	14
DR2B1380	13.8	77	2	124	14
DR2B1400	14.0	77	2	124	14
DR2B1450	14.5	83	2	133	16
DR2B1480	14.8	83	2	133	16
DR2B1500	15.0	83	2	133	16
DR2B1550	15.5	83	2	133	16
DR2B1580	15.8	83	2	133	16
DR2B1600	16.0	83	2	133	16



Remarkable Efficiency

Customization
Special for customized



DRW2A 2 Flutes Carbide Coolant Drill (3D)

Type no.	D	H	Flutes	L	D2
DRW2A0300	3.0	20	2	62	6
DRW2A0310	3.1	20	2	62	6
DRW2A0320	3.2	20	2	62	6
DRW2A0330	3.3	20	2	62	6
DRW2A0340	3.4	20	2	62	6
DRW2A0350	3.5	20	2	62	6
DRW2A0360	3.6	20	2	62	6
DRW2A0370	3.7	20	2	62	6
DRW2A0380	3.8	24	2	66	6
DRW2A0390	3.9	24	2	66	6
DRW2A0400	4.0	24	2	66	6
DRW2A0410	4.1	24	2	66	6
DRW2A0420	4.2	24	2	66	6
DRW2A0430	4.3	24	2	66	6
DRW2A0440	4.4	24	2	66	6
DRW2A0450	4.5	24	2	66	6
DRW2A0460	4.6	24	2	66	6
DRW2A0470	4.7	24	2	66	6
DRW2A0480	4.8	28	2	66	6
DRW2A0490	4.9	28	2	66	6
DRW2A0500	5.0	28	2	66	6
DRW2A0510	5.1	28	2	66	6
DRW2A0520	5.2	28	2	66	6
DRW2A0530	5.3	28	2	66	6
DRW2A0540	5.4	28	2	66	6
DRW2A0550	5.5	28	2	66	6
DRW2A0560	5.6	28	2	66	6
DRW2A0570	5.7	28	2	66	6
DRW2A0580	5.8	28	2	66	6
DRW2A0590	5.9	28	2	66	6
DRW2A0600	6.0	28	2	66	6
DRW2A0610	6.1	34	2	79	8
DRW2A0620	6.2	34	2	79	8
DRW2A0630	6.3	34	2	79	8

Killer Whale Series

Drill, Reamer and Customized Tools

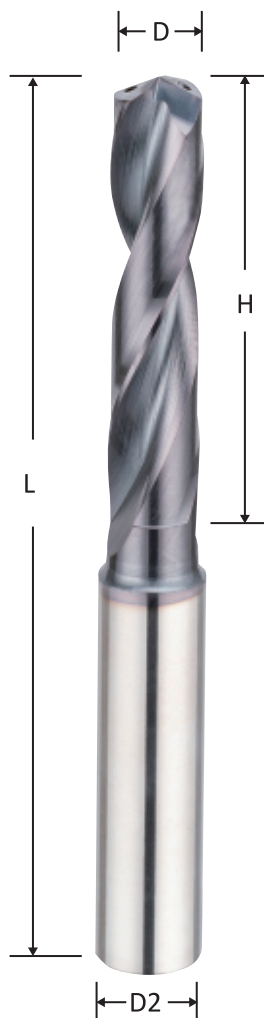
Type no.	D	H	Flutes	L	D2
DRW2A0640	6.4	34	2	79	8
DRW2A0650	6.5	34	2	79	8
DRW2A0660	6.6	34	2	79	8
DRW2A0670	6.7	34	2	79	8
DRW2A0680	6.8	34	2	79	8
DRW2A0690	6.9	34	2	79	8
DRW2A0700	7.0	34	2	79	8
DRW2A0710	7.1	41	2	79	8
DRW2A0720	7.2	41	2	79	8
DRW2A0730	7.3	41	2	79	8
DRW2A0740	7.4	41	2	79	8
DRW2A0750	7.5	41	2	79	8
DRW2A0760	7.6	41	2	79	8
DRW2A0770	7.7	41	2	79	8
DRW2A0780	7.8	41	2	79	8
DRW2A0790	7.9	41	2	79	8
DRW2A0800	8.0	41	2	79	8
DRW2A0810	8.1	47	2	89	10
DRW2A0820	8.2	47	2	89	10
DRW2A0830	8.3	47	2	89	10
DRW2A0840	8.4	47	2	89	10
DRW2A0850	8.5	47	2	89	10
DRW2A0860	8.6	47	2	89	10
DRW2A0870	8.7	47	2	89	10
DRW2A0880	8.8	47	2	89	10
DRW2A0890	8.9	47	2	89	10
DRW2A0900	9.0	47	2	89	10
DRW2A0910	9.1	47	2	89	10
DRW2A0920	9.2	47	2	89	10
DRW2A0930	9.3	47	2	89	10
DRW2A0940	9.4	47	2	89	10
DRW2A0950	9.5	47	2	89	10
DRW2A0960	9.6	47	2	89	10
DRW2A0970	9.7	47	2	89	10
DRW2A0980	9.8	47	2	89	10
DRW2A0990	9.9	47	2	89	10
DRW2A1000	10.0	47	2	89	10
DRW2A1010	10.1	55	2	102	12
DRW2A1020	10.2	55	2	102	12
DRW2A1030	10.3	55	2	102	12
DRW2A1040	10.4	55	2	102	12
DRW2A1050	10.5	55	2	102	12
DRW2A1060	10.6	55	2	102	12
DRW2A1070	10.7	55	2	102	12
DRW2A1080	10.8	55	2	102	12
DRW2A1090	10.9	55	2	102	12
DRW2A1100	11.0	55	2	102	12
DRW2A1110	11.1	55	2	102	12
DRW2A1120	11.2	55	2	102	12
DRW2A1130	11.3	55	2	102	12
DRW2A1140	11.4	55	2	102	12
DRW2A1150	11.5	55	2	102	12
DRW2A1160	11.6	55	2	102	12
DRW2A1170	11.7	55	2	102	12

Type no.	D	H	Flutes	L	D2
DRW2A1180	11.8	55	2	102	12
DRW2A1190	11.9	55	2	102	12
DRW2A1200	12.0	55	2	102	12
DRW2A1250	12.5	60	2	107	14
DRW2A1280	12.8	60	2	107	14
DRW2A1300	13.0	60	2	107	14
DRW2A1350	13.5	60	2	107	14
DRW2A1380	13.8	60	2	107	14
DRW2A1400	14.0	60	2	107	14
DRW2A1450	14.5	65	2	115	16
DRW2A1480	14.8	65	2	115	16
DRW2A1500	15.0	65	2	115	16
DRW2A1550	15.5	65	2	115	16
DRW2A1580	15.8	65	2	115	16
DRW2A1600	16.0	65	2	115	16
DRW2A1650	16.5	73	2	123	18
DRW2A1680	16.8	73	2	123	18
DRW2A1700	17.0	73	2	123	18
DRW2A1750	17.5	73	2	123	18
DRW2A1780	17.8	73	2	123	18
DRW2A1800	18.0	73	2	123	18
DRW2A1850	18.5	79	2	131	20
DRW2A1880	18.8	79	2	131	20
DRW2A1900	19.0	79	2	131	20
DRW2A1950	19.5	79	2	131	20
DRW2A1980	19.8	79	2	131	20
DRW2A2000	20.0	79	2	131	20



Remarkable Efficiency

Customization
Special for customized



DRW2B 2 Flutes Carbide Coolant Drill (5D)

