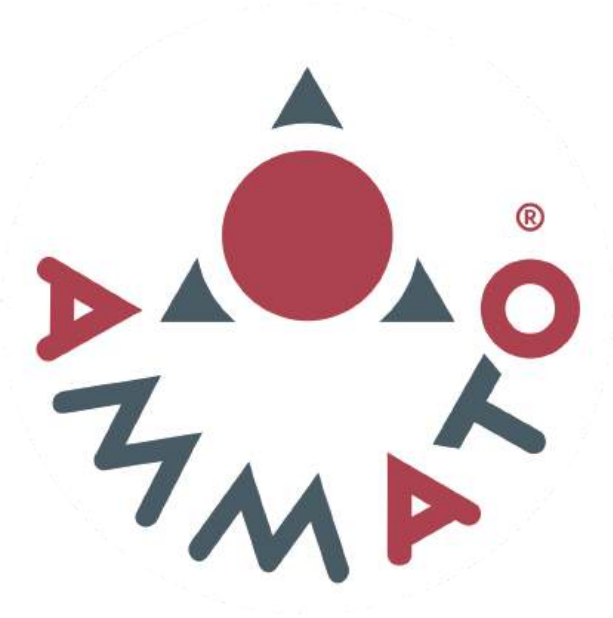
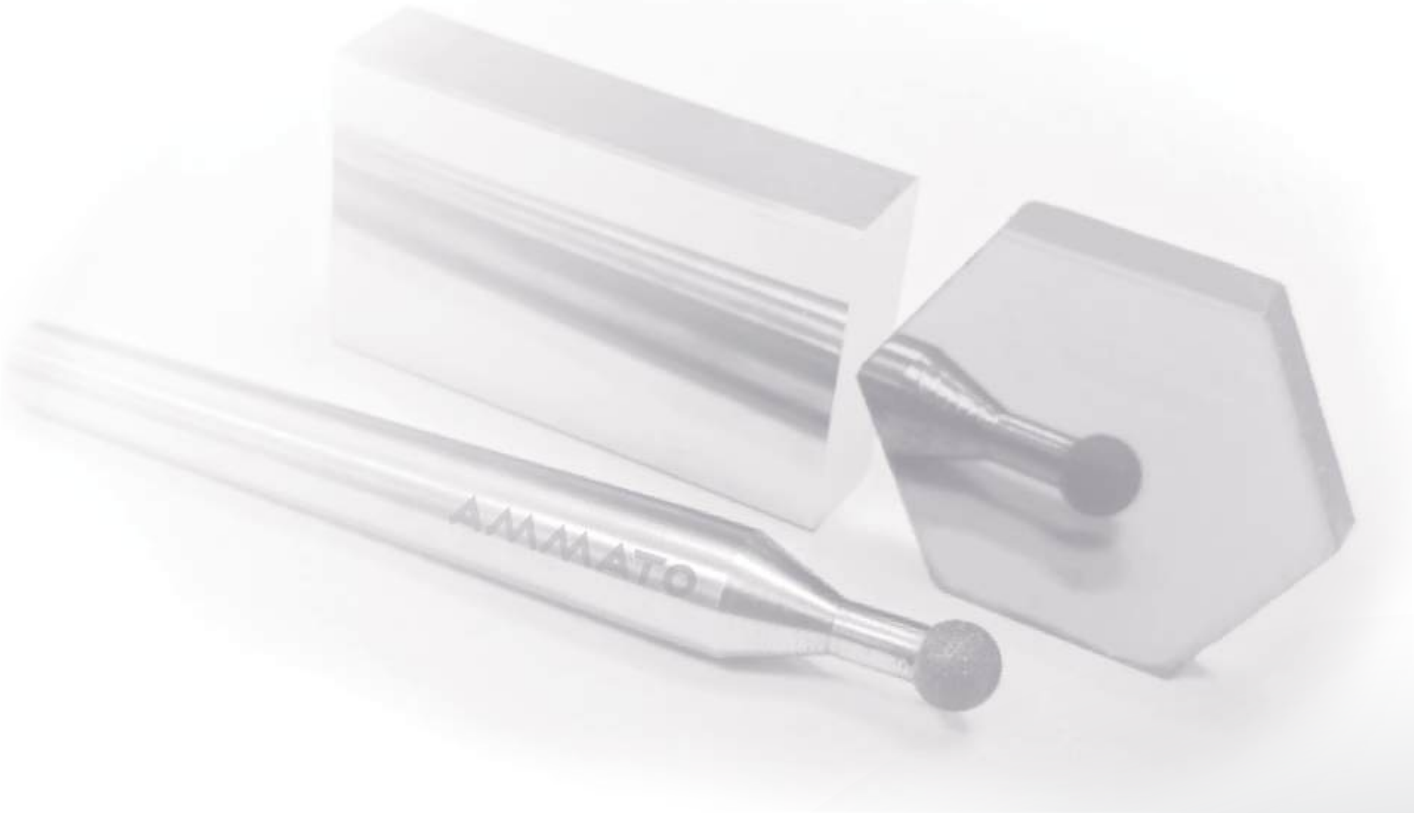


ADOPT A PROFESSIONAL AND EFFICIENT AMMATO® SOLUTION

WWW.AMMATO.XYZ
WWW.AMMATO.CN

ABOUT AMMATO®

Our company is a high-tech enterprise specializing in the production, processing and manufacturing of various super-hard and brittle complex materials, including ceramics and glass.
We already have many years of experience in machining, R&D and product manufacturing. For the processing of complex materials, we use professional and efficient **AMMATO®** solutions.
We can customize, produce and sell finished products according to customer requirements: 1. Diffusion sintered abrasives, 2. Tungsten carbide tools and drills; 3. Other processing equipment and tools.
We are able to manufacture professional, high-performance CNC equipment and can customize the equipment according to customer needs.



2024

TUNGSTEN CARBIDE TOOL CATALOG

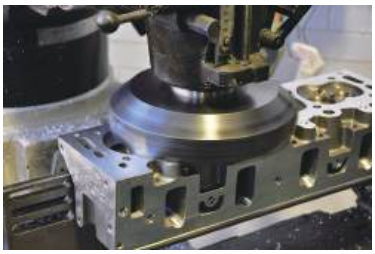
AMMATO®
AMMATO (Guangzhou) Technology Co.,Ltd

【COMPANY PROFILE】

AMMATO® company specialists have many years of experience in tool industry, technology deve lopmentandhard materialpro cessing.
We are confident that our efforts in innovation and continuous develooment will make a sianif icant contributionto the development of the manufacturing industry.
Our joint path to success and the realization of ambitious plans with our clients will surely be much easier!

【AMMATO'S® MAIN BUSINESS】

1.Our company is a high-tech enterprise specializing in the production, processing and manufacturing of various super-hard and brittle complex materials, including ceramics and glass.
2.We already have many years of experience in machining, R&D and product manufactur ing. For the processing of complex materials, we use professional and efficient **AMMATO®** solutions.
3.We can customize, produce and sell finished products according to customer requirements: Diffusion sintered abrasives; Tungsten carbide tools and drills; Other processing equipment and tools.
4.We are able to manufacture professional, high-performance CNC equipment and can customize the equipment according to customer needs.



【OUR ADVANCED TECHNOLOGY】

AMMATO® is a high-tech enterprise integrating R&D, production, sales and technical services of abrasives and tools, the company is equipped with advanced production equipment such as Walter in Germany, ROLLOMATIC in Switzerland and Makino in Japan, using first-class materials at home and abroad and with advanced coating technology. Based on the philosophy of excellence, AMMATO will continue to challenge the existing state of the art and continue to manufacture high value-added products that meet the needs of customers and society.

【THE EQUIPMENT WE HAVE】

Makino of Japan SG10

Makino of Japan AGE30FX

ROLLOMATIC NP5

ROLLOMATIC 628XS

AMMATO HFME-2-4040

Specially designed for processing superhard and brittle materials

AMMATO (Guangzhou) Technology Co.,Ltd

【Directory】

Carbide

Perfect MG — Micro grain

Super UMG — Super micro grain

Comer

R — Corner Radius

Grain Size

0.2 μm — Grain size is 0.2μm

0.4 μm — Grain size is 0.4μm

Flute

2 Flute, 2 Flute, 3 Flute, 4 Flute, 4 Flute, 5 Flute, 6 Flute

Coating

Coating AL — TiAlN

Coating MX — AlCrTiN

Coating WX — Superhard Composite Coating

Coating DLC — DLC Color Coating

Coating ST — SiTiNO Composite Coating

Coating CVD — CVD Diamond Coating

AMMATO (Guangzhou) Technology Co.,Ltd

SUPPER HARDNESS SERIES

Machining accuracy is recommended ≤HRC62

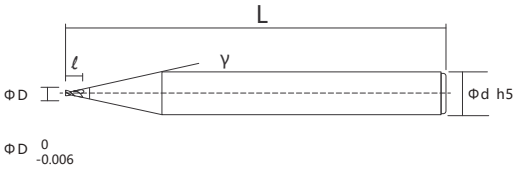
- ☆ The imported extremely fine particle matrix with a grain size of 0.2um is selected, which has good toughness and hardness, and effectively reduces the risk of chipping.
- ☆ The titanium-silicon composite coating is selected, which has ultra-high temperature resistance and is suitable for dry cutting or micro-lubrication cutting.
- ☆ It is ideal for semi-finishing and finishing (>HRC55) after quenching of materials such as S136, SKD11, SKD61, DC53, 440C, D2, Cr13MoV, H13, and 42CrMo, as well as ASP30.

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 2 Flute | Coating WX

2-Flute Micro Diameter End Mill



Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AUUE-20005-04042	0.05	0.1	15°	4	42
AUUE-20006-04042	0.06	0.12	15°	4	42
AUUE-20007-04042	0.07	0.14	15°	4	42
AUUE-20008-04042	0.08	0.16	15°	4	42
AUUE-20009-04042	0.09	0.18	15°	4	42
AUUE-20010-04042	0.1	0.2	15°	4	42
AUUE-20015-04042	0.15	0.3	15°	4	42
AUUE-20020-04042	0.2	0.4	15°	4	42
AUUE-20025-04045	0.25	0.5	15°	4	45
AUUE-20030-04045	0.3	0.6	15°	4	45
AUUE-20035-04045	0.35	0.7	15°	4	45
AUUE-20040-04045	0.4	0.8	15°	4	45
AUUE-20045-04045	0.45	0.9	15°	4	45
AUUE-20050-04045	0.5	1	15°	4	45
AUUE-20055-04045	0.55	1.1	15°	4	45
AUUE-20060-04045	0.6	1.2	15°	4	45
AUUE-20065-04045	0.65	1.3	15°	4	45
AUUE-20070-04045	0.7	1.4	15°	4	45
AUUE-20075-04045	0.75	1.5	15°	4	45
AUUE-20080-04045	0.8	1.6	15°	4	45
AUUE-20085-04045	0.85	1.7	15°	4	45
AUUE-20090-04045	0.9	1.8	15°	4	45

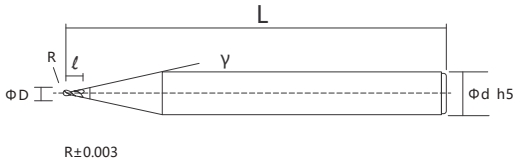
AMMATO (Guangzhou) Technology Co.,Ltd

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 2 Flute | Coating WX

2-Flute Micro Diameter Ball End Mill

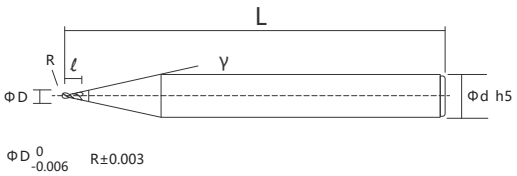


Model	Head diameter	Tool length	Sphere radius	Neck angle	Shank diameter	Length
No.	D	ℓ	R	γ(reference)	d	L
AUUB-20010-04042	0.1	0.15	R0.05	15°	4	42
AUUB-20015-04042	0.15	0.2	R0.075	15°	4	42
AUUB-20020-04042	0.2	0.3	R0.1	15°	4	42
AUUB-20030-04045	0.3	0.45	R0.15	15°	4	45
AUUB-20040-04045	0.4	0.6	R0.2	15°	4	45
AUUB-20050-04045	0.5	0.8	R0.25	15°	4	45
AUUB-20060-04045	0.6	0.9	R0.3	15°	4	45
AUUB-20070-04045	0.7	1.1	R0.35	15°	4	45
AUUB-20080-04045	0.8	1.2	R0.4	15°	4	45
AUUB-20090-04045	0.9	1.4	R0.45	15°	4	45

AUU

Supper Hardness Series

2-Flute Micro Diameter Corner Radius End Mill



Model No.	Head diameter D	Sphere radius R	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AUUR002-20020-04042	0.2	R0.02	0.4	15°	4	42
AUUR005-20020-04042		R0.05				42
AUUR002-20030-04045	0.3	R0.02	0.6	15°	4	45
AUUR005-20030-04045		R0.05				45
AUUR002-20040-04045	0.4	R0.02	0.8	15°	4	45
AUUR005-20040-04045		R0.05				45
AUUR010-20040-04045		R0.1				45
AUUR002-20050-04045	0.5	R0.02	1.0	15°	4	45
AUUR005-20050-04045		R0.05				45
AUUR010-20050-04045		R0.1				45
AUUR002-20060-04045	0.6	R0.02	1.2	15°	4	45
AUUR005-20060-04045		R0.05				45
AUUR010-20060-04045		R0.1				45
AUUR020-20060-04045		R0.2				45
AUUR002-20080-04045	0.8	R0.02	1.6	15°	4	45
AUUR005-20080-04045		R0.05				45
AUUR010-20080-04045		R0.1				45
AUUR020-20080-04045		R0.2				45

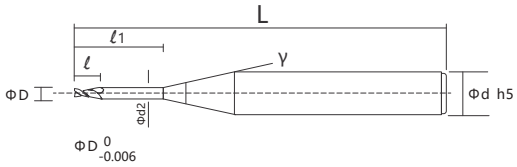
AMMATO (Guangzhou) Technology Co.,Ltd

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 2 Flute | Coating WX

2-Flute Long Neck Square End Mill

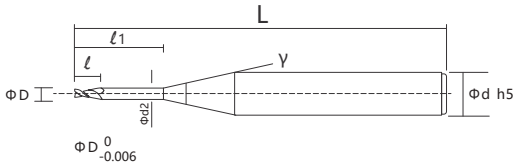


Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AUUE-20010-003-04045	0.1	0.3	0.1	0.085	15°	4	45
AUUE-20010-005-04045		0.5					45
AUUE-20010-008-04045		0.8					45
AUUE-20010-010-04045		1					45
AUUE-20015-005-04045	0.15	0.5	0.15	0.13	15°	4	45
AUUE-20015-010-04045		1					45
AUUE-20020-010-04045	0.2	1	0.2	0.18	15°	4	45
AUUE-20020-015-04045		1.5					45
AUUE-20020-020-04045		2					45
AUUE-20020-030-04045		3					45
AUUE-20020-040-04045		4					45
AUUE-20030-010-04045	0.3	1	0.3	0.27	15°	4	45
AUUE-20030-015-04045		1.5					45
AUUE-20030-020-04045		2					45
AUUE-20030-030-04045		3					45
AUUE-20030-040-04045		4					45
AUUE-20030-050-04045		5					45
AUUE-20040-015-04045	0.4	1.5	0.4	0.37	15°	4	45
AUUE-20040-020-04045		2					45
AUUE-20040-030-04045		3					45
AUUE-20040-040-04045		4					45
AUUE-20040-050-04045		5					45
AUUE-20040-060-04045		6					45
AUUE-20050-020-04045	0.5	2	0.5	0.46	15°	4	45
AUUE-20050-030-04045		3					45
AUUE-20050-040-04045		4					45
AUUE-20050-050-04045		5					45
AUUE-20050-060-04045		6					45

AUU

Supper Hardness Series

2-Flute Long Neck Square End Mill



Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AUUE-20050-080-04045	0.5	8	0.5	0.46	15°	4	45
AUUE-20050-100-04045		10					45
AUUE-20060-020-04045	0.6	2	0.6	0.56	15°	4	45
AUUE-20060-030-04045		3					45
AUUE-20060-040-04045		4					45
AUUE-20060-050-04045		5					45
AUUE-20060-060-04045		6					45
AUUE-20060-080-04045		8					45
AUUE-20060-100-04045		10					45
AUUE-20070-020-04045	0.7	2	0.7	0.66	15°	4	45
AUUE-20070-030-04045		3					45
AUUE-20070-040-04045		4					45
AUUE-20070-050-04045		5					45
AUUE-20070-060-04045		6					45
AUUE-20070-080-04045		8					45
AUUE-20070-100-04045		10					45
AUUE-20080-020-04045	0.8	2	0.8	0.76	15°	4	45
AUUE-20080-030-04045		3					45
AUUE-20080-040-04045		4					45
AUUE-20080-050-04045		5					45
AUUE-20080-060-04045		6					45
AUUE-20080-080-04045		8					45
AUUE-20080-100-04045		10					45

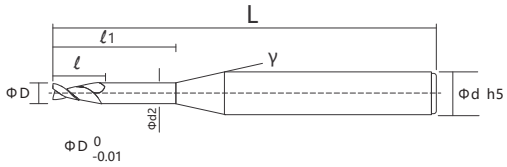
AMMATO (Guangzhou) Technology Co.,Ltd

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 4 Flute | Coating WX

4-Flute Long Neck Square End Mill



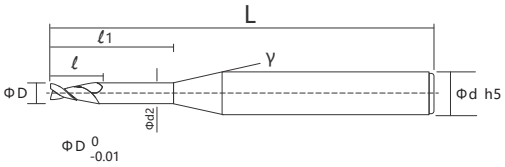
Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AUUE-40100-040-04050	1	4	1	0.95	12°	4	50
AUUE-40100-050-04050		5					50
AUUE-40100-060-04050		6					50
AUUE-40100-080-04050		8					50
AUUE-40100-100-04050		10					50
AUUE-40100-120-04050		12					50
AUUE-40100-140-04050		14					50
AUUE-40100-160-04050		16					50
AUUE-40100-180-04050		18					50
AUUE-40100-200-04050		20					50
AUUE-40150-060-04050	1.5	6	1.5	1.44	12°	4	50
AUUE-40150-080-04050		8					50
AUUE-40150-100-04050		10					50
AUUE-40150-120-04050		12					50
AUUE-40150-140-04050		14					50
AUUE-40150-160-04050		16					50
AUUE-40150-180-04050		18					50
AUUE-40150-200-04050		20					50
AUUE-40200-060-04050	2	6	2	1.94	12°	4	50
AUUE-40200-080-04050		8					50
AUUE-40200-100-04050		10					50
AUUE-40200-120-04050		12					50
AUUE-40200-140-04050		14					50
AUUE-40200-160-04050		16					50
AUUE-40200-180-04050		18					50
AUUE-40200-200-04050		20					50
AUUE-40300-100-04050	3	10	3	2.92	12°	4	50
AUUE-40300-120-04050		12					50

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 4 Flute | Coating WX

4-Flute Long Neck Square End Mill



Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AUUE-40300-140-04050	3	14	3	2.92	12°	4	50
AUUE-40300-160-04050		16					50
AUUE-40300-180-04050		18					50
AUUE-40300-200-04050		20					50
AUUE-40300-160-06060		16				6	60
AUUE-40300-180-06060		18					60
AUUE-40300-200-06060		20					60
AUUE-40300-250-06060		25					60
AUUE-40300-160-06075		16					75
AUUE-40300-180-06075		18					75
AUUE-40300-200-06075		20					75
AUUE-40300-250-06075		25					75
AUUE-40300-300-06075		30					75
AUUE-40300-350-06075		35					75
AUUE-40400-160-06060	4	16	4	3.9	12°	6	60
AUUE-40400-180-06060		18					60
AUUE-40400-200-06060		20					60
AUUE-40400-250-06060		25					60
AUUE-40400-160-06075		16					75
AUUE-40400-180-06075		18					75
AUUE-40400-200-06075		20					75
AUUE-40400-250-06075		25					75
AUUE-40400-300-06075		30					75
AUUE-40400-350-06075		35					75

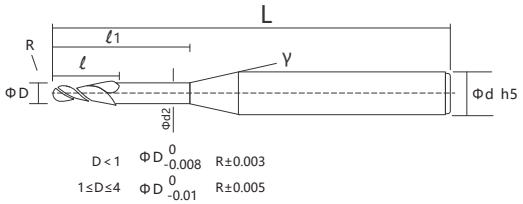
AMMATO (Guangzhou) Technology Co.,Ltd

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 2 Flute | Coating WX

2-Flute Long Neck Square End Mill

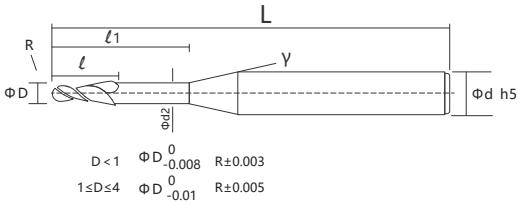


Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUB-20010-003-04045	0.1	0.3	0.1	R0.05	0.085	15°	4	45
AUUB-20010-005-04045		0.5						45
AUUB-20010-008-04045		0.8						45
AUUB-20010-010-04045		1						45
AUUB-20015-005-04045	0.15	0.5	0.15	R0.075	0.13	15°	4	45
AUUB-20015-010-04045		1						45
AUUB-20020-010-04045	0.2	1	0.2	R0.1	0.18	15°	4	45
AUUB-20020-015-04045		1.5						45
AUUB-20020-020-04045		2						45
AUUB-20020-030-04045		3						45
AUUB-20030-010-04045	0.3	1	0.3	R0.15	0.27	15°	4	45
AUUB-20030-015-04045		1.5						45
AUUB-20030-020-04045		2						45
AUUB-20030-030-04045		3						45
AUUB-20030-040-04045		4						45
AUUB-20030-050-04045		5						45
AUUB-20040-015-04045	0.4	1.5	0.4	R0.2	0.37	15°	4	45
AUUB-20040-020-04045		2						45
AUUB-20040-030-04045		3						45
AUUB-20040-040-04045		4						45
AUUB-20040-050-04045		5						45
AUUB-20040-060-04045		6						45
AUUB-20050-020-04045	0.5	2	0.5	R0.25	0.46	15°	4	45
AUUB-20050-030-04045		3						45
AUUB-20050-040-04045		4						45
AUUB-20050-050-04045		5						45
AUUB-20050-060-04045		6						45
AUUB-20050-080-04045		8						45

AUU

Supper Hardness Series

2-Flute Long Neck Square End Mill



Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUB-20060-020-04045	0.6	2	0.6	R0.3	0.56	15°	4	45
AUUB-20060-020-04045		3						45
AUUB-20060-040-04045		4						45
AUUB-20060-050-04045		5						45
AUUB-20060-060-04045		6						45
AUUB-20060-080-04045		8						45
AUUB-20060-100-04045		10						45
AUUB-20080-020-04045	0.8	2	0.8	R0.4	0.76	15°	4	45
AUUB-20080-030-04045		3						45
AUUB-20080-040-04045		4						45
AUUB-20080-050-04045		5						45
AUUB-20080-060-04045		6						45
AUUB-20080-080-04045		8						45
AUUB-20080-100-04045		10						45

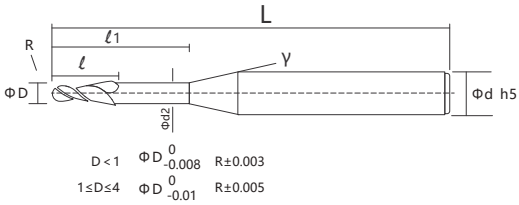
AMMATO (Guangzhou) Technology Co.,Ltd

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 2 Flute | Coating WX

2-Flute Long Neck Ball End Mill



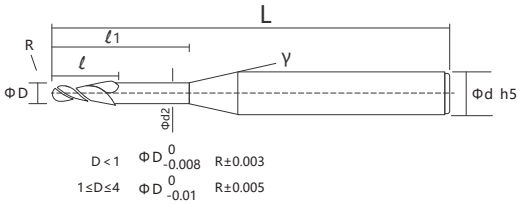
Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUB-20100-030-04050	1	3	1	R0.5	0.95	12°	4	50
AUUB-20100-040-04050		4						50
AUUB-20100-050-04050		5						50
AUUB-20100-060-04050		6						50
AUUB-20100-080-04050		8						50
AUUB-20100-100-04050		10						50
AUUB-20100-120-04050		12						50
AUUB-20100-140-04050		14						50
AUUB-20100-160-04050		16						50
AUUB-20100-180-04050		18						50
AUUB-20100-200-04050		20						50
AUUB-20150-040-04050	1.5	4	1.5	R0.75	1.44	12°	4	50
AUUB-20150-050-04050		5						50
AUUB-20150-060-04050		6						50
AUUB-20150-080-04050		8						50
AUUB-20150-100-04050		10						50
AUUB-20150-120-04050		12						50
AUUB-20150-160-04050		16						50
AUUB-20150-180-04050		18						50
AUUB-20150-200-04050		20						50
AUUB-20200-060-04050	2	6	2	R1	1.94	12°	4	50
AUUB-20200-080-04050		8						50
AUUB-20200-100-04050		10						50
AUUB-20200-120-04050		12						50
AUUB-20200-140-04050		14						50
AUUB-20200-160-04050		16						50
AUUB-20200-180-04050		18						50
AUUB-20200-200-04050		20						50

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 2 Flute | Coating WX

2-Flute Long Neck Ball End Mill

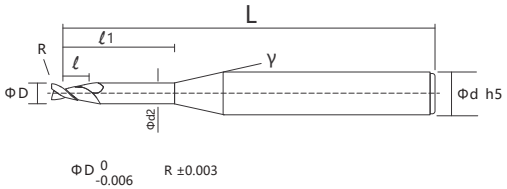


Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUB-20200-160-06060	2	16	2	R1	1.94	12°	6	60
AUUB-20200-180-06060		18						60
AUUB-20200-200-06060		20						60
AUUB-20200-250-06060		25						60
AUUB-20300-080-04050	3	8	3	R1.5	2.92	12°	4	50
AUUB-20300-100-04050		10						50
AUUB-20300-120-04050		12						50
AUUB-20300-160-04050		16						50
AUUB-20300-200-04050		20						50
AUUB-20300-160-06060		16					6	60
AUUB-20300-180-06060		18						60
AUUB-20300-200-06060		20						60
AUUB-20300-250-06060		25						60
AUUB-20300-160-06075		16						75
AUUB-20300-180-06075		18						75
AUUB-20300-200-06075		20						75
AUUB-20300-250-06075		25						75
AUUB-20300-300-06075		30						75
AUUB-20400-160-06060	4	16	4	R2	3.9	12°	6	60
AUUB-20400-180-06060		18						60
AUUB-20400-200-06060		20						60
AUUB-20400-250-06060		25						60
AUUB-20400-160-06075		16						75
AUUB-20400-180-06075		18						75
AUUB-20400-200-06075		20						75
AUUB-20400-250-06075		25						75
AUUB-20400-300-06075		30						75
AUUB-20400-350-06075		35						75

AUU

Supper Hardness Series

2-Flute Long Neck Corner Radius End Mill

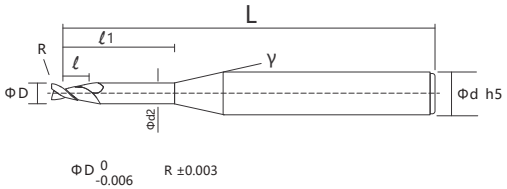


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR002-20020-010-04045	0.2	1	0.2	R0.02	0.18	15°	4	45
AUUR002-20020-015-04045		1.5						45
AUUR002-20020-020-04045		2						45
AUUR002-20020-030-04045		3						45
AUUR005-20020-010-04045		1		R0.05				45
AUUR005-20020-015-04045		1.5						45
AUUR005-20020-020-04045		2						45
AUUR005-20020-030-04045		3						45
AUUR002-20030-010-04045	0.3	1	0.3	R0.02	0.27	15°	4	45
AUUR002-20030-015-04045		1.5						45
AUUR002-20030-020-04045		2						45
AUUR002-20030-030-04045		3						45
AUUR002-20030-040-04045		4						45
AUUR005-20030-010-04045		1		R0.05				45
AUUR005-20030-015-04045		1.5						45
AUUR005-20030-020-04045		2						45
AUUR005-20030-030-04045		3						45
AUUR005-20030-040-04045		4						45
AUUR002-20040-010-04045	0.4	1	0.4	R0.02	0.37	15°	4	45
AUUR002-20040-015-04045		1.5						45
AUUR002-20040-020-04045		2						45
AUUR002-20040-030-04045		3						45
AUUR002-20040-040-04045		4						45
AUUR002-20040-050-04045		5						45
AUUR002-20040-060-04045		6						45
AUUR005-20040-010-04045		1		R0.05				45
AUUR005-20040-020-04045		1.5						45
AUUR005-20040-030-04045		2						45

AUU

Supper Hardness Series

2-Flute Long Neck Corner Radius End Mill

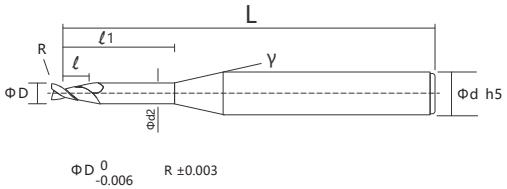


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR005-20040-030-04045	0.4	3	0.4	R0.05	0.37	15°	4	45
AUUR005-20040-040-04045		4						45
AUUR005-20040-050-04045		5						45
AUUR005-20040-060-04045		6						45
AUUR010-20040-010-04045		1		R0.1				45
AUUR010-20040-015-04045		1.5						45
AUUR010-20040-020-04045		2						45
AUUR010-20040-030-04045		3						45
AUUR010-20040-040-04045		4						45
AUUR010-20040-050-04045		5						45
AUUR010-20040-060-04045		6						45
AUUR002-20050-020-04045	0.5	2	0.5	R0.02	0.46	15°	4	45
AUUR002-20050-030-04045		3						45
AUUR002-20050-040-04045		4						45
AUUR002-20050-050-04045		5						45
AUUR002-20050-060-04045		6						45
AUUR002-20050-080-04045		8						45
AUUR002-20050-100-04045		10						45
AUUR005-20050-020-04045		2		R0.05				45
AUUR005-20050-030-04045		3						45
AUUR005-20050-040-04045		4						45
AUUR005-20050-050-04045		5						45
AUUR005-20050-060-04045		6						45
AUUR005-20050-080-04045		8						45
AUUR005-20050-100-04045		10						45
AUUR010-20050-020-04045		2		R0.1				45
AUUR010-20050-030-04045		3						45
AUUR010-20050-040-04045		4						45

AUU

Supper Hardness Series

2-Flute Long Neck Corner Radius End Mill

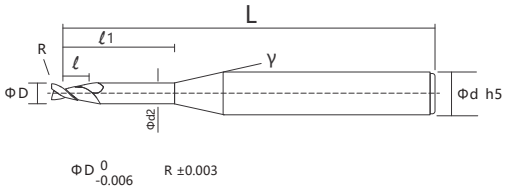


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR010-20050-050-04045	0.5	5	0.5	R0.1	0.46	15°	4	45
AUUR010-20050-060-04045		6						45
AUUR010-20050-070-04045		7						45
AUUR010-20050-080-04045		8						45
AUUR002-20060-020-04045	0.6	2	0.6	R0.02	0.56	15°	4	45
AUUR002-20060-030-04045		3						45
AUUR002-20060-040-04045		4						45
AUUR002-20060-050-04045		5						45
AUUR002-20060-060-04045		6						45
AUUR002-20060-080-04045		8						45
AUUR002-20060-100-04045		10						45
AUUR005-20060-020-04045		2		R0.05				45
AUUR005-20060-030-04045		3						45
AUUR005-20060-040-04045		4						45
AUUR005-20060-050-04045		5						45
AUUR005-20060-060-04045		6						45
AUUR005-20060-080-04045		8						45
AUUR005-20060-100-04045		10						45
AUUR010-20060-020-04045		2		R0.1				45
AUUR010-20060-030-04045		3						45
AUUR010-20060-040-04045		4						45
AUUR010-20060-050-04045		5						45
AUUR010-20060-060-04045		6						45
AUUR010-20060-080-04045		8						45
AUUR010-20060-100-04045		10						45
AUUR020-20060-020-04045		2		R0.2				45
AUUR020-20060-030-04045		3						45
AUUR020-20060-040-04045		4						45

AUU

Supper Hardness Series

2-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR020-20060-050-04045	0.6	5	0.6	R0.2	0.56	15°	4	45
AUUR020-20060-060-04045		6						45
AUUR020-20060-080-04045		8						45
AUUR020-20060-100-04045		10						45
AUUR002-20060-040-04045	0.8	2	0.8	R0.02	0.76	15°	4	45
AUUR002-20060-050-04045		3						45
AUUR002-20060-060-04045		4						45
AUUR002-20060-030-04045		5						45
AUUR002-20060-040-04045		6						45
AUUR002-20060-050-04045		8						45
AUUR002-20060-060-04045		10						45
AUUR005-20080-020-04045		2		R0.05				45
AUUR005-20080-030-04045		3						45
AUUR005-20080-040-04045		4						45
AUUR005-20080-050-04045		5						45
AUUR005-20080-060-04045		6						45
AUUR005-20080-080-04045		8						45
AUUR005-20080-100-04045		10						45
AUUR010-20080-020-04045		2		R0.1				45
AUUR010-20080-030-04045		3						45
AUUR010-20080-040-04045		4						45
AUUR010-20080-050-04045		5						45
AUUR010-20080-060-04045		6						45
AUUR010-20080-080-04045		8						45
AUUR010-20080-100-04045		10						45
AUUR020-20080-020-04045		2		R0.2				45
AUUR020-20080-030-04045		3						45
AUUR020-20080-040-04045		4						45

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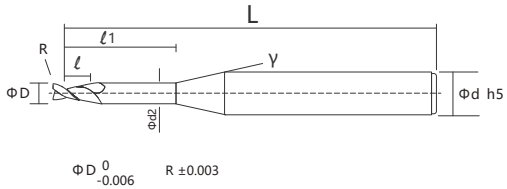
Supper Hardness Series