Type no.	D	H	Flutes	L	D2
DRW2B0300	3.0	28	2	66	6
DRW2B0310	3.1	28	2	66	6
DRW2B0320	3.2	28	2	66	6
DRW2B0330	3.3	28	2	66	6
DRW2B0340	3.4	28	2	66	6
DRW2B0350	3.5	28	2	66	6
DRW2B0360	3.6	28	2	66	6
DRW2B0370	3.7	28	2	66	6
DRW2B0380	3.8	36	2	74	6
DRW2B0390	3.9	36	2	74	6
DRW2B0400	4.0	36	2	74	6
DRW2B0410	4.1	36	2	74	6
DRW2B0420	4.2	36	2	74	6
DRW2B0430	4.3	36	2	74	6
DRW2B0440	4.4	36	2	74	6
DRW2B0450	4.5	36	2	74	6
DRW2B0460	4.6	36	2	74	6
DRW2B0470	4.7	36	2	74	6
DRW2B0480	4.8	44	2	82	6
DRW2B0490	4.9	44	2	82	6
DRW2B0500	5.0	44	2	82	6
DRW2B0510	5.1	44	2	82	6
DRW2B0520	5.2	44	2	82	6
DRW2B0530	5.3	44	2	82	6
DRW2B0540	5.4	44	2	82	6
DRW2B0550	5.5	44	2	82	6
DRW2B0560	5.6	44	2	82	6
DRW2B0570	5.7	44	2	82	6
DRW2B0580	5.8	44	2	82	6
DRW2B0590	5.9	44	2	82	6
DRW2B0600	6.0	44	2	82	6
DRW2B0610	6.1	53	2	91	8
DRW2B0620	6.2	53	2	91	8
DRW2B0630	6.3	53	2	91	8

Killer Whale Series

Drill, Reamer and Customized Tools

Type no.	D	H	Flutes	L	D2
DRW2B0640	6.4	53	2	91	8
DRW2B0650	6.5	53	2	91	8
DRW2B0660	6.6	53	2	91	8
DRW2B0670	6.7	53	2	91	8
DRW2B0680	6.8	53	2	91	8
DRW2B0690	6.9	53	2	91	8
DRW2B0700	7.0	53	2	91	8
DRW2B0710	7.1	53	2	91	8
DRW2B0720	7.2	53	2	91	8
DRW2B0730	7.3	53	2	91	8
DRW2B0740	7.4	53	2	91	8
DRW2B0750	7.5	53	2	91	8
DRW2B0760	7.6	53	2	91	8
DRW2B0770	7.7	53	2	91	8
DRW2B0780	7.8	53	2	91	8
DRW2B0790	7.9	53	2	91	8
DRW2B0800	8.0	53	2	91	8
DRW2B0810	8.1	61	2	103	10
DRW2B0820	8.2	61	2	103	10
DRW2B0830	8.3	61	2	103	10
DRW2B0840	8.4	61	2	103	10
DRW2B0850	8.5	61	2	103	10
DRW2B0860	8.6	61	2	103	10
DRW2B0870	8.7	61	2	103	10
DRW2B0880	8.8	61	2	103	10
DRW2B0890	8.9	61	2	103	10
DRW2B0900	9.0	61	2	103	10
DRW2B0910	9.1	61	2	103	10
DRW2B0920	9.2	61	2	103	10
DRW2B0930	9.3	61	2	103	10
DRW2B0940	9.4	61	2	103	10
DRW2B0950	9.5	61	2	103	10
DRW2B0960	9.6	61	2	103	10
DRW2B0970	9.7	61	2	103	10
DRW2B0980	9.8	61	2	103	10
DRW2B0990	9.9	61	2	103	10
DRW2B1000	10.0	61	2	103	10
DRW2B1010	10.1	71	2	118	12
DRW2B1020	10.2	71	2	118	12
DRW2B1030	10.3	71	2	118	12
DRW2B1040	10.4	71	2	118	12
DRW2B1050	10.5	71	2	118	12
DRW2B1060	10.6	71	2	118	12
DRW2B1070	10.7	71	2	118	12
DRW2B1080	10.8	71	2	118	12
DRW2B1090	10.9	71	2	118	12
DRW2B1100	11.0	71	2	118	12
DRW2B1110	11.1	71	2	118	12
DRW2B1120	11.2	71	2	118	12
DRW2B1130	11.3	71	2	118	12
DRW2B1140	11.4	71	2	118	12
DRW2B1150	11.5	71	2	118	12
DRW2B1160	11.6	71	2	118	12
DRW2B1170	11.7	71	2	118	12

Type no.	D	H	Flutes	L	D2
DRW2B1180	11.8	71	2	118	12
DRW2B1190	11.9	71	2	118	12
DRW2B1200	12.0	71	2	118	12
DRW2B1250	12.5	77	2	124	14
DRW2B1280	12.8	77	2	124	14
DRW2B1300	13.0	77	2	124	14
DRW2B1350	13.5	77	2	124	14
DRW2B1380	13.8	77	2	124	14
DRW2B1400	14.0	77	2	124	14
DRW2B1450	14.5	83	2	133	16
DRW2B1480	14.8	83	2	133	16
DRW2B1500	15.0	83	2	133	16
DRW2B1550	15.5	83	2	133	16
DRW2B1580	15.8	83	2	133	16
DRW2B1600	16.0	83	2	133	16



Customization
Special for customized

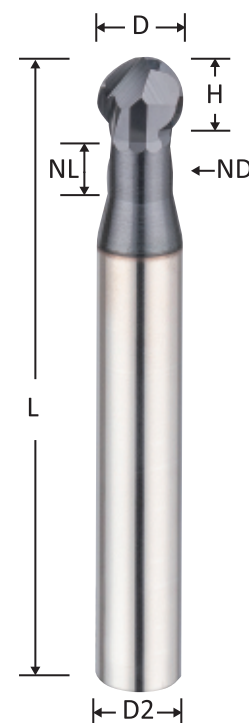


Remarkable Efficiency

Customization
Special for customized

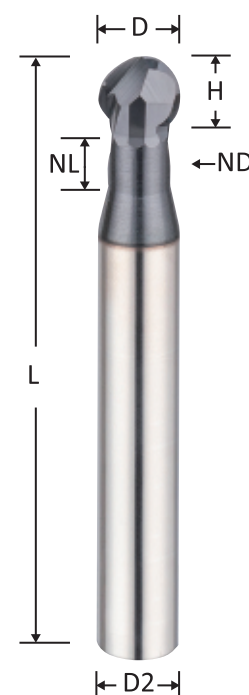
BR2A 2 Flutes Carbide Lollipop tools 260°

Type no.	D	H	ND	NL	Flutes	L	D2
BR2A-1R	1R	1.63	1.53	3	2	50	4
BR2A-1.5R	1.5R	2.46	2.3	3	2	50	4
BR2A-2R	2R	3.3	3.06	5	2	50	4
BR2A-2.5R	2.5R	4.1	3.83	5	2	50	6
BR2A-3R	3R	4.93	4.6	5	2	50	6
BR2A-4R	4R	6.58	6.15	6	2	60	8
BR2A-5R	5R	8.22	7.66	8	2	75	10
BR2A-6R	6R	9.86	9.2	10	2	75	12
BR2A-8R	8R	13.37	12.26	10	2	100	16



BRL2A Long Shank 2 Flutes Carbide Lollipop tools 260°

Type no.	D	H	ND	NL	Flutes	L	D2
BRL2A-1R	1R	1.63	1.53	3	2	75	4
BRL2A-1.5R	1.5R	2.46	2.3	3	2	75	4
BRL2A-2R	2R	3.3	3.06	5	2	75	4
BRL2A-2.5R	2.5R	4.1	3.83	5	2	75	6
BRL2A-3R	3R	4.93	4.6	5	2	75	6
BRL2A-4R	4R	6.58	6.15	6	2	100	8
BRL2A-5R	5R	8.22	7.66	8	2	100	10
BRL2A-6R	6R	9.86	9.2	10	2	100	12



Killer Whale Series

Drill, Reamer and Customized Tools

C2A 2 Flutes Carbide Chamfer End Mill 90°

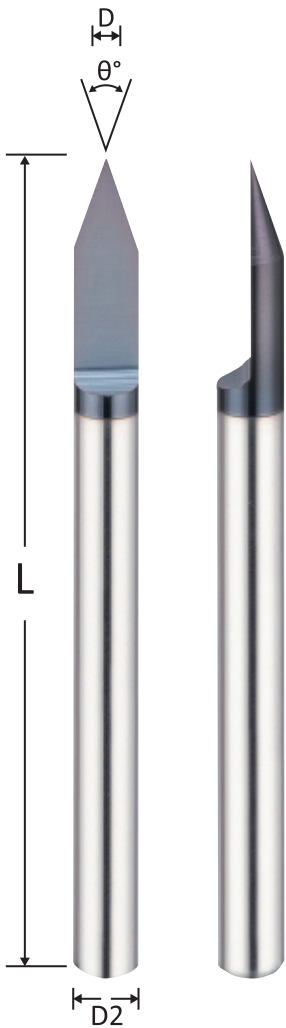
Type no.	D	Flutes	L	D2
C2A03	3	2	50	3
C2A04	4	2	50	4
C2A06	6	2	50	6
C2A08	8	2	60	8
C2A10	10	2	75	10
C2A12	12	2	75	12



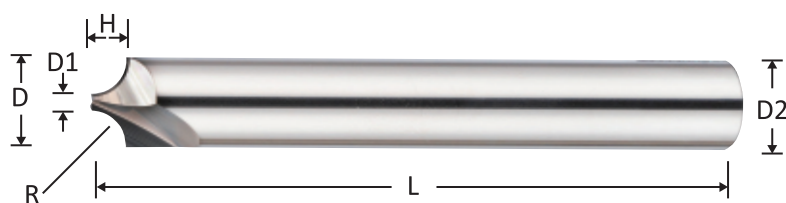
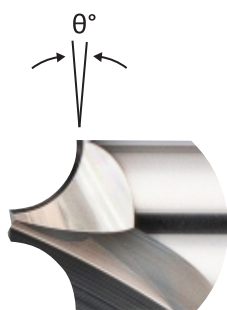
Customization
Special for customized

EG Carbide Engraving End Mill 30° 、 60° 、 90°

Type no.	D	θ°	Flutes	L	D2
EG304020	0.20	30°	1	50	4
EG304025	0.25	30°	1	50	4
EG304050	0.50	30°	1	50	4
EG304075	0.75	30°	1	50	4
EG306020	0.20	30°	1	50	6
EG306025	0.25	30°	1	50	6
EG306050	0.50	30°	1	50	6
EG306075	0.75	30°	1	50	6
EG604020	0.20	60°	1	50	4
EG604025	0.25	60°	1	50	4
EG604050	0.50	60°	1	50	4
EG604075	0.75	60°	1	50	4
EG604150	1.50	60°	1	50	4
EG606020	0.20	60°	1	50	6
EG606025	0.25	60°	1	50	6
EG606050	0.50	60°	1	50	6
EG606075	0.75	60°	1	50	6
EG606150	1.50	60°	1	50	6
EG904020	0.20	90°	1	50	4
EG904025	0.25	90°	1	50	4
EG904050	0.50	90°	1	50	4
EG904075	0.75	90°	1	50	4
EG904150	1.50	90°	1	50	4
EG906020	0.20	90°	1	50	6
EG906025	0.25	90°	1	50	6
EG906050	0.50	90°	1	50	6
EG906075	0.75	90°	1	50	6
EG906150	1.50	90°	1	50	6



Remarkable Efficiency



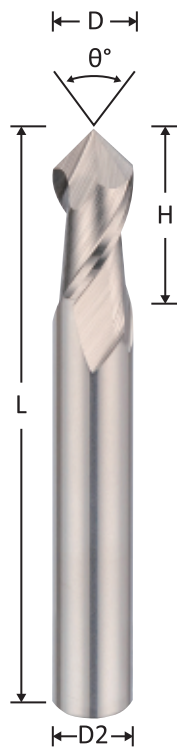
OR2A 2 Flutes Carbide Outer Radius End Mill

Type no.	R	θ°	D1	D	H	Flutes	L	D2
OR2A4025	0.25R	3°	3.1	4	0.45	2	50	4
OR2A4050	0.5R	3°	2.6	4	0.70	2	50	4
OR2A4075	0.75R	3°	2.1	4	0.95	2	50	4
OR2A4100	1R	3°	1.6	4	1.20	2	50	4
OR2A4125	1.25R	3°	1.1	4	1.45	2	50	4
OR2A4150	1.5R	3°	0.7	4	1.70	2	50	4
OR2A6025	0.25R	3°	5.1	6	0.45	2	50	6
OR2A6050	0.5R	3°	4.6	6	0.70	2	50	6
OR2A6075	0.75R	3°	4.1	6	0.95	2	50	6
OR2A6100	1R	3°	3.6	6	1.20	2	50	6
OR2A6125	1.25R	3°	3.1	6	1.42	2	50	6
OR2A6150	1.5R	3°	2.6	6	1.70	2	50	6
OR2A6175	1.75R	3°	2.1	6	1.95	2	50	6
OR2A6200	2R	3°	1.6	6	2.20	2	50	6
OR2A6250	2.5R	3°	0.7	6	2.70	2	50	6
OR2A8050	0.5R	3°	6.6	8	0.70	2	50	8
OR2A8075	0.75R	3°	6.1	8	0.95	2	50	8
OR2A8100	1R	3°	5.6	8	1.20	2	50	8
OR2A8125	1.25R	3°	5.1	8	1.45	2	50	8
OR2A8150	1.5R	3°	4.6	8	1.70	2	50	8
OR2A8175	1.75R	3°	4.1	8	1.95	2	50	8
OR2A8200	2R	3°	3.6	8	2.20	2	50	8
OR2A8250	2.5R	3°	2.6	8	2.70	2	50	8
OR2A8275	2.75R	3°	2.1	8	2.95	2	50	8
OR2A8300	3R	3°	1.6	8	3.20	2	50	8
OR2A1020	2R	3°	5.6	10	2.20	2	60	10
OR2A1030	3R	3°	3.6	10	3.20	2	60	10
OR2A1040	4R	3°	1.6	10	4.20	2	60	10
OR2A1220	2R	3°	7.6	12	2.20	2	60	12
OR2A1230	3R	3°	5.6	12	3.20	2	60	12
OR2A1240	4R	3°	3.6	12	4.20	2	60	12
OR2A1250	5R	3°	1.6	12	5.20	2	60	12
OR2A1650	5R	3°	5.6	16	5.20	2	75	16
OR2A1660	6R	3°	3.6	16	6.20	2	75	16