2-Flute Long Neck Corner Radius End Mill



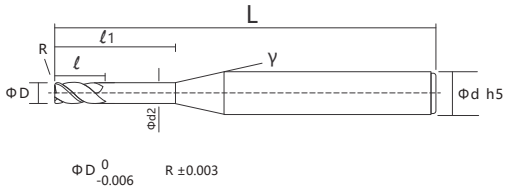
ΦD $^{0}_{-0.006}$ R ±0.003

Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR020-20080-050-04045	0.8	5	0.8	R0.2	0.76	15°	4	45
AUUR020-20080-060-04045		6						45
AUUR020-20080-070-04045		7						45
AUUR020-20080-080-04045		8						45
AUUR020-20080-100-04045		10						45

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR002-40020-050-04045	0.2	1	0.2	R0.02	0.18	15°	4	45
AUUR002-40020-060-04045		1.5						45
AUUR002-40020-080-04045		2						45
AUUR002-40020-100-04045		3						45
AUUR005-40020-040-04045		1		R0.05				45
AUUR005-40020-050-04045		1.5						45
AUUR005-40020-060-04045		2						45
AUUR005-40020-030-04045		3						45
AUUR002-40030-040-04045	0.3	1	0.3	R0.02	0.27	15°	4	45
AUUR002-40030-050-04045		1.5						45
AUUR002-40030-060-04045		2						45
AUUR002-40030-020-04045		3						45
AUUR002-40030-030-04045		4						45
AUUR005-40030-040-04045		1		R0.05				45
AUUR005-40030-050-04045		1.5						45
AUUR005-40030-060-04045		2						45
AUUR005-40030-080-04045		3						45
AUUR005-40030-100-04045		4						45
AUUR002-40040-020-04045	0.4	1	0.4	R0.02	0.37	15°	4	45
AUUR002-40040-030-04045		1.5						45
AUUR002-40040-040-04045		2						45
AUUR002-40040-050-04045		3						45
AUUR002-40040-060-04045		4						45
AUUR002-40040-080-04045		5						45
AUUR002-40040-100-04045		6						45
AUUR005-40040-020-04045		1		R0.05				45
AUUR005-40040-030-04045		1.5						45
AUUR005-40040-040-04045		2						45

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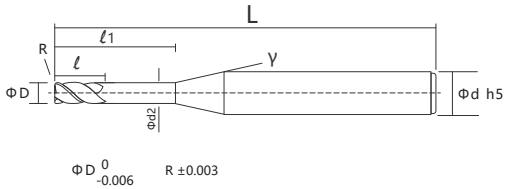
Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill

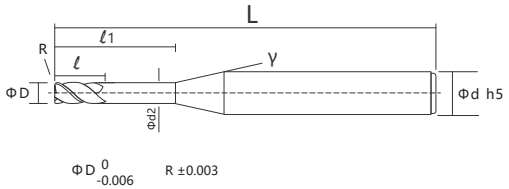


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR005-40040-050-04045	0.4	3	0.4	R0.05	0.37	15°	4	45
AUUR005-40040-060-04045		4						45
AUUR005-40040-080-04045		5						45
AUUR005-40040-100-04045		6						45
AUUR010-40040-010-04045		1		R0.1				45
AUUR010-40040-015-04045		1.5						45
AUUR010-40040-020-04045		2						45
AUUR010-40040-030-04045		3						45
AUUR010-40040-040-04045		4						45
AUUR010-40040-050-04045		5						45
AUUR010-40040-060-04045		6						45
AUUR002-40050-020-04045	0.5	2	0.5	R0.02	0.46	15°	4	45
AUUR002-40050-030-04045		3						45
AUUR002-40050-040-04045		4						45
AUUR002-40050-050-04045		5						45
AUUR002-40050-060-04045		6						45
AUUR002-40050-080-04045		8						45
AUUR002-40050-100-04045		10						45
AUUR005-40050-020-04045		2		R0.05				45
AUUR005-40050-030-04045		3						45
AUUR005-40050-040-04045		4						45
AUUR005-40050-050-04045		5						45
AUUR005-40050-060-04045		6						45
AUUR005-40050-080-04045		8						45
AUUR005-40050-100-04045		10						45
AUUR010-40050-020-04045		2		R0.1				45
AUUR010-40050-030-04045		3						45
AUUR010-40050-040-04045		4						45

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill

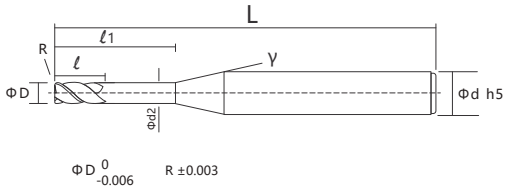


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR005-40050-050-04045	0.5	5	0.5	R0.1	0.46	15°	4	45
AUUR005-40050-060-04045		6						45
AUUR005-40050-080-04045		8						45
AUUR005-40050-100-04045		10						45
AUUR002-40060-020-04045	0.6	2	0.6	R0.02	0.56	15°	4	45
AUUR002-40060-030-04045		3						45
AUUR002-40060-040-04045		4						45
AUUR002-40060-050-04045		5						45
AUUR002-40060-060-04045		6						45
AUUR002-40060-080-04045		8						45
AUUR002-40060-100-04045		10						45
AUUR005-40060-020-04045		2		R0.05				45
AUUR005-40060-030-04045		3						45
AUUR005-40060-040-04045		4						45
AUUR005-40060-050-04045		5						45
AUUR005-40060-060-04045		6						45
AUUR005-40060-080-04045		8						45
AUUR005-40060-100-04045		10						45
AUUR010-40060-020-04045		2		R0.1				45
AUUR010-40060-030-04045		3						45
AUUR010-40060-040-04045		4						45
AUUR010-40060-050-04045		5						45
AUUR010-40060-060-04045		6						45
AUUR010-40060-080-04045		8						45
AUUR010-40060-100-04045		10						45
AUUR020-40060-020-04045		2		R0.2				45
AUUR020-40060-030-04045		3						45
AUUR020-40060-040-04045		4						45

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill

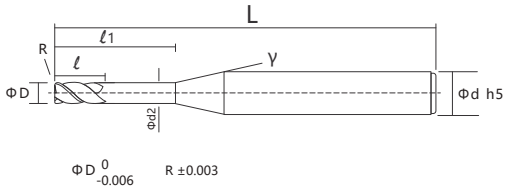


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR020-40060-050-04045	0.6	5	0.6	R0.2	0.56	15°	4	45
AUUR020-40060-060-04045		6						45
AUUR020-40060-080-04045		8						45
AUUR020-40060-100-04045		10						45
AUUR002-40040-020-04045	0.8	2	0.8	R0.02	0.76	15°	4	45
AUUR002-40040-030-04045		3						45
AUUR002-40040-040-04045		4						45
AUUR002-40040-050-04045		5						45
AUUR002-40040-060-04045		6						45
AUUR002-40040-080-04045		8						45
AUUR002-40040-100-04045		10						45
AUUR005-40050-020-04045		2		R0.05				45
AUUR005-40050-030-04045		3						45
AUUR005-40050-040-04045		4						45
AUUR005-40050-050-04045		5						45
AUUR005-40050-060-04045		6						45
AUUR005-40050-080-04045		8						45
AUUR005-40050-100-04045		10						45
AUUR010-40050-020-04045		2		R0.1				45
AUUR010-40050-030-04045		3						45
AUUR010-40050-040-04045		4						45
AUUR010-40050-050-04045		5						45
AUUR010-40050-060-04045		6						45
AUUR010-40050-080-04045		8						45
AUUR010-40050-100-04045		10						45
AUUR020-40050-020-04045		2		R0.2				45
AUUR020-40050-030-04045		3						45
AUUR020-40050-040-04045		4						45

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill



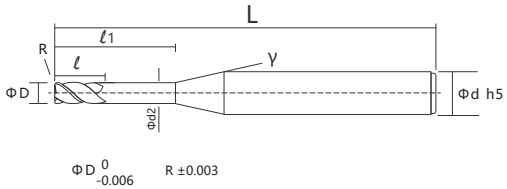
Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR020-40080-050-04045	0.8	5	0.8	R0.2	0.76	15°	4	45
AUUR020-40080-060-04045		6						45
AUUR020-40080-080-04045		8						45
AUUR020-40080-100-04045		10						45

AMMATO (Guangzhou) Technology Co.,Ltd

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill

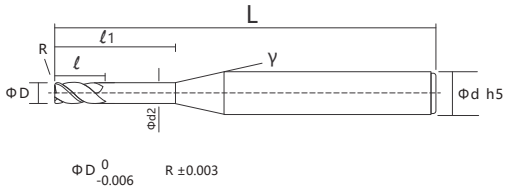


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR010-40100-040-04050	1	4	1	R0.1	0.95	12°	4	50
AUUR010-40100-060-04050		6						50
AUUR010-40100-080-04050		8						50
AUUR010-40100-100-04050		10						50
AUUR010-40100-120-04050		12						50
AUUR010-40100-140-04050		14						50
AUUR010-40100-160-04050		16						50
AUUR010-40100-180-04050		18						50
AUUR010-40100-200-04050		20						50
AUUR020-40100-040-04050		4		R0.2				50
AUUR020-40100-060-04050		6						50
AUUR020-40100-080-04050		8						50
AUUR020-40100-100-04050		10						50
AUUR020-40100-120-04050		12						50
AUUR020-40100-140-04050		14						50
AUUR020-40100-160-04050		16						50
AUUR020-40100-180-04050		18						50
AUUR020-40100-200-04050		20						50
AUUR010-40150-060-04050	1.5	6	1.5	R0.1	1.44	12°	4	50
AUUR010-40150-080-04050		8						50
AUUR010-40150-100-04050		10						50
AUUR010-40150-120-04050		12						50
AUUR010-40150-140-04050		14						50
AUUR010-40150-160-04050		16						50
AUUR010-40150-180-04050		18						50
AUUR010-40150-200-04050		20						50
AUUR020-40150-060-04050		6		R0.2				50
AUUR020-40150-080-04050		8						50

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill

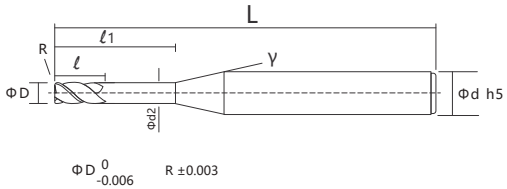


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR020-40150-100-04050	1.5	10	1.5	R0.2	1.44	12°	4	50
AUUR020-40150-120-04050		12						50
AUUR020-40150-140-04050		14						50
AUUR020-40150-160-04050		16						50
AUUR020-40150-180-04050		18						50
AUUR020-40150-200-04050		20						50
AUUR010-40200-060-04050	2	6	2	R0.1	1.94	12°	4	50
AUUR010-40200-080-04050		8						50
AUUR010-40200-100-04050		10						50
AUUR010-40200-120-04050		12						50
AUUR010-40200-140-04050		14						50
AUUR010-40200-160-04050		16						50
AUUR010-40200-180-04050		18						50
AUUR010-40200-200-04050		20						50
AUUR020-40200-160-04050		6		R0.2				50
AUUR020-40200-180-04050		8						50
AUUR020-40200-100-04050		10						50
AUUR020-40200-120-04050		12						50
AUUR020-40200-140-04050		14						50
AUUR020-40200-160-04050		16						50
AUUR020-40200-180-04050		18						50
AUUR020-40200-200-04050		20						50
AUUR050-40200-060-04050		6		R0.5				50
AUUR050-40200-080-04050		8						50
AUUR050-40200-100-04050		10						50
AUUR050-40200-120-04050		12						50
AUUR050-40200-140-04050		14						50
AUUR050-40200-160-04050		16						50

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill

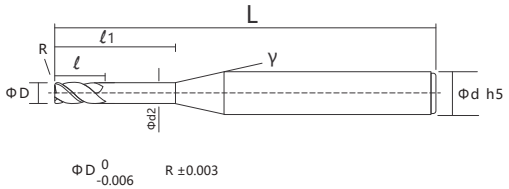


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR050-40200-180-04050	2	18	2	R0.5	1.94	12°	4	50
AUUR050-40200-200-04050		20						50
AUUR010-40300-100-04050	3	10	3	R0.1	2.92	12°	4	50
AUUR010-40300-120-04050		12						50
AUUR010-40300-140-04050		14						50
AUUR010-40300-160-04050		16						50
AUUR010-40300-180-04050		18						50
AUUR010-40300-200-04050		20						50
AUUR020-40300-100-04050		10		R0.2				50
AUUR020-40300-120-04050		12						50
AUUR020-40300-140-04050		14						50
AUUR020-40300-160-04050		16						50
AUUR020-40300-180-04050		18						50
AUUR020-40300-200-04050		20						50
AUUR050-40300-100-04050		10		R0.5				50
AUUR050-40300-120-04050		12						50
AUUR050-40300-140-04050		14						50
AUUR050-40300-160-04050		16						50
AUUR050-40300-180-04050		18						50
AUUR050-40300-200-04050		20						50
AUUR020-40300-100-06060		12		R0.2			6	60
AUUR020-40300-120-06060		14						60
AUUR020-40300-140-06060		16						60
AUUR020-40300-160-06060		18						60
AUUR020-40300-180-06060		20						60
AUUR020-40300-200-06060		25						60
AUUR050-40300-120-06060		12		R0.5				60
AUUR050-40300-140-06060		14						60

AUU

Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR050-40300-160-06060	3	16	3	R0.5	2.92	12°	6	60
AUUR050-40300-180-06050		18						60
AUUR050-40300-200-06060		20						60
AUUR050-40300-250-06060		25						60
AUUR020-40300-120-06075		12		R0.2				75
AUUR020-40300-140-06075		14						75
AUUR020-40300-160-06075		16						75
AUUR020-40300-180-06075		18						75
AUUR020-40300-200-06075		20						75
AUUR020-40300-250-06075		25						75
AUUR020-40300-300-06075		30						75
AUUR050-40400-120-06075		12		R0.5				75
AUUR050-40400-140-06075		14						75
AUUR050-40400-160-06075		16						75
AUUR050-40400-180-06075		18						75
AUUR050-40400-200-06075		20						75
AUUR050-40400-250-06075		25						75
AUUR050-40400-300-06075		30						75
AUUR020-40400-160-06075	4	16	4	R0.2	3.9	12°	6	60
AUUR020-40400-200-06075		20						60
AUUR020-40400-250-06060		25						60
AUUR050-40400-160-06060		16		R0.5				60
AUUR050-40400-200-06060		20						60
AUUR050-40400-250-06060		25						60
AUUR020-40400-160-06075		16		R0.2				75
AUUR020-40400-200-06075		20						75
AUUR050-40400-250-06075		25						75
AUUR050-40400-300-06075		30						75

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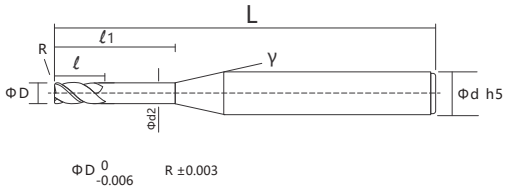
Supper Hardness Series

4-Flute Long Neck Corner Radius End Mill



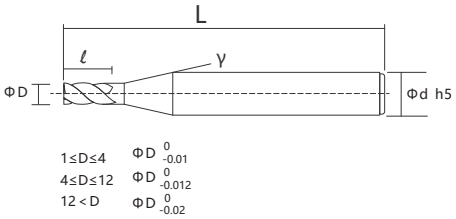
Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUR020-40400-300-06075	4	35	4	R0.2	3.9	12°	6	75
AUUR020-40400-160-06075		16		R0.5				75
AUUR050-40400-200-06075		20						75
AUUR050-40400-250-06075		25						75
AUUR050-40400-300-06075		30						75
AUUR050-40400-350-06075		35						75

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 4 Flute | Coating WX

4-Flute Square End Mill



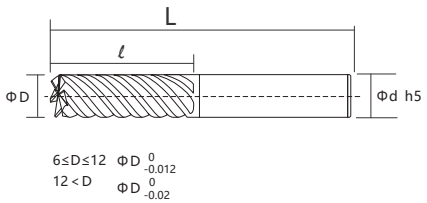
Model	Head diameter	Tool length	Neck angle	Shank diameter	Length
No.	D	ℓ	γ(reference)	d	L
AUUE-4010-04050	1	3	12°	4	50
AUUE-4015-04050	1.5	4	10°	4	50
AUUE-4020-04050	2	6	10°	4	50
AUUE-4025-04050	2.5	7	10°	4	50
AUUE-4030-04050	3	8	10°	4	50
AUUE-4040-04050	4	10	-	4	50
AUUE-4040-04075	4	15	-	4	75
AUUE-4040-04100	4	15	-	4	100
AUUE-4050-06050	5	13	12°	6	50
AUUE-4050-06075	5	18	12°	6	75
AUUE-4060-06050	6	15	-	6	50
AUUE-4060-06060	6	15	-	6	60
AUUE-4060-06075	6	20	-	6	75
AUUE-4060-06100	6	20	-	6	100
AUUE-4080-08060	8	20	-	8	60
AUUE-4080-08075	8	20	-	8	75
AUUE-4080-08100	8	25	-	8	100
AUUE-4100-10075	10	25	-	10	75
AUUE-4100-10100	10	30	-	10	100
AUUE-4120-12075	12	30	-	12	75
AUUE-4120-12100	12	35	-	12	100
AUUE-4160-16100	16	45	-	16	100
AUUE-4160-16150	16	50	-	16	150
AUUE-4200-20100	20	45	-	20	100
AUUE-4200-20150	20	55	-	20	150

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 6 Flute | Coating WX

6-Flute Square End Mill



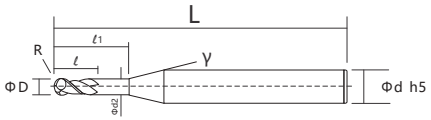
Model No.	Head diameter D	Tool length ℓ	Shank diameter d	Length L
AUUE-6060-06060	6	18	6	60
AUUE-6060-06075	6	24	6	75
AUUE-6060-08060	8	20	8	60
AUUE-6060-08075	8	32	8	75
AUUE-6060-10075	10	30	10	75
AUUE-6060-10100	10	40	10	100
AUUE-6060-12075	12	32	12	75
AUUE-6060-12100	12	45	12	100
AUUE-6060-16100	16	40	16	100

AUU

Supper Hardness Series

Super UMG | 0.2 µm | 2 Flute | Coating WX

2-Flute Ball End Mill



1≤D≤6 R ±0.005
6≤D≤16 R ±0.01

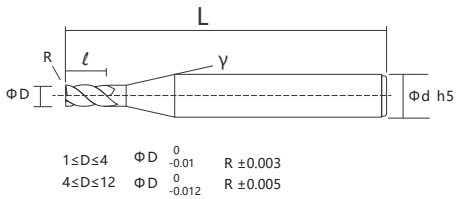
Model	Head diameter	Effective length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUUB-2010-04050	1	2	1	R0.5	0.95	12°	4	50
AUUB-2015-04050	1.5	3	1.5	R0.75	1.44	12°	4	50
AUUB-2020-04050	2	4	2	R1	1.94	12°	4	50
AUUB-2030-04050	3	6	3	R1.5	2.92	12°	4	50
AUUB-2040-04050	4	10	4	R2	3.9	-	4	50
AUUB-2040-04075	4	10	4	R2	3.9	-	4	75
AUUB-2050-06050	5	12	5	R2.5	4.8	12°	6	50
AUUB-2050-06060	5	12	5	R2.5	4.8	12°	6	60
AUUB-2050-06075	5	12	5	R2.5	4.8	12°	6	75
AUUB-2050-06100	5	12	5	R2.5	4.8	12°	6	100
AUUB-2060-06050	6	12	6	R3	5.8	-	6	50
AUUB-2060-06060	6	12	6	R3	5.8	-	6	60
AUUB-2060-06075	6	12	6	R3	5.8	-	6	75
AUUB-2060-06100	6	12	6	R3	5.8	-	6	100
AUUB-2080-08060	8	16	8	R4	7.8	-	8	60
AUUB-2080-08075	8	16	8	R4	7.8	-	8	75
AUUB-2080-08100	8	16	8	R4	7.8	-	8	100
AUUB-2100-10075	10	20	10	R5	9.8	-	10	75
AUUB-2100-10100	10	20	10	R5	9.8	-	10	100
AUUB-2120-12075	12	24	12	R6	11.8	-	12	75
AUUB-2120-12100	12	24	12	R6	11.8	-	12	100

AUU

Supper Hardness Series

R | Super UMG | 0.2 μm | 4 Flute | Coating WX

4-Flute Corner Radius End Mill

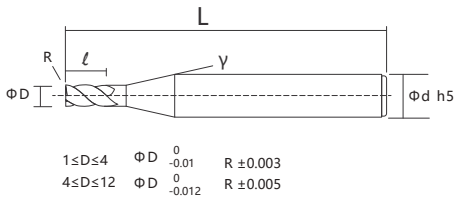


Model No.	Head diameter D	Tool length ℓ	Circular radius R	Neck angle γ(reference)	Shank diameter d	Length L
AUUR005-4010-04050	1	2	0.05	12°	4	50
AUUR010-4010-04050			0.1			50
AUUR020-4010-04050			0.2			50
AUUR010-4015-04050	1.5	3	0.1	10°	4	50
AUUR020-4015-04050			0.2			50
AUUR010-4020-04050	2	4	0.1	10°	4	50
AUUR020-4020-04050			0.2			50
AUUR050-4020-04050			0.5			50
AUUR010-4030-04050	3	6	0.1	10°	4	50
AUUR020-4030-04050			0.2			50
AUUR050-4030-04050			0.5			50
AUUR020-4040-04050	4	8	0.2	-	4	50
AUUR020-4040-04075			0.2			75
AUUR050-4040-04050			0.5			50
AUUR050-4040-04075			0.5			75
AUUR100-4040-04050			1			50
AUUR100-4040-04075			1			75
AUUR020-4060-06050	6	12	0.2	-	6	50
AUUR020-4060-06060			0.2			60
AUUR020-4060-06075			0.2			75
AUUR020-4060-06100			0.2			100
AUUR050-4060-06050			0.5			50
AUUR050-4060-06060			0.5			60
AUUR050-4060-06075			0.5			75
AUUR050-4060-06100			0.5			100
AUUR100-4060-06050			1			50
AUUR100-4060-06060			1			60
AUUR100-4060-06075			1			75

AUU

Supper Hardness Series

4-Flute Corner Radius End Mill



Model No.	Head diameter D	Tool length ℓ	Circular radius R	Neck angle γ(reference)	Shank diameter d	Length L
AUUR100-4060-06100	6	12	1	-	6	100
AUUR050-4080-08060	8	16	0.5	-	8	60
AUUR050-4080-08075			0.5			75
AUUR050-4080-08100			0.5			100
AUUR100-4080-08060			1			60
AUUR100-4080-08075			1			75
AUUR100-4080-08100			1			100
AUUR050-4100-10075	10	20	0.5	-	10	75
AUUR050-4100-10100			05			100
AUUR100-4100-10075			1			75
AUUR100-4100-10100			1			100
AUUR050-4120-12075	12	24	0.5	-	12	75
AUUR050-4120-12100			0.5			100
AUUR100-4120-12075			1			75
AUUR100-4120-12100			1			100

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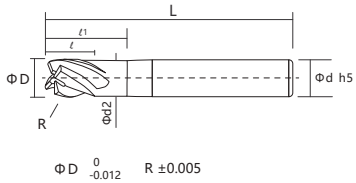
Supper Hardness Series

4-Flute Short Length Corner Radius End Mill



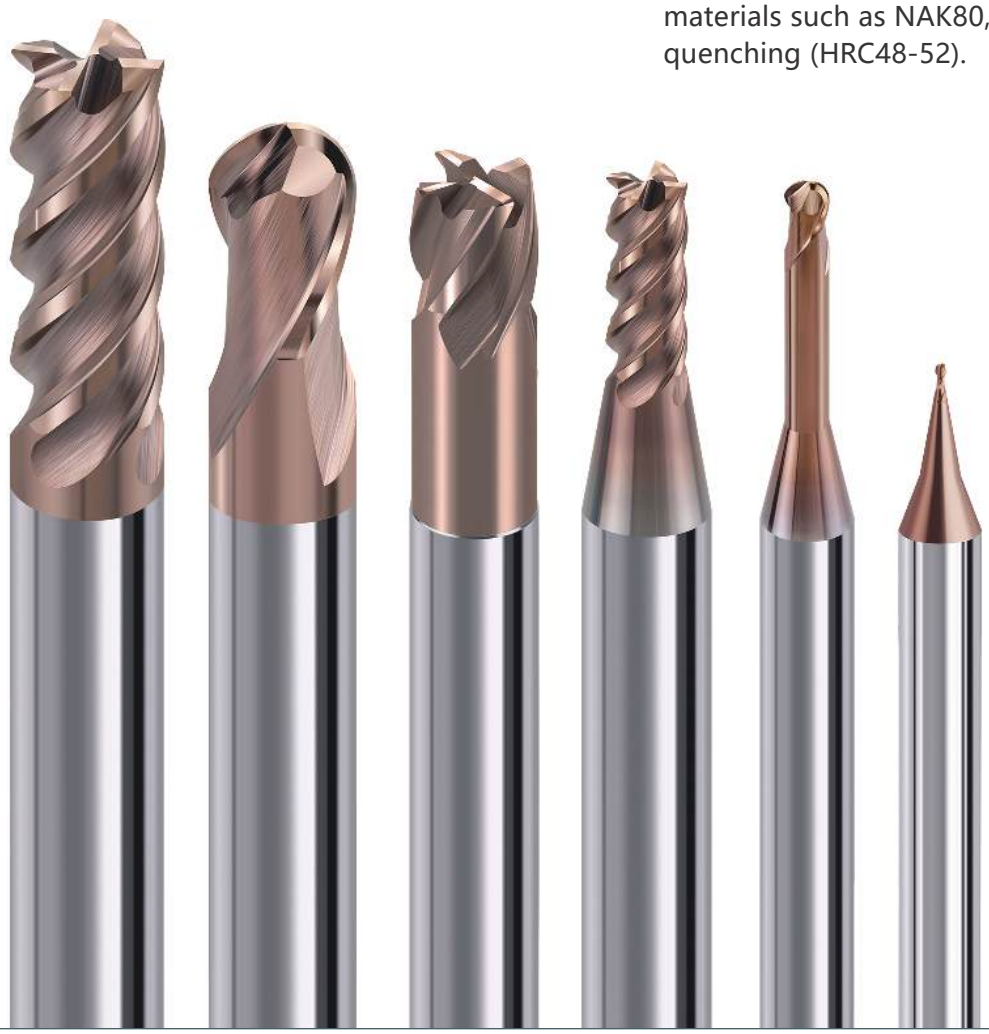
ΦD $^{0}_{-0.012}$ R ±0.005

Model	Head diameter	Tool length	Circular radius	Effective length	Shank diameter	Shank diameter	Length
No.	D	ℓ	R	ℓ1	d2	d	L
AUURS020-4040-04050	4	4	0.2	12	3.9	4	50
AUURS050-4040-04050			0.5				50
AUURS100-4040-04050			1				50
AUURS020-4060-06050	6	6	0.2	18	5.8	6	50
AUURS020-4060-06060			0.2				60
AUURS020-4060-06075			0.2				75
AUURS020-4060-06100			0.2				100
AUURS050-4060-06050			0.5				50
AUURS050-4060-06060			0.5				60
AUURS050-4060-06075			0.5				75
AUURS050-4060-06100			0.5				100
AUURS100-4060-06050			1				50
AUURS100-4060-06060			1				60
AUURS100-4060-06075			1				75
AUURS100-4060-06100			1				100
AUURS050-4080-08060	8	8	0.5	24	7.8	8	60
AUURS050-4080-08075			0.5				75
AUURS050-4080-08100			0.5				100
AUURS100-4080-08060			1				60
AUURS100-4080-08075			1				75
AUURS100-4080-08100			1				100
AUURS050-4100-10075	10	10	0.5	30	9.8	10	75
AUURS050-4100-10100			0.5				100
AUURS100-4100-10075			1				75
AUURS100-4100-10100			1				100
AUURS050-4120-12075	12	12	0.5	36	11.8	12	75
AUURS050-4120-12100			0.5				100
AUURS100-4120-12075			1				75

HIGH HARDNESS SERIES

Machining accuracy is recommended ≤HRC52

- ☆ The imported extremely fine particle matrix with a grain size of 0.4um is selected, which has good toughness and hardness, and effectively reduces the risk of chipping.
- ☆ The chromium and aluminum nano coating is selected, which has ultra-high versatility and wear resistance
- ☆ It is suitable for the processing of soft materials such as P20 and 718H; It is very suitable for semi-finishing and finishing of materials such as NAK80, H13, S136 after quenching (HRC48-52).

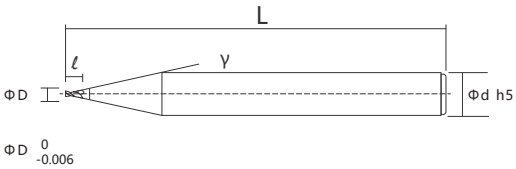


ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Micro Square End Mill



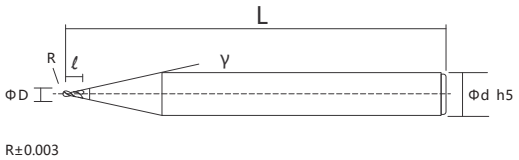
Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
ASSE-20010-04042	0.1	0.2	15°	4	42
ASSE-20015-04045	0.15	0.3	15°	4	45
ASSE-20020-04045	0.2	0.4	15°	4	45
ASSE-20025-04045	0.25	0.5	15°	4	45
ASSE-20030-04045	0.3	0.6	15°	4	45
ASSE-20035-04045	0.35	0.7	15°	4	45
ASSE-20040-04045	0.4	0.8	15°	4	45
ASSE-20045-04045	0.45	0.9	15°	4	45
ASSE-20050-04045	0.5	1	15°	4	45
ASSE-20055-04045	0.55	1.1	15°	4	45
ASSE-20060-04045	0.6	1.2	15°	4	45
ASSE-20065-04045	0.65	1.3	15°	4	45
ASSE-20070-04045	0.7	1.4	15°	4	45
ASSE-20075-04045	0.75	1.5	15°	4	45
ASSE-20080-04045	0.8	1.6	15°	4	45
ASSE-20085-04045	0.85	1.7	15°	4	45
ASSE-20090-04045	0.9	1.8	15°	4	45

ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Micro Ball End Mill



Model No.	Head diameter D	Tool length ℓ	Sphere radius R	Neck angle γ(reference)	Shank diameter d	Length L
ASSB-20010-04042	0.1	0.15	R0.05	15°	4	42
ASSB-20015-04045	0.15	0.2	R0.075	15°	4	45
ASSB-20020-04045	0.2	0.3	R0.1	15°	4	45
ASSB-20030-04045	0.3	0.45	R0.15	15°	4	45
ASSB-20040-04045	0.4	0.6	R0.2	15°	4	45
ASSB-20050-04045	0.5	0.8	R0.25	15°	4	45
ASSB-20060-04045	0.6	0.9	R0.3	15°	4	45
ASSB-20070-04045	0.7	1.1	R0.35	15°	4	45
ASSB-20080-04045	0.8	1.2	R0.4	15°	4	45
ASSB-20090-04045	0.9	1.4	R0.45	15°	4	45

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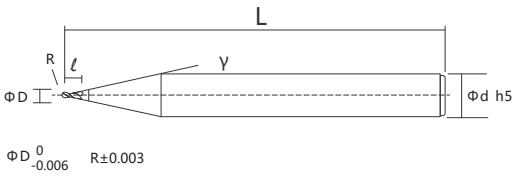
ASS

High Hardness Series

2-Flute Micro Corner Radius End Mill



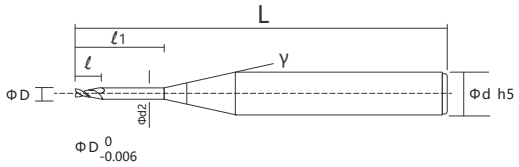
Model No.	Head diameter D	Sphere radius R	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
ASSR002-20020-04045	0.2	R0.02	0.4	15°	4	45
ASSR005-20020-04045		R0.05				45
ASSR002-20030-04045	0.3	R0.02	0.6	15°	4	45
ASSR005-20030-04045		R0.05				45
ASSR002-20040-04045	0.4	R0.02	0.8	15°	4	45
ASSR005-20040-04045		R0.05				45
ASSR010-20040-04045		R0.1				45
ASSR002-20050-04045	0.5	R0.02	1.0	15°	4	45
ASSR005-20050-04045		R0.05				45
ASSR010-20050-04045		R0.1				45
ASSR002-20060-04045	0.6	R0.02	1.2	15°	4	45
ASSR005-20060-04045		R0.05				45
ASSR010-20060-04045		R0.1				45
ASSR020-20060-04045		R0.2				45
ASSR002-20080-04045	0.8	R0.02	1.6	15°	4	45
ASSR005-20080-04045		R0.05				45
ASSR010-20080-04045		R0.1				45
ASSR020-20080-04045		R0.2				45

ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Long Neck Square End Mill



Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
ASSE-20010-003-04045	0.1	0.3	0.1	0.085	15°	4	45
ASSE-20010-005-04045		0.5					45
ASSE-20010-008-04045		0.8					45
ASSE-20010-010-04045		1					45
ASSE-20015-005-04045	0.15	0.5	0.15	0.13	15°	4	45
ASSE-20015-010-04045		1					45
ASSE-20020-010-04045	0.2	1	0.2	0.18	15°	4	45
ASSE-20020-015-04045		1.5	0.2	0.18	12°	4	45
ASSE-20020-020-04045		2					45
ASSE-20020-030-04045		3					45
ASSE-20020-040-04045		4					45
ASSE-20030-010-04045	0.3	1	0.3	0.27	15°	4	45
ASSE-20030-015-04045		1.5	0.3	0.27	12°	4	45
ASSE-20030-020-04045		2					45
ASSE-20030-030-04045		3					45
ASSE-20030-040-04045		4					45
ASSE-20030-050-04045		5					45
ASSE-20040-015-04045	0.4	1.5	0.4	0.37	12°	4	45
ASSE-20040-020-04045		2					45
ASSE-20040-030-04045		3					45
ASSE-20040-040-04045		4					45
ASSE-20040-050-04045		5					45
ASSE-20040-060-04045		6					45
ASSE-20050-020-04045	0.5	2	0.5	0.46	12°	4	45
ASSE-20050-030-04045		3					45
ASSE-20050-040-04045		4					45
ASSE-20050-050-04045		5					45
ASSE-20050-060-04045		6					45