Killer Whale Series

Drill, Reamer and Customized Tools

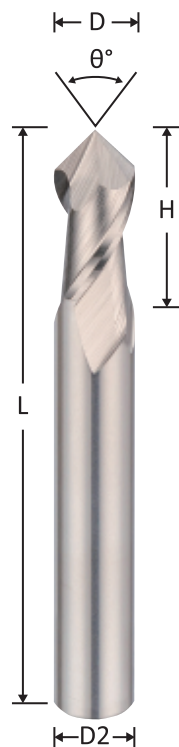


MSD2A 60°,90°,120°

2 Flutes Carbide Multi function NC Spot Drill 60°,90°,120°

Type no.	θ°	D	H	Flutes	L	D2
MSD2A603	60°	3	6	2	50	6
MSD2A604	60°	4	8	2	50	6
MSD2A605	60°	5	10	2	50	6
MSD2A606	60°	6	12	2	50	6
MSD2A608	60°	8	16	2	60	8
MSD2A610	60°	10	20	2	75	10
MSD2A612	60°	12	24	2	75	12
MSD2A616	60°	16	32	2	100	16
MSD2A620	60°	20	40	2	100	20
MSD2A903	90°	3	6	2	50	6
MSD2A904	90°	4	8	2	50	6
MSD2A905	90°	5	10	2	50	6
MSD2A906	90°	6	12	2	50	6
MSD2A908	90°	8	16	2	60	8
MSD2A910	90°	10	20	2	75	10
MSD2A912	90°	12	24	2	75	12
MSD2A916	90°	16	32	2	100	16
MSD2A920	90°	20	40	2	100	20
MSD2A1203	120°	3	6	2	50	6
MSD2A1204	120°	4	8	2	50	6
MSD2A1205	120°	5	10	2	50	6
MSD2A1206	120°	6	12	2	50	6
MSD2A1208	120°	8	16	2	60	8
MSD2A1210	120°	10	20	2	75	10
MSD2A1212	120°	12	24	2	75	12
MSD2A1216	120°	16	32	2	100	16
MSD2A1220	120°	20	40	2	100	20

Remarkable Efficiency



MSDL2A 60°,90°,120° Long Shank 2 Flutes Carbide Multi function NC Spot Drill 60°,90°,120°

Type no.	θ°	D	H	Flutes	L	D2
MSDL2A603	60°	3	6	2	75	6
MSDL2A604	60°	4	8	2	75	6
MSDL2A605	60°	5	10	2	75	6
MSDL2A606	60°	6	12	2	75	6
MSDL2A608	60°	8	16	2	100	8
MSDL2A610	60°	10	20	2	100	10
MSDL2A612	60°	12	24	2	100	12
MSDL2A903	90°	3	6	2	75	6
MSDL2A904	90°	4	8	2	75	6
MSDL2A905	90°	5	10	2	75	6
MSDL2A906	90°	6	12	2	75	6
MSDL2A908	90°	8	16	2	100	8
MSDL2A910	90°	10	20	2	100	10
MSDL2A912	90°	12	24	2	100	12
MSDL2A1203	120°	3	6	2	75	6
MSDL2A1204	120°	4	8	2	75	6
MSDL2A1205	120°	5	10	2	75	6
MSDL2A1206	120°	6	12	2	75	6
MSDL2A1208	120°	8	16	2	100	8
MSDL2A1210	120°	10	20	2	100	10
MSDL2A1212	120°	12	24	2	100	12



Killer Whale Series

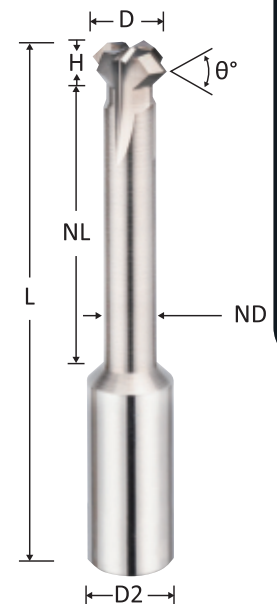
Drill, Reamer and Customized Tools

UC4A

UC6A

Carbide Front and Back Chamfer End Mill 60°,90°

Type no.	θ°	D	H	ND	NL	Flutes	L	D2
UC4A604	60°	4	1.2	1.8	3	4	50	4
UC4A606	60°	6	1.8	2.7	4	4	60	6
UC6A608	60°	8	2.4	3.6	5	6	60	8
UC6A610	60°	10	3.1	4.5	6	6	75	10
UC6A612	60°	12	3.7	5.4	7	6	75	12
UC4A904	90°	4	1.8	2	4	4	50	4
UC4A906	90°	6	2.8	3	4	4	60	6
UC6A908	90°	8	3.8	4	5	6	60	8
UC6A910	90°	10	4.8	5	6	6	75	10
UC6A912	90°	12	5.8	6	7	6	75	12

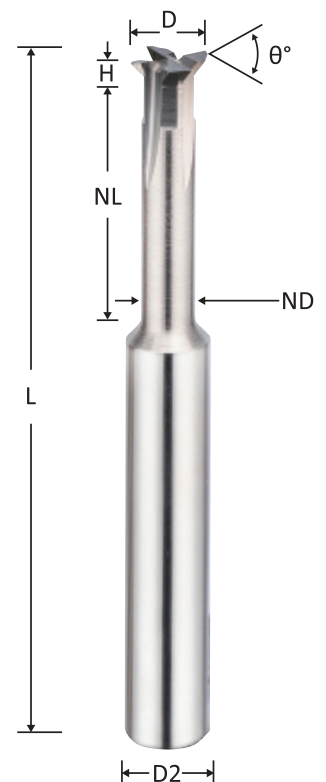


DO4A

DO6A

Carbide Dovetail End Mill 45°,60°

Type no.	θ°	D	H	ND	NL	Flutes	L	D2
DO4A4503	45°	3	0.8	1.4	3	4	60	6
DO4A45044/DO4A45046	45°	4	1	2	3	4	50/60	4/6
DO4A4505	45°	5	1.2	2.5	4	4	60	6
DO4A4506	45°	6	1.4	3	4	4	60	6
DO4A/6A4508	45°	8	1.9	4	5	4/6	60	8
DO4A/6A4510	45°	10	2.4	5	6	4/6	75	10
DO4A/6A4512	45°	12	2.9	6	7	4/6	75	12
DO4A6003	60°	3	1.2	1.5	3	4	60	6
DO4A6004	60°	4	1.6	2	3.5	4	60	6
DO4A6005	60°	5	2.2	2.3	4	4	60	6
DO4A6006	60°	6	2.7	2.7	4	4	60	6
DO4A/6A6008	60°	8	3.7	3.6	5	4/6	60	8
DO4A/6A6010	60°	10	4.6	4.5	6	4/6	75	10
DO4A/6A6012	60°	12	5.6	5.4	7	4/6	75	12



Hybrid Iron Carbide Mill



Killer Whale Series

Hybrid Iron Carbide Mill

Hybrid Iron Carbide Mill

YR

Roughing Shell End Mill, 6-8 Flutes

Type no.	Diameter		Flute Length	Overall Length	Flute NO.
	D	d1	H	L	T
YR50050	50	1"	50	65	6
YR50080	50	1"	80	95	6
YR60060	60	1" / 1 $\frac{1}{4}$ "	60	75	6
YR60080	60	1" / 1 $\frac{1}{4}$ "	80	100	6
YR60100	60	1" / 1 $\frac{1}{4}$ "	100	120	6
YR75060	75	1 $\frac{1}{4}$ "	60	80	8
YR75080	75	1 $\frac{1}{4}$ "	80	100	8
YR75100	75	1 $\frac{1}{4}$ "	100	120	8
YR75125	75	1 $\frac{1}{4}$ "	125	145	8
YR75150	75	1 $\frac{1}{4}$ "	150	170	8



YF

Finishing Shell End Mill, 6-8 Flutes

Type no.	Diameter		Flute Length	Overall Length	Flute NO.
	D	d1	H	L	T
YF50050	50	1"	50	65	6
YF50080	50	1"	80	95	6
YF60060	60	1" / 1 $\frac{1}{4}$ "	60	75	6
YF60080	60	1" / 1 $\frac{1}{4}$ "	80	90	6
YF75060	75	1 $\frac{1}{4}$ "	60	80	8
YF75080	75	1 $\frac{1}{4}$ "	80	100	8
YF75100	75	1 $\frac{1}{4}$ "	100	120	8
YF75125	75	1 $\frac{1}{4}$ "	125	145	8