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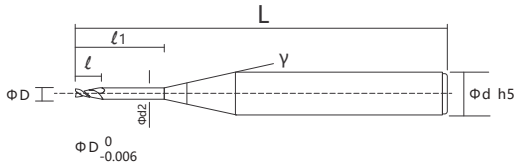
ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Long Neck Square End Mill



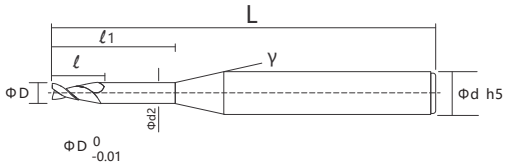
Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
ASSE-20050-080-04045	0.5	8	0.5	0.46	12°	4	45
ASSE-20050-100-04045		10					45
ASSE-20060-020-04045	0.6	2	0.6	0.56	12°	4	45
ASSE-20060-030-04045		3					45
ASSE-20060-040-04045		4					45
ASSE-20060-050-04045		5					45
ASSE-20060-060-04045		6					45
ASSE-20060-080-04045		8					45
ASSE-20060-100-04045		10					45
ASSE-20070-020-04045	0.7	2	0.7	0.66	12°	4	45
ASSE-20070-030-04045		3					45
ASSE-20070-040-04045		4					45
ASSE-20070-050-04045		5					45
ASSE-20070-060-04045		6					45
ASSE-20070-080-04045		8					45
ASSE-20070-100-04045		10					45
ASSE-20080-020-04045	0.8	2	0.8	0.76	12°	4	45
ASSE-20080-030-04045		3					45
ASSE-20080-040-04045		4					45
ASSE-20080-050-04045		5					45
ASSE-20080-060-04045		6					45
ASSE-20080-080-04045		8					45
ASSE-20080-100-04045		10					45

ASS

High Hardness Series

Perfect MG | 0.4 µm | 4 Flute | Coating ST

4-Flute Long Neck Square End Mill



Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
ASSE-40100-040-04045	1	4	1	0.95	12°	4	50
ASSE-40100-050-04045		5					50
ASSE-40100-060-04045		6					50
ASSE-40100-080-04045		8					50
ASSE-40100-100-04045		10					50
ASSE-40100-120-04045		12					50
ASSE-40100-140-04045		14					50
ASSE-40100-160-04045		16					50
ASSE-40100-180-04045		18					50
ASSE-40100-200-04045		20					50
ASSE-40150-060-04045	1.5	6	1.5	1.44	12°	4	50
ASSE-40150-080-04045		8					50
ASSE-40150-100-04045		10					50
ASSE-40150-120-04045		12					50
ASSE-40150-140-04045		14					50
ASSE-40150-160-04045		16					50
ASSE-40150-180-04045		18					50
ASSE-40150-200-04045		20					50
ASSE-40200-060-04045	2	6	2	1.94	12°	4	50
ASSE-40200-080-04045		8					50
ASSE-40200-100-04045		10					50
ASSE-40200-120-04045		12					50
ASSE-40200-140-04045		14					50
ASSE-40200-160-04045		16					50
ASSE-40200-180-04045		18					50
ASSE-40200-200-04045		20					50
ASSE-40300-100-04045	3	10	3	2.92	12°	4	50
ASSE-40300-120-04045		12					50

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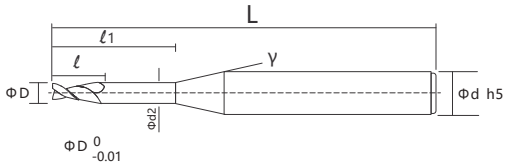
ASS

High Hardness Series

Perfect MG | 0.4 µm | 4 Flute | Coating ST

4-Flute Long Neck Square End Mill



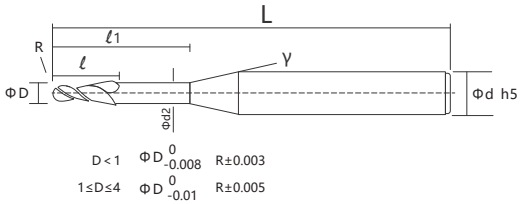
Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
ASSE-40300-140-04050	3	14	3	2.92	12°	4	50
ASSE-40300-160-04050		16					50
ASSE-40300-180-04050		18					50
ASSE-40300-200-04050		20					50
ASSE-40300-160-06060		16				6	60
ASSE-40300-180-06060		18					60
ASSE-40300-200-06060		20					60
ASSE-40300-250-06060		25					60
ASSE-40300-160-06075		16					75
ASSE-40300-180-06075		18					75
ASSE-40300-200-06075		20					75
ASSE-40300-250-06075		25					75
ASSE-40300-300-06075		30					75
ASSE-40300-350-06075		35					75
ASSE-40400-160-06060	4	16	4	3.9	12°	6	60
ASSE-40400-180-06060		18					60
ASSE-40400-200-06060		20					60
ASSE-40400-250-06060		25					60
ASSE-40400-160-06075		16					75
ASSE-40400-180-06075		18					75
ASSE-40400-200-06075		20					75
ASSE-40400-250-06075		25					75
ASSE-40400-300-06075		30					75
ASSE-40400-350-06075		35					75

ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Long Neck Ball End Mill



Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSB-20010-003-04045	0.1	0.3	0.1	R0.05	0.085	15°	4	45
ASSB-20010-005-04045		0.5						45
ASSB-20010-008-04045		0.8						45
ASSB-20010-010-04045		1						45
ASSB-20015-005-04045	0.15	0.5	0.15	R0.075	0.13	15°	4	45
ASSB-20015-010-04045		1						45
ASSB-20020-010-04045	0.2	1	0.2	R0.1	0.18	15°	4	45
ASSB-20020-015-04045		1.5	0.2	R0.1	0.18	12°	4	45
ASSB-20020-020-04045		2						45
ASSB-20020-030-04045		3						45
ASSB-20030-010-04045	0.3	1	0.3	R0.15	0.27	15°	4	45
ASSB-20030-015-04045		1.5	0.3	R0.15	0.27	12°	4	45
ASSB-20030-020-04045		2						45
ASSB-20030-030-04045		3						45
ASSB-20030-040-04045		4						45
ASSB-20030-050-04045		5						45
ASSB-20040-015-04045	0.4	1.5	0.4	R0.2	0.37	12°	4	45
ASSB-20040-020-04045		2						45
ASSB-20040-030-04045		3						45
ASSB-20040-040-04045		4						45
ASSB-20040-050-04045		5						45
ASSB-20040-060-04045		6						45
ASSB-20050-020-04045	0.5	2	0.5	R0.25	0.46	12°	4	45
ASSB-20050-030-04045		3						45
ASSB-20050-040-04045		4						45
ASSB-20050-050-04045		5						45
ASSB-20050-060-04045		6						45
ASSB-20050-080-04045		8						45

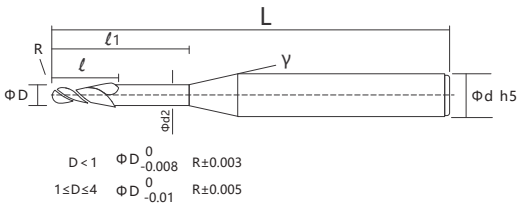
AMMATO (Guangzhou) Technology Co.,Ltd

ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Long Neck Ball End Mill



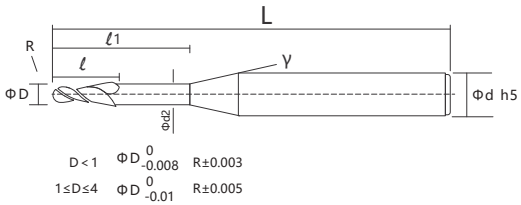
Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSB-20060-020-04045	0.6	2	0.6	R0.3	0.56	12°	4	45
ASSB-20060-020-04045		3						45
ASSB-20060-040-04045		4						45
ASSB-20060-050-04045		5						45
ASSB-20060-060-04045		6						45
ASSB-20060-080-04045		8						45
ASSB-20060-100-04045		10						45
ASSB-20080-020-04045	0.8	2	0.8	R0.4	0.76	12°	4	45
ASSB-20080-030-04045		3						45
ASSB-20080-040-04045		4						45
ASSB-20080-050-04045		5						45
ASSB-20080-060-04045		6						45
ASSB-20080-080-04045		8						45
ASSB-20080-100-04045		10						45

ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Long Neck Ball End Mill



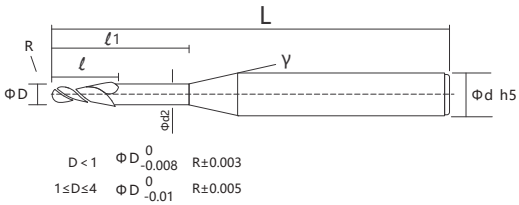
Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSB-20100-030-04050	1	3	1	R0.5	0.95	12°	4	50
ASSB-20100-040-04050		4						50
ASSB-20100-050-04050		5						50
ASSB-20100-060-04050		6						50
ASSB-20100-080-04050		8						50
ASSB-20100-100-04050		10						50
ASSB-20100-120-04050		12						50
ASSB-20100-140-04050		14						50
ASSB-20100-160-04050		16						50
ASSB-20100-180-04050		18						50
ASSB-20100-200-04050		20						50
ASSB-20150-040-04050	1.5	4	1.5	R0.75	1.44	12°	4	50
ASSB-20150-050-04050		5						50
ASSB-20150-060-04050		6						50
ASSB-20150-080-04050		8						50
ASSB-20150-100-04050		10						50
ASSB-20150-120-04050		12						50
ASSB-20150-160-04050		16						50
ASSB-20150-180-04050		18						50
ASSB-20150-200-04050		20						50
ASSB-20200-060-04050	2	6	2	R1	1.94	12°	4	50
ASSB-20200-080-04050		8						50
ASSB-20200-100-04050		10						50
ASSB-20200-120-04050		12						50
ASSB-20200-140-04050		14						50
ASSB-20200-160-04050		16						50
ASSB-20200-180-04050		18						50
ASSB-20200-200-04050		20						50

ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Long Neck Ball End Mill

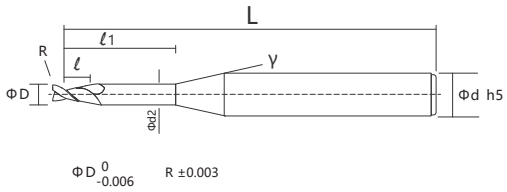


Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSB-20200-160-06060	2	16	2	R1	1.94	12°	6	60
ASSB-20200-180-06060		18						60
ASSB-20200-200-06060		20						60
ASSB-20200-250-06060		25						60
ASSB-20300-080-04050	3	8	3	R1.5	2.92	12°	4	50
ASSB-20300-100-04050		10						50
ASSB-20300-120-04050		12						50
ASSB-20300-160-04050		16						50
ASSB-20300-200-04050		20						50
ASSB-20300-160-06060		16					6	60
ASSB-20300-180-06060		18						60
ASSB-20300-200-06060		20						60
ASSB-20300-250-06060		25						60
ASSB-20300-160-06075		16						75
ASSB-20300-180-06075		18						75
ASSB-20300-200-06075		20						75
ASSB-20300-250-06075		25						75
ASSB-20300-300-06075		30						75
ASSB-20400-160-06060	4	16	4	R2	3.9	12°	6	60
ASSB-20400-180-06060		18						60
ASSB-20400-200-06060		20						60
ASSB-20400-250-06060		25						60
ASSB-20400-160-06075		16						75
ASSB-20400-180-06075		18						75
ASSB-20400-200-06075		20						75
ASSB-20400-250-06075		25						75
ASSB-20400-300-06075		30						75
ASSB-20400-350-06075		35						75

ASS

High Hardness Series

2-Flute Long Neck Corner Radius End Mill

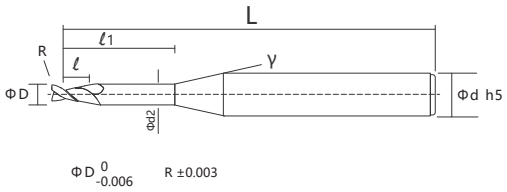


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR002-20020-010-04045	0.2	1	0.2	R0.02	0.18	15°	4	45
ASSR002-20020-015-04045		1.5			0.18	12°	4	45
ASSR002-20020-020-04045		2						45
ASSR002-20020-030-04045		3						45
ASSR005-20020-010-04045		1		R0.05	0.18	15°	4	45
ASSR005-20020-015-04045		1.5			0.18	12°	4	45
ASSR005-20020-020-04045		2						45
ASSR005-20020-030-04045		3						45
ASSR002-20030-010-04045	0.3	1	0.3	R0.02	0.27	15°	4	45
ASSR002-20030-015-04045		1.5			0.27	12°	4	45
ASSR002-20030-020-04045		2						45
ASSR002-20030-030-04045		3						45
ASSR002-20030-040-04045		4						45
ASSR005-20030-010-04045		1		R0.05	0.27	15°	4	45
ASSR005-20030-015-04045		1.5			0.27	12°	4	45
ASSR005-20030-020-04045		2						45
ASSR005-20030-030-04045		3						45
ASSR005-20030-040-04045		4						45
ASSR002-20040-010-04045	0.4	1	0.4	R0.02	0.37	15°	4	45
ASSR002-20040-015-04045		1.5			0.37	12°	4	45
ASSR002-20040-020-04045		2						45
ASSR002-20040-030-04045		3						45
ASSR002-20040-040-04045		4						45
ASSR002-20040-050-04045		5						45
ASSR002-20040-060-04045		6						45
ASSR005-20040-010-04045		1		R0.05	0.37	15°	4	45
ASSR005-20040-020-04045		1.5			0.37	12°	4	45
ASSR005-20040-030-04045		2						45

ASS

High Hardness Series

2-Flute Long Neck Corner Radius End Mill

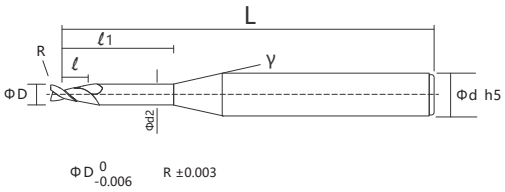


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR005-20040-030-04045	0.4	3	0.4	R0.05	0.37	12°	4	45
ASSR005-20040-040-04045		4						45
ASSR005-20040-050-04045		5						45
ASSR005-20040-060-04045		6						45
ASSR010-20040-010-04045		1		R0.1	0.37	15°	4	45
ASSR010-20040-015-04045		1.5			0.37	12°	4	45
ASSR010-20040-020-04045		2						45
ASSR010-20040-030-04045		3						45
ASSR010-20040-040-04045		4						45
ASSR010-20040-050-04045		5						45
ASSR010-20040-060-04045		6						45
ASSR002-20050-020-04045	0.5	2	0.5	R0.02	0.46	12°	4	45
ASSR002-20050-030-04045		3						45
ASSR002-20050-040-04045		4						45
ASSR002-20050-050-04045		5						45
ASSR002-20050-060-04045		6						45
ASSR002-20050-080-04045		8						45
ASSR002-20050-100-04045		10						45
ASSR005-20050-020-04045		2		R0.05				45
ASSR005-20050-030-04045		3						45
ASSR005-20050-040-04045		4						45
ASSR005-20050-050-04045		5						45
ASSR005-20050-060-04045		6						45
ASSR005-20050-080-04045		8						45
ASSR005-20050-100-04045		10						45
ASSR010-20050-020-04045		2		R0.1				45
ASSR010-20050-030-04045		3						45
ASSR010-20050-040-04045		4						45

ASS

High Hardness Series

2-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR010-20050-050-04045	0.5	5	0.5	R0.1	0.46	12°	4	45
ASSR010-20050-060-04045		6						45
ASSR010-20050-070-04045		7						45
ASSR010-20050-080-04045		8						45
ASSR010-20050-100-04045		10						45
ASSR002-20060-020-04045	0.6	2	0.6	R0.02	0.56	12°	4	45
ASSR002-20060-030-04045		3						45
ASSR002-20060-040-04045		4						45
ASSR002-20060-050-04045		5						45
ASSR002-20060-060-04045		6						45
ASSR002-20060-080-04045		8						45
ASSR002-20060-100-04045		10						45
ASSR005-20060-020-04045		2		R0.05				45
ASSR005-20060-030-04045		3						45
ASSR005-20060-040-04045		4						45
ASSR005-20060-050-04045		5						45
ASSR005-20060-060-04045		6						45
ASSR005-20060-080-04045		8						45
ASSR005-20060-100-04045		10		R0.1				45
ASSR010-20060-020-04045		2						45
ASSR010-20060-030-04045		3						45
ASSR010-20060-040-04045		4						45
ASSR010-20060-050-04045		5						45
ASSR010-20060-060-04045		6						45
ASSR010-20060-080-04045		8						45
ASSR010-20060-100-04045		10						45
ASSR020-20060-020-04045		2		R0.2				45
ASSR020-20060-030-04045		3						45

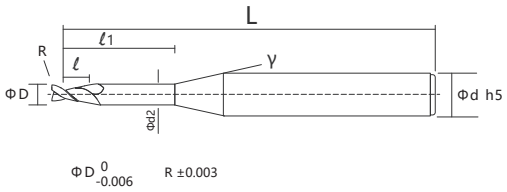
AMMATO (Guangzhou) Technology Co.,Ltd

ASS

High Hardness Series

R | Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Long Neck Corner Radius End Mill



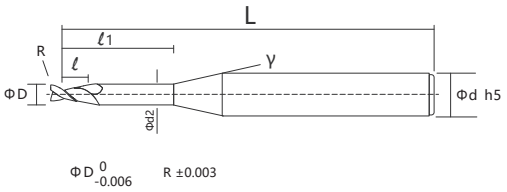
$\Phi D_{-0.006}^{0}$ R ±0.003

Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR020-20060-040-04045	0.6	4	0.6	R0.2	0.56	12°	4	45
ASSR020-20060-050-04045		5						45
ASSR020-20060-060-04045		6						45
ASSR020-20060-080-04045		8						45
ASSR020-20060-100-04045		10						45
ASSR002-20060-020-04045	0.8	2	0.8	R0.02	0.76	12°	4	45
ASSR002-20060-030-04045		3						45
ASSR002-20060-040-04045		4						45
ASSR002-20060-050-04045		5						45
ASSR002-20060-060-04045		6						45
ASSR002-20060-080-04045		8						45
ASSR002-20060-100-04045		10						45
ASSR005-20080-020-04045		2		R0.05				45
ASSR005-20080-030-04045		3						45
ASSR005-20080-040-04045		4						45
ASSR005-20080-050-04045		5						45
ASSR005-20080-060-04045		6						45
ASSR005-20080-080-04045		8						45
ASSR005-20080-100-04045		10						45
ASSR010-20080-020-04045		2		R0.1				45
ASSR010-20080-030-04045		3						45
ASSR010-20080-040-04045		4						45
ASSR010-20080-050-04045		5						45
ASSR010-20080-060-04045		6						45
ASSR010-20080-080-04045		8						45
ASSR010-20080-100-04045		10						45
ASSR020-20080-020-04045		2		R0.2				45
ASSR020-20080-030-04045		3						45

ASS

High Hardness Series

2-Flute Long Neck Corner Radius End Mill



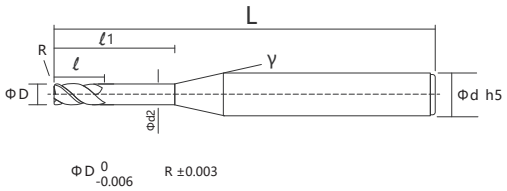
Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR020-20080-040-04045	0.8	4	0.8	R0.2	0.76	12°	4	45
ASSR020-20080-050-04045		5						45
ASSR020-20080-060-04045		6						45
ASSR020-20080-070-04045		7						45
ASSR020-20080-080-04045		8						45
ASSR020-20080-100-04045		10						45

AMMATO (Guangzhou) Technology Co.,Ltd

ASS

High Hardness Series

4-Flute Long Neck Corner Radius End Mill

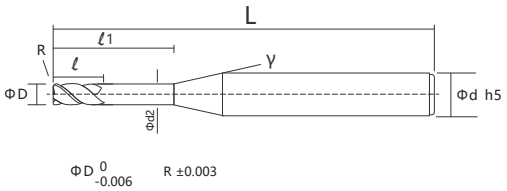


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR010-40100-040-04050	1	4	1	R0.1	0.95	12°	4	50
ASSR010-40100-060-04050		6						50
ASSR010-40100-080-04050		8						50
ASSR010-40100-100-04050		10						50
ASSR010-40100-120-04050		12						50
ASSR010-40100-140-04050		14						50
ASSR010-40100-160-04050		16						50
ASSR010-40100-180-04050		18						50
ASSR010-40100-200-04050		20						50
ASSR020-40100-040-04050		4		R0.2				50
ASSR020-40100-060-04050		6						50
ASSR020-40100-080-04050		8						50
ASSR020-40100-100-04050		10						50
ASSR020-40100-120-04050		12						50
ASSR020-40100-140-04050		14						50
ASSR020-40100-160-04050		16						50
ASSR020-40100-180-04050		18						50
ASSR020-40100-200-04050		20						50
ASSR010-40150-060-04050	1.5	6	1.5	R0.1	1.44	12°	4	50
ASSR010-40150-080-04050		8						50
ASSR010-40150-100-04050		10						50
ASSR010-40150-120-04050		12						50
ASSR010-40150-140-04050		14						50
ASSR010-40150-160-04050		16						50
ASSR010-40150-180-04050		18						50
ASSR010-40150-200-04050		20						50
ASSR020-40150-060-04050		6		R0.2				50
ASSR020-40150-080-04050		8						50

ASS

High Hardness Series

4-Flute Long Neck Corner Radius End Mill

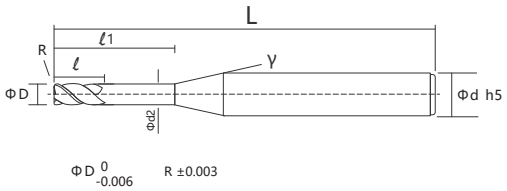


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR020-40150-100-04050	1.5	10	1.5	R0.2	1.44	12°	4	50
ASSR020-40150-120-04050		12						50
ASSR020-40150-140-04050		14						50
ASSR020-40150-160-04050		16						50
ASSR020-40150-180-04050		18						50
ASSR020-40150-200-04050		20						50
ASSR010-40200-060-04050	2	6	2	R0.1	1.94	12°	4	50
ASSR010-40200-080-04050		8						50
ASSR010-40200-100-04050		10						50
ASSR010-40200-120-04050		12						50
ASSR010-40200-140-04050		14						50
ASSR010-40200-160-04050		16						50
ASSR010-40200-180-04050		18						50
ASSR010-40200-200-04050		20						50
ASSR020-40200-160-04050		6		R0.2				50
ASSR020-40200-180-04050		8						50
ASSR020-40200-100-04050		10						50
ASSR020-40200-120-04050		12						50
ASSR020-40200-140-04050		14						50
ASSR020-40200-160-04050		16						50
ASSR020-40200-180-04050		18						50
ASSR020-40200-200-04050		20						50
ASSR050-40200-060-04050		6		R0.5				50
ASSR050-40200-080-04050		8						50
ASSR050-40200-100-04050		10						50
ASSR050-40200-120-04050		12						50
ASSR050-40200-140-04050		14						50
ASSR050-40200-160-04050		16						50

ASS

High Hardness Series

4-Flute Long Neck Corner Radius End Mill

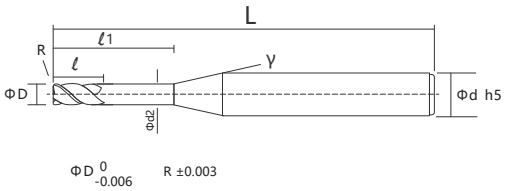


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR050-40200-180-04050	2	18	2	R0.5	1.94	12°	4	50
ASSR050-40200-200-04050		20						50
ASSR010-40300-100-04050	3	10	3	R0.1	2.92	12°	4	50
ASSR010-40300-120-04050		12						50
ASSR010-40300-140-04050		14						50
ASSR010-40300-160-04050		16						50
ASSR010-40300-180-04050		18						50
ASSR010-40300-200-04050		20						50
ASSR020-40300-100-04050		10		R0.2				50
ASSR020-40300-120-04050		12						50
ASSR020-40300-140-04050		14						50
ASSR020-40300-160-04050		16						50
ASSR020-40300-180-04050		18						50
ASSR020-40300-200-04050		20						50
ASSR050-40300-100-04050		10		R0.5				50
ASSR050-40300-120-04050		12						50
ASSR050-40300-140-04050		14						50
ASSR050-40300-160-04050		16						50
ASSR050-40300-180-04050		18						50
ASSR050-40300-200-04050		20						50
ASSR020-40300-120-06060		12		R0.2			6	60
ASSR020-40300-160-06060		16						60
ASSR020-40300-200-06060		20						60
ASSR020-40300-250-06060		25						60
ASSR050-40300-120-06060		12		R0.5				60
ASSR050-40300-160-06060		16						60
ASSR050-40300-200-06060		20						60
ASSR050-40300-250-06060		25						60

ASS

High Hardness Series

4-Flute Long Neck Corner Radius End Mill



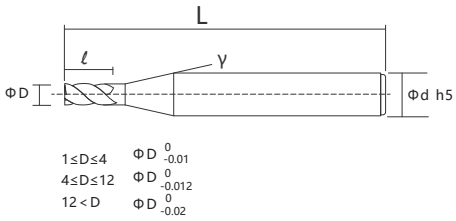
Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR020-40300-120-06075	3	12	3	R0.2	2.92	12°	6	75
ASSR020-40300-160-06075		16						75
ASSR020-40300-200-06075		20						75
ASSR020-40300-250-06075		25						75
ASSR020-40300-300-06075		30						75
ASSR050-40300-120-06075		12		R0.5				75
ASSR050-40300-160-06075		16						75
ASSR050-40300-200-06075		20						75
ASSR050-40300-250-06075		25						75
ASSR050-40300-300-06075		30						75
ASSR020-40400-160-06060	4	16	4	R0.2	3.9	12°	6	60
ASSR020-40400-200-06060		20						60
ASSR020-40400-250-06060		25						60
ASSR050-40400-160-06060		16		R0.5				60
ASSR050-40400-200-06060		20						60
ASSR050-40400-250-06060		25						60
ASSR020-40400-160-06075		16		R0.2				75
ASSR020-40400-200-06075		20						75
ASSR020-40400-250-06075		25						75
ASSR020-40400-300-06060		30						75
ASSR020-40400-350-06060		35						75
ASSR050-40400-160-06060		16		R0.5				75
ASSR050-40400-200-06060		20						75
ASSR050-40400-250-06075		25						75
ASSR050-40400-300-06075		30						75
ASSR050-40400-350-06075		35						75

ASS

High Hardness Series

Perfect MG | 0.4 μm | 4 Flute | Coating ST

4-Flute Square End Mill



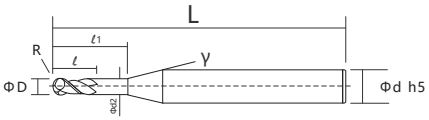
Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
ASSE-4010-04050	1	3	12°	4	50
ASSE-4015-04050	1.5	4	10°	4	50
ASSE-4020-04050	2	6	10°	4	50
ASSE-4025-04050	2.5	7	10°	4	50
ASSE-4030-04050	3	8	10°	4	50
ASSE-4040-04050	4	10	-	4	50
ASSE-4040-04075	4	15	-	4	75
ASSE-4040-04100	4	15	-	4	100
ASSE-4050-04050	5	13	12°	6	50
ASSE-4050-04075	5	18	12°	6	75
ASSE-4060-04050	6	15	-	6	50
ASSE-4060-04060	6	15	-	6	60
ASSE-4060-04075	6	20	-	6	75
ASSE-4060-04100	6	20	-	6	100
ASSE-4080-04060	8	20	-	8	60
ASSE-4080-04075	8	20	-	8	75
ASSE-4080-04100	8	25	-	8	100
ASSE-4100-04075	10	25	-	10	75
ASSE-4100-04100	10	30	-	10	100
ASSE-4120-04075	12	30	-	12	75
ASSE-4120-04100	12	35	-	12	100
ASSE-4160-04100	16	45	-	16	100
ASSE-4160-04150	16	50	-	16	150
ASSE-4200-04100	20	45	-	20	100
ASSE-4200-04150	20	55	-	20	150

ASS

High Hardness Series

Perfect MG | 0.4 µm | 2 Flute | Coating ST

2-Flute Ball End Mill



1≤D≤6 R ±0.005
6≤D≤16 R ±0.01

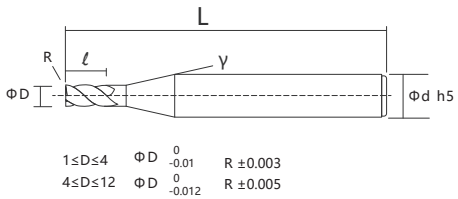
Model	Head diameter	Effective length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSB-2010-04050	1	2	1	R0.5	0.95	12°	4	50
ASSB-2015-04050	1.5	3	1.5	R0.75	1.44	12°	4	50
ASSB-2020-04050	2	4	2	R1	1.94	12°	4	50
ASSB-2030-04050	3	6	3	R1.5	2.92	12°	4	50
ASSB-2040-04050	4	-	6	R2	-	-	4	50
ASSB-2040-04075	4	-	6	R2	-	-	4	75
ASSB-2050-06050	5	-	8	R2.5	-	12°	6	50
ASSB-2050-06060	5	-	8	R2.5	-	12°	6	60
ASSB-2050-06075	5	-	8	R2.5	-	12°	6	75
ASSB-2050-06100	5	-	8	R2.5	-	12°	6	100
ASSB-2060-06050	6	-	9	R3	-	-	6	50
ASSB-2060-06060	6	-	9	R3	-	-	6	60
ASSB-2060-06075	6	-	9	R3	-	-	6	75
ASSB-2060-06100	6	-	9	R3	-	-	6	100
ASSB-2080-08060	8	-	12	R4	-	-	8	60
ASSB-2080-08075	8	-	12	R4	-	-	8	75
ASSB-2080-08100	8	-	12	R4	-	-	8	100
ASSB-2100-10075	10	-	15	R5	-	-	10	75
ASSB-2100-10100	10	-	15	R5	-	-	10	100
ASSB-2120-12075	12	-	18	R6	-	-	12	75
ASSB-2120-12100	12	-	18	R6	-	-	12	100
ASSB-2120-16100	16	-	24	R8	-	-	16	100
ASSB-2120-16150	16	-	24	R8	-	-	16	150

ASS

High Hardness Series

R | Perfect MG | 0.4 µm | 4 Flute | Coating ST

4-Flute Corner Radius End Mill



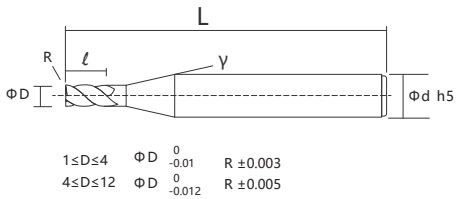
Model No.	Head diameter D	Tool length ℓ	Circular radius R	Neck angle γ(reference)	Shank diameter d	Length L
ASSR005-4010-04050	1	2	0.05	12°	4	50
ASSR010-4010-04050			0.1			50
ASSR020-4010-04050			0.2			50
ASSR010-4015-04050	1.5	3	0.1	10°	4	50
ASSR020-4015-04050			0.2			50
ASSR010-4020-04050	2	4	0.1	10°	4	50
ASSR020-4020-04050			0.2			50
ASSR050-4020-04050			0.5			50
ASSR010-4030-04050	3	6	0.1	10°	4	50
ASSR020-4030-04050			0.2			50
ASSR050-4030-04050			0.5			50
ASSR020-4040-04050	4	8	0.2	-	4	50
ASSR020-4040-04075			0.2			75
ASSR050-4040-04050			0.5			50
ASSR050-4040-04075			0.5			75
ASSR100-4040-04050			1			50
ASSR100-4040-04075			1			75
ASSR020-4060-06050	6	12	0.2	-	6	50
ASSR020-4060-06060			0.2			60
ASSR020-4060-06075			0.2			75
ASSR020-4060-06100			0.2			100
ASSR050-4060-06050			0.5			50
ASSR050-4060-06060			0.5			60
ASSR050-4060-06075			0.5			75
ASSR050-4060-06100			0.5			100
ASSR100-4060-06050			1			50
ASSR100-4060-06060			1			60
ASSR100-4060-06075			1			75

ASS

High Hardness Series

R | Perfect MG | 0.4 µm | 4 Flute | Coating ST

4-Flute Corner Radius End Mill



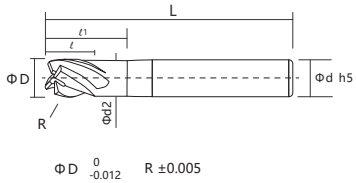
1≤D≤4 ΦD $^{0}_{-0.01}$ R ±0.003
4≤D≤12 ΦD $^{0}_{-0.012}$ R ±0.005

Model No.	Head diameter D	Tool length ℓ	Circular radius R	Neck angle γ(reference)	Shank diameter d	Length L
ASSR100-4060-06100	6	12	1	-	6	100
ASSR050-4080-08060	8	16	0.5	-	8	60
ASSR050-4080-08075			0.5			75
ASSR050-4080-08100			0.5			100
ASSR100-4080-08060			1			60
ASSR100-4080-08075			1			75
ASSR100-4080-08100			1			100
ASSR050-4100-10075	10	20	0.5	-	10	75
ASSR050-4100-10100			05			100
ASSR100-4100-10075			1			75
ASSR100-4100-10100			1			100
ASSR050-4120-12075	12	24	0.5	-	12	75
ASSR050-4120-12100			0.5			100
ASSR100-4120-12075			1			75
ASSR100-4120-12100			1			100

ASS

High Hardness Series

4-Flute Short Length Corner Radius End Mill



ΦD $^{0}_{-0.012}$ R ±0.005

Model	Head diameter	Tool length	Circular radius	Effective length	Shank diameter	Shank diameter	Length
No.	D	ℓ	R	ℓ1	d2	d	L
ASSRS020-4040-04050	4	4	0.2	12	3.9	4	50
ASSRS050-4040-04050			0.5				50
ASSRS100-4040-04050			1				50
ASSRS020-4060-06050	6	6	0.2	18	5.8	6	50
ASSRS020-4060-06060			0.2				60
ASSRS020-4060-06075			0.2				75
ASSRS020-4060-06100			0.2				100
ASSRS050-4060-06050			0.5				50
ASSRS050-4060-06060			0.5				60
ASSRS050-4060-06075			0.5				75
ASSRS050-4060-06100			0.5				100
ASSRS100-4060-06050			1				50
ASSRS100-4060-06060			1				60
ASSRS100-4060-06075			1				75
ASSRS100-4060-06100			1				100
ASSRS050-4080-08060	8	8	0.5	24	7.8	8	60
ASSRS050-4080-08075			0.5				75
ASSRS050-4080-08100			0.5				100
ASSRS100-4080-08060			1				60
ASSRS100-4080-08075			1				75
ASSRS100-4080-08100			1				100
ASSRS050-4100-10075	10	10	0.5	30	9.8	10	75
ASSRS050-4100-10100			0.5				100
ASSRS100-4100-10075			1				75
ASSRS100-4100-10100			1				100
ASSRS050-4120-12075	12	12	0.5	36	11.8	12	75
ASSRS050-4120-12100			0.5				100
ASSRS100-4120-12075			1				75

UNIVERSAL SERIES

Machining accuracy is recommended
< HRC52

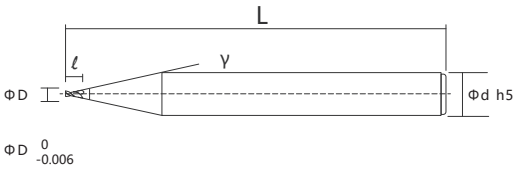
- ☆ The imported extremely fine particle matrix with a grain size of 0.4um is selected, which has good toughness and hardness, and effectively reduces the risk of chipping.
- ☆ Choose chrome-aluminum and DLC colorful (for copper-aluminum) coatings.
- ☆ It is very suitable for high-speed processing of P20, 718H, H13, NAK80, S136H and other materials before heat treatment (< HRC45) and processing of various products.

AUS

Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Micro Square End Mill



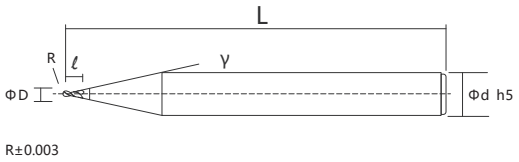
Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AUSE-20010-04042	0.1	0.2	15°	4	42
AUSE-20015-04045	0.15	0.3	15°	4	45
AUSE-20020-04045	0.2	0.4	15°	4	45
AUSE-20025-04045	0.25	0.5	15°	4	45
AUSE-20030-04045	0.3	0.6	15°	4	45
AUSE-20035-04045	0.35	0.7	15°	4	45
AUSE-20040-04045	0.4	0.8	15°	4	45
AUSE-20045-04045	0.45	0.9	15°	4	45
AUSE-20050-04045	0.5	1	15°	4	45
AUSE-20055-04045	0.55	1.1	15°	4	45
AUSE-20060-04045	0.6	1.2	15°	4	45
AUSE-20065-04045	0.65	1.3	15°	4	45
AUSE-20070-04045	0.7	1.4	15°	4	45
AUSE-20075-04045	0.75	1.5	15°	4	45
AUSE-20080-04045	0.8	1.6	15°	4	45
AUSE-20085-04045	0.85	1.7	15°	4	45
AUSE-20090-04045	0.9	1.8	15°	4	45

AUS

Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Micro Ball End Mill



R±0.003

Model No.	Head diameter D	Tool length ℓ	Sphere radius R	Neck angle γ(reference)	Shank diameter d	Length L
AUSB-20010-04042	0.1	0.15	R0.05	15°	4	42
AUSB-20015-04045	0.15	0.2	R0.075	15°	4	45
AUSB-20020-04045	0.2	0.3	R0.1	15°	4	45
AUSB-20030-04045	0.3	0.45	R0.15	15°	4	45
AUSB-20040-04045	0.4	0.6	R0.2	15°	4	45
AUSB-20050-04045	0.5	0.8	R0.25	15°	4	45
AUSB-20060-04045	0.6	0.9	R0.3	15°	4	45
AUSB-20070-04045	0.7	1.1	R0.35	15°	4	45
AUSB-20080-04045	0.8	1.2	R0.4	15°	4	45
AUSB-20090-04045	0.9	1.4	R0.45	15°	4	45

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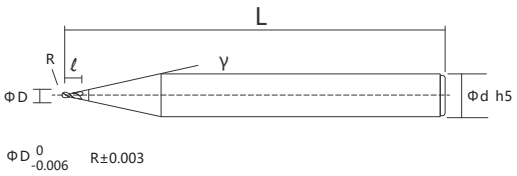
AUS

Universal Series

2-Flute Micro Corner Radius End Mill



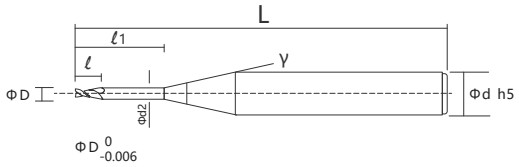
Model No.	Head diameter D	Sphere radius R	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AUSR002-20020-04045	0.2	R0.02	0.4	15°	4	45
AUSR005-20020-04045		R0.05				45
AUSR002-20030-04045	0.3	R0.02	0.6	15°	4	45
AUSR005-20030-04045		R0.05				45
AUSR002-20040-04045	0.4	R0.02	0.8	15°	4	45
AUSR005-20040-04045		R0.05				45
AUSR010-20040-04045		R0.1				45
AUSR002-20050-04045	0.5	R0.02	1.0	15°	4	45
AUSR005-20050-04045		R0.05				45
AUSR010-20050-04045		R0.1				45
AUSR002-20060-04045	0.6	R0.02	1.2	15°	4	45
AUSR005-20060-04045		R0.05				45
AUSR010-20060-04045		R0.1				45
AUSR020-20060-04045		R0.2				45
AUSR002-20080-04045	0.8	R0.02	1.6	15°	4	45
AUSR005-20080-04045		R0.05				45
AUSR010-20080-04045		R0.1				45
AUSR020-20080-04045		R0.2				45

AUS

Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Long Neck Square End Mill



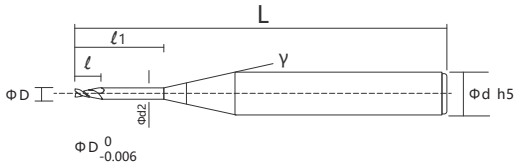
Model No.	Head diameter D	Neck length ℓ1	Tool length ℓ	Neck diameter d2	Neck angle γ(reference)	Shank diameter d	Length L
AUSE-20010-003-04045	0.1	0.3	0.1	0.085	15°	4	45
AUSE-20010-005-04045		0.5					45
AUSE-20010-008-04045		0.8					45
AUSE-20010-010-04045		1					45
AUSE-20015-005-04045	0.15	0.5	0.15	0.13	15°	4	45
AUSE-20015-010-04045		1					45
AUSE-20020-010-04045	0.2	1	0.2	0.18	15°	4	45
AUSE-20020-015-04045		1.5	0.2	0.18	12°	4	45
AUSE-20020-020-04045		2					45
AUSE-20020-030-04045		3					45
AUSE-20020-040-04045		4					45
AUSE-20030-010-04045	0.3	1	0.3	0.27	15°	4	45
AUSE-20030-015-04045		1.5	0.3	0.27	12°	4	45
AUSE-20030-020-04045		2					45
AUSE-20030-030-04045		3					45
AUSE-20030-040-04045		4					45
AUSE-20030-050-04045		5					45
AUSE-20040-015-04045	0.4	1.5	0.4	0.37	12°	4	45
AUSE-20040-020-04045		2					45
AUSE-20040-030-04045		3					45
AUSE-20040-040-04045		4					45
AUSE-20040-050-04045		5					45
AUSE-20040-060-04045		6					45
AUSE-20050-020-04045	0.5	2	0.5	0.46	12°	4	45
AUSE-20050-030-04045		3					45
AUSE-20050-040-04045		4					45
AUSE-20050-050-04045		5					45
AUSE-20050-060-04045		6					45

AUS

Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Long Neck Square End Mill



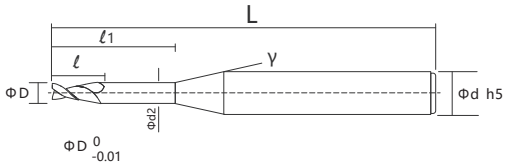
Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AUSE-20050-080-04045	0.5	8	0.5	0.46	12°	4	45
AUSE-20050-100-04045		10					45
AUSE-20060-020-04045	0.6	2	0.6	0.56	12°	4	45
AUSE-20060-030-04045		3					45
AUSE-20060-040-04045		4					45
AUSE-20060-050-04045		5					45
AUSE-20060-060-04045		6					45
AUSE-20060-080-04045		8					45
AUSE-20060-100-04045		10					45
AUSE-20070-020-04045	0.7	2	0.7	0.66	12°	4	45
AUSE-20070-030-04045		3					45
AUSE-20070-040-04045		4					45
AUSE-20070-050-04045		5					45
AUSE-20070-060-04045		6					45
AUSE-20070-080-04045		8					45
AUSE-20070-100-04045		10					45
AUSE-20080-020-04045	0.8	2	0.8	0.76	12°	4	45
AUSE-20080-030-04045		3					45
AUSE-20080-040-04045		4					45
AUSE-20080-050-04045		5					45
AUSE-20080-060-04045		6					45
AUSE-20080-080-04045		8					45
AUSE-20080-100-04045		10					45

AUS

Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating MX

4-Flute Long Neck Square End Mill



Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AUSE-40100-040-04045	1	4	1	0.95	12°	4	50
AUSE-40100-050-04045		5					50
AUSE-40100-060-04045		6					50
AUSE-40100-080-04045		8					50
AUSE-40100-100-04045		10					50
AUSE-40100-120-04045		12					50
AUSE-40100-140-04045		14					50
AUSE-40100-160-04045		16					50
AUSE-40100-180-04045		18					50
AUSE-40100-200-04045		20					50
AUSE-40150-060-04045	1.5	6	1.5	1.44	12°	4	50
AUSE-40150-080-04045		8					50
AUSE-40150-100-04045		10					50
AUSE-40150-120-04045		12					50
AUSE-40150-140-04045		14					50
AUSE-40150-160-04045		16					50
AUSE-40150-180-04045		18					50
AUSE-40150-200-04045		20					50
AUSE-40200-060-04045	2	6	2	1.94	12°	4	50
AUSE-40200-080-04045		8					50
AUSE-40200-100-04045		10					50
AUSE-40200-120-04045		12					50
AUSE-40200-140-04045		14					50
AUSE-40200-160-04045		16					50
AUSE-40200-180-04045		18					50
AUSE-40200-200-04045		20					50
AUSE-40300-100-04045	3	10	3	2.92	12°	4	50
AUSE-40300-120-04045		12					50

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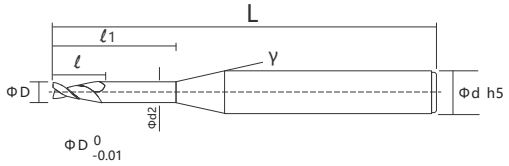
Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating MX

4-Flute Long Neck Square End Mill

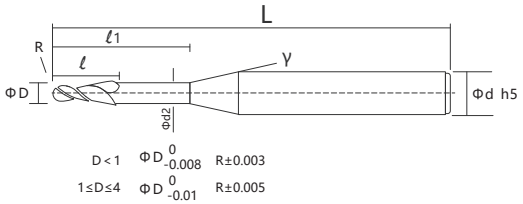


Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AUSE-40300-140-04050	3	14	3	2.92	12°	4	50
AUSE-40300-160-04050		16					50
AUSE-40300-180-04050		18					50
AUSE-40300-200-04050		20					50
AUSE-40300-160-06060		16				6	60
AUSE-40300-180-06060		18					60
AUSE-40300-200-06060		20					60
AUSE-40300-250-06060		25					60
AUSE-40300-160-06075		16					75
AUSE-40300-180-06075		18					75
AUSE-40300-200-06075		20					75
AUSE-40300-250-06075		25					75
AUSE-40300-300-06075		30					75
AUSE-40300-350-06075		35					75
AUSE-40400-160-06060	4	16	4	3.9	12°	6	60
AUSE-40400-180-06060		18					60
AUSE-40400-200-06060		20					60
AUSE-40400-250-06060		25					60
AUSE-40400-160-06075		16					75
AUSE-40400-180-06075		18					75
AUSE-40400-200-06075		20					75
AUSE-40400-250-06075		25					75
AUSE-40400-300-06075		30					75
AUSE-40400-350-06075		35					75

AUS

Universal Series

2-Flute Long Neck Ball End Mill



Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSB-20010-003-04045	0.1	0.3	0.1	R0.05	0.085	15°	4	45
AUSB-20010-005-04045		0.5						45
AUSB-20010-008-04045		0.8						45
AUSB-20010-010-04045		1						45
AUSB-20015-005-04045	0.15	0.5	0.15	R0.075	0.13	15°	4	45
AUSB-20015-010-04045		1						45
AUSB-20020-010-04045	0.2	1	0.2	R0.1	0.18	15°	4	45
AUSB-20020-015-04045		1.5	0.2	R0.1	0.18	12°	4	45
AUSB-20020-020-04045		2						45
AUSB-20020-030-04045		3						45
AUSB-20030-010-04045	0.3	1	0.3	R0.15	0.27	15°	4	45
AUSB-20030-015-04045		1.5	0.3	R0.15	0.27	12°	4	45
AUSB-20030-020-04045		2						45
AUSB-20030-030-04045		3						45
AUSB-20030-040-04045		4						45
AUSB-20030-050-04045		5						45
AUSB-20040-015-04045	0.4	1.5	0.4	R0.2	0.37	12°	4	45
AUSB-20040-020-04045		2						45
AUSB-20040-030-04045		3						45
AUSB-20040-040-04045		4						45
AUSB-20040-050-04045		5						45
AUSB-20040-060-04045		6						45
AUSB-20050-020-04045	0.5	2	0.5	R0.25	0.46	12°	4	45
AUSB-20050-030-04045		3						45
AUSB-20050-040-04045		4						45
AUSB-20050-050-04045		5						45
AUSB-20050-060-04045		6						45
AUSB-20050-080-04045		8						45

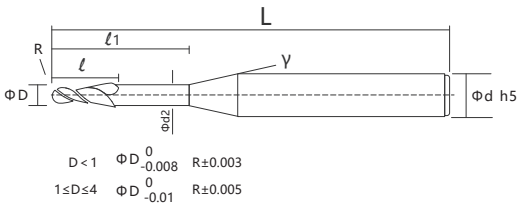
AMMATO (Guangzhou) Technology Co.,Ltd

AUS

Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Long Neck Ball End Mill



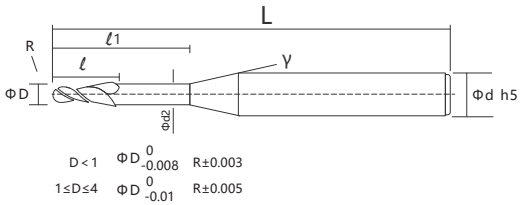
Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSB-20060-020-04045	0.6	2	0.6	R0.3	0.56	12°	4	45
AUSB-20060-020-04045		3						45
AUSB-20060-040-04045		4						45
AUSB-20060-050-04045		5						45
AUSB-20060-060-04045		6						45
AUSB-20060-080-04045		8						45
AUSB-20060-100-04045		10						45
AUSB-20080-020-04045	0.8	2	0.8	R0.4	0.76	12°	4	45
AUSB-20080-030-04045		3						45
AUSB-20080-040-04045		4						45
AUSB-20080-050-04045		5						45
AUSB-20080-060-04045		6						45
AUSB-20080-080-04045		8						45
AUSB-20080-100-04045		10						45

AUS

Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Long Neck Ball End Mill



Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSB-20100-030-04050	1	3	1	R0.5	0.95	12°	4	50
AUSB-20100-040-04050		4						50
AUSB-20100-050-04050		5						50
AUSB-20100-060-04050		6						50
AUSB-20100-080-04050		8						50
AUSB-20100-100-04050		10						50
AUSB-20100-120-04050		12						50
AUSB-20100-140-04050		14						50
AUSB-20100-160-04050		16						50
AUSB-20100-180-04050		18						50
AUSB-20100-200-04050		20						50
AUSB-20150-040-04050	1.5	4	1.5	R0.75	1.44	12°	4	50
AUSB-20150-050-04050		5						50
AUSB-20150-060-04050		6						50
AUSB-20150-080-04050		8						50
AUSB-20150-100-04050		10						50
AUSB-20150-120-04050		12						50
AUSB-20150-160-04050		16						50
AUSB-20150-180-04050		18						50
AUSB-20150-200-04050		20						50
AUSB-20200-060-04050	2	6	2	R1	1.94	12°	4	50
AUSB-20200-080-04050		8						50
AUSB-20200-100-04050		10						50
AUSB-20200-120-04050		12						50
AUSB-20200-140-04050		14						50
AUSB-20200-160-04050		16						50
AUSB-20200-180-04050		18						50
AUSB-20200-200-04050		20						50

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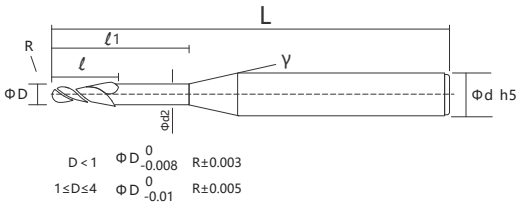
Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Long Neck Ball End Mill

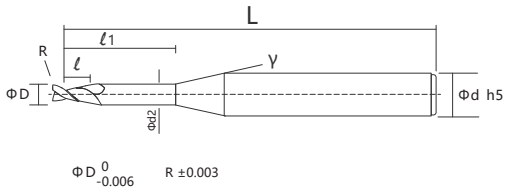


Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSB-20200-160-06060	2	16	2	R1	1.94	12°	6	60
AUSB-20200-180-06060		18						60
AUSB-20200-200-06060		20						60
AUSB-20200-250-06060		25						60
AUSB-20300-080-04050	3	8	3	R1.5	2.92	12°	4	50
AUSB-20300-100-04050		10						50
AUSB-20300-120-04050		12						50
AUSB-20300-160-04050		16						50
AUSB-20300-200-04050		20						50
AUSB-20300-160-06060		16					6	60
AUSB-20300-180-06060		18						60
AUSB-20300-200-06060		20						60
AUSB-20300-250-06060		25						60
AUSB-20300-160-06075		16						75
AUSB-20300-180-06075		18						75
AUSB-20300-200-06075		20						75
AUSB-20300-250-06075		25						75
AUSB-20300-300-06075		30						75
AUSB-20400-160-06060	4	16	4	R2	3.9	12°	6	60
AUSB-20400-180-06060		18						60
AUSB-20400-200-06060		20						60
AUSB-20400-250-06060		25						60
AUSB-20400-160-06075		16						75
AUSB-20400-180-06075		18						75
AUSB-20400-200-06075		20						75
AUSB-20400-250-06075		25						75
AUSB-20400-300-06075		30						75
AUSB-20400-350-06075		35						75

AUS

Universal Series

2-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSR002-20020-010-04045	0.2	1	0.2	R0.02	0.18	15°	4	45
AUSR002-20020-015-04045		1.5			0.18	12°	4	45
AUSR002-20020-020-04045		2						45
AUSR002-20020-030-04045		3						45
AUSR005-20020-010-04045		1		R0.05	0.18	15°	4	45
AUSR005-20020-015-04045		1.5			0.18	12°	4	45
AUSR005-20020-020-04045		2						45
AUSR005-20020-030-04045		3						45
AUSR002-20030-010-04045	0.3	1	0.3	R0.02	0.27	15°	4	45
AUSR002-20030-015-04045		1.5			0.27	12°	4	45
AUSR002-20030-020-04045		2						45
AUSR002-20030-030-04045		3						45
AUSR002-20030-040-04045		4						45
AUSR005-20030-010-04045		1		R0.05	0.27	15°	4	45
AUSR005-20030-015-04045		1.5			0.27	12°	4	45
AUSR005-20030-020-04045		2						45
AUSR005-20030-030-04045		3						45
AUSR005-20030-040-04045		4						45
AUSR002-20040-010-04045	0.4	1	0.4	R0.02	0.37	15°	4	45
AUSR002-20040-015-04045		1.5			0.37	12°	4	45
AUSR002-20040-020-04045		2						45
AUSR002-20040-030-04045		3						45
AUSR002-20040-040-04045		4						45
AUSR002-20040-050-04045		5						45
AUSR002-20040-060-04045		6						45
AUSR005-20040-010-04045		1		R0.05	0.37	15°	4	45
AUSR005-20040-015-04045		1.5			0.37	12°	4	45
AUSR005-20040-020-04045		2						45

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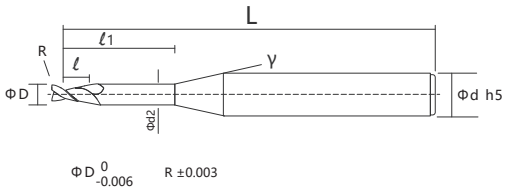
AUS

Universal Series

2-Flute Long Neck Corner Radius End Mill

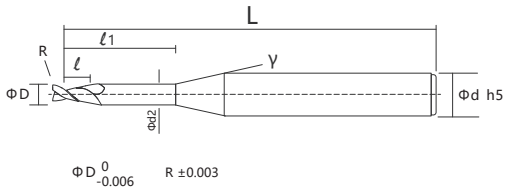


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSR005-20040-030-04045	0.4	3	0.4	R0.05	0.37	12°	4	45
AUSR005-20040-040-04045		4						45
AUSR005-20040-050-04045		5						45
AUSR005-20040-060-04045		6						45
AUSR010-20040-010-04045		1		R0.1	0.37	15°	4	45
AUSR010-20040-015-04045		1.5			0.37	12°	4	45
AUSR010-20040-020-04045		2						45
AUSR010-20040-030-04045		3						45
AUSR010-20040-040-04045		4						45
AUSR010-20040-050-04045		5						45
AUSR010-20040-060-04045		6						45
AUSR002-20050-020-04045	0.5	2	0.5	R0.02	0.46	12°	4	45
AUSR002-20050-030-04045		3						45
AUSR002-20050-040-04045		4						45
AUSR002-20050-050-04045		5						45
AUSR002-20050-060-04045		6						45
AUSR002-20050-080-04045		8						45
AUSR002-20050-100-04045		10						45
AUSR005-20050-020-04045		2		R0.05				45
AUSR005-20050-030-04045		3						45
AUSR005-20050-040-04045		4						45
AUSR005-20050-050-04045		5						45
AUSR005-20050-060-04045		6						45
AUSR005-20050-080-04045		8						45
AUSR005-20050-100-04045		10						45
AUSR010-20050-020-04045		2		R0.1				45
AUSR010-20050-030-04045		3						45
AUSR010-20050-040-04045		4						45

AUS

Universal Series

2-Flute Long Neck Corner Radius End Mill

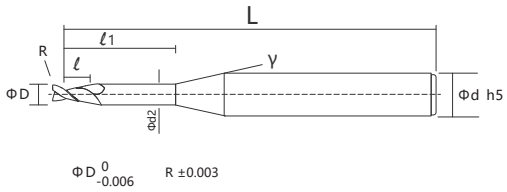


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
ASSR010-20050-050-04045	0.5	5	0.5	R0.1	0.46	12°	4	45
ASSR010-20050-060-04045		6						45
ASSR010-20050-070-04045		7						45
ASSR010-20050-080-04045		8						45
ASSR010-20050-100-04045		10						45
ASSR002-20060-020-04045	0.6	2	0.6	R0.02	0.56	12°	4	45
ASSR002-20060-030-04045		3						45
ASSR002-20060-040-04045		4						45
ASSR002-20060-050-04045		5						45
ASSR002-20060-060-04045		6						45
ASSR002-20060-080-04045		8						45
ASSR002-20060-100-04045		10						45
ASSR005-20060-020-04045		2		R0.05				45
ASSR005-20060-030-04045		3						45
ASSR005-20060-040-04045		4						45
ASSR005-20060-050-04045		5						45
ASSR005-20060-060-04045		6						45
ASSR005-20060-080-04045		8						45
ASSR005-20060-100-04045		10		R0.1				45
ASSR010-20060-020-04045		2						45
ASSR010-20060-030-04045		3						45
ASSR010-20060-040-04045		4						45
ASSR010-20060-050-04045		5						45
ASSR010-20060-060-04045		6						45
ASSR010-20060-080-04045		8						45
ASSR010-20060-100-04045		10						45
ASSR020-20060-020-04045		2		R0.2				45
ASSR020-20060-030-04045		3						45

AUS

Universal Series

2-Flute Long Neck Corner Radius End Mill



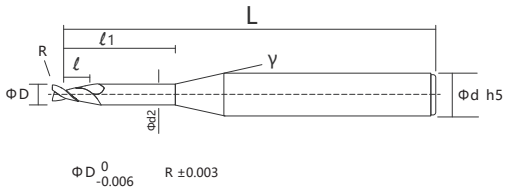
$\Phi D\ ^{0}_{-0.006}$ R ±0.003

Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSR020-20060-040-04045	0.6	4	0.6	R0.2	0.56	12°	4	45
AUSR020-20060-050-04045		5						45
AUSR020-20060-060-04045		6						45
AUSR020-20060-080-04045		8						45
AUSR020-20060-100-04045		10						45
AUSR002-20080-020-04045	0.8	2	0.8	R0.02	0.76	12°	4	45
AUSR002-20080-030-04045		3						45
AUSR002-20080-040-04045		4						45
AUSR002-20080-050-04045		5						45
AUSR002-20080-060-04045		6						45
AUSR002-20080-080-04045		8						45
AUSR002-20080-100-04045		10						45
AUSR005-20080-020-04045		2		R0.05				45
AUSR005-20080-030-04045		3						45
AUSR005-20080-040-04045		4						45
AUSR005-20080-050-04045		5						45
AUSR005-20080-060-04045		6						45
AUSR005-20080-080-04045		8						45
AUSR005-20080-100-04045		10						45
AUSR010-20080-020-04045		2		R0.1				45
AUSR010-20080-030-04045		3						45
AUSR010-20080-040-04045		4						45
AUSR010-20080-050-04045		5						45
AUSR010-20080-060-04045		6						45
AUSR010-20080-080-04045		8						45
AUSR010-20080-100-04045		10						45
AUSR020-20080-020-04045		2		R0.2				45
AUSR020-20080-030-04045		3						45

AUS

Universal Series

2-Flute Long Neck Corner Radius End Mill



$\Phi D\ ^{0}_{-0.006}$ R ±0.003

Model No.	Head diameter D	Neck length ℓ1	Tool length ℓ	Circular radius R	Neck diameter d2	Neck angle γ(reference)	Shank diameter d	Length L
AUSR020-20080-040-04045	0.8	4	0.8	R0.2	0.76	12°	4	45
AUSR020-20080-050-04045		5						45
AUSR020-20080-060-04045		6						45
AUSR020-20080-070-04045		7						45
AUSR020-20080-080-04045		8						45
AUSR020-20080-100-04045		10						45

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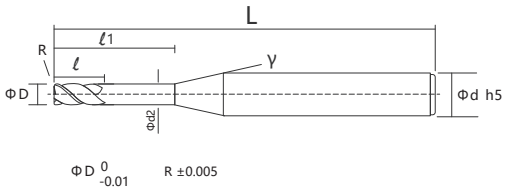
Universal Series

4-Flute Long Neck Corner Radius End Mill

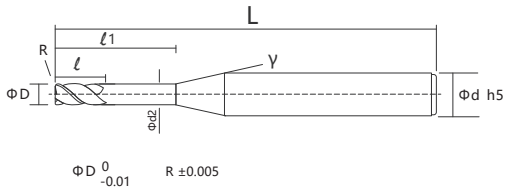


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSR010-40100-040-04050	1	4	1	R0.1	0.95	12°	4	50
AUSR010-40100-060-04050		6						50
AUSR010-40100-080-04050		8						50
AUSR010-40100-100-04050		10						50
AUSR010-40100-120-04050		12						50
AUSR010-40100-140-04050		14						50
AUSR010-40100-160-04050		16						50
AUSR010-40100-180-04050		18						50
AUSR010-40100-200-04050		20						50
AUSR020-40100-040-04050		4		R0.2				50
AUSR020-40100-060-04050		6						50
AUSR020-40100-080-04050		8						50
AUSR020-40100-100-04050		10						50
AUSR020-40100-120-04050		12						50
AUSR020-40100-140-04050		14						50
AUSR020-40100-160-04050		16						50
AUSR020-40100-180-04050		18						50
AUSR020-40100-200-04050		20						50
AUSR010-40150-060-04050	1.5	6	1.5	R0.1	1.44	12°	4	50
AUSR010-40150-080-04050		8						50
AUSR010-40150-100-04050		10						50
AUSR010-40150-120-04050		12						50
AUSR010-40150-140-04050		14						50
AUSR010-40150-160-04050		16						50
AUSR010-40150-180-04050		18						50
AUSR010-40150-200-04050		20						50
AUSR020-40150-060-04050		6		R0.2				50
AUSR020-40150-080-04050		8						50

AUS

Universal Series

4-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSR020-40150-100-04050	1.5	10	1.5	R0.2	1.44	12°	4	50
AUSR020-40150-120-04050		12						50
AUSR020-40150-140-04050		14						50
AUSR020-40150-160-04050		16						50
AUSR020-40150-180-04050		18						50
AUSR020-40150-200-04050		20						50
AUSR010-40200-060-04050	2	6	2	R0.1	1.94	12°	4	50
AUSR010-40200-080-04050		8						50
AUSR010-40200-100-04050		10						50
AUSR010-40200-120-04050		12						50
AUSR010-40200-140-04050		14						50
AUSR010-40200-160-04050		16						50
AUSR010-40200-180-04050		18						50
AUSR010-40200-200-04050		20						50
AUSR020-40200-160-04050		6		R0.2				50
AUSR020-40200-180-04050		8						50
AUSR020-40200-100-04050		10						50
AUSR020-40200-120-04050		12						50
AUSR020-40200-140-04050		14						50
AUSR020-40200-160-04050		16						50
AUSR020-40200-180-04050		18						50
AUSR020-40200-200-04050		20						50
AUSR050-40200-060-04050		6		R0.5				50
AUSR050-40200-080-04050		8						50
AUSR050-40200-100-04050		10						50
AUSR050-40200-120-04050		12						50
AUSR050-40200-140-04050		14						50
AUSR050-40200-160-04050		16						50

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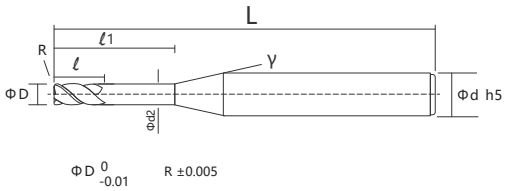
Universal Series

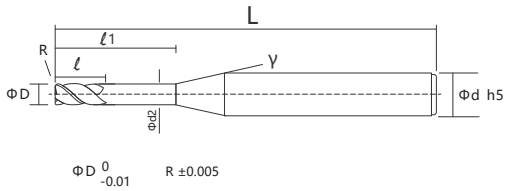
4-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSR050-40200-180-04050	2	18	2	R0.5	1.94	12°	4	50
AUSR050-40200-200-04050		20						50
AUSR010-40300-100-04050	3	10	3	R0.1	2.92	12°	4	50
AUSR010-40300-120-04050		12						50
AUSR010-40300-140-04050		14						50
AUSR010-40300-160-04050		16						50
AUSR010-40300-180-04050		18						50
AUSR010-40300-200-04050		20						50
AUSR020-40300-100-04050		10		R0.2				50
AUSR020-40300-120-04050		12						50
AUSR020-40300-140-04050		14						50
AUSR020-40300-160-04050		16						50
AUSR020-40300-180-04050		18						50
AUSR020-40300-200-04050		20						50
AUSR050-40300-100-04050		10		R0.5				50
AUSR050-40300-120-04050		12						50
AUSR050-40300-140-04050		14						50
AUSR050-40300-160-04050		16						50
AUSR050-40300-180-04050		18						50
AUSR050-40300-200-04050		20						50
AUSR020-40300-120-06060		12		R0.2			6	60
AUSR020-40300-160-06060		16						60
AUSR020-40300-200-06060		20						60
AUSR020-40300-250-06060		25						60
AUSR050-40300-120-06060		12		R0.5				60
AUSR050-40300-160-06060		16						60
AUSR050-40300-200-06060		20						60
AUSR050-40300-250-06060		25						60

AUS
Universal Series

4-Flute Long Neck Corner Radius End Mill



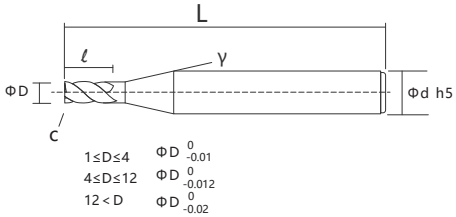
Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSR020-40300-160-06075	3	12	3	R0.2	2.92	12°	6	75
AUSR020-40300-180-06075		16						75
AUSR020-40300-200-06075		20						75
AUSR020-40300-250-06075		25						75
AUSR020-40300-300-06075		30						75
AUSR050-40300-120-06075		12		R0.5				75
AUSR050-40300-160-06075		16						75
AUSR050-40300-200-06075		20						75
AUSR050-40300-250-06075		25						75
AUSR050-40300-300-06075		30						75
AUSR020-40400-160-06060	4	16	4	R0.2	3.9	12°	6	60
AUSR020-40400-200-06060		20						60
AUSR020-40400-250-06060		25						60
AUSR050-40400-160-06060		16		R0.5				60
AUSR050-40400-200-06060		20						60
AUSR050-40400-250-06060		25						60
AUSR020-40400-160-06075		16		R0.2				75
AUSR020-40400-200-06075		20						75
AUSR020-40400-250-06075		25						75
AUSR020-40400-300-06060		30						75
AUSR020-40400-350-06060		35						75
AUSR050-40400-160-06060		16		R0.5				75
AUSR050-40400-200-06060		20						75
AUSR050-40400-250-06075		25						75
AUSR050-40400-300-06075		30						75
AUSR050-40400-350-06075		35						75