Remarkable Efficiency

Hybrid Iron Carbide Mill

YE

Welding carbide standard precision end mill

Type no.	Diameter	Flute Length	Overall Length	Shank Dia	Flute NO.
	D	H	L	D2	T
YE163216	16	32	100	16	4
YE173216	17	32	100	16	4
YE183520	18	35	105	20	4
YE193820	19	38	110	20	4
YE204020	20	40	110	20	4
YE214020	21	40	110	20	4
YE224020	22	40	110	20	4
YE235020	23	50	130	20	4
YE245020	24	50	130	20	4
YE255025	25	50	130	25	4
YE265025	26	50	130	25	4
YE275025	27	50	130	25	4
YE285025	28	50	130	25	4
YE295032	29	50	130	32	4
YE305032	30	50	130	32	4
YE315032	31	50	130	32	4
YE325032	32	50	130	32	4
YE335032	33	50	140	32	4
YE345032	34	50	140	32	4
YE355032	35	50	140	32	4
YE365032	36	50	140	32	4
YE385032	38	50	140	32	4
YE406332	40	63	150	32	4
YE426332	42	63	165	32	4
YE456332	45	63	165	32	4
YE486332	48	63	165	32	4
YE506332	50	63	165	32	4



Killer Whale Series

Hybrid Iron Carbide Mill



Hybrid Iron Carbide Mill

YA45

Welding carbide chamfer end mill, 2-6 Flutes

Type no.	Diameter	Flute Length	Shank Dia	Overall Length	Degrees	Flute NO.
	D	H	D2	L	θ	T
YA45220	20	10	16	90	45°	2
YA45225	25	12	16	90	45°	2
YA45230	30	15	20	100	45°	2
YA45235	35	17	20	100	45°	2
YA45440	40	20	25	100	45°	4
YA45450	50	25	32	110	45°	4
YA45660	60	30	32	120	45°	6



YT

Welding carbide T-slot milling cutters / staggered teeth (for mold machining) 4-10 Flutes

Type no.	Diameter	Flute Length	Overall Length	Shank Dia	Flute NO.
	D	H	L	D2	T
YT041604	16	4,5,6,8,10	100	12	4
YT042004	20	4,5,6,8,10	100	12	4
YT062504	25	4,5,6,8,10,12	120	16	6
YT063005	30	5,6,8,10,12	120	16	6
YT063204	32	4,5,6,8,10,12	120	16	6
YT063504	35	4,5,6,8,10,12	120	16	6
YT064005	40	5,6,8,10,12	120	25	6
YT084505	45	5,6,8,10,12	140	25	8
YT085006	50	6,8,10,12	140	25	8



Remarkable Efficiency

Hybrid Iron Carbide Mill

YD

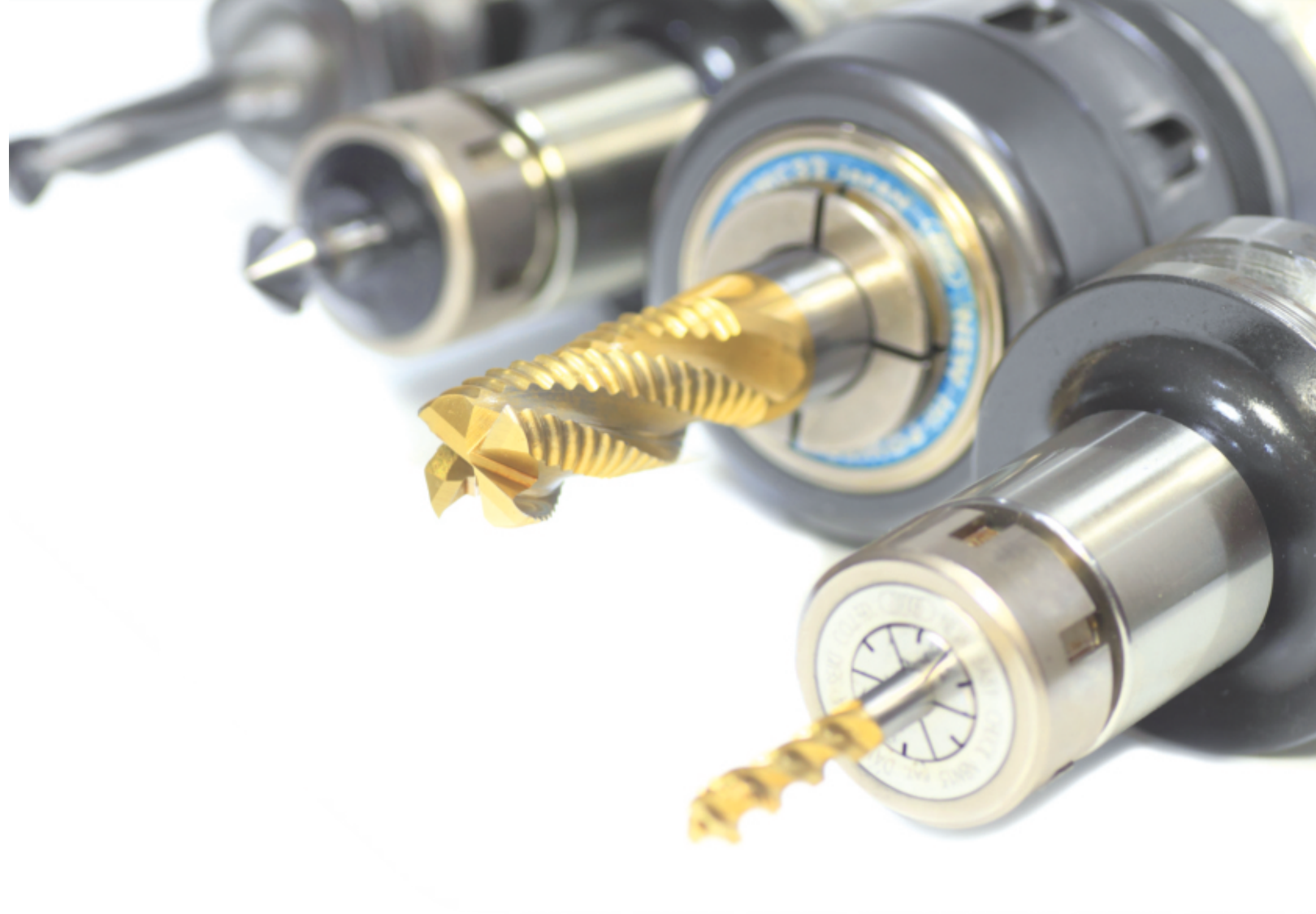
Dovetail Milling Cutter with Shank, 4-6 Flutes

Type no.	Diameter	Flute Length	Shank Dia	Neck Dia	Neck Length	Overall Length	Degrees	Flute NO.
	D	H	D2	d1	L1	L	θ	T
YD453016	30	8	16	11	12	100	45°	4
YD454016	40	12	16	13	15	100	45°	6
YD455020	50	15	20	17	15	105	45°	6
YD456025	60	18	25	21	15	110	45°	6
YD60082012	20	8	12	9	10	100	60°	4
YD60112512	25	11	12	10	15	100	60°	4
YD60143020	30	14	20	11	15	100	60°	4
YD60153520	35	15	20	15	15	100	60°	6
YD60174020	40	17	20	18	15	110	60°	6
YD60204520	45	20	20	19	15	115	60°	6
YD60225025	50	22	25	22	15	115	60°	6
YD60286032	60	28	32	25	15	130	60°	6