AUS

Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating MX

4-Flute Square End Mill(helix angle 35°)



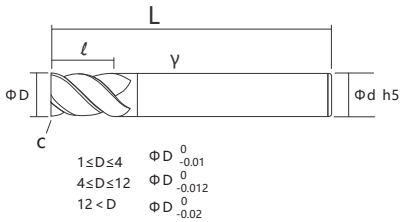
Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AUSE-4010-04050	1	3	12°	4	50
AUSE-4015-04050	1.5	4	10°	4	50
AUSE-4020-04050	2	6	10°	4	50
AUSE-4025-04050	2.5	7	10°	4	50
AUSE-4030-04050	3	8	10°	4	50
AUSE-4040-04050	4	10	-	4	50
AUSE-4050-04050	5	13	12°	6	50
AUSE-4060-04050	6	15	-	6	50
AUSE-4080-04060	8	20	-	8	60
AUSE-4080-04075	8	24	-	8	75
AUSE-4080-04100	8	24	-	8	100
AUSE-4100-04075	10	25	-	10	75
AUSE-4100-04100	10	40	-	10	100
AUSE-4120-04075	12	30	-	12	75
AUSE-4120-04100	12	45	-	12	100
AUSE-4140-04100	14	40	-	14	100
AUSE-4160-04100	16	45	-	16	100
AUSE-4200-04100	20	45	-	20	100

AUS

Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating MX

4-Flute Square End Mill



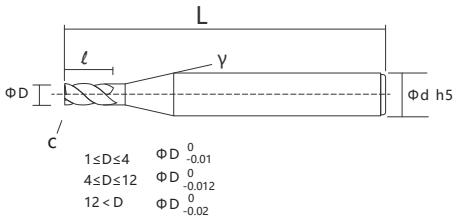
Model	Head diameter	Tool length	Shank diameter	Length	Chamfering
No.	D	ℓ	d	L	c
AUSEP-4040-04050	4	8	4	50	0.1
AUSEP-4040-04050	4	8	6	50	0.1
AUSEP-4050-04050	5	10	6	50	0.1
AUSEP-4060-04050	6	12	6	50	0.15
AUSEP-4080-08060	8	16	8	60	0.15
AUSEP-4100-10075	10	20	10	75	0.25
AUSEP-4120-12075	12	24	12	75	0.25

AUS

Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating MX

4-Flute U-slot End Mill



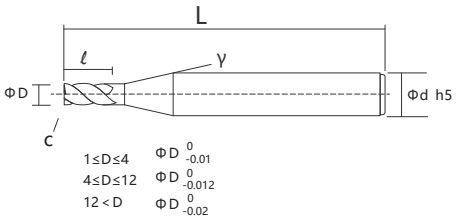
Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AUSEU-4010-04050	1	3	12°	4	50
AUSEU-4015-04050	1.5	4	10°	4	50
AUSEU-4020-04050	2	6	10°	4	50
AUSEU-4025-04050	2.5	7	10°	4	50
AUSEU-4030-04050	3	8	10°	4	50
AUSEU-4040-04050	4	10	-	4	50
AUSEU-4040-04075	4	12	-	4	75
AUSEU-4040-04100	4	16	12°	4	100
AUSEU-4050-05050	5	13	-	6	50
AUSEU-4060-06050	6	16	-	6	50
AUSEU-4060-06060	6	16	-	6	75
AUSEU-4060-06100	6	16	-	6	100
AUSEU-4080-08060	8	20	-	8	60
AUSEU-4080-08075	8	20	-	8	75
AUSEU-4080-08100	8	20	-	8	100
AUSEU-4100-10075	10	25	-	10	75
AUSEU-4100-10100	10	30	-	10	100
AUSEU-4120-12075	12	30	-	12	75
AUSEU-4120-12100	12	30	-	12	100
AUSEU-4140-14100	14	35	-	14	100
AUSEU-4160-16100	16	40	-	16	100

AUS

Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating ST

4-Flute Square End Mill(helix angle 45°)



Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AUSEF-4010-04050	1	3	12°	4	50
AUSEF-4015-04050	1.5	4	10°	4	50
AUSEF-4020-04050	2	6	10°	4	50
AUSEF-4025-04050	2.5	7	10°	4	50
AUSEF-4030-04050	3	8	10°	4	50
AUSEF-4040-04050	4	10	-	4	50
AUSEF-4050-06050	5	13	12°	6	50
AUSEF-4060-06050	6	15	-	6	50
AUSEF-4080-08050	8	20	-	8	60
AUSEF-4100-10075	10	25	-	10	75
AUSEF-4100-10100	10	40	-	10	100
AUSEF-4120-12075	12	30	-	12	75
AUSEF-4120-12100	12	45	-	12	100

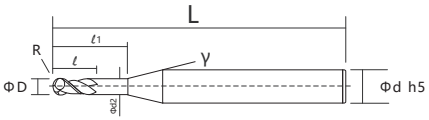
AMMATO (Guangzhou) Technology Co.,Ltd

AUS

Universal Series

Perfect MG | 0.4 µm | 2 Flute | Coating MX

2-Flute Ball End Mill



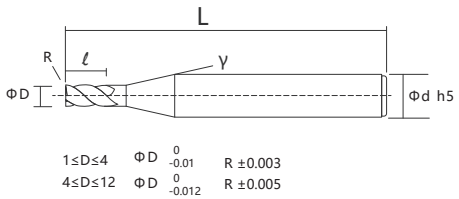
1≤D≤6 R ±0.005
6≤D≤16 R ±0.01

Model	Head diameter	Effective length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSB-2010-04050	1	2	1	R0.5	0.95	12°	4	50
AUSB-2015-04050	1.5	3	1.5	R0.75	1.44	12°	4	50
AUSB-2020-04050	2	4	2	R1	1.94	12°	4	50
AUSB-2030-04050	3	6	3	R1.5	2.92	12°	4	50
AUSB-2040-04050	4	-	6	R2	-	-	4	50
AUSB-2040-04075	4	-	6	R2	-	-	4	75
AUSB-2050-06050	5	-	8	R2.5	-	12°	6	50
AUSB-2050-06075	5	-	8	R2.5	-	12°	6	75
AUSB-2050-06100	5	-	8	R2.5	-	12°	6	100
AUSB-2060-06050	6	-	9	R3	-	-	6	50
AUSB-2060-06060	6	-	9	R3	-	-	6	60
AUSB-2060-06075	6	-	9	R3	-	-	6	75
AUSB-2060-06100	6	-	9	R3	-	-	6	100
AUSB-2080-08060	8	-	12	R4	-	-	8	60
AUSB-2080-08075	8	-	12	R4	-	-	8	75
AUSB-2080-08100	8	-	12	R4	-	-	8	100
AUSB-2100-10075	10	-	15	R5	-	-	10	75
AUSB-2100-10100	10	-	15	R5	-	-	10	100
AUSB-2120-12075	12	-	18	R6	-	-	12	75
AUSB-2120-12100	12	-	18	R6	-	-	12	100
AUSB-2120-16100	16	-	24	R8	-	-	16	100
AUSB-2120-16150	16	-	24	R8	-	-	16	150

AUS

Universal Series

4-Flute Corner Radius End Mill



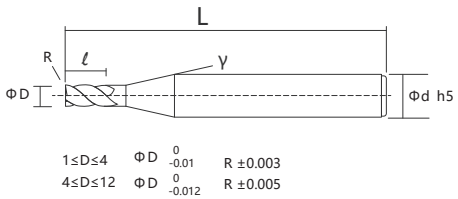
Model No.	Head diameter D	Tool length ℓ	Circular radius R	Neck angle γ(reference)	Shank diameter d	Length L
AUSR005-4010-04050	1	2	0.05	12°	4	50
AUSR010-4010-04050			0.1			50
AUSR020-4010-04050			0.2			50
AUSR010-4015-04050	1.5	3	0.1	10°	4	50
AUSR020-4015-04050			0.2			50
AUSR010-4020-04050	2	6	0.1	10°	4	50
AUSR020-4020-04050			0.2			50
AUSR050-4020-04050			0.5			50
AUSR010-4030-04050	3	8	0.1	10°	4	50
AUSR020-4030-04050			0.2			50
AUSR050-4030-04050			0.5			50
AUSR020-4040-04050	4	8	0.2	-	4	50
AUSR020-4040-04075		10	0.2			75
AUSR050-4040-04050		8	0.5			50
AUSR050-4040-04075		10	0.5			75
AUSR020-4060-06050	6	12	0.2	-	6	50
AUSR020-4060-06060		12	0.2			60
AUSR020-4060-06075		15	0.2			75
AUSR020-4060-06100		18	0.2			100
AUSR050-4060-06050		12	0.5			50
AUSR050-4060-06060		12	0.5			60
AUSR050-4060-06075		15	0.5			75
AUSR050-4060-06100		18	0.5			100
AUSR100-4060-06050		12	1			50
AUSR100-4060-06060		12	1			60
AUSR100-4060-06075		15	1			75
AUSR100-4060-06100		18	1			100
AUSR050-4080-08060	8	16	0.5	-	8	60

AUS

Universal Series

R | Perfect MG | 0.4 µm | 4 Flute | Coating MX

4-Flute Corner Radius End Mill



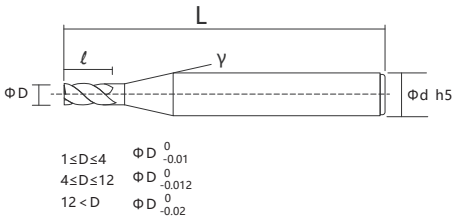
Model No.	Head diameter D	Tool length ℓ	Circular radius R	Neck angle γ(reference)	Shank diameter d	Length L
ASSR050-4080-08075	8	20	0.5	-	8	75
ASSR050-4080-08100		24	0.5			100
ASSR100-4080-08060		16	1			60
ASSR100-4080-08075		20	1			75
ASSR100-4080-08100		24	1			100
ASSR050-4100-10075	10	20	0.5	-	10	75
ASSR050-4100-10100		30	05			100
ASSR100-4100-10075		20	1			75
ASSR100-4100-10100		30	1			100
ASSR050-4120-12075	12	24	0.5	-	12	75
ASSR050-4120-12100		30	0.5			100
ASSR100-4120-12075		24	1			75
ASSR100-4120-12100		30	1			100

AUS

Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating MX

End Mill for Stainless Steel



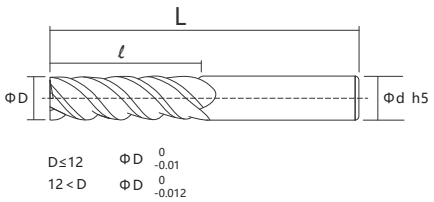
Model	Head diameter	Tool length	Neck angle	Shank diameter	Length
No.	D	ℓ	γ(reference)	d	L
AUSSE-4010-04050	1	3	12°	4	50
AUSSE-4015-04050	1.5	4	10°	4	50
AUSSE-4020-04050	2	6	10°	4	50
AUSSE-4025-04050	2.5	7	10°	4	50
AUSSE-4030-04050	3	8	10°	4	50
AUSSE-4040-04050	4	10	-	4	50
AUSSE-4050-06050	5	13	12°	6	50
AUSSE-4060-06050	6	15	-	6	50
AUSSE-4080-08050	8	20	-	8	60
AUSSE-4100-10075	10	25	-	10	75
AUSSE-4100-10100	10	40	-	10	100
AUSSE-4120-12075	12	30	-	12	75
AUSSE-4120-12100	12	45	-	12	100
AUSSE-4140-14100	14	40	-	14	100
AUSSE-4160-16100	16	45	-	16	100
AUSSE-4200-20100	20	45	-	20	100

AUS

Universal Series

Perfect MG | 0.4 µm | 4 Flute | Coating ST

End Mill for Mould Steel

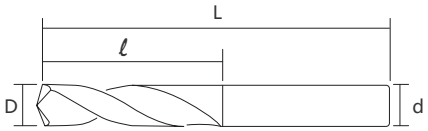


Model No.	Head diameter D	Tool length ℓ	Shank diameter d	Length L
AUSMU-4040-04050	4	15	4	50
AUSMU-4060-06050	6	20	6	50
AUSMU-4060-06075	6	25	6	75
AUSMU-4060-06100	6	30	6	100
AUSMU-4080-08060	8	30	8	60
AUSMU-4080-08100	8	35	8	100
AUSMU-4100-10075	10	35	10	75
AUSMU-4100-10100	10	45	10	100
AUSMU-4120-12075	12	35	12	75
AUSMU-4120-12100	12	52	12	100
AUSMU-4160-16100	16	52	16	100
AUSMU-4160-16150	16	70	16	150

AUS

Tungsten steel alloy

3D Internally/External
Cooling Of The Drill Bits

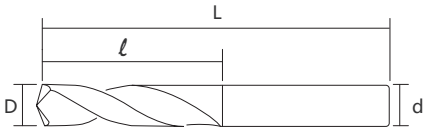


Model	Head diameter	Tool length	Shank diameter	Length
No.	D	ℓ	d	L
AUSE-20004-04050	1-1.2	4	4	50
AUSE-20005-04050	1.3-1.4	5	4	50
AUSE-20006-04050	1.5-1.6	6	4	50
AUSE-20007-04050	1.7-1.8	7	4	50
AUSE-20008-04050	1.9-2	8	4	50
AUSE-20009-04050	2.1-2.3	9	4	50
AUSE-20010-04050	2.4-2.5	10	4	50
AUSE-20011-04050	2.6-2.8	11	4	50
AUSE-20012-04050	2.9	12	4	50
AUSE-20020-04062	3-3.7	20	4	62
AUSE-20024-04062	3.8-4	24	4	62
AUUE-20024-06066	4.1-4.7	24	6	66
AUUE-20028-06066	4.8-6	28	6	66
AUUE-20034-08079	6.1-7	34	8	79
AUSE-20041-08079	7.1-8	41	8	79
AUSE-20047-10089	8.1-10	47	10	89
AUSE-20055-12102	10.1-12	55	12	102
AUSE-20060-14107	12.1-14	60	14	107
AUSE-20065-16115	14.5-16	65	16	115

AUS

Tungsten steel alloy

5D Internally/External
Cooling Of The Drill Bits



Model	Head diameter	Tool length	Shank diameter	Length
No.	D	ℓ	d	L
AUSE-20006-04050	1-1.1	6	4	50
AUSE-20007-04050	1.2	7	4	50
AUSE-20008-04050	1.3	8	4	50
AUSE-20009-04050	1.4-1.5	9	4	50
AUSE-20010-04050	1.6-1.7	10	4	50
AUSE-20011-04050	1.8	11	4	50
AUSE-20012-04050	1.9-2	12	4	50
AUSE-20013-04050	2.1-2.2	13	4	50
AUSE-20014-04050	2.3-2.4	14	4	50
AUSE-20015-04050	2.5	15	4	50
AUSE-20016-04050	2.6-2.7	16	4	50
AUUE-20017-04050	2.8-2.9	17	4	50
AUUE-20028-04066	3-3.7	28	4	66
AUUE-20036-04066	3.8-4	36	4	66
AUSE-20036-06074	4.1-4.7	36	6	74
AUSE-20044-06082	4.8-6	44	6	82
AUSE-20053-08091	6.1-8	53	8	91
AUSE-20061-10103	8.1-10	61	10	103
AUSE-20071-12118	10.1-12	71	12	118
AUSE-20077-14124	12.1-14	77	14	124
AUSE-20083-16133	14.5-16	83	16	133

COPPER & ALUMINIUM SERIES

It is recommended to process non-ferrous metals.

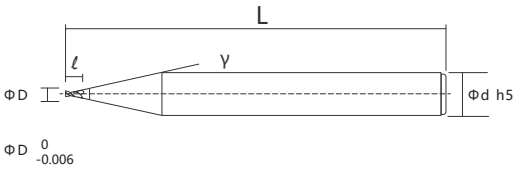
- ☆ An ultra-fine particle matrix with a grain size of 0.4um is selected.
- ☆ Color DLC diamond-like coating is selected, which has high hardness and good wear resistance, friction coefficient of 0.05-0.1, hardness can reach 5000HV, and black chromium aluminum coating is selected for stainless steel and titanium alloy.
- ☆ It is very suitable for the processing of non -ferrous metals such as copper electrodes, aluminum alloys, aluminum-magnesium alloys, and titanium alloys.

AES

Copper&Aluminium Series

Perfect MG | 0.4 µm | 2 Flute | Coating DLC

2-Flute Micro Square End Mill



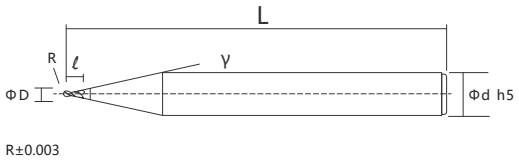
Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AESE-20010-04042	0.1	0.2	15°	4	42
AESE-20015-04045	0.15	0.3	15°	4	45
AESE-20020-04045	0.2	0.4	15°	4	45
AESE-20025-04045	0.25	0.5	15°	4	45
AESE-20030-04045	0.3	0.6	15°	4	45
AESE-20035-04045	0.35	0.7	15°	4	45
AESE-20040-04045	0.4	0.8	15°	4	45
AESE-20045-04045	0.45	0.9	15°	4	45
AESE-20050-04045	0.5	1	15°	4	45
AESE-20055-04045	0.55	1.1	15°	4	45
AESE-20060-04045	0.6	1.2	15°	4	45
AESE-20065-04045	0.65	1.3	15°	4	45
AESE-20070-04045	0.7	1.4	15°	4	45
AESE-20075-04045	0.75	1.5	15°	4	45
AESE-20080-04045	0.8	1.6	15°	4	45
AESE-20085-04045	0.85	1.7	15°	4	45
AESE-20090-04045	0.9	1.8	15°	4	45

AES

Copper&Aluminium Series

Perfect MG | 0.4 µm | 2 Flute | Coating DLC

2-Flute Micro Ball End Mill



Model No.	Head diameter D	Tool length ℓ	Sphere radius R	Neck angle γ(reference)	Shank diameter d	Length L
AESB-20010-04042	0.1	0.15	R0.05	15°	4	42
AESB-20015-04045	0.15	0.2	R0.075	15°	4	45
AESB-20020-04045	0.2	0.3	R0.1	15°	4	45
AESB-20030-04045	0.3	0.45	R0.15	15°	4	45
AESB-20040-04045	0.4	0.6	R0.2	15°	4	45
AESB-20050-04045	0.5	0.8	R0.25	15°	4	45
AESB-20060-04045	0.6	0.9	R0.3	15°	4	45
AESB-20070-04045	0.7	1.1	R0.35	15°	4	45
AESB-20080-04045	0.8	1.2	R0.4	15°	4	45
AESB-20090-04045	0.9	1.4	R0.45	15°	4	45

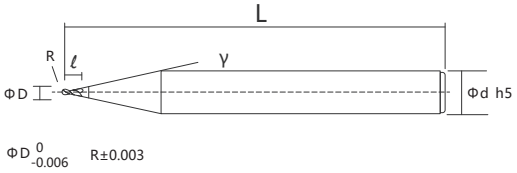
AMMATO (Guangzhou) Technology Co.,Ltd

AES

Copper&Aluminium Series

R | Perfect MG | 0.4 μm | 2 Flute | Coating DLC

2-Flute Micro Corner Radius End Mill



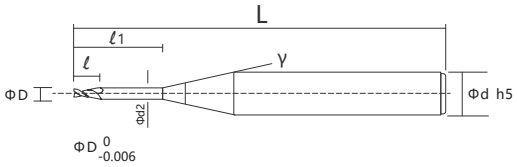
Model No.	Head diameter D	Sphere radius R	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AESR002-20020-04045	0.2	R0.02	0.4	15°	4	45
AESR005-20020-04045		R0.05				45
AESR002-20030-04045	0.3	R0.02	0.6	15°	4	45
AESR005-20030-04045		R0.05				45
AESR002-20040-04045	0.4	R0.02	0.8	15°	4	45
AESR005-20040-04045		R0.05				45
AESR010-20040-04045		R0.1				45
AESR002-20050-04045	0.5	R0.02	1.0	15°	4	45
AESR005-20050-04045		R0.05				45
AESR010-20050-04045		R0.1				45
AESR002-20060-04045	0.6	R0.02	1.2	15°	4	45
AESR005-20060-04045		R0.05				45
AESR010-20060-04045		R0.1				45
AESR020-20060-04045		R0.2				45
AESR002-20080-04045	0.8	R0.02	1.6	15°	4	45
AESR005-20080-04045		R0.05				45
AESR010-20080-04045		R0.1				45
AESR020-20080-04045		R0.2				45

AES

Copper&Aluminium Series

Perfect MG | 0.4 µm | 2 Flute | Coating DLC

2-Flute Long Neck Square End Mill



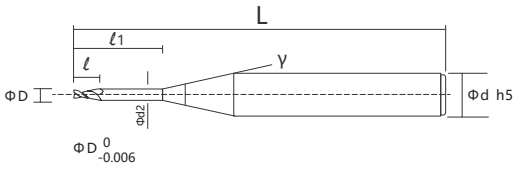
Model No.	Head diameter D	Neck length ℓ1	Tool length ℓ	Neck diameter d2	Neck angle γ(reference)	Shank diameter d	Length L
AESE-20010-003-04045	0.1	0.3	0.1	0.085	15°	4	45
AESE-20010-005-04045		0.5					45
AESE-20010-008-04045		0.8					45
AESE-20010-010-04045		1					45
AESE-20015-005-04045	0.15	0.5	0.15	0.13	15°	4	45
AESE-20015-010-04045		1					45
AESE-20020-010-04045	0.2	1	0.2	0.18	15°	4	45
AESE-20020-015-04045		1.5	0.2	0.18	12°	4	45
AESE-20020-020-04045		2					45
AESE-20020-030-04045		3					45
AESE-20020-040-04045		4					45
AESE-20030-010-04045	0.3	1	0.3	0.27	15°	4	45
AESE-20030-015-04045		1.5	0.3	0.27	12°	4	45
AESE-20030-020-04045		2					45
AESE-20030-030-04045		3					45
AESE-20030-040-04045		4					45
AESE-20030-050-04045		5					45
AESE-20040-015-04045	0.4	1.5	0.4	0.37	12°	4	45
AESE-20040-020-04045		2					45
AESE-20040-030-04045		3					45
AESE-20040-040-04045		4					45
AESE-20040-050-04045		5					45
AESE-20040-060-04045		6					45
AESE-20050-020-04045	0.5	2	0.5	0.46	12°	4	45
AESE-20050-030-04045		3					45
AESE-20050-040-04045		4					45
AESE-20050-050-04045		5					45
AESE-20050-060-04045		6					45

AES

Copper&Aluminium Series

Perfect MG | 0.4 µm | 2 Flute | Coating DLC

2-Flute Long Neck Square End Mill

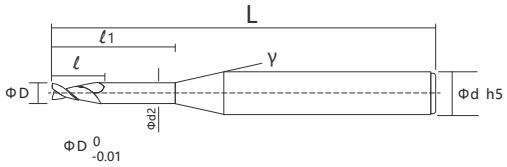


Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AESE-20050-080-04045	0.5	8	0.5	0.46	12°	4	45
AESE-20050-100-04045		10					45
AESE-20060-020-04045	0.6	2	0.6	0.56	12°	4	45
AESE-20060-030-04045		3					45
AESE-20060-040-04045		4					45
AESE-20060-050-04045		5					45
AESE-20060-060-04045		6					45
AESE-20060-080-04045		8					45
AESE-20060-100-04045		10					45
AESE-20070-020-04045	0.7	2	0.7	0.66	12°	4	45
AESE-20070-030-04045		3					45
AESE-20070-040-04045		4					45
AESE-20070-050-04045		5					45
AESE-20070-060-04045		6					45
AESE-20070-080-04045		8					45
AESE-20070-100-04045		10					45
AESE-20080-020-04045	0.8	2	0.8	0.76	12°	4	45
AESE-20080-030-04045		3					45
AESE-20080-040-04045		4					45
AESE-20080-050-04045		5					45
AESE-20080-060-04045		6					45
AESE-20080-080-04045		8					45
AESE-20080-100-04045		10					45

AES

Copper&Aluminium Series

4-Flute Long Neck Square End Mill



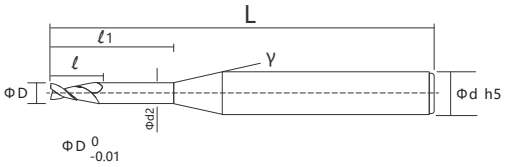
Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AESE-40100-040-04050	1	4	1	0.95	12°	4	50
AESE-40100-050-04050		5					50
AESE-40100-060-04050		6					50
AESE-40100-080-04050		8					50
AESE-40100-100-04050		10					50
AESE-40100-120-04050		12					50
AESE-40100-140-04050		14					50
AESE-40100-160-04050		16					50
AESE-40100-180-04050		18					50
AESE-40100-200-04050		20					50
AESE-40150-060-04050	1.5	6	1.5	1.44	12°	4	50
AESE-40150-080-04050		8					50
AESE-40150-100-04050		10					50
AESE-40150-120-04050		12					50
AESE-40150-140-04050		14					50
AESE-40150-160-04050		16					50
AESE-40150-180-04050		18					50
AESE-40150-200-04050		20					50
AESE-40200-060-04050	2	6	2	1.94	12°	4	50
AESE-40200-080-04050		8					50
AESE-40200-100-04050		10					50
AESE-40200-120-04050		12					50
AESE-40200-140-04050		14					50
AESE-40200-160-04050		16					50
AESE-40200-180-04050		18					50
AESE-40200-200-04050		20					50
AESE-40300-100-04050	3	10	3	2.92	12°	4	50
AESE-40300-120-04050		12					50

AES

Copper&Aluminium Series

Perfect MG | 0.4 μm | 4 Flute | Coating DLC

4-Flute Long Neck Square End Mill

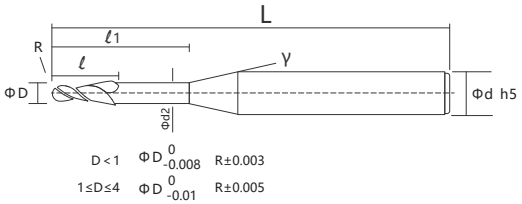


Model	Head diameter	Neck length	Tool length	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	d2	γ(reference)	d	L
AESE-40300-140-04050	3	14	3	2.92	12°	4	50
AESE-40300-160-04050		16					50
AESE-40300-180-04050		18					50
AESE-40300-200-04050		20					50
AESE-40300-160-06060		16				6	60
AESE-40300-180-06060		18					60
AESE-40300-200-06060		20					60
AESE-40300-250-06060		25					60
AESE-40300-160-06075		16					75
AESE-40300-180-06075		18					75
AESE-40300-200-06075		20					75
AESE-40300-250-06075		25					75
AESE-40300-300-06075		30					75
AESE-40300-350-06075		35					75
AESE-40400-160-06060	4	16	4	3.9	12°	6	60
AESE-40400-180-06060		18					60
AESE-40400-200-06060		20					60
AESE-40400-250-06060		25					60
AESE-40400-160-06075		16					75
AESE-40400-180-06075		18					75
AESE-40400-200-06075		20					75
AESE-40400-250-06075		25					75
AESE-40400-300-06075		30					75
AESE-40400-350-06075		35					75

AES

Copper&Aluminium Series

2-Flute Long Neck Ball End Mill



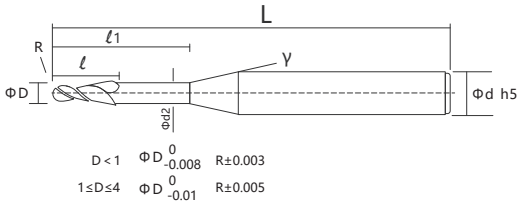
Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESB-20010-003-04045	0.1	0.3	0.1	R0.05	0.085	15°	4	45
AESB-20010-005-04045		0.5						45
AESB-20010-008-04045		0.8						45
AESB-20010-010-04045		1						45
AESB-20015-005-04045	0.15	0.5	0.15	R0.075	0.13	15°	4	45
AESB-20015-010-04045		1						45
AESB-20020-010-04045	0.2	1	0.2	R0.1	0.18	15°	4	45
AESB-20020-015-04045		1.5	0.2	R0.1	0.18	12°	4	45
AESB-20020-020-04045		2						45
AESB-20020-030-04045		3						45
AESB-20030-010-04045	0.3	1	0.3	R0.15	0.27	15°	4	45
AESB-20030-015-04045		1.5	0.3	R0.15	0.27	12°	4	45
AESB-20030-020-04045		2						45
AESB-20030-030-04045		3						45
AESB-20030-040-04045		4						45
AESB-20030-050-04045		5						45
AESB-20040-015-04045	0.4	1.5	0.4	R0.2	0.37	12°	4	45
AESB-20040-020-04045		2						45
AESB-20040-030-04045		3						45
AESB-20040-040-04045		4						45
AESB-20040-050-04045		5						45
AESB-20040-060-04045		6						45
AESB-20050-020-04045	0.5	2	0.5	R0.25	0.46	12°	4	45
AESB-20050-030-04045		3						45
AESB-20050-040-04045		4						45
AESB-20050-050-04045		5						45
AESB-20050-060-04045		6						45
AESB-20050-080-04045		8						45

AES

Copper&Aluminium Series

Perfect MG | 0.4 μm | 2 Flute | Coating DLC

2-Flute Long Neck Ball End Mill



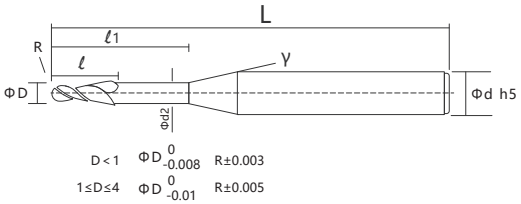
Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESB-20060-020-04045	0.6	2	0.6	R0.3	0.56	12°	4	45
AESB-20060-020-04045		3						45
AESB-20060-040-04045		4						45
AESB-20060-050-04045		5						45
AESB-20060-060-04045		6						45
AESB-20060-080-04045		8						45
AESB-20060-100-04045		10						45
AESB-20080-020-04045	0.8	2	0.8	R0.4	0.76	12°	4	45
AESB-20080-030-04045		3						45
AESB-20080-040-04045		4						45
AESB-20080-050-04045		5						45
AESB-20080-060-04045		6						45
AESB-20080-080-04045		8						45
AESB-20080-100-04045		10						45
AESB-20100-030-04050	1	3	1	R0.5	0.95	12°	4	50
AESB-20100-040-04050		4						50
AESB-20100-050-04050		5						50
AESB-20100-060-04050		6						50
AESB-20100-080-04050		8						50
AESB-20100-100-04050		10						50
AESB-20100-120-04050		12						50
AESB-20100-140-04050		14						50
AESB-20100-160-04050		16						50
AESB-20100-180-04050		18						50
AESB-20100-200-04050		20						50
AESB-20150-040-04050	1.5	4	1.5	R0.75	1.44	12°	4	50
AESB-20150-050-04050		5						50
AESB-20150-060-04050		6						50

AES

Copper&Aluminium Series

Perfect MG | 0.4 µm | 2 Flute | Coating DLC

2-Flute Long Neck Ball End Mill



Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESB-20150-080-04050	1.5	8	1.5	R0.75	1.44	12°	4	50
AESB-20150-100-04050		10						50
AESB-20150-120-04050		12						50
AESB-20150-160-04050		16						50
AESB-20150-180-04050		18						50
AESB-20150-200-04050		20						50
AESB-20200-060-04050	2	6	2	R1	1.94	12°	4	50
AESB-20200-080-04050		8						50
AESB-20200-100-04050		10						50
AESB-20200-120-04050		12						50
AESB-20200-140-04050		14						50
AESB-20200-160-04050		16						50
AESB-20200-180-04050		18						50
AESB-20200-200-04050		20						50
AESB-20200-160-06060		16					6	60
AESB-20200-180-06060		18						60
AESB-20200-200-06060		20						60
AESB-20200-250-06060		25						60
AESB-20300-080-04050	3	8	3	R1.5	2.92	12°	4	50
AESB-20300-100-04050		10						50
AESB-20300-120-04050		12						50
AESB-20300-160-04050		16						50
AESB-20300-200-04050		20						50
AESB-20300-160-06060		16					6	60
AESB-20300-180-06060		18						60
AESB-20300-200-06060		20						60
AESB-20300-250-06060		25						60
AESB-20300-160-06075		16						75

AMMATO (Guangzhou) Technology Co.,Ltd

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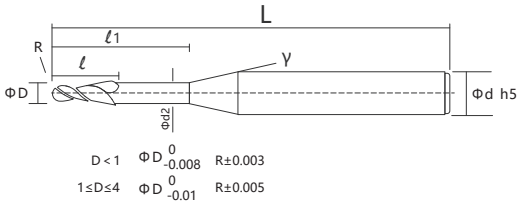
Copper&Aluminium Series

Perfect MG | 0.4 µm | 2 Flute | Coating DLC

2-Flute Long Neck Ball End Mill

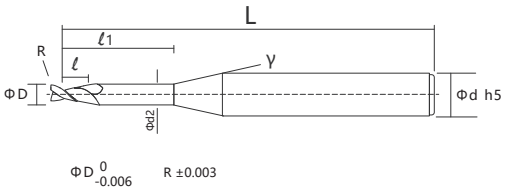


Model	Head diameter	Neck length	Tool length	Sphere radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESB-20300-180-06075	3	18	3	R1.5	2.92	12°	6	75
AESB-20300-200-06075		20						75
AESB-20300-250-06075		25						75
AESB-20300-300-06075		30						75
AESB-20400-160-06060	4	16	4	R2	3.9	12°	6	60
AESB-20400-180-06060		18						60
AESB-20400-200-06060		20						60
AESB-20400-250-06060		25						60
AESB-20400-160-06075		16						75
AESB-20400-180-06075		18						75
AESB-20400-200-06075		20						75
AESB-20400-250-06075		25						75
AESB-20400-300-06075		30						75
AESB-20400-350-06075		35						75

AES

Copper&Aluminium Series

2-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR002-20020-010-04045	0.2	1	0.2	R0.02	0.18	15°	4	45
AESR002-20020-015-04045		1.5			0.18	12°	4	45
AESR002-20020-020-04045		2						45
AESR002-20020-030-04045		3						45
AESR005-20020-010-04045		1		R0.05	0.18	15°	4	45
AESR005-20020-015-04045		1.5			0.18	12°	4	45
AESR005-20020-020-04045		2						45
AESR005-20020-030-04045		3						45
AESR002-20030-010-04045	0.3	1	0.3	R0.02	0.27	15°	4	45
AESR002-20030-015-04045		1.5			0.27	12°	4	45
AESR002-20030-020-04045		2						45
AESR002-20030-030-04045		3						45
AESR002-20030-040-04045		4						45
AESR005-20030-010-04045		1		R0.05	0.27	15°	4	45
AESR005-20030-015-04045		1.5			0.27	12°	4	45
AESR005-20030-020-04045		2						45
AESR005-20030-030-04045		3						45
AESR005-20030-040-04045		4						45
AESR002-20040-010-04045	0.4	1	0.4	R0.02	0.37	15°	4	45
AESR002-20040-015-04045		1.5			0.37	12°	4	45
AESR002-20040-020-04045		2						45
AESR002-20040-030-04045		3						45
AESR002-20040-040-04045		4						45
AESR002-20040-050-04045		5						45
AESR002-20040-060-04045		6						45
AESR005-20040-010-04045		1		R0.05	0.37	15°	4	45
AESR005-20040-015-04045		1.5			0.37	12°	4	45
AESR005-20040-020-04045		2						45

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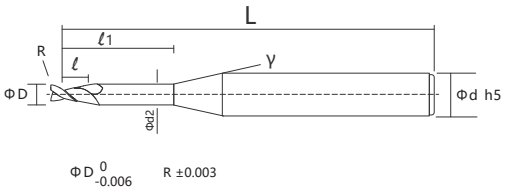
Copper&Aluminium Series

2-Flute Long Neck Corner Radius End Mill

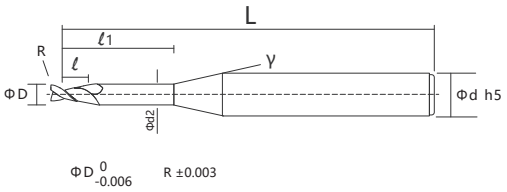


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR005-20040-030-04045	0.4	3	0.4	R0.05	0.37	12°	4	45
AESR005-20040-040-04045		4						45
AESR005-20040-050-04045		5						45
AESR005-20040-060-04045		6						45
AESR010-20040-010-04045		1		R0.1	0.37	15°	4	45
AESR010-20040-015-04045		1.5			0.37	12°	4	45
AESR010-20040-020-04045		2						45
AESR010-20040-030-04045		3						45
AESR010-20040-040-04045		4						45
AESR010-20040-050-04045		5						45
AESR010-20040-060-04045		6						45
AESR002-20050-020-04045	0.5	2	0.5	R0.02	0.46	12°	4	45
AESR002-20050-030-04045		3						45
AESR002-20050-040-04045		4						45
AESR002-20050-050-04045		5						45
AESR002-20050-060-04045		6						45
AESR002-20050-080-04045		8						45
AESR002-20050-100-04045		10						45
AESR005-20050-020-04045		2		R0.05				45
AESR005-20050-030-04045		3						45
AESR005-20050-040-04045		4						45
AESR005-20050-050-04045		5						45
AESR005-20050-060-04045		6						45
AESR005-20050-080-04045		8						45
AESR005-20050-100-04045		10						45
AESR010-20050-020-04045		2		R0.1				45
AESR010-20050-030-04045		3						45
AESR010-20050-040-04045		4						45

AES

Copper&Aluminium Series

2-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR010-20050-050-04045	0.5	5	0.5	R0.1	0.46	12°	4	45
AESR010-20050-060-04045		6						45
AESR010-20050-070-04045		7						45
AESR010-20050-080-04045		8						45
AESR010-20050-100-04045		10						45
AESR002-20060-020-04045	0.6	2	0.6	R0.02	0.56	12°	4	45
AESR002-20060-030-04045		3						45
AESR002-20060-040-04045		4						45
AESR002-20060-050-04045		5						45
AESR002-20060-060-04045		6						45
AESR002-20060-080-04045		8						45
AESR002-20060-100-04045		10						45
AESR005-20060-020-04045		2		R0.05				45
AESR005-20060-030-04045		3						45
AESR005-20060-040-04045		4						45
AESR005-20060-050-04045		5						45
AESR005-20060-060-04045		6						45
AESR005-20060-080-04045		8						45
AESR005-20060-100-04045		10						45
AESR010-20060-020-04045		2		R0.1				45
AESR010-20060-030-04045		3						45
AESR010-20060-040-04045		4						45
AESR010-20060-050-04045		5						45
AESR010-20060-060-04045		6						45
AESR010-20060-080-04045		8						45
AESR010-20060-100-04045		10						45
AESR020-20060-020-04045		2		R0.2				45
AESR020-20060-030-04045		3						45

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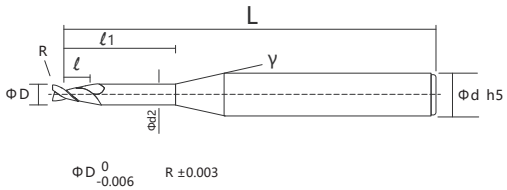
AES

Copper&Aluminium Series

2-Flute Long Neck Corner Radius End Mill

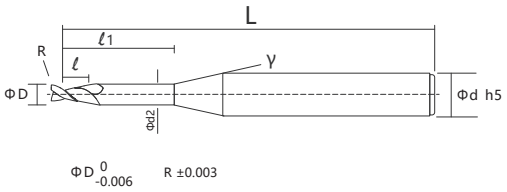


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR020-20060-040-04045	0.6	4	0.6	R0.2	0.56	12°	4	45
AESR020-20060-050-04045		5						45
AESR020-20060-060-04045		6						45
AESR020-20060-080-04045		8						45
AESR020-20060-100-04045		10						45
AESR002-20080-020-04045	0.8	2	0.8	R0.02	0.76	12°	4	45
AESR002-20080-030-04045		3						45
AESR002-20080-040-04045		4						45
AESR002-20080-050-04045		5						45
AESR002-20080-060-04045		6						45
AESR002-20080-080-04045		8						45
AESR002-20080-100-04045		10						45
AESR005-20080-020-04045		2		R0.05				45
AESR005-20080-030-04045		3						45
AESR005-20080-040-04045		4						45
AESR005-20080-050-04045		5						45
AESR005-20080-060-04045		6						45
AESR005-20080-080-04045		8						45
AESR005-20080-100-04045		10						45
AESR010-20080-020-04045		2		R0.1				45
AESR010-20080-030-04045		3						45
AESR010-20080-040-04045		4						45
AESR010-20080-050-04045		5						45
AESR010-20080-060-04045		6						45
AESR010-20080-080-04045		8						45
AESR010-20080-100-04045		10						45
AESR020-20080-020-04045		2		R0.2				45
AESR020-20080-030-04045		3						45

AES

Copper&Aluminium Series

2-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR020-20080-040-04045	0.8	4	0.8	R0.2	0.76	12°	4	45
AESR020-20080-050-04045		5						45
AESR020-20080-060-04045		6						45
AESR020-20080-070-04045		7						45
AESR020-20080-080-04045		8						45
AESR020-20080-100-04045		10						45

AMMATO (Guangzhou) Technology Co.,Ltd

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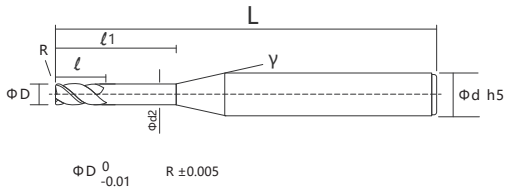
Copper&Aluminium Series

R | Perfect MG | 0.4 µm | 4 Flute | Coating DLC

4-Flute Long Neck Corner Radius End Mill

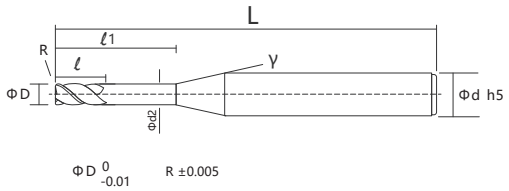


Model No.	Head diameter D	Neck length ℓ1	Tool length ℓ	Circular radius R	Neck diameter d2	Neck angle γ(reference)	Shank diameter d	Length L
AESR010-40100-040-04050	1	4	1	R0.1	0.95	12°	4	50
AESR010-40100-060-04050		6						50
AESR010-40100-080-04050		8						50
AESR010-40100-100-04050		10						50
AESR010-40100-120-04050		12						50
AESR010-40100-140-04050		14						50
AESR010-40100-160-04050		16						50
AESR010-40100-180-04050		18						50
AESR010-40100-200-04050		20						50
AESR020-40100-040-04050		4		R0.2				50
AESR020-40100-060-04050		6						50
AESR020-40100-080-04050		8						50
AESR020-40100-100-04050		10						50
AESR020-40100-120-04050		12						50
AESR020-40100-140-04050		14						50
AESR020-40100-160-04050		16						50
AESR020-40100-180-04050		18						50
AESR020-40100-200-04050		20						50
AESR010-40150-060-04050	1.5	6	1.5	R0.1	1.44	12°	4	50
AESR010-40150-080-04050		8						50
AESR010-40150-100-04050		10						50
AESR010-40150-120-04050		12						50
AESR010-40150-140-04050		14						50
AESR010-40150-160-04050		16						50
AESR010-40150-180-04050		18						50
AESR010-40150-200-04050		20						50
AESR020-40150-060-04050		6		R0.2				50
AESR020-40150-080-04050		8						50

AES

Copper&Aluminium Series

4-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR020-40150-100-04050	1.5	10	1.5	R0.2	1.44	12°	4	50
AESR020-40150-120-04050		12						50
AESR020-40150-140-04050		14						50
AESR020-40150-160-04050		16						50
AESR020-40150-180-04050		18						50
AESR020-40150-200-04050		20						50
AESR010-40200-060-04050	2	6	2	R0.1	1.94	12°	4	50
AESR010-40200-080-04050		8						50
AESR010-40200-100-04050		10						50
AESR010-40200-120-04050		12						50
AESR010-40200-140-04050		14						50
AESR010-40200-160-04050		16						50
AESR010-40200-180-04050		18						50
AESR010-40200-200-04050		20						50
AESR020-40200-160-04050		6		R0.2				50
AESR020-40200-180-04050		8						50
AESR020-40200-100-04050		10						50
AESR020-40200-120-04050		12						50
AESR020-40200-140-04050		14						50
AESR020-40200-160-04050		16						50
AESR020-40200-180-04050		18						50
AESR020-40200-200-04050		20						50
AESR050-40200-060-04050		6		R0.5				50
AESR050-40200-080-04050		8						50
AESR050-40200-100-04050		10						50
AESR050-40200-120-04050		12						50
AESR050-40200-140-04050		14						50
AESR050-40200-160-04050		16						50

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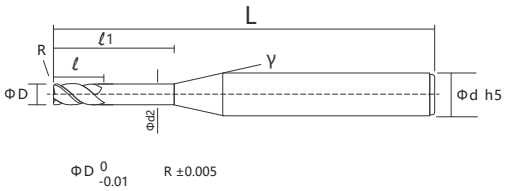
AES

Copper&Aluminium Series

4-Flute Long Neck Corner Radius End Mill

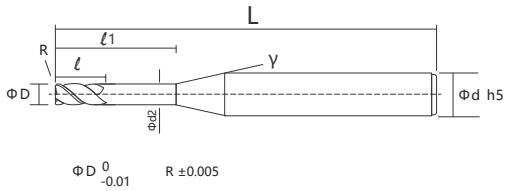


Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR050-40200-180-04050	2	18	2	R0.5	1.94	12°	4	50
AESR050-40200-200-04050		20						50
AESR010-40300-100-04050	3	10	3	R0.1	2.92	12°	4	50
AESR010-40300-120-04050		12						50
AESR010-40300-140-04050		14						50
AESR010-40300-160-04050		16						50
AESR010-40300-180-04050		18						50
AESR010-40300-200-04050		20						50
AESR020-40300-100-04050		10		R0.2				50
AESR020-40300-120-04050		12						50
AESR020-40300-140-04050		14						50
AESR020-40300-160-04050		16						50
AESR020-40300-180-04050		18						50
AESR020-40300-200-04050		20						50
AESR050-40300-100-04050		10		R0.5				50
AESR050-40300-120-04050		12						50
AESR050-40300-140-04050		14						50
AESR050-40300-160-04050		16						50
AESR050-40300-180-04050		18						50
AESR050-40300-200-04050		20						50
AESR020-40300-120-06060		12		R0.2			6	60
AESR020-40300-160-06060		16						60
AESR020-40300-200-06060		20						60
AESR020-40300-250-06060		25						60
AESR050-40300-120-06060		12		R0.5				60
AESR050-40300-160-06060		16						60
AESR050-40300-200-06060		20						60
AESR050-40300-250-06060		25						60

AES

Copper&Aluminium Series

4-Flute Long Neck Corner Radius End Mill



Model	Head diameter	Neck length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AESR020-40300-160-06075	3	12	3	R0.2	2.92	12°	6	75
AESR020-40300-180-06075		16						75
AESR020-40300-200-06075		20						75
AESR020-40300-250-06075		25						75
AESR020-40300-300-06075		30						75
AESR050-40300-120-06075		12		R0.5				75
AESR050-40300-160-06075		16						75
AESR050-40300-200-06075		20						75
AESR050-40300-250-06075		25						75
AESR050-40300-300-06075		30						75
AESR020-40400-160-06060	4	16	4	R0.2	3.9	12°	6	60
AESR020-40400-200-06060		20						60
AESR020-40400-250-06060		25						60
AESR050-40400-160-06060		16		R0.5				60
AESR050-40400-200-06060		20						60
AESR050-40400-250-06060		25						60
AESR020-40400-160-06075		16		R0.2				75
AESR020-40400-200-06075		20						75
AESR020-40400-250-06075		25						75
AESR020-40400-300-06060		30						75
AESR020-40400-350-06060		35						75
AESR050-40400-160-06060		16		R0.5				75
AESR050-40400-200-06060		20						75
AESR050-40400-250-06075		25						75
AESR050-40400-300-06075		30						75
AESR050-40400-350-06075		35						75

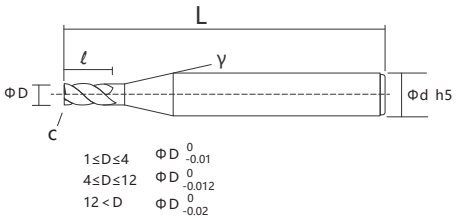
AMMATO (Guangzhou) Technology Co.,Ltd

AES

Copper&Aluminium Series

Perfect MG | 0.4 μm | 4 Flute | Coating DLC

4-Flute Square End Mill



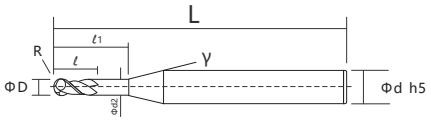
Model No.	Head diameter D	Tool length ℓ	Neck angle γ(reference)	Shank diameter d	Length L
AESE-4010-04050	1	3	12°	4	50
AESE-4015-04050	1.5	4	10°	4	50
AESE-4020-04050	2	6	10°	4	50
AESE-4025-04050	2.5	7	10°	4	50
AESE-4030-04050	3	8	10°	4	50
AESE-4040-04050	4	12	-	4	50
AESE-4060-04050	6	18	-	6	50
AESE-4080-08060	8	24	-	8	60
AESE-4100-10075	10	30	-	10	75
AESE-4100-10100	10	40	-	10	100
AESE-4120-12075	12	36	-	12	75
AESE-4120-12100	12	45	-	12	100

AES

Copper&Aluminium Series

Perfect MG | 0.4 µm | 2 Flute | Coating DLC

2-Flute Ball End Mill



1≤D≤6 R ±0.005
6≤D≤16 R ±0.01

Model	Head diameter	Effective length	Tool length	Circular radius	Neck diameter	Neck angle	Shank diameter	Length
No.	D	ℓ1	ℓ	R	d2	γ(reference)	d	L
AUSB-2010-04050	1	2	1	R0.5	0.95	12°	4	50
AUSB-2015-04050	1.5	3	1.5	R0.75	1.44	12°	4	50
AUSB-2020-04050	2	4	2	R1	1.94	12°	4	50
AUSB-2030-04050	3	6	3	R1.5	2.92	12°	4	50
AUSB-2040-04050	4	-	6	R2	-	-	4	50
AUSB-2060-06050	6	-	9	R3	-	-	6	50
AUSB-2060-06060	6	-	9	R3	-	-	6	60
AUSB-2080-08060	8	-	12	R4	-	-	8	60
AUSB-2100-10075	10	-	15	R5	-	-	10	75
AUSB-2100-10100	10	-	15	R5	-	-	10	100
AUSB-2120-12075	12	-	18	R6	-	-	12	75
AUSB-2120-12100	12	-	18	R6	-	-	12	100

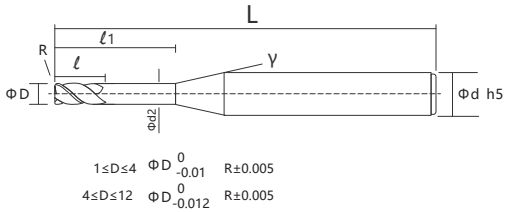
AMMATO (Guangzhou) Technology Co.,Ltd

AES

Copper&Aluminium Series

R | Perfect MG | 0.4 μm | 4 Flute | Coating DLC

4-Flute Corner Radius End Mill



1≤D≤4 $\Phi D\ ^{0}_{-0.01}$ R±0.005

4≤D≤12 $\Phi D\ ^{0}_{-0.012}$ R±0.005

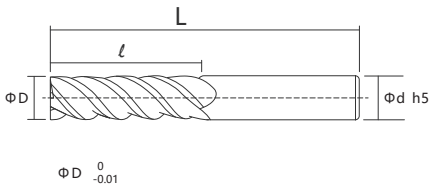
Model No.	Head diameter D	Tool length ℓ	Circular radius R	Neck angle γ(reference)	Shank diameter d	Length L
AESR005-4010-04050	1	3	0.05	12°	4	50
AESR010-4010-04050			0.1			50
AESR020-4010-04050			0.2			50
AESR010-4015-04050	1.5	4	0.1	10°	4	50
AESR020-4015-04050			0.2			50
AESR010-4020-04050	2	6	0.1	10°	4	50
AESR020-4020-04050			0.2			50
AESR050-4020-04050			0.5			50
AESR010-4030-04050	3	8	0.1	10°	4	50
AESR020-4030-04050			0.2			50
AESR050-4030-04050			0.5			50
AESR002-4040-04050	4	8	0.2	-	4	50
AESR005-4040-04075			0.2			50
AESR002-4060-04050	6	12	0.2	-	6	50
AESR005-4060-04075			0.5			75
AESR010-4060-06050			1			50
AESR005-4080-08060	8	16	0.5	-	8	60
AESR010-4080-08060			1			60
AESR005-4100-10075	10	20	0.5	-	10	75
AESR005-4100-10100		30	0.5			100
AESR010-4100-10075		20	1			75
AESR010-4100-10100		30	1			100
AESR005-4120-12075	12	24	0.5	-	12	75
AESR005-4120-12100		30	0.5			100
AESR010-4120-12075		24	1			75
AESR010-4120-12100		30	1			100

AES

Copper&Aluminium Series

Perfect MG | 0.4 µm | 5 Flute | Coating MX

End Mill for Titanium Alloy



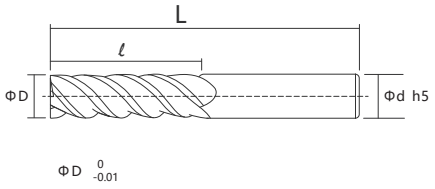
Model	Head diameter	Tool length	Shank diameter	Length
No.	D	ℓ	d	L
AESTE-5060-08060	6	15	6	50
AESTE-5080-08060	8	20	8	60
AESTE-5100-10075	10	25	10	75
AESTE-5120-12075	12	30	12	75

AES

Copper&Aluminium Series

R | Perfect MG | 0.4 µm | 5 Flute | Coating MX

End Mill for Titanium Alloy



Model	Head diameter	Tool length	Circular radius	Shank diameter	Length
No.	D	ℓ	R	d	L
AESTR002-5060-06050	6	15	0.2	6	50
AESTR005-5060-06050	6	15	0.5	6	50
AESTR002-5080-08060	8	20	0.2	8	60
AESTR005-5080-08060	8	20	0.5	8	60
AESTR002-5100-10075	10	25	0.2	10	75
AESTR005-5100-10075	10	25	0.5	10	75
AESTR002-5120-12075	12	30	0.2	12	75
AESTR005-5120-12075	12	30	0.5	12	75

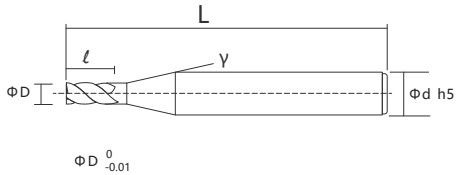
AMMATO (Guangzhou) Technology Co.,Ltd

AES

Copper&Aluminium Series

Perfect MG | 0.4 μm | 3 Flute

End Mill for Aluminum(High Effciency)

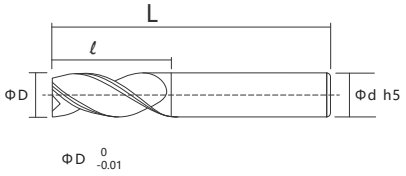


Model	Head diameter	Tool length	Circular radius	Shank diameter	Length
No.	D	ℓ	R	d	L
AESEU-3010-04050	1	3	15°	4	50
AESEU-3015-04050	1.5	4.5	15°	4	50
AESEU-3020-04050	2	6	15°	4	50
AESEU-3030-04050	3	9	15°	4	50
AESEU-3040-04050	4	12	15°	4	50
AESEU-3040-04075	4	16	-	4	75
AESEU-3040-04100	4	20	-	4	100
AESEU-3050-05055	5	15	15°	6	55
AESEU-3050-05075	5	20	15°	6	75
AESEU-3050-05100	5	25	15°	6	100
AESEU-3060-06055	6	18	-	6	55
AESEU-3060-06075	6	25	-	6	75
AESEU-3060-06100	6	30	-	6	100
AESEU-3080-08060	8	24	-	9	60
AESEU-3080-08075	8	32	-	8	75
AESEU-3080-08100	8	40	-	8	100
AESEU-3100-10075	10	30	-	10	75
AESEU-3100-10100	10	40	-	10	100
AESEU-3120-12075	12	36	-	12	75
AESEU-3120-12100	12	45	-	12	100

AES

Copper&Aluminium Series

End Mill for Aluminum(High Precision)



Model	Head diameter	Tool length	Shank diameter	Length
No.	D	ℓ	d	L
AESTA-3040-04050	4	12	4	50
AESTA-3060-06055	6	18	6	55
AESTA-3080-08060	8	24	8	60
AESTA-3100-10075	10	30	10	75
AESTA-3120-12075	12	36	12	75

AMMATO (Guangzhou) Technology Co.,Ltd

GRAPHITE PROCESSING SERIES

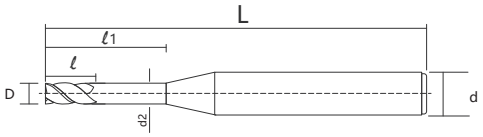
- ☆ The CVD diamond coating with high density and high melting point is adopted, which has good stability and wear resistance.
- ☆ It is widely used in graphite and medical zirconia and alloy non-ferrous materials.

ANS

Graphite Processing Series

Perfect MG | 0.6 µm | 4 Flute | Coating CVD

4-Flute Graphite Deep Groove End Mill



Model	Head diameter	Tool length	Neck length	Neck diameter	Shank diameter	Length
No.	D	ℓ	ℓ1	d2	d	L
ANSE-D05-04	0.5	1.5	4	0.45	4	50
ANSE-D05-06			6			50
ANSE-D06-04	0.6	1.8	4	0.55	4	50
ANSE-D06-06			6			50
ANSE-D08-06	0.8	2.4	6	0.75	4	50
ANSE-D08-08			8			50
ANSE-D10-06	1	3	6	0.95	4	60
ANSE-D10-10			10			60
ANSE-D10-15			15			60
ANSE-D15-08	1.5	4.5	8	1.45	4	60
ANSE-D15-10			10			60
ANSE-D15-15			15			60
ANSE-D20-10	2	6	10	1.95	4	60
ANSE-D20-16			16			60
ANSE-D20-20			20			75
ANSE-D20-30			30			75
ANSE-D30-15	3	9	15	2.8	6	75
ANSE-D30-30			30			75
ANSE-D40-16	4	12	16	3.7	6	75
ANSE-D40-30			30			75

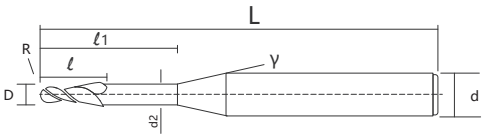
AMMATO (Guangzhou) Technology Co.,Ltd

ANS

Graphite Processing Series

Perfect MG | 0.6 μm | 2 Flute | Coating CVD

2-Flute Graphite Deep Groove Ball End Mill

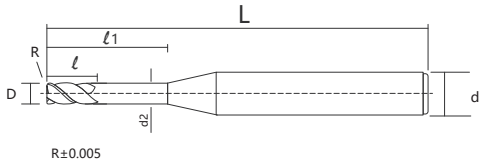


Model No.	Head diameter D	Sphere radius R	Tool length ℓ	Neck length ℓ1	Neck diameter d2	Shank diameter d	Length L
ANS2B-R025-04	0.5	R0.25	1	4	0.45	4	50
ANS2B-R025-06	0.5	R0.25	1	6	0.45	4	50
ANS2B-R030-04	0.6	R0.3	1.2	4	0.55	4	50
ANS2B-R030-06	0.6	R0.3	1.2	6	0.55	4	50
ANS2B-R040-06	0.8	R0.4	1.6	6	0.75	4	50
ANS2B-R040-08	0.8	R0.4	1.6	8	0.75	4	50
ANS2B-R050-06	1.0	R0.5	3	6	0.95	4	60
ANS2B-R050-10	1.0	R0.5	3	10	0.95	4	60
ANS2B-R050-15	1.0	R0.5	3	15	0.95	4	60
ANS2B-R050-20	1.0	R0.5	3	20	0.95	4	60
ANS2B-R075-08	1.5	R0.75	3	8	1.45	4	60
ANS2B-R075-12	1.5	R0.75	3	12	1.45	4	60
ANS2B-R075-15	1.5	R0.75	3	15	1.45	4	60
ANS2B-R075-20	1.5	R0.75	3	20	1.45	4	60
ANS2B-R100-10	2.0	R1	4	10	1.9	4	60
ANS2B-R100-16	2.0	R1	4	16	1.9	4	60
ANS2B-R100-20	2.0	R1	4	20	1.9	4	60
ANS2B-R150-15	3.0	R1.5	6	15	2.8	6	75
ANS2B-R150-30	3.0	R1.5	6	30	2.8	6	75
ANS2B-R200-20	4.0	R2	8	20	3.7	6	75
ANS2B-R200-30	4.0	R2	8	30	3.7	6	75

ANS

Graphite Processing Series

2-Flute Graphite Deep Groove Round Nose End Mill



Model No.	Head diameter D	Sphere radius R	Tool length ℓ	Neck length ℓ1	Neck diameter d2	Shank diameter d	Length L
ANS2R-D010R01-030	1	R0.1	6	3	0.95	4	60
ANS2R-D010R01-030	1	R0.1	8	3	0.95	4	60
ANS2R-D010R01-030	1	R0.1	10	3	0.95	4	60
ANS2R-D010R01-030	1	R0.1	12	3	0.95	4	60
ANS2R-D015R01-045	1.5	R0.1	6	4.5	1.45	4	60
ANS2R-D015R01-045	1.5	R0.1	10	4.5	1.45	4	60
ANS2R-D015R01-045	1.5	R0.1	16	4.5	1.45	4	60
ANS2R-D015R01-045	1.5	R0.1	20	4.5	1.45	4	60
ANS2R-D020R01-060	2	R0.1	8	6	1.92	4	60
ANS2R-D020R01-060	2	R0.1	12	6	1.92	4	60
ANS2R-D020R01-060	2	R0.1	16	6	1.92	4	60
ANS2R-D020R01-060	2	R0.1	20	6	1.92	4	60
ANS2R-D030R02-090	3	R0.2	9	9	2.8	4	60
ANS2R-D030R02-090	3	R0.2	15	9	2.8	4	60
ANS2R-D030R02-090	3	R0.2	20	9	2.8	4	60
ANS2R-D030R02-090	3	R0.2	30	9	2.8	4	60
ANS2R-D030R05-090	3	R0.5	9	9	2.8	4	60
ANS2R-D030R05-090	3	R0.5	15	9	2.8	4	60
ANS2R-D030R05-090	3	R0.5	20	9	2.8	4	60
ANS2R-D030R05-090	3	R0.5	30	9	2.8	4	60
ANS2R-D040R02-120	4	R0.2	15	12	3.7	6	75
ANS2R-D040R02-120	4	R0.2	20	12	3.7	6	75
ANS2R-D040R02-120	4	R0.2	25	12	3.7	6	75
ANS2R-D040R02-120	4	R0.2	30	12	3.7	6	75
ANS2R-D040R05-120	4	R0.5	15	12	3.7	6	75
ANS2R-D040R05-120	4	R0.5	20	12	3.7	6	75
ANS2R-D040R05-120	4	R0.5	25	12	3.7	6	75
ANS2R-D040R05-120	4	R0.5	30	12	3.7	6	75

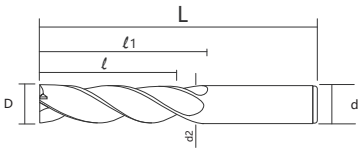
AMMATO (Guangzhou) Technology Co.,Ltd

ANS

Graphite Processing Series

Perfect MG | 0.6 μm | 4 Flute | Coating CVD

4-Flute Graphite End Mill



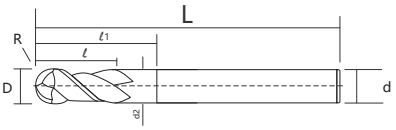
Model	Head diameter	Tool length	Neck length	Neck diameter	Shank diameter	Length
No.	D	ℓ	ℓ1	d2	d	L
ANS4E-D03-20	3	9	20	2.8	3	60
ANS4E-D04-25	4	12	25	3.7	4	60
ANS4E-D06-35	6	25	35	5.6	6	75
ANS4E-D08-35	8	25	35	7.6	8	75
ANS4E-D10-50	10	35	50	9.6	10	100
ANS4E-D12-65	12	50	65	11.4	12	100
ANS4E-D16-80	16	60	80	15.6	16	150
ANS4E-D03-30	3	12	30	2.8	3	75
ANS4E-D04-30	4	12	30	3.7	4	75
ANS4E-D03-30	3	9	30	2.8	3	100
ANS4E-D04-30	4	12	30	3.7	4	100
ANS4E-D06-40	6	25	40	5.6	6	100
ANS4E-D08-40	8	30	40	7.5	8	100
ANS4E-D06-40	6	25	40	5.6	6	150
ANS4E-D08-70	8	50	70	7.6	8	150
ANS4E-D10-70	10	50	70	9.6	10	150
ANS4E-D12-70	12	50	70	11.6	12	150

ANS

Graphite Processing Series

Perfect MG | 0.6 µm | 2 Flute | Coating CVD

2-Flute Graphite Ball End Mill

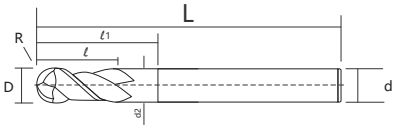


Model	Head diameter	Sphere radius	Tool length	Neck length	Neck diameter	Shank diameter	Length
No.	D	R	ℓ	ℓ1	d2	d	L
ANS2B-R015-20	3	R1.5	6	20	2.8	3	60
ANS2B-R020-20	4	R2	8	25	3.7	4	60
ANS2B-R060-35	6	R3	15	35	5.6	6	75
ANS2B-R080-30	8	R4	20	30	7.6	8	75
ANS2B-R100-50	10	R5	25	50	9.4	10	100
ANS2B-R120-50	12	R6	25	50	11.4	12	100
ANS2B-R160-60	16	R8	35	60	15.6	16	150
ANS2B-R030-30	3	R1.5	6	30	2.8	3	75
ANS2B-R040-25	4	R2	8	25	3.7	4	75
ANS2B-R030-30	3	R1.5	6	30	2.8	3	100
ANS2B-R040-30	4	R2	8	30	3.7	4	100
ANS2B-R060-40	6	R3	15	40	5.6	6	100
ANS2B-R080-40	8	R4	25	40	7.5	8	100
ANS2B-R060-40	6	R3	15	40	5.6	6	150
ANS2B-R080-50	8	R4	25	50	7.5	8	150
ANS2B-R100-60	10	R5	25	60	9.4	10	150
ANS2B-R120-60	12	R6	25	60	11.6	12	150

ANS

Graphite Processing Series

2-Flute Graphite Round Nose Mill



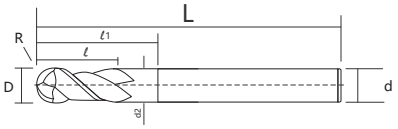
Model	Head diameter	Sphere radius	Tool length	Neck length	Neck diameter	Shank diameter	Length
No.	D	R	ℓ	ℓ1	d2	d	L
ANS4R-D03R02-09	3	R0.2	20	9	2.8	3	60
ANS4R-D03R05-09	3	R0.5	20	9	2.8	3	60
ANS4R-D04R02-12	4	R0.2	25	12	3.7	4	60
ANS4R-D04R05-12	4	R0.5	25	12	3.7	4	60
ANS4R-D06R02-20	6	R0.2	35	20	5.6	6	75
ANS4R-D06R05-20	6	R0.5	35	20	5.6	6	75
ANS4R-D06R10-20	6	R1	35	20	5.6	6	75
ANS4R-D08R05-25	8	R0.5	35	25	7.6	8	75
ANS4R-D08R10-25	8	R1	35	25	7.6	8	75
ANS4R-D10R05-35	10	R0.5	50	35	9.6	10	100
ANS4R-D10R10-35	10	R1	50	35	9.6	10	100
ANS4R-D12R05-35	12	R0.5	50	35	11.4	12	100
ANS4R-D12R10-35	12	R1	50	35	11.4	12	100
ANS4R-D16R05-60	16	R0.5	80	60	15.6	16	150
ANS4R-D16R10-60	16	R1	80	60	15.6	16	150
ANS4R-D03R05-09	3	R0.5	30	9	2.8	3	75
ANS4R-D04R05-12	4	R0.5	30	12	3.7	4	75
ANS4R-D03R05-09	3	R0.5	30	9	2.8	3	100
ANS4R-D04R05-12	4	R0.5	30	12	3.7	4	100
ANS4R-D06R02-25	6	R0.2	40	25	5.6	6	100
ANS4R-D06R05-25	6	R0.5	40	25	5.6	6	100
ANS4R-D06R10-25	6	R1	40	25	5.6	6	100
ANS4R-D08R05-30	8	R0.5	40	30	7.5	8	100
ANS4R-D08R10-30	8	R1	40	30	7.5	8	100
ANS4R-D06R02-35	6	R0.2	50	35	5.6	6	150
ANS4R-D06R05-35	6	R0.5	50	35	5.6	6	150
ANS4R-D06R10-35	6	R1	50	35	5.6	6	150
ANS4R-D08R05-40	8	R0.5	60	40	7.5	8	150

ANS

Graphite Processing Series

R | Perfect MG | 0.6 µm | 2 Flute | Coating CVD

2-Flute Graphite Round Nose Mill



Model	Head diameter	Sphere radius	Tool length	Neck length	Neck diameter	Shank diameter	Length
No.	D	R	ℓ	ℓ1	d2	d	L
ANS4R-D08R10-40	8	R1	60	40	7.5	8	150
ANS4R-D10R05-40	10	R0.5	60	40	9.4	10	150
ANS4R-D10R10-40	10	R1	60	40	9.4	10	150
ANS4R-D12R05-50	12	R0.5	70	50	11.6	12	150
ANS4R-D12R10-50	12	R1	70	50	11.6	12	150

DEEP HOLE DRILL GUN DRILLING SERIES

Deep hole processing, gun drill series new on the market

☆ After long-term optimization process and R&D testing, **AMMATO®** officially launched the "Hard Gun Drill", including "Welded Single Knife Gun Drill", "Solid Carbide Single Knife Gun Drill", "Inlaid Knife Gun Drill" and other gun drill type finishing tools, serving a wider range of mold, ring die, medical, automotive customers, and expanding the hole processing tool market. **AMMATO®** is constantly moving forward in a more professional and in-depth direction!