YSS

Face Milling Cutter (cylinder) with Staggered teeth, 8-18 Flutes

Type no.	Diameter	Flute Length	Shank Dia	Overall Length	Cylinder Height	Flute NO.
	D	H	d	L	H1	T
YSS14100	100	16	31.75 (1 $\frac{1}{4}$ ")	60	45	14
YSS16125	125	18	31.75 (1 $\frac{1}{4}$ ")	60	45	16
YSS18150	150	20	31.75 (1 $\frac{1}{4}$ ")	65	45	18
YSS08080	80	15	25.4 (1")	55	40	8
YSS10100	100	15	31.75 (1 $\frac{1}{4}$ ")	55	40	10
YSS14130	130	15	31.75 (1 $\frac{1}{4}$ ")	55	40	14
YSS16150	150	15	31.75 (1 $\frac{1}{4}$ ")	55	40	16

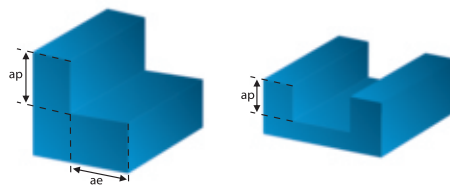


Milling Conditions

Milling Conditions

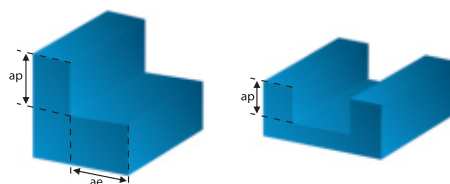
Milling Conditions for YDS10E4A

Milling parameters													
Work material		Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 25-35HRC		Hardened Steels 45-55HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys 20-45HRC	
		R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
Diameter													
2		12800	570	12000	380	8300	230	6000	150	6000	130	3700	70
4		6800	730	6400	490	4400	300	3200	200	3200	170	2000	90
6		4600	770	4300	520	3000	320	2200	210	2200	180	1400	100
8		3400	770	3200	520	2200	320	1600	210	1600	180	1000	100
10		2800	780	2600	520	1800	320	1300	210	1300	180	800	100
12		2300	780	2200	530	1500	320	1100	210	1100	180	700	100
16		1700	650	1600	420	1100	280	800	170	800	150	500	80
side milling	ap	1.5D		1.5D		1.5D		1D		1.5D		1D	
	ae	0.1D		0.1D		0.05D		0.02D		0.1D		0.05D	
slotting	ap	0.5D		0.5D		0.2D		0.05D		0.3D		0.1D	



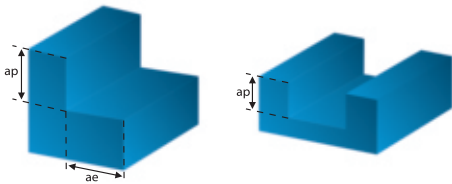
Milling Conditions for YDS10E2A

Milling parameters												
Work material	Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 25-35HRC		Hardened Steels 45-55HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys 20-45HRC	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
2	11200	340	10500	240	7300	130	5300	80	5300	90	3300	50
4	6400	460	6000	320	4200	180	3000	110	3000	130	1900	70
6	4600	550	4300	390	3000	210	2200	130	2200	150	1400	80
8	3400	550	3200	390	2200	210	1600	130	1600	150	1000	80
10	2800	560	2600	390	1800	210	1300	130	1300	150	800	80
12	2300	560	2200	400	1500	210	1100	130	1100	150	700	80
16	1700	450	1600	320	1100	180	800	100	800	110	500	60
side milling	ap	1.5D	1.5D		1.5D		1D		1.5D		1D	
	ae	0.1D	0.1D		0.05D		0.02D		0.1D		0.05D	
slotting	ap	0.5D	0.5D		0.3D		0.05D		0.5D		0.05D	



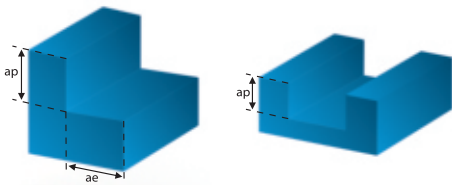
Milling Conditions for YDS10E3A

Milling parameters													
Work material		Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 25-35HRC		Hardened Steels 45-55HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys 20-45HRC	
Diameter		R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
2		12800	570	12000	380	8300	230	6000	150	6000	130	3700	70
4		6800	730	6400	490	4400	300	3200	200	3200	170	2000	90
6		4600	770	4300	520	3000	320	2200	210	2200	180	1400	100
8		3400	770	3200	520	2200	320	1600	210	1600	180	1000	100
10		2800	780	2600	520	1800	320	1300	210	1300	180	800	100
12		2300	780	2200	530	1500	320	1100	210	1100	180	700	100
16		1700	650	1600	420	1100	280	800	170	800	150	500	80
side milling	ap	1.5D		1.5D		1.5D		1D		1.5D		1D	
	ae	0.1D		0.1D		0.05D		0.02D		0.1D		0.05D	
slotting	ap	0.5D		0.5D		0.2D		0.05D		0.3D		0.1D	



Milling Conditions for YDS10E6A

Milling parameters											
Work material		Carbon Steels		Pre-Hardened Steels		Carbon Steels		Stainless Steels		Cast Irons	
		45-55HRC		Mold Steels 35-45HRC		Alloy Steels - 35HRC		SUS304, 316		FC, FCD	
Diameter		R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
4		2400	180	4000	490	8000	1600	2800	180	8000	1600
5		1900	220	3200	490	6200	2000	2200	230	6200	2000
6		1600	250	2700	490	5300	2000	1900	230	5300	2400
8		1200	280	2000	490	4000	2000	1400	230	4000	2400
10		1000	300	1600	630	3200	2000	1100	230	3200	2400
12		800	350	1300	570	2700	2100	930	300	2700	2400
16		640	220	1100	360	2000	1900	700	270	2000	2000
side milling	ap	1.5D		1.5D		1.5D		1.5D		1.5D	
	ae	0.05D		0.1D		0.1D		0.1D		0.1D	
slotting	ap	MAX 0.005		0.1D		0.1D		0.1D		0.1D	

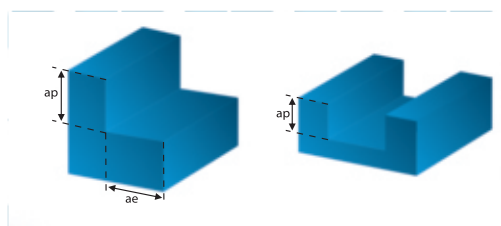


Milling Conditions



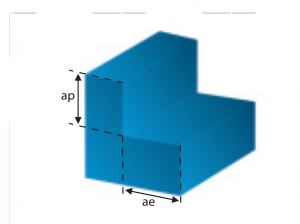
Milling Conditions for YDS10EL4A / Milling Conditions for YDS10EL2A

Milling parameters										
Work material	Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 40-50HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys 20-45HRC	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
3	8500	520	5500	300	3800	260	5000	220	2500	80
4	6600	560	4500	320	3000	270	4000	220	2000	80
6	4800	670	3000	340	2500	270	3000	340	1200	80
8	3600	700	2200	430	2000	280	2000	360	1000	100
10	2800	700	1800	430	1500	280	1700	390	800	110
12	2400	670	1500	390	1200	270	1500	350	700	100
16	1800	460	1100	290	800	210	1000	250	500	80
side milling	ap	1.2D	1.2D	1.2D	1.2D	1.2D	1.2D	1.2D	1.2D	1.2D
	ae	0.01D	0.01D	0.01D	0.05D	0.05D	0.1D	0.1D	0.05D	0.05D
slotting	ap	0.05D	0.05D	0.05D	0.1D	0.1D	0.2D	0.2D	0.1D	0.1D