ADS

Deep Hole Drill Gun Drill Series

Single Flute Brazd Gun Drilll

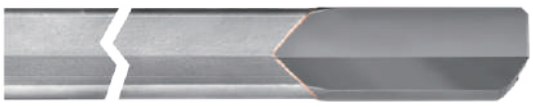
【Short gun drills】

In simple terms, we refer to gun drills shorter than 600mm as short gun drills. These short gun drills have a wide range of applications in shaft processing. With the popularity of CNC machine tools, their use in molds has been increasing, especially with machines that have automatic tool changers, which makes them even more powerful and versatile.
AMMATO® has invested a lot of effort into short gun drills, helping customers solve a series of challenges during the initial processing, making the application of short gun drills more widespread and processing more efficient.

【Ball / Flat / Cone end Grindings 】

Ball end Grindings.

For high-demand molds that require heat treatment molds and special parts that require spherical shape at the bottom of the holes, AMMATO has high application and rich processing experience.



Flat end Grindings.

Mold counterbore, special parts need to be ground with flat bottoms.

Cone end Grindings.

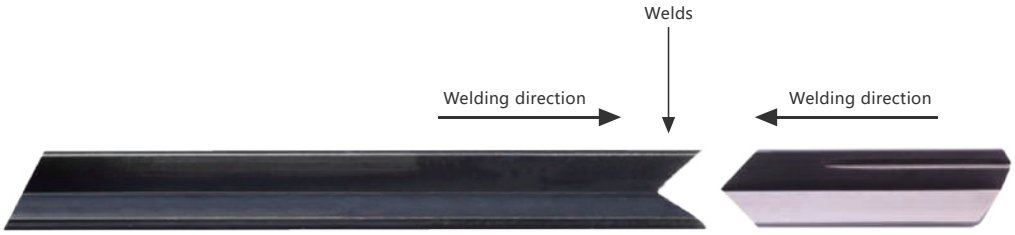
Special parts: such as nozzles and oil nozzles need to be made into the application of large and small cones at the top

ADS

Deep Hole Drill Gun Drill Series

Single Flute Brazd Gun Drilll

【SECONDARY REWELDING】



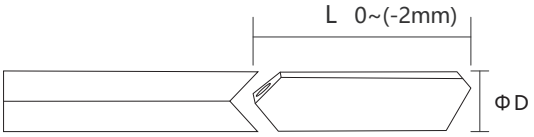
Secondary rewelding

Gun drill secondary rewelding and grinding is a service provided by **AMMATO®** to customers, it is a process of re-welding new alloy and then finishing grinding after the alloy is lost, **AMMATO®**'s rewelding process can be equivalent to the effect of new gun use after the concentricity repair and verification of the tool holder, and the recycling of materials can not only save a lot of costs for customers but also reduce pollution for the deteriorating environment of the earth.

ADS

Deep Hole Drill Gun Drill Series

Single Flute Brazd Gun Drilll



Model	Head diameter	Length	Model	Head diameter	Length
No.	D	L	No.	D	L
ADS003-00302-02430	3.02	24.3	ADS020-02052-04860	20.52	48.6
ADS003-00352-02430	3.52	24.3	ADS021-02102-04860	21.02	48.6
ADS004-00402-02430	4.02	24.3	ADS021-02152-05840	21.52	58.4
ADS004-00452-02430	4.52	24.3	ADS022-02202-05840	22.02	58.4
ADS005-00502-02620	5.02	26.2	ADS022-02252-05790	22.52	57.9
ADS005-00550-02620	5.52	26.2	ADS023-02302-05790	23.02	57.9
ADS006-00602-03090	6.02	30.9	ADS023-02352-05950	23.52	59.5
ADS006-00652-03090	6.52	30.9	ADS024-02402-05950	24.02	59.5
ADS007-00702-03400	7.02	34.0	ADS024-02452-06088	24.52	60.88
ADS007-00752-03400	7.52	34.0	ADS025-02502-06088	25.02	60.88
ADS008-00802-03780	8.02	37.8	ADS025-02552-06125	25.52	61.25
ADS008-00852-03780	8.52	37.8	ADS026-02602-06125	26.02	61.25
ADS009-00902-03780	9.02	37.8	ADS026-02652-06140	26.52	61.4
ADS009-00952-03780	9.52	37.8	ADS027-02702-06140	27.02	61.4
ADS010-01002-03780	10.02	37.8	ADS027-02752-06341	27.52	63.41
ADS010-01052-03780	10.52	37.8	ADS028-02802-06341	28.02	63.41
ADS011-01102-03780	11.02	37.8	ADS028-02852-06350	28.52	63.5
ADS011-01152-04250	11.52	42.5	ADS029-02902-06500	29.02	65
ADS012-01202-04250	12.02	42.5	ADS030-03002-06600	30.02	66
ADS012-01252-04250	12.52	42.5	ADS031-03102-06630	31.02	66.3
ADS013-01302-04250	13.02	42.5	ADS032-03202-06730	32.02	67.3
ADS013-01352-04250	13.52	42.5	ADS033-03302-06730	33.02	67.3
ADS014-01402-04250	14.02	42.5	ADS034-03402-06680	34.02	66.8
ADS014-01452-04250	14.52	42.5	ADS035-03502-06660	35.02	66.6
ADS015-01502-04860	15.02	48.6	ADS036-03602-06700	36.02	67
ADS015-01552-04860	15.52	48.6	ADS037-03702-06700	37.02	67
ADS016-01602-04860	16.02	48.6	ADS038-03802-06500	38.02	65
ADS016-01652-04860	16.52	48.6	ADS039-03902-06500	39.02	65
ADS017-01702-04860	17.02	48.6	ADS040-04002-06500	40.02	65
ADS017-01752-04860	17.52	48.6	ADS041-04102-06500	41.02	65
ADS018-01805-04860	18.05	48.6	ADS042-04202-06500	42.02	65
ADS018-01852-04860	18.52	48.6	ADS043-04302-06500	43.02	65
ADS019-01902-04860	19.02	48.6	ADS044-04402-06500	44.02	65
ADS019-01952-04860	19.52	48.6	ADS045-04502-06500	45.02	65
ADS020-02002-04860	20.02	48.6			

ADS
Deep Hole Drill Gun Drill Series

Common problems and solutions to processing

Breakage	Occurs during initial machining	1. Whether the fit between the guide bushing and the gun drill is smooth, and whether the end face fits the workpiece.
		2. Whether the rubber sleeve support link is suitable (too loose or too tight is not suitable).
		3. Whether the feed setting of the machine tool is reasonable (do not make a slight collision).
		4. Whether the workpiece clamping is loose.
	Occurs during normal processing	1. Whether the gun drill has been worn out and not repaired in time.
		2. Whether the processing parameters are reasonable (whether the amount of cutting is too large) is uniform.
		3. When the gun drill is processed to a certain depth, the chip removal is smooth?
		4. Whether the material has many impurities and uneven hardness.
	Cross over or return tool	1. Whether there is a lower feed. (The amount of stock removal increases sharply at the drill tip during breaking).
		2. Whether the straightness of the machining hole is poor or the hole diameter shrinks, resulting in the increase of friction force when retracting.
		3. The speed is too fast to hang to the guide arbitrage corner.
Short tool life	Knives are susceptible to wear	1. Whether the working condition of the processing machine tool is stable.
		2. Whether the feed parameters are reasonable (see the parameter table for details).
		3. Whether the guide bushing, rubber sleeve and bearing are in normal condition (the rubber sleeve cannot be too loose).
		4. Whether to choose the right length of the gun drill and the right angle and guide bar.
		5. The selection of cutting oil and the control of oil temperature, filtration are suitable for the oil pressure of the gun drill.
		6. Whether the characteristics of the processed material and the material are uniform and the hardness are uniform.
Machining accuracy	Low finish	1. The parameters are not suitable (generally speaking, the speed is reduced and the feed is fast).
		2. Machine tool spindle shake and gun drill shake (check the spindle and rubber sleeve, drill).
		3. Whether the clamping of the processed material is tightened, and whether the clamping of the gun drill is tightened.
		4. Choose the right guide bar and angle.
		5. Choose the appropriate concentration of cutting fluid and oil pressure.
	straightness, circularity, radius	1. Stability of the machine tool and adaptation of the guide sleeve.
		2. Select the appropriate processing parameters.
		3. Choose the appropriate guide bar and angle.
		4. Whether the wall thickness of the material to be processed is too thin or asymmetrical.
Iron filings treatment	chips no break	1. The oil pressure is too small.
		2. The amount of cutting is too large and unreasonable.
		3. Select the appropriate angle and breaking chip groove for special materials.
		4. Whether the outer corner of the gun drill is worn.
		5. Whether there is a gap in the end face or knife edge surface of the gun drill angle.
		6. If there is a filamentous chip, increase the oil pressure to reduce the feed.

ADS

Deep Hole Drill Gun Drill Series

Monolithic carbide
single-edge gun drill

【Short gun drills】

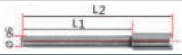
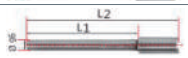
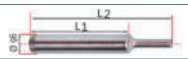
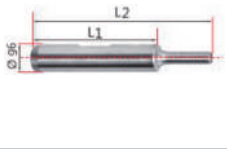
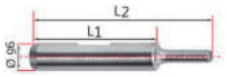
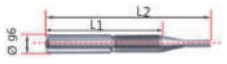
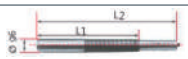
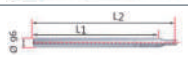
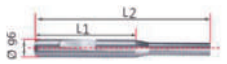
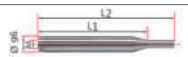
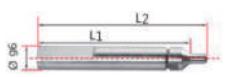
AMMATO® currently produces solid carbide gun drills from 0.9mm to 12mm in diameter and 330mm in length (according to actual specifications). It is widely used in molds, ring dies, valves, medical, aerospace, mechanical parts manufacturing and other fields.

ADS

Deep Hole Drill Gun Drill Series

Monolithic carbide
single-edge gun drill

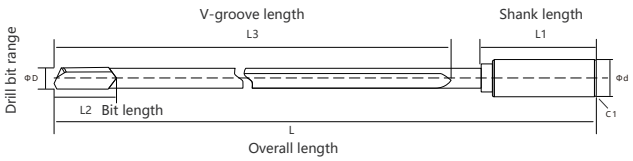
【Gun drill handles】

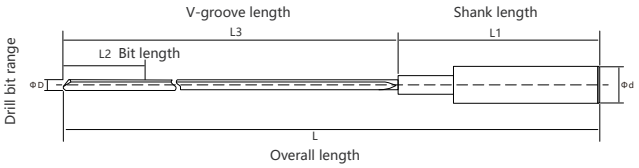
Model	Dimensions	Shank diameter	Drill bit range	Screw tooth	Length	Length
No.		d	D	M	L1	L2
ADSZR001		4	0.9-2.5	-	34	46
ADSZR002		4	2.5-5	-	38	50
ADSZR002-1		4	2.5-5	-	40	55
ADSZR003		6	0.9-5	-	36	50
ADSZR003-1		6	0.9-5	-	30	45
ADSZR004		10	0.9-7	-	40	55
ADSZR005		10	0.9-7	-	50	65
ADSZRO06		10	0.9-7	-	80	95
ADSZR007		10	0.9-7	-	85	100
ADSZR007-1		10	0.9-7	M6*0.5	60	100
ADSZR007-2		10	0.9-7	M6*0.5	95	110
ADSZR008		10	0.9-7	-	95	110
ADSZR009		10	0.9-7	-	100	115
ADSZR010		10	0.9-6	M6*0.5	40	55
ADSZR011		10	0.9-6	M6*0.5	55	70
ADSZR012		10	0.9-6	M6*0.5	115	130
ADSZR011-1		10	0.9-6	M6*0.5	60	100
ADSZR012-1		10	0.9-6	M6*0.5	160	175
ADSZR013		10	0.9-6	M10*1.0		130
ADSZR014		10	0.9-6	M10*1.0	70	130
ADSZR013-1		10	0.9-6	M10*1.0	67	90
ADSZR015		16	0.9-6	M10*1.0	90	105
ADSZR016		16	0.9-6	M10*1.0	115	130

ADS

Deep Hole Drill Gun Drill Series

Order list for monolithic/welded single-edged gun drills





Company name: _____ Use the device: _____

Delivery address: _____ Processed materials: _____

Name, phone number: _____ Purchase order: _____

Welded single-edged gun drill: ☐ Routine ☐ Flat ☐ Ball ☐ Cone ☐ Non-standard ☐ Need Coating

Solid carbide single-edged gun drill: ☐ Routine ☐ Flat ☐ Ball ☐ Cone ☐ Non-standard ☐ Need Coating

Model	Drill bit range	Length	V-groove length	Shank specifications	Type of coating	Quantity	Delivery date
No.	D	L	L3	d*L1			

☐ Welded single-edged gun drill

☐ Secondary rewelding/repair gun drills

☐ Monolithic carbide single-edge gun drill

Remark: _____

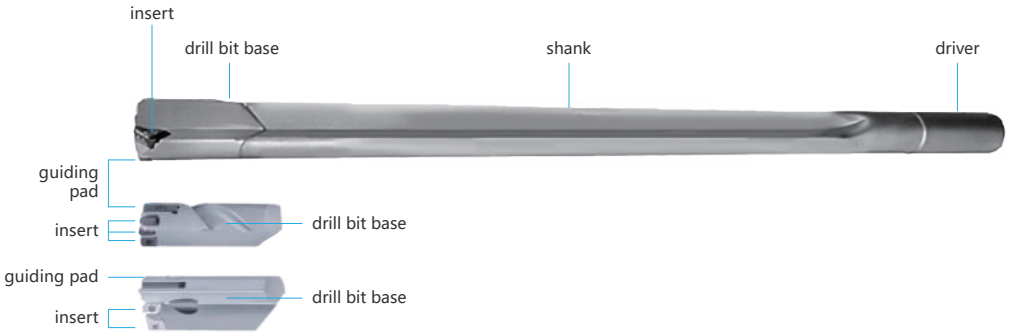
After determining the model, specification and quantity, our company will provide quotation/delivery time.

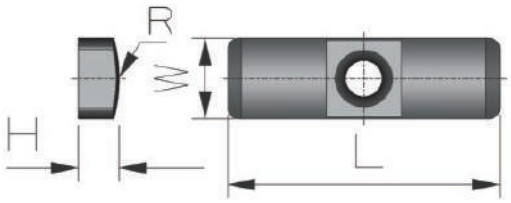
Date: Sign:

ADS

Deep Hole Drill Gun Drill Series

Inlaid knife particle gun drill





Cuiding pad

Inserts

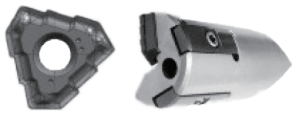
compare with brazed gundrills, indexable gundrills have good performance at chips removal, high feed rate, and easy to change inserts. but the indexable type gundrills have lower accurate, poor performance at cross holes, it also iequire machines witn more stabllty, normally indexable gundrlls use on blind holes, tube sheet, shalt holes etc, no more accuracyrequirement processing.

ADS

Deep Hole Drill Gun Drill Series

Inlaid knife particle gun drill

【Accessories (Single Blade PO Type)】



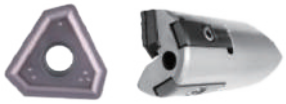
Size	Insert	Guiding pad	Insert screw	Pad screw	Wrench
9.5	AZSGT060204R	AGP04-045	M2.5x4	M2x3.5	T6/T7
10.0	AZSGT060204R	AGP04-045	M2.5x4	M2x3.5	T6/T7
10.5	AZSGT060204R	AGP04-045	M2.5x4	M2x3.5	T6/T7
11.0	AZSGT060204R	AGP04-050	M2.5x4	M2x3.5	T6/T7
11.5	ALOGT060204R	AGP04-055	M2.5x4.5	M2x3.7	T6/T8
12.0	ALOGT060204R	AGP04-055	M2.5x4.5	M2x3.7	T6/T8
12.5	ALOGT060204R	AGP04-055	M2.5x5	M2x3.7	T6/T8
13.0	ALOGT060204R	AGP04-055	M2.5x5	M2x3.7	T6/T8
13.5	ALOGT060204R	AGP04-055	M2.5x5	M2x3.7	T6/T8
14.0	ATOGT070304R	AGP05-060	M2.5x5	M2.2x4.5	T7/T8
14.5	ATOGT070304R	AGP05-060	M2.5x5	M2.2x4.5	T7/T8
15.0	ATOGT070304R	AGP05-060	M2.5x6	M2.2x4.5	T7/T8
15.5	ATOGT070304R	AGP05-060	M2.5x6	M2.2x4.5	T7/T8
16.0	ATOGT080305R	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
16.5	ATOGT080305R	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
17.0	ATOGT080305R	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
17.5	ATOGT080305R	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
18.0	ATOGT090305R	AGP06-085	M2.5x6	M2.5x5	T8
18.5	ATOGT090305R	ACP06-085	M2.5x6	M2.5x5	T8
19.0	ATOGT090305R	AGP06-085	M2.5x6	M2.5x6	T8
19.5	ATOGT090305R	AGP06-085	M2.5x6	M2.5x6	T8
20.0	ATOGT100305R	AGP06-085	M3x7	M2.5x6	T8/10
20.5	ATOGT100305R	AGP06-085	M3x7	M2.5x6	T8/10
21.0	ATOGT100305R	AGP06-100	M3x7	M2.5x6	T8/10
21.5	ATOGT100305R	AGP06-100	M3x7	M2.5x6	T8/10
22.0	ATOGT110405R	AGP06-100	M3.5x9	M2.5x6	T8/15
22.5	ATOGT110405R	AGP06-100	M3.5x9	M2.5x6	T8/15
23.0	ATOGT110405R	AGP06-100	M3.5x9	M2.5x6	T8/15
23.5	ATOGT110405R	AGP06-100	M3.5x9	M2.5x6	T8/15
24.0	ATOGT110405R	AGP06-100	M3.5x9	M2.5x6	T8/15
24.5	ATOGT110405R	AGP06-100	M3.5x9	M2.5x6	T8/15
25.0	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
25.5	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
26.0	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
26.5	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
27.0	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
27.5	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
28.0	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
28.5	ATOGT120405R	AGP06-120	M4x10	M2.5x6	T8/15
29.0	ATOGT130408R	AGP06-120	M5x11	M2.5x6	T8/20
29.5	ATOGT130408R	AGP06-120	M5x11	M2.5x6	T8/20
30.0	ATOGT130408R	AGP07	M5x11	M3x6.5	T8/20
30.5	ATOGT130408R	AGP07	M5x11	M3x6.5	T8/20
31.0	ATOGT130408R	AGP07	M5x11	M3x6.5	T8/20
31.5	ATOGT130408R	AGP07	M5x11	M3x6.5	T8/20
32.0	ATOGT130408R	AGP07	M5x11	M3x6.5	T8/20
32.5	ATOGT130408R	AGP07	M5x11	M3x6.5	T8/20
33.0	ATOGT140508R	AGP07	M5x13	M3x6.5	T8/20
33.0	ATOGT140508R	AGP07	M5x13	M3x6.5	T8/20

ADS

Deep Hole Drill Gun Drill Series

Inlaid knife particle gun drill

【Accessories (Single Blade TP Type)】



Size	Using a blade	Guiding pad	Blade screw	Pad screw	Wrench
14.0	ATPMX100206	AGP05-060	M2.5x5	M2.2x4.5	T7/T8
14.5	ATPMX100206	AGP05-060	M2.5x5	M2.2x4.5	T7/T8
15.0	ATPMX100206	AGP05-060	M2.5x6	M2.2x4.5	T7/T8
15.5	ATPMX100206	AGP05-060	M2.5x6	M2.2x4.5	T7/T8
16.0	ATPMX100206	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
16.5	ATPMX100206	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
17.0	ATPMX100206	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
17.5	ATPMX100206	AGP05-075	M2.5x6	M2.2x4.5	T7/T8
18.0	ATPMX1403RG	AGP06-085	M2.5x5.5	M2.5x5.5	T8
18.5	ATPMX1403RG	AGP06-085	M2.5x5.5	M2.5x5.5	T8
19.0	ATPMX1403RG	AGP06-085	M2.5x6.5	M2.5x6	T8
19.5	ATPMX1403RG	AGP06-085	M2.5x6.5	M2.5x6	T8
20.0	ATPMX1403RG	AGP06-085	M2.5x6.5	M2.5x6	T8
20.5	ATPMX1403RG	AGP06-085	M2.5x6.5	M2.5x6	T8
21.0	ATPMX1403RG	AGP06-085	M2.5x6.5	M2.5x6	T8
21.5	ATPMX1403RG	AGP06-085	M2.5x6.5	M2.5x6	T8
22.0	ATPMX1704RG	AGP06-100	M3.5x8.5	M2.5x6	T8/T15
22.5	ATPMX1704RG	AGP06-100	M3.5x8.5	M2.5x6	T8/T15
23.0	ATPMX1704RG	AGP06-100	M3.5x10	M2.5x6	T8/T15
23.5	ATPMX1704RG	AGP06-100	M3.5x10	M2.5x6	T8/T15
24.0	ATPMX1704RG	AGP06-100	M3.5x10	M2.5x6	T8/T15
24.5	ATPMX1704RG	AGP06-100	M3.5x10	M2.5x6	T8/T15
25.0	ATPMX1704RG	AGP06-120	M3.5x10	M2.5x6	T8/T15
25.5	ATPMX1704RG	AGP06-120	M3.5x10	M2.5x6	T8/T15
26.0	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
26.5	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
27.0	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
27.5	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
28.0	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
28.5	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
29.0	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
29.5	ATPMX2204RG	AGP06-120	M4x10	M2.5x6	T8/T15
30.0	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
30.5	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
31.0	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
31.5	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
32.0	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
32.5	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
33.0	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
33.5	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
34.0	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
34.5	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
35.0	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
35.5	ATPMX2405RG	AGP07	M4x12	M3x6.5	T8/T15
36.0	ATPMX2807RG	AGP07	M5x15	M3x6.5	T8/T20
36.5	ATPMX2807RG	AGP07	M5x15	M3x6.5	T8/T20
37.0	ATPMX2807RG	AGP07	M5x15	M3x6.5	T8/T20
37.5	ATPMX2807RG	AGP07	M5x15	M3x6.5	T8/T20
38.0	ATPMX2807RG	AGP07	M5x15	M3x6.5	T8/T20
38.5	ATPMX2807RG	AGP07	M5x15	M3x6.5	T8/T20
39.0	ATPMX2807RG	AGP08	M5x15	M3x8	T8/T20
39.5	ATPMX2807RG	AGP08	M5x15	M3x8	T8/T20
40.0	ATPMX2807RG	AGP08	M5x15	M3x8	T8/T20
40.5	ATPMX2807RG	AGp08	M5x15	M3x8	T8/T20

ADS

Deep Hole Drill Gun Drill Series

Inlaid knife particle gun drill

【Accessories (3-knife type)】

Size	Insert			Guiding pad	Insert screw	Pad screw
	Outer insert	Inner insert	Middle insert			
30.0	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x6.5	M3x6.5
30.0	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x6.5	M3x6.5
31.0	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x6.5	M3x6.5
32.0	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x6.5	M3x6.5
33.0	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x6.5	M3x6.5
34.0	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x6.5	M3x6.5
35.0	ANPHT 070404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x6.5	M3x6.5
36.0	ANPHT 070404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x6.5	M3x6.5
37.0	ANPHT 070404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x6.5	M3x6.5
38.0	ANPHT 090404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x6.5	M3x6.5
39.0	ANPHT 090404R	ANPMT 060404R	ANPMT 080408L	GP08	M2.5x6.5	M3x8
40.0	ANPHT 090404R	ANPMT 060404R	ANPMT 080408L	GP08	M2.5x6.5	M3x8
41.0	ANPHT 090404R	ANPMT 080404R	ANPMT 080408L	GP08	M2.5x6.5	M3x8
42.0	ANPHT 090404R	ANPMT 080404R	ANPMT 080408L	GP08	M2.5x6.5	M3x8
43.0	ANPHT 090404R	ANPMT 080404R	ANPMT 080408L	GP08	M2.5x6.5	M3x8
44.0	ANPHT 090404R	ANPMT 080404R	ANPMT 090408L	GP08	M2.5x6.5	M3x8
45.0	ANPHT 090404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
46.0	ANPHT 090404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
47.0	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
48.0	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
49.0	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
50.0	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
51.0	ANPHT 110404R	ANPMT 090404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
52.0	ANPHT 110404R	ANPMT 090404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
53.0	ANPHT 110404R	ANPMT 090404R	ANPMT 090408L	GPS-10	M2.5x6.5	M3.5x9
54.0	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-10	M2.5x6.5	M3.5x9
55.0	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-10	M2.5x6.5	M3.5x9
56.0	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
57.0	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
58.0	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
59.0	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
60.0	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
61.0	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
62.0	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
63.0	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
64.0	ANPHT 130404R	ANPMT 120404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9
65.0	ANPHT 130404R	ANPMT 120404R	ANPMT 120408L	GPS-12	M2.5x6.5	M3.5x9

ADS

Deep Hole Drill Gun Drill Series

BTA drill bits

BTA TOOLS/INDEXABLE TYPE

BTA deep hole drill bit is a focus on high efficiency, suitable for larger diameter hole processing of special drill bit using cutting fluid from the outside of the cutter head high pressure, iron filings from the inside of the tool holder discharge design mode in the processing because there is no iron filings with the processing hole wall scraping, the processed hole surface finish is high, high processing efficiency, and can be designed according to different processed materials and processing equipment to design a suitable cutter body and matching knife grains, the knife grain guide strip is easy to replace, in large machinery and equipment, petroleum, military, manufacturing and other wide fields have been widely used.

BTA TOOLS/BRAZEDINSERT TYPE

The welding knife type BTA deep hole drill bit focuses on the application field of processing hole diameter tolerance is more stringent, because the cutter body knife grain guide bar is welded as a whole, and then completed by fine grinding, the dimensional accuracy is much higher than that of the machine clamp type BTA drill bit, which is generally used in the subdivision field with stricter requirements for dimensional accuracy, and because the knife grain guide strip can not be used again after wear, the cost is higher, and it is generally used for the processing of small hole diameter.