Milling Conditions for YDS10EF4A / Milling Conditions for YDS10EF2A

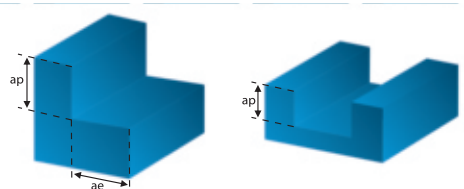
Milling parameters										
Work material	Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 40-50HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys 20-45HRC	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
3	8500	370	5500	210	4000	180	5500	160	2600	60
4	6600	400	4500	220	3000	190	4000	160	2000	60
6	4800	480	3000	240	2500	190	3000	240	1200	60
8	3600	500	2200	300	2000	200	2000	260	1000	70
10	2800	500	1800	300	1500	200	1700	270	800	80
12	2400	470	1500	270	1200	190	1500	250	700	70
16	1800	320	1100	210	800	150	1000	180	500	60
side milling	ap	3D	3D	3D	3D	3D	3D	3D	3D	3D
	ae	0.05	0.05D	0.05D	0.05D	0.05D	0.05D	0.05D	0.02D	0.02D



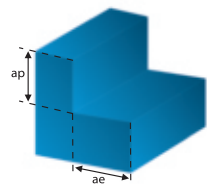
Milling Conditions for YDS10EP4A

Milling parameters											
Work material	Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 40-50HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys 20-45HRC		
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	
4	6600	800	4500	450	3000	380	4000	320	2000	120	
6	4800	960	3000	480	2500	380	3000	480	1200	120	
8	3600	1000	2200	610	2000	400	2000	520	1000	140	
10	2800	1000	1800	610	15000	400	1700	550	800	160	
12	2400	950	1500	550	1200	380	1500	500	700	140	
16	1800	650	1100	420	800	300	1000	360	500	120	
side milling	ap	1.5D	1.5D		1.5D		1.5D		1.5D		
	ae	0.1D	0.1D		0.05D		0.1D		0.05D		
slotting	ap	1D	1D		0.2D		0.3D		0.2D		

Milling Conditions for YDS10HE4A Milling Conditions for YDS10HE3A



Milling parameters												
Work material	Carbon Steels Cast Irons 150-250HB		Cast Irons FC, FCD		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 45-55HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
6	4800	800	5300	890	4200	510	270	290	3200	230	1600	110
8	3600	800	4000	890	3200	510	2000	290	2400	230	1200	110
10	2800	800	3200	890	2500	510	1600	290	1900	230	950	110
12	2400	800	2700	890	2100	510	1300	290	1600	230	800	110
16	1800	740	2000	830	1600	460	1000	250	1200	190	600	110
20	1400	700	1600	780	1300	410	800	220	950	150	480	80
side milling	ap	1.5D	1.5D	1.5D	1.5D	1.5D	1D	1D	1.5D	1.5D	1D	1D
	ae	0.3D	0.3D	0.3D	0.3D	0.3D	0.02D	0.02D	0.2D	0.2D	0.1D	0.1D



Milling Conditions for YDS10HE4A Milling Conditions for YDS10HE3A

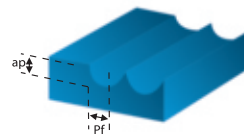
Milling parameters													
Work material		Carbon Steels Cast Irons 150-250HB		Cast Irons FC, FCD		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 45-55HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys	
Diameter		R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
6		3700	620	4200	710	3200	380	1900	200	2700	190	1100	80
8		2800	620	3200	710	2400	380	1400	200	2000	190	800	80
10		2200	620	2600	710	1900	380	1100	200	1600	190	650	80
12		1900	620	2100	710	1600	380	900	200	1300	190	550	80
16		1400	580	1600	660	1200	340	700	180	1000	160	400	60
20		1100	540	1300	620	950	300	550	160	800	130	320	50
side milling	ap	0.7D		0.7D		0.7D		0.2D		0.3D		0.2D	



Milling Conditions

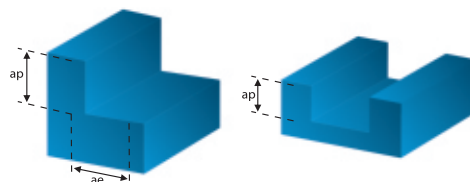
Milling Conditions for YDS10B4A / Milling Conditions for YDS10B2A

Milling parameters												
Work material	Carbon Steels Cast Irons		Alloy Steels Mold Steels		Hardened Steels Pre-Hardened Steel 30-38HRC		Stainless Steels Hardened Steels 38-45HRC		Hardened Steels 45-55HRC		Hardened Steels 55-60HRC	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
0.5	32000	820	31000	620	25000	440	22000	330	19000	240	14000	130
1	16000	920	15000	680	13000	510	11000	380	9600	280	7200	160
2	8000	1000	7600	760	6400	560	5600	430	4800	310	3600	170
3	5300	1000	5100	770	4200	550	3700	420	3200	310	2400	170
5	3200	1000	3100	780	2500	550	2200	420	1900	300	1400	170
8	2000	920	1900	680	1600	510	1400	380	1200	280	900	160
10	1600	820	1500	600	1300	460	1100	330	960	250	720	140
Depth of cut	ap	0.05D (R<0.5) 0.1D (R≥0.5)							0.05D		0.05D	
	Pf	0.2D							0.1D		0.1D	



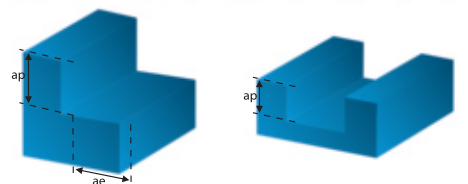
Milling Conditions for YDS10EB4A / Milling Conditions for YDS10EB2A

Milling parameters											
Work material		Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 40-50HRC		Stainless Steels		Nickel Alloys Titanium Alloys 20-45HRC	
		R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
Diameter											
2		9000	720	6000	430	4000	320	5500	320	2600	120
4		6600	800	4500	450	3000	380	4000	320	2000	120
6		4800	960	3000	480	2500	380	3000	480	1200	120
8		3600	1000	2200	610	2000	400	2000	520	1000	140
10		2800	1000	1800	610	1500	400	1700	550	800	160
12		2400	950	1500	550	1200	380	1500	500	700	140
side milling	ap	1.5D		1.5D		1.5D		1.5D		1.5D	
	ae	0.1D		0.1D		0.05D		0.1D		0.05D	
slotting	ap	1D		1D		0.2D		0.3D		0.2D	



Milling Conditions for YDS10EBL4A / Milling Conditions for YDS10EBL2A

Milling parameters											
Work material		Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 40-50HRC		Stainless Steels SUS304, 316		Nickel Alloys Titanium Alloys 20-45HRC	
Diameter		R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
3		8500	520	5500	300	3800	260	5000	220	2500	80
4		6600	560	4500	320	3000	270	4000	220	2000	80
6		4800	670	3000	340	2500	270	3000	340	1200	80
8		3600	700	2200	430	2000	280	2000	360	1000	100
10		2800	700	1800	430	1500	280	1700	390	800	110
12		2400	670	1500	390	1200	270	1500	350	700	100
side milling	ap	1.2D		1.2D		1.2D		1.2D		1.2D	
	ae	0.01D		0.01D		0.05D		0.1D		0.05D	
slotting	ap	0.05D		0.05D		0.1D		0.2D		0.1D	

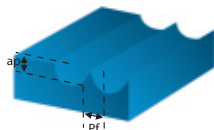


Milling Conditions for YDH88E4A

Milling parameters											
Work material		Carbon Steels Cast Irons 150-250HB		Alloy Steels Pre-Hardened Steels 25-35HRC		Hardened Steels 25-35HRC		Hardened Steels 45-55HRC		Stainless Steels SUS304, 316	
Diameter		R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
2		47800	2200	47800	1600	39800	1200	31800	900	15900	400
4		23900	2600	23900	1900	19900	1400	15900	1100	8000	490
6		16000	2700	16000	2000	13300	1500	10600	1200	5300	510
8		12000	2700	12000	2000	10000	1500	8000	1200	4000	520
10		9600	2700	9600	2000	8000	1500	6400	1200	3200	520
12		8000	2700	8000	2000	6700	1500	5300	1200	2700	520
16		6000	2200	6000	1600	5000	1200	4000	900	2000	450
side milling	ap	1.5D		1.5D		1.5D		1D		1.5D	
	ae	0.05D		0.05D		0.05D		0.02D		0.05D	

Milling Conditions for YDH88B4A / Milling Conditions for YDH88B2A

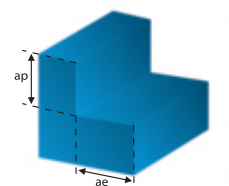
Milling parameters												
Work material	Carbon Steels Cast Irons		Alloy Steels Mold Steels		Hardened Steels Pre-Hardened Steel 30-38HRC		Stainless Steels Hardened Steels 38-45HRC		Hardened Steels 45-55HRC		Hardened Steels 55-60HRC	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
0.5	60000	3600	60000	3600	60000	3000	60000	3000	60000	2400	48000	1900
1	51000	5100	48000	4800	40000	3200	37000	3000	35000	2100	24000	1400
2	25000	5000	24000	4800	20000	3200	18000	2500	18000	2200	12000	1400
3	17000	4100	16000	3800	13000	2900	12000	2200	12000	1900	8000	1300
5	10200	3100	9600	2500	8000	1900	7300	1500	7000	1400	4800	960
8	6400	1900	6000	1800	5000	1200	4600	1000	4400	900	3000	600
10	5100	1600	4800	1400	4000	1000	3700	890	3500	700	2400	480
Depth of cut	ap	0.05D (R<0.5) 0.5mm (R≥0.5)						0.05D (R<0.5) 0.5mm (R≥0.5)				
	Pf	0.1D						0.05D				



Milling Conditions

Milling Conditions for YDH99E2A, EL2A, EF2A

Milling parameters								
Working Material	Hardened Steels		Hardened Steels		Hardened Steels		Hardened Steels	
Hardness Grade	HRC< 35		HRC 35 ~ 45		HRC 45 ~ 55		HRC 55 ~ 65	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
2	27000	1600	24300	1440	21800	1250	19000	670
4	17300	1800	9950	1440	7950	1250	7100	670
6	13900	2650	6650	2160	5300	1900	4000	1000
8	11000	2650	4950	2160	4000	1900	3000	1000
10	8900	2650	4000	2160	3200	1900	2400	1000
12	7100	2650	3300	2160	2650	1900	2000	1000
16	4500	2400	2400	1890	1950	1700	1450	930
side milling								
ap	1D		1D		1D		1D	
ae	0.05D		0.05D		0.02D		0.02D	



Milling Conditions for YDH99E4A, EL4A, EF4A

Milling parameters								
Working Material	Hardened Steels		Hardened Steels		Hardened Steels		Hardened Steels	
Hardness Grade	HRC< 35		HRC 35 ~ 45		HRC 45 ~ 55		HRC 55 ~ 65	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
2	27000	1600	24300	1440	21800	1250	19000	670
4	17300	1800	9950	1440	7950	1250	7100	670
6	13900	2650	6650	2160	5300	1900	4000	1000
8	11000	2650	4950	2160	4000	1900	3000	1000
10	8900	2650	4000	2160	3200	1900	2400	1000
12	7100	2650	3300	2160	2650	1900	2000	1000
	4500	2400	2400	1890	1950	1700	1450	930
side milling								
ap	1D		1D		1D		1D	
ae	0.05D		0.05D		0.02D		0.02D	

Milling Conditions for YDH99B2A, BL2A

Milling parameters								
Working Material	Hardened Steels		Hardened Steels		Hardened Steels		Hardened Steels	
Hardness Grade	HRC< 35		HRC 35 ~ 45		HRC 45 ~ 55		HRC 55 ~ 65	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
R0.5	49500	2770	47030	2230	31680	1440	24750	990
R1.0	23184	700	17741	443	9504	210	18000	443
R2.0	16589	840	12643	653	6739	338	12643	653
R3.0	11088	1050	8438	700	4493	420	8438	700
R4.0	8294	1050	6365	700	3355	420	6365	700
R5.0	6610	1050	5069	700	2664	420	5069	700
R6.0	5515	1050	4205	723	2239	420	4205	723

side milling				
ap	0.2D	0.2D	0.2D	0.2D
Pf	0.05D	0.05D	0.05D	0.05D

Milling Conditions for YDH99B4A, BL4A

Milling parameters										
Working Material	Carbon Steels Cast Irons Alloy Steel		Pre-Hardened Steels		Hardened Steels		Hardened Steels		Hardened Steels	
Hardness Grade	HRC< 25		HRC 25 ~ 35		HRC 35 ~ 45		HRC 45 ~ 55		HRC 55 ~ 65	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
R0.5	36900	2215	39600	2215	37625	1785	25345	1150	19800	790
R1.0	24950	2770	19960	2215	18615	1785	13465	1230	9950	790
R1.5	16630	2770	13070	2215	12280	1785	8710	1230	6695	790
R2.0	14255	2930	12275	2695	10695	1945	8710	1500	6300	870
R2.5	12275	3170	11880	3210	8710	1825	7920	1665	6015	950
R3.0	11880	3800	10690	3410	7525	1785	7525	1785	5225	910
R4.0	9110	2900	7920	2535	5665	1345	5535	1345	3925	705
R5.0	7525	2375	6535	2055	4510	1070	4370	1070	3130	560
R6.0	6300	1980	5432	1700	3770	870	3770	870	2620	470

side milling					
ap	0.02D	0.02D	0.02D	0.02D	0.02D
ae	0.05D	0.05D	0.05D	0.05D	0.05D

Milling Conditions

Milling Conditions for YDH99EB4A,EB2A

Milling parameters								
Working Material	Pre-Hardened Steels Alloy Steel		Hardened Steels		Hardened Steels		Hardened Steels	
Hardness Grade	HRC< 35		HRC 35 ~ 45		HRC 45 ~ 55		HRC 55 ~ 65	
Diameter	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
2	8400	125	6350	70	3950	40	2750	25
4	4900	185	3500	90	2200	50	1550	30
6	3600	235	2500	100	1550	55	1050	25
8	2700	235	1900	100	1150	50	795	25
10	2150	230	1500	95	955	50	635	25
12	1800	230	1250	95	795	45	530	20

side milling

ap	0.1D (Dc<1)	0.02D (Dc<1)	0.01D (Dc<1)
	0.5D (3≤Dc)	0.05D (1≤Dc)	0.05D (3≤Dc)

Milling Conditions for YDS33ED3A

Milling parameters				
Work Material	Alluminium Alloy			
Diameter	General		High Speed	
	R.P.M mm-1	FEED mm/min	R.P.M mm-1	FEED mm/min
1	32000	220	50000	1000
2	32000	420	50000	2000
3	21000	700	40000	2100
4	15500	725	33000	2250
5	12500	760	31000	2800
6	10500	830	26000	2800
8	7950	890	19500	2900
10	6350	995	15500	3200
12	5300	1050	13000	3200

side milling

ap	1.5D	1D
ae	0.1D	0.1D

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