ADS

Deep Hole Drill Gun Drill Series

BTA drill bits

【BTA Drill Pipe Matching Table】

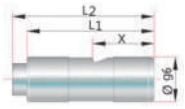
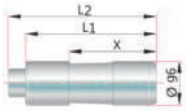
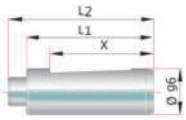
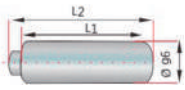
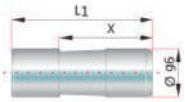
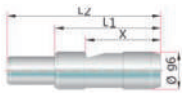
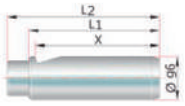
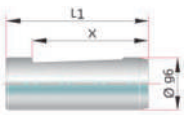
Size	Tube OD	Tube ID	Outer insert	Inner insert	Middle insert	Guiding pad	Insert screw	Pad screw	Wrench
25.0	22	14	ATOGT 120405R	ATOGT 120405R	ATOGT 120405R	Gp06	M4x10	M2.5x6	T7/T8
26.0	22	14	ATOGT 120405R	ATOGT 120405R	ATOGT 120405R	GP06	M4x10	M2.5x6	T7/T8
27.0	24	14	ATOGT 120405R	ATOGT 120405R	ATOGT 120405R	GP06	M4x10	M2.5x6	T7/T8
28.0	24	14	ATOGT 120405R	ATOGT 120405R	ATOGT 120405R	GP06	M4x10	M2.5x6	T7/T8
29.0	26	17	ATOGT 130408R	ATOGT 130408R	ATOGT 130408R	GP06	M5x11	M2.5x6	T7/T8
30.0	26	17	ATOGT 130408R	ATOGT 130408R	ATOGT 130408R	GP07	M5x11	M3x6.5	T8/10
31.0	28	18	ATOGT 130408R	ATOGT 130408R	ATOGT 130408R	GP07	M5x11	M3x6.5	T8/10
32.0	28	18	ATOGT 130408R	ATOGT 130408R	ATOGT 130408R	GP07	M5x11	M3x6.5	T8/10
33.0	28	18	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x8	M3x8	T8/10
34.0	30	19.5	ANPHT 070404R	ANPMT 060404R	ANPMT 060408L	GP07	M2.5x8	M3x8	T8/10
35.0	30	19.5	ANPHT 070404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x8	M3x8	T8/10
36.0	30	19.5	ANPHT 070404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x8	M3x8	T8/10
37.0	33	23	ANPHT 070404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x8	M3x8	T8/10
38.0	33	23	ANPHT 090404R	ANPMT 060404R	ANPMT 080408L	GP07	M2.5x8	M3x8	T8/10
39.0	33	23	ANPHT 090404R	ANPMT 060404R	ANPMT 080408L	GP08	M2.5x8	M3.5x8	T8/T10
40.0	36	25	ANPHT 090404R	ANPMT 060404R	ANPMT 080408L	GP08	M2.5x8	M3.5x8	T8/T10
41.0	36	25	ANPHT 090404R	ANPMT 080404R	ANPMT 080408L	GP08	M2.5x8	M3.5x8	T8/T10
42.0	36	25	ANPHT 090404R	ANPMT 080404R	ANPMT 080408L	GP08	M2.5x8	M3.5x8	T8/T10
43.0	39	28	ANPHT 090404R	ANPMT 080404R	ANPMT 080408L	GP08	M2.5x8	M3.5x8	T8/T10
44.0	39	28	ANPHT 090404R	ANPMT 080404R	ANPMT 090408L	GP08	M2.5x8	M3.5x8	T8/T10
45.0	39	28	ANPHT 090404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
46.0	39	28	ANPHT 090404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
47.0	43	31	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
48.0	43	31	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
49.0	43	31	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
50.0	43	31	ANPHT 110404R	ANPMT 080404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
51.0	43	31	ANPHT 110404R	ANPMT 090404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
52.0	47	35	ANPHT 110404R	ANPMT 090404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
53.0	47	35	ANPHT 110404R	ANPMT 090404R	ANPMT 090408L	GPS-10	M2.5x8	M3.5x8	T8/T15
54.0	47	35	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-10	M2.5x8	M3.5x8	T8/T15
55.0	47	35	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-10	M2.5x8	M3.5x8	T8/T15
56.0	47	35	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-10	M2.5x8	M3.5x8	T8/T15
57.0	51	39	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
58.0	51	39	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
59.0	51	39	ANPHT 110404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
60.0	51	39	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
61.0	51	39	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
62.0	51	39	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
63.0	51	39	ANPHT 130404R	ANPMT 090404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
64.0	51	39	ANPHT 130404R	ANPMT 120404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15
65.0	56	42.9	ANPHT 130404R	ANPMT 120404R	ANPMT 120408L	GPS-12	M2.5x8	M3.5x8	T8/T15

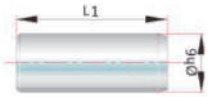
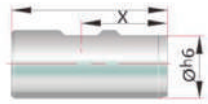
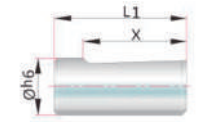
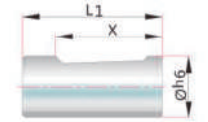
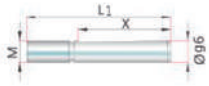
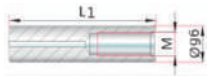
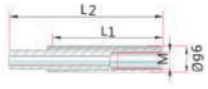
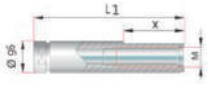
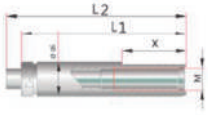
ADS

Deep Hole Drill Gun Drill Series

Gun drill handles

【Drivers】

No.	Diagram	Size	L1	L2	X	Drill range
ADSR001		16 x 50	50	58	22	2.0-13.0
ADSR002		25 x 70	70	78	34	2.0-20.0
ADSR003		12.7 x 38.1	38.1	46.1	25.4	8.0-13.0
ADSR004		19.05x70	70	78	34	15.0-20.0
ADSRO05		25x70	70	78	34	2.0-20.0
ADSR006		25.4x70	70	78	57.1	20.0-25.0
ADSR007		31.75x70	70	78	57.1	26.0-30.0
ADSR008		38.1x70	70	78	57.1	30.0-40.0
ADSR009		25x70	70	78	57.1	2.0-25.0
ADSR010		25 x70	70	78	-	3.0-25.0
ADSR011		12.7 x 38.1	38.1	-	25.4	2.0-9.0
ADSRO12		19.05x70	70	-	44.4	2.0-15.0
ADSR013		25 x70	70	-	44.4	2.0-20.0
ADSR014		10 x40	40	48	25	7.0-10.0
ADSR015		16 x 45	45	53	31	11.0-15.0
ADSR016		16 x50	50	58	32	11.0-15.0
ADSR017		16 x 50	50	58	47.5	2.0-10.0
ADSR018		25.4x70	70	-	57.1	2.0-20.0
ADSR019		31.75x70	70	-	57.1	2.0-25.0
ADSR020		38.1x70	70	-	57.1	2.0-32.0
ADSRO21		25 x70	70	-	57.1	2.0-25.0

No.	Diagram	Size	L1	L2	X	Drill range
ADSR022-1		50	-	-	-	2.0-12.0
ADSR022-2		45	-	-	-	2.0-12.0
ADSR022		48	-	-	-	2.0-12.0
ADSR023		50	-	-	-	2.0-15.0
ADSR024		70	-	-	-	2.0-20.0
ADSR025		60	-	-	-	2.0-26.0
ADSR026		40	-	20	-	2.0-7.0
ADSR027		45	-	22.5	-	2.0-8.0
ADSR028		48	-	24	-	2.0-12.0
ADSR029		50	-	25	-	2.0-15.0
ADSR030		56	-	32	-	2.0-20.0
ADSR031		60	-	36	-	2.0-26.0
ADSR032		70	-	40	-	2.0-30.0
ADSR033		40	-	28	-	2.0-7.0
ADSR034		45	-	33	-	2.0-8.0
ADSR035		48	-	36	-	2.0-12.0
ADSR036		70	-	38	-	2.0-15.0
ADSR037		56	-	44	-	2.0-20.0
ADSR038		60	-	48	-	2.0-26.0
ADSR039		40	-	28	-	2.0-7.0
ADSR040		45	-	33	-	2.0-8.0
ADSR041		48	-	36	-	2.0-12.0
ADSR042		50	-	38	-	2.0-15.0
ADSR043		56	-	44	-	2.0-20.0
ADSR044		112	-	72	TR16x1.5	2.0-12.0
ADSR045		126	-	81	TR20x2	2.0-15.0
ADSR046		126	-	24	TR28x2	2.0-24.0
ADSR047		162	-	25	TR36x2	2.0-27.0
ADSR048		60	-	-	M6x0.5	2.0-7.0
ADSR049		80	-	-	M10x1	2.0-12.0
ADSR050		100	-	-	M16x1.5	2.0-20.0
ADSR051		80	80	-	M10x1	12.0-15.0
ADSR052		100	100	-	M16x1.5	20.0-25.0
ADSR053		68	-	35	M6 x 0.5	2.0-7.0
ADSR054		90	-	37	M10x1	2.0-12.0
ADSR055		112	-	45	M16 x1.5	2.0-19.0
ADSR056		68	68	35	M6 x 0.5	7.0-10.0
ADSR057		90	90	37	M10x1	12.0-15.0
ADSR058		112	112	45	M16 x 1.5	20.0-25.0

AMMATO (Guangzhou) Technology Co.,Ltd

ADS

Deep Hole Drill Gun Drill Series

Inlaid knife particle gun drill

Company name: _____ Use the device: _____

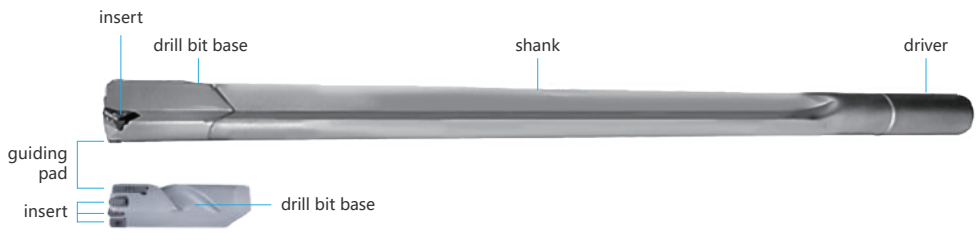
Delivery address: _____ Processed materials: _____

Name, phone number: _____ Purchase order: _____

Knife gun drill (external chip evacuation): ☐ Single Grain/TO ☐ Single-knife TP model ☐ Three-grain/spiral ☐ Three-knife/ heart-shaped

BTA drill bit: ☐ Machine clamping knife granules ☐ Welding knife type ☐ Jet suction drill bit

Model	Drill bit range	Length	V-groove length	Shank specifications	Type of coating	Quantity	Delivery date
No.	D	L	L3	d*L1			



☐ Inlaid knife particle gun drill ☐ BTA drill bits

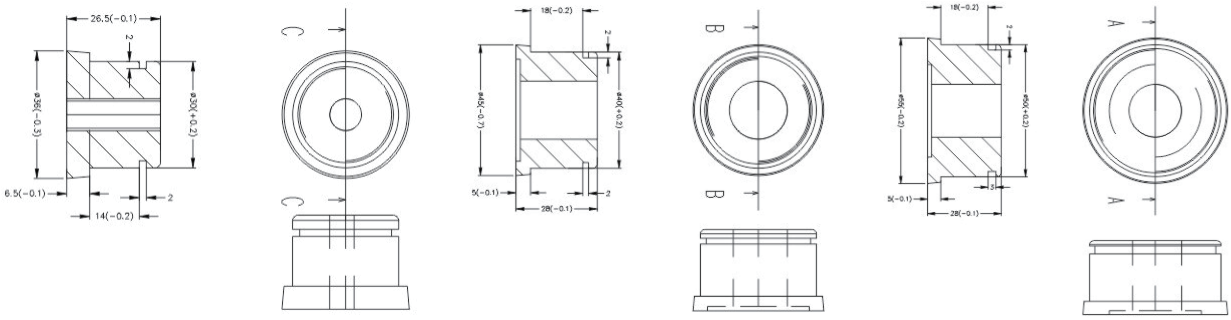
☐ Secondary rewelding/repair gun drills Remark: _____

After determining the model, specification and quantity, our company will provide quotation/delivery time.

Date: Sign:

ADS

Deep Hole Drill Gun Drill Series



Glue guide sleeve with drawings

The accuracy of the guide sleeve and guide hole directly affects the accuracy of the hole and the service life of the gun drill, so it is recommended to use the special guide sleeve and support sleeve provided by **AMMATO®**.

ADS

Deep Hole Drill Gun Drill Series

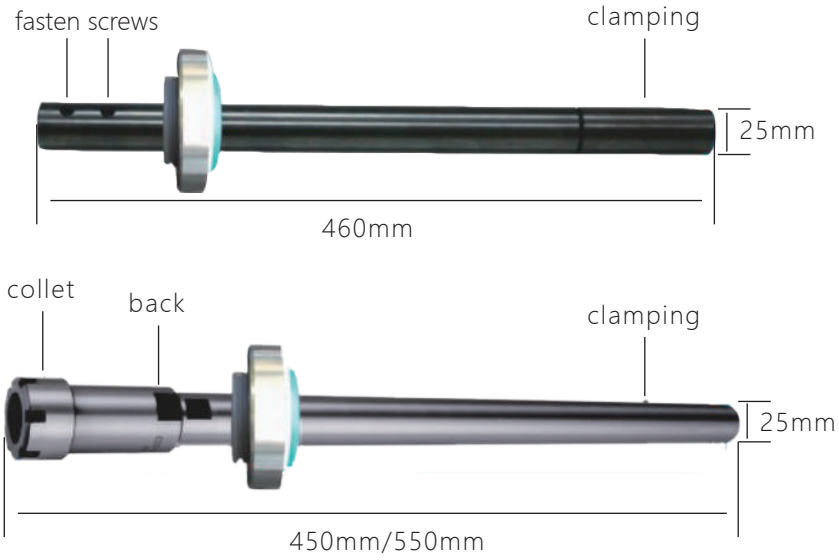
Fittings

Glue guide sleeve with drawings

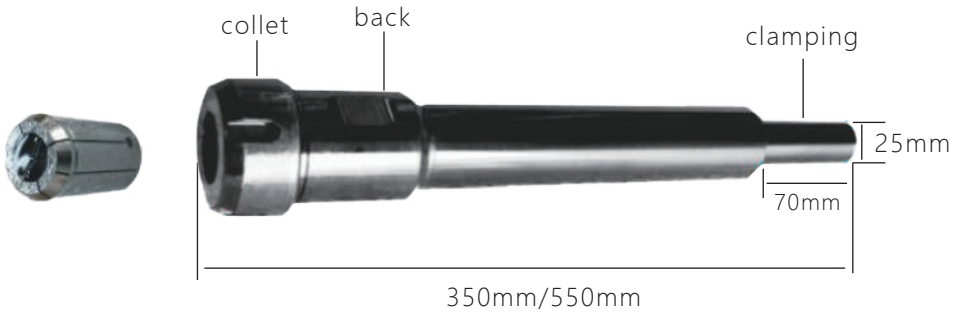
The gun drill does not have the self-centering function at the beginning of processing, and the gun drill must be helped to complete about 1.5D of the initial hole processing with the help of guide sleeve or machining guide hole, and the accuracy of the guide sleeve and the guide hole directly affects the accuracy of the hole processing hole and the service life of the drilling, so it is recommended to use the special guide sleeve and support provided by **AMMATO®**.

ADS

Deep Hole Drill Gun Drill Series



The above two extensions are specially developed by **AMMATO®** for small size gun drills. It shortens the length of the shank of the small-gauge gun drill, and moves the spindle oil pressure to the direction of the cutter head by 350-500 or even longer, so as to ensure that the small-gauge gun drill can also be fed at high speed without poor chip evacuation. The application of the extension rod greatly enhances the rigidity of the support, and the clamping is simpler and more economical. Shuangli has a certain amount of small-sized short gun drills (including superhard gun drills) in stock, which can also be effectively overcome for superhard materials with a hardness (HRC) of 48-52 degrees.



This extension rod is used for shallow holes with large short guns and when the length of the gun drill is not enough when machining long and deep holes.

2-Flute Long Neck Square End Mill

Work		Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.		Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ0.1	0.5	48600	348	004	0.043	42750	255	0.003	0.038	40050	208	0.003	0.033
	0.75	45800	325	0.0035	0.043	38930	273	0.003	0.038	34350	200	0.003	0.033
Φ0.15	0.5	40000	380	0.015	0.064	34000	323	0.012	0.056	30000	285	0.011	0.049
	0.75	40000	360	0.01	0.064	34000	306	0.008	0.056	30000	270	0.008	0.049
	1	39200	340	0.008	0.064	33320	289	0.006	0.056	29400	255	0.006	0.049
	1.5	38500	320	0.005	0.064	32725	272	0.004	0.056	28875	240	0.004	0.049
Φ0.2	0.5	38250	403	0.02	0.085	33750	301	0.016	0.075	31500	242	0.015	0.065
	1	38250	403	0.014	0.085	33750	301	0.011	0.075	31500	242	0.011	0.065
	1.5	34425	362	0.008	0.085	30375	271	0.006	0.075	28350	218	0.006	0.065
	2	30600	286	0.005	0.085	27000	214	0.004	0.075	25200	172	0.004	0.065
Φ0.3	0.5	36000	380	0.025	0.128	30600	323	0.020	0.113	27000	285	0.019	0.098
	1	34000	358	0.021	0.128	30000	267	0.017	0.113	28000	216	0.016	0.098
	1.5	34000	358	0.021	0.128	30000	267	0.017	0.113	28000	216	0.016	0.098
	2	30600	322	0.012	0.128	27000	241	0.010	0.113	25200	194	0.009	0.098
	3	30600	322	0.008	0.128	27000	241	0.006	0.113	22400	194	0.006	0.098
Φ0.4	1	27200	446	0.04	0.170	24000	333	0.032	0.150	22400	268	0.030	0.130
	1.5	27200	446	0.028	0.170	24000	333	0.022	0.150	22400	268	0.021	0.130
	2	27200	446	0.028	0.170	24000	333	0.022	0.150	20160	268	0.021	0.130
	3	24480	401	0.016	0.170	21600	299	0.013	0.150	20160	241	0.012	0.130
	4	24480	401	0.01	0.170	21600	299	0.008	0.150	20160	241	0.008	0.130
Φ0.5	1	27200	535	0.05	0.213	24000	333	0.040	0.188	22400	268	0.038	0.163
	2	27200	535	0.035	0.213	24000	333	0.028	0.188	22400	268	0.026	0.163
	3	24480	441	0.02	0.213	21600	299	0.016	0.188	20160	241	0.015	0.163
	4	24480	401	0.02	0.213	21600	299	0.016	0.188	20160	241	0.015	0.163
	5	24480	401	0.013	0.213	21600	299	0.010	0.188	20160	241	0.010	0.163
	6	21760	260	0.013	0.213	19200	230	0.010	0.188	17920	181	0.010	0.163
Φ0.6	2	27200	636	0.042	0.255	24000	475	0.034	0.225	22400	383	0.032	0.195
	3	24480	573	0.035	0.255	21600	428	0.028	0.225	20160	345	0.026	0.195
	4	24480	573	0.024	0.255	21600	428	0.019	0.225	20160	345	0.018	0.195
	5	24480	573	0.02	0.255	21600	428	0.016	0.225	20160	345	0.015	0.195
	6	24480	573	0.015	0.255	21600	428	0.012	0.225	20160	345	0.011	0.195
	8	21760	372	0.015	0.255	19200	328	0.012	0.225	17920	258	0.011	0.195
	10	21760	372	0.009	0.255	19200	328	0.007	0.225	17920	258	0.007	0.195
Φ0.7	2	27200	636	0.07	0.298	24000	475	0.056	0.263	22400	384	0.053	0.228
	3	27200	636	0.07	0.298	24000	475	0.056	0.263	22400	384	0.053	0.228
	4	24480	573	0.049	0.298	21600	428	0.039	0.263	20160	345	0.037	0.228
	5	24480	573	0.018	0.298	21600	428	0.014	0.263	20160	345	0.014	0.228
	6	22380	485	0.015	0.298	19023	410	0.012	0.263	19023	320	0.011	0.228
	7	22380	485	0.015	0.298	19023	410	0.012	0.263	19023	320	0.011	0.228

2-Flute Long Neck Square End Mill

Work		Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.		Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ0.1	2	27200	780	0.08	0.340	24000	688	0.064	0.3	22400	422	0.060	0.260
	3	27200	780	0.08	0.340	24000	688	0.064	0.3	22400	422	0.060	0.260
	4	27200	780	0.056	0.340	24000	688	0.045	0.3	22400	422	0.042	0.260
	5	27200	780	0.056	0.340	24000	688	0.045	0.3	22400	422	0.042	0.260
	6	24480	678	0.032	0.340	24000	665	0.026	0.3	20160	379	0.024	0.260
	8	24480	573	0.02	0.340	21600	428	0.016	0.3	20160	345	0.015	0.260
	10	21760	372	0.02	0.340	19200	328	0.016	0.3	17920	258	0.015	0.260
	12	21760	372	0.012	0.340	19200	328	0.010	0.3	17920	258	0.009	0.260

4-Flute Long Neck Square End Mill

Work		Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.		Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ0.1	4	25000	1700	0.055	0.6	22000	1100	0.045	0.6	18700	800	0.032	0.6
	6	20000	1200	0.045	0.6	18000	750	0.035	0.6	15300	600	0.025	0.6
	8	18000	1050	0.035	0.6	15000	600	0.025	0.6	12800	500	0.018	0.6
	10	16000	900	0.025	0.6	14000	520	0.018	0.6	11900	400	0.013	0.6
Φ0.1	6	20000	1800	0.08	0.9	16000	1100	0.07	0.9	13600	800	0.049	0.9
	8	18000	1500	0.07	0.9	14000	900	0.06	0.9	11900	700	0.42	0.9
	10	16000	1300	0.06	0.9	13000	780	0.05	0.9	11100	600	0.035	0.9
	12	14000	1050	0.05	0.9	12000	670	0.04	0.9	10200	500	0.028	0.9
Φ0.1	8	16000	2000	0.11	1.2	13000	1200	0.09	1.2	11100	900	0.063	1.2
	10	16000	1800	0.1	1.2	13000	1100	0.08	1.2	11100	800	0.056	1.2
	12	14000	1500	0.09	1.2	12000	1000	0.07	1.2	10200	800	0.049	1.2
	16	12000	1200	0.07	1.2	10000	750	0.05	1.2	8500	600	0.035	1.2
Φ0.1	10	11000	2150	0.18	1.8	9000	1350	0.14	1.8	7700	1000	0.098	1.8
	12	11000	2000	0.16	1.8	9000	1200	0.12	1.8	7700	900	0.084	1.8
	16	10000	1500	0.12	1.8	8000	900	0.09	1.8	6800	700	0.063	1.8
	20	9000	1200	01	1.8	7000	680	0.07	1.8	6000	500	0.049	1.8
	25	8000	1050	008	1.8	6000	570	0.06	1.8	5100	400	0.042	1.8
Φ0.1	12	8000	2200	0.3	2.4	6000	1300	0.25	2.4	5100	1000	0.175	2.4
	16	8000	2100	0.25	2.4	6000	1200	0.5	2.4	5100	900	0.140	2.4
	20	8000	2000	0.2	2.4	6000	1100	0.15	2.4	5100	800	0.105	2.4
	25	7000	1700	0.15	2.4	5000	900	0.1	2.4	4300	700	0.070	2.4
	30	7000	1500	0.12	2.4	5000	800	0.08	2.4	4300	600	0.056	2.4

2-Flute Long Neck Ball End Mill

Work		Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.		Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ0.1	0.5	50000	350	0.015	0.014	45500	270	0.013	0.011	42000	210	0.012	0.009
	1	50000	350	0.011	0.012	45500	270	0.010	0.010	42000	210	0.009	0.008
	1.5	48600	315	0.007	0.008	40500	210	0.006	0.007	37800	170	0.006	0.006
	2	48600	315	0.005	0.006	40500	210	0.005	0.005	37800	170	0.004	0.004
Φ0.15	1	50000	450	0.016	0.016	45000	380	0.014	0.013	42000	336	0.012	0.011
	1.5	50000	450	0.012	0.014	45000	380	0.010	0.012	42000	336	0.009	0.010
	2	48600	370	0.009	0.012	40500	310	0.008	0.010	37800	272	0.007	0.008
	3	48600	370	0.006	0.008	40500	310	0.005	0.007	37800	272	0.004	0.006
Φ0.2	1	40000	450	0.04	0.024	36000	360	0.034	0.020	33600	336	0.030	0.017
	1.5	40000	450	0.034	0.024	36000	360	0.028	0.020	33600	336	0.030	0.017
	2	40000	450	0.028	0.016	36000	360	0.024	0.013	33600	336	0.021	0.011
	3	36700	360	0.011	0.016	32400	290	0.010	0.013	30240	272	0.009	0.011
	4	36700	360	0.005	0.012	32400	290	0.005	0.010	30240	272	0.004	0.008
Φ0.3	1	34000	610	0.045	0.024	30000	540	0.040	0.020	28000	476	0.003	0.017
	2	34000	610	0.035	0.024	30000	540	0.030	0.020	28000	476	0.027	0.017
	3	30600	490	0.03	0.024	27000	430	0.025	0.020	25200	386	0.023	0.017
	4	30600	490	0.02	0.024	27000	430	0.017	0.020	25200	386	0.015	0.017
	5	30600	490	0.018	0.016	24000	430	0.015	0.013	25200	386	0.014	0.011
	6	27200	410	0.007	0.016	24000	360	0.006	0.013	22400	324	0.005	0.011
Φ0.4	2	34000	880	0.042	0.028	30000	720	0.040	0.023	28000	560	0.030	0.019
	3	34000	880	0.034	0.028	30000	720	0.030	0.023	28000	560	0.026	0.019
	4	30600	750	0.024	0.024	27000	610	0.020	0.020	25200	479	0.018	0.017
	5	30600	710	0.02	0.024	27000	580	0.017	0.020	25200	454	0.015	0.017
	6	30600	710	0.015	0.020	27000	580	0.013	0.016	25200	454	0.010	0.014
	8	27200	600	0.008	0.020	24000	490	0.007	0.016	22400	381	0.006	0.014
	10	23800	520	0.005	0.016	21000	420	0.005	0.013	19600	333	0.004	0.011

2-Flute Long Neck Ball End Mill

Work		Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.		Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ0.1	2	34000	1088	0.08	0.040	30000	900	0.068	0.033	28000	784	0.060	0.028
	3	34000	1088	0.065	0.040	30000	900	0.055	0.033	28000	784	0.050	0.028
	4	34000	1088	0.056	0.032	30000	900	0.046	0.026	28000	784	0.040	0.022
	5	30600	881	0.045	0.032	27000	729	0.038	0.026	25200	635	0.034	0.022
	6	30600	881	0.032	0.032	27000	729	0.028	0.026	25200	635	0.024	0.022
	8	27200	783	0.02	0.028	24000	648	0.017	0.023	22400	564	0.015	0.019
	10	27200	740	0.01	0.028	24000	612	0.008	0.023	22400	533	0.008	0.019
	12	27000	680	0.005	0.024	24000	580	0.004	0.020	22400	533	0.004	0.017
Φ0.15	4	20000	1800	0.1	0.05	20000	1500	0.08	0.12	14000	1200	0.06	0.1
	6	20000	1500	0.1	0.05	20000	1200	0.07	0.12	14000	1000	0.05	0.085
	8	20000	1200	0.05	0.05	20000	1000	0.05	0.08	14000	800	0.035	0.055
	10	20000	1000	0.03	0.05	20000	850	0.03	0.05	14000	560	0.02	0.035
Φ0.2	6	20000	2400	0.1	0.05	20000	1920	0.08	0.04	14000	1680	0.05	0.03
	8	20000	2400	0.1	0.05	20000	1920	0.08	0.04	14000	1680	0.05	0.03
	10	18000	1800	0.08	0.05	18000	1440	0.064	0.04	12000	1260	0.04	0.03
	12	18000	1200	0.07	0.04	18000	960	0.056	0.032	12000	840	0.035	0.024
Φ0.3	6	20000	3000	0.1	0.07	20000	2460	0.08	0.056	14000	2100	0.06	0.042
	8	16000	2500	0.1	0.07	16000	2050	0.08	0.056	11200	1750	0.06	0.042
	10	16000	2500	0.08	0.06	16000	2050	0.064	0.048	11200	1750	0.048	0.036
	12	12000	1800	0.08	0.06	12000	1476	0.064	0.048	8400	1260	0.048	0.036
	16	10000	1600	0.07	0.05	10000	1312	0.056	0.04	7000	1120	0.042	0.03
Φ0.4	10	16000	4000	0.1	0.06	12800	3200	0.08	0.05	11200	2800	0.06	0.04
	12	16000	3000	0.1	0.06	12800	2400	0.08	0.05	11200	2100	0.06	0.04
	16	16000	1800	0.08	0.06	12800	1440	0.06	0.05	11200	1260	0.05	0.04
	20	12000	1200	0.08	0.06	9600	960	0.06	0.05	8400	840	0.05	0.04
	25	10000	1000	0.07	0.05	7200	800	0.01	0.04	6600	720	0.08	0.04
Φ0.3	12	16000	4000	0.1	0.1	12800	3200	0.08	0.07	9600	2400	0.06	0.06
	16	16000	3500	0.1	0.08	12800	2800	0.08	0.06	9600	2100	0.06	0.05
	20	14000	3300	0.08	0.08	11200	2640	0.06	0.06	8400	1980	0.05	0.05
	25	12000	2600	0.08	0.06	9600	2080	0.06	0.05	7200	1560	0.05	0.04
	30	12000	2600	0.06	0.06	9600	2080	0.05	0.05	7200	1560	0.04	0.04

2-Flute Long Neck Corner Radius End Mill

Work		Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.		Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ0.3	1	50000	456	0.021	0.034	50000	336	0.018	0.029	50000	320	0.016	0.025
	1.5	45000	456	0.016	0.034	45000	336	0.014	0.029	45000	320	0.012	0.025
	2	45000	420	0.012	0.034	45000	300	0.010	0.029	45000	290	0.009	0.025
	3	35000	336	0.008	0.034	30000	200	0.007	0.029	30000	194	0.006	0.025
Φ0.4	1	50000	461	0.025	0.042	40000	320	0.022	0.036	36000	270	0.020	0.031
	1.5	50000	461	0.02	0.042	40000	320	0.017	0.036	36000	270	0.015	0.031
	2	45000	410	0.016	0.042	36000	290	0.014	0.036	34000	240	0.012	0.031
	3	40000	330	0.014	0.042	32800	240	0.012	0.036	25600	200	0.010	0.031
	4	30000	250	0.008	0.042	21600	160	0.007	0.036	19200	150	0.006	0.031
Φ0.5	1	40000	464	0.03	0.053	30000	378	0.003	0.046	28000	315	0.020	0.039
	2	40000	464	0.023	0.053	30000	378	0.002	0.046	28000	315	0.018	0.039
	3	36000	414	0.017	0.053	27000	315	0.014	0.046	24500	261	0.013	0.039
	4	32000	378	0.017	0.053	24000	279	0.015	0.046	20000	234	0.013	0.039
	5	19400	280	0.011	0.053	18000	250	0.010	0.046	15000	200	0.008	0.039
	6	19400	260	0.008	0.053	18000	250	0.007	0.046	15000	200	0.006	0.039
Φ0.6	2	37830	600	0.040	0.060	30264	510	0.034	0.052	28372	450	0.03	0.044
	3	37830	440	0.030	0.060	30264	374	0.026	0.052	28372	330	0.022	0.044
	4	27800	440	0.030	0.060	23630	374	0.026	0.052	20850	330	0.022	0.044
	5	27800	300	0.020	0.060	23630	422	0.017	0.052	20850	225	0.015	0.044
	6	18000	300	0.020	0.060	15300	410	0.017	0.052	13500	225	0.015	0.044
	8	18000	285	0.015	0.060	15300	242	0.013	0.052	13500	213	0.011	0.044
	10	18000	276	0.015	0.060	15300	235	0.013	0.052	13500	207	0.011	0.044
Φ0.8	2	35200	506	0.030	0.075	29920	430	0.026	0.065	26400	380	0.020	0.055
	3	35000	506	0.026	0.075	29750	430	0.022	0.065	26250	380	0.020	0.055
	4	34600	480	0.024	0.075	29410	408	0.020	0.065	25950	360	0.018	0.055
	5	33800	478	0.020	0.075	28730	400	0.017	0.065	25350	358	0.015	0.055
	6	33000	420	0.018	0.075	28050	357	0.015	0.065	24750	315	0.014	0.055
	8	26800	420	0.015	0.075	22780	357	0.013	0.065	20100	315	0.011	0.055
	10	16800	380	0.013	0.075	14280	323	0.011	0.065	12600	285	0.011	0.055
	12	16800	380	0.012	0.075	14280	323	0010	0.065	12600	285	0.009	0.055

4-Flute Long Neck Corner Radius End Mill

Work		Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.		Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ1	4	25000	1200	0.03	0.036	25000	960	0.033	0.03	20000	840	0.03	0.03
	6	25000	1000	0.02	0.036	25000	800	0.022	0.03	20000	700	0.02	0.03
	8	20000	900	0.015	0.03	18000	720	0.017	0.025	16000	630	0.015	0.025
	10	18000	800	0.01	0.024	16000	640	0.011	0.02	14000	560	0.01	0.02
Φ1.5	6	20000	1200	0.02	0.048	18000	960	0.022	0.04	14000	840	0.02	0.04
	8	20000	1000	0.02	0.048	18000	800	0.022	0.04	14000	700	0.02	0.04
	10	20000	1000	0.015	0.036	18000	800	0.017	0.03	14000	700	0.015	0.03
	12	20000	800	0.015	0.036	18000	640	0.017	0.03	14000	560	0.015	0.03
Φ2	8	20000	1600	0.03	0.048	16000	1280	0.033	0.04	12000	1120	0.03	0.04
	10	20000	1400	0.03	0.048	16000	1120	0.033	0.04	12000	980	0.03	0.04
	12	20000	1200	0.02	0.036	16000	960	0.022	0.03	12000	840	0.02	0.03
	16	20000	1000	0.015	0.036	16000	800	0.017	0.03	12000	700	0.015	0.03
Φ3	10	18000	2000	0.03	0.06	10000	1600	0.033	0.05	8500	1400	0.03	0.05
	12	18000	1600	0.03	0.06	9600	1280	0.033	0.05	8000	1120	0.03	0.05
	16	16000	1200	0.02	0.048	8000	960	0.022	0.04	7000	840	0.02	0.04
	20	16000	800	0.02	0.036	8000	640	0.022	0.03	7000	560	0.02	0.03
	25	15000	600	0.015	0.03	7200	480	0.017	0.025	6500	420	0.015	0.025
Φ4	12	9000	1600	0.04	0.06	7000	1280	0.044	0.05	5000	1120	0.04	0.05
	16	8000	1200	0.03	0.06	6400	960	0.033	0.05	4400	840	0.03	0.05
	20	7500	800	0.02	0.048	6000	640	0.022	0.04	4000	560	0.02	0.04
	25	7000	600	0.02	0.048	5600	480	0.022	0.04	3600	450	0.02	0.04
	30	5000	400	0.02	0.036	3800	320	0.022	0.03	2800	280	0.02	0.03

4-Flute Sqoare End Mill

Work	Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ1	15000	250	2	0.05	13200	200	2	0.03	12000	200	2	0.03
Φ1.5	12000	300	3	0.05	11000	250	3	0.03	10000	250	3	0.03
Φ2	10000	350	4	0.05	9350	300	4	0.04	8500	300	4	0.04
Φ2.5	8500	400	5	0.05	7700	350	5	0.04	7000	350	5	0.04
Φ3	7500	450	6	0.05	5500	400	6	0.04	5000	400	6	0.04
Φ4	5800	550	8	0.05	4400	440	8	0.04	4000	440	8	0.04
Φ5	5000	580	10	0.1	4180	480	10	0.04	3800	480	10	0.04
Φ6	4500	600	12	0.1	3740	500	12	0.05	3400	500	12	0.05
Φ8	3800	600	16	0.1	3080	530	16	0.05	2800	530	16	0.05
Φ10	3500	550	20	0.1	2750	500	20	0.05	2500	500	20	0.05
Φ12	2800	500	24	0.1	2420	450	24	0.05	2200	450	24	0.05
Φ14	2500	500	28	0.1	2200	400	28	0.05	2000	400	28	0.05
Φ16	2200	450	32	0.1	1980	400	32	0.05	1800	400	32	0.05
Φ20	2000	400	40	0.1	1650	350	40	0.05	1500	350	40	0.05

4-Flute Sqoare End Mill

Work	Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ1	19800	1200	0.05	0.7	18000	1000	0.05	0.7	12000	900	0.03	0.7
Φ1.5	16500	1440	0.05	1.05	15000	1200	0.05	1.05	10000	1080	0.03	1.05
Φ2	13750	1800	0.1	1.5	12500	1500	0.05	15	8500	1350	0.04	1.5
Φ2.5	11000	2400	0.1	1.75	10000	2000	0.05	1.75	7000	1800	0.04	1.75
Φ3	8800	2400	0.1	2.1	8000	2000	0.05	2.1	5000	1800	0.04	2.1
Φ4	7150	2400	0.1	2.8	6500	2000	0.05	2.8	4000	1800	0.04	2.8
Φ5	6600	1800	0.1	3.5	6000	1500	0.1	3.5	3800	1350	0.04	3.5
Φ6	5500	1440	0.1	4.2	5000	1200	0.1	4.2	3400	1080	0.05	4.2
Φ8	4950	1440	0.2	5.6	4500	1200	0.1	5.6	2800	1080	0.05	5.6
Φ10	4400	1200	0.2	7	4000	1000	0.1	7	2500	900	0.05	7
Φ12	3850	1200	0.2	8.4	3500	1000	0.1	8.4	2200	900	0.05	8.4
Φ14	3300	1200	0.2	9.6	3000	1000	0.1	9.6	2000	900	0.05	9.6
Φ16	3080	1200	0.2	11.2	2800	1000	0.1	11.2	1800	900	0.05	11.2
Φ20	2750	1200	0.2	14	2500	1000	0.1	14	1500	900	0.05	14

6-Flute Sqoare End Mill

Work	Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ6	4500	2420	15	0.2	4000	870	15	0.1	3200	700	15	0.1
Φ8	4000	2400	18	0.2	3500	900	18	0.1	2800	700	18	0.1
Φ10	3500	2300	25	0.2	2800	850	25	0.1	2240	680	25	0.1
Φ12	3000	2000	30	0.2	2500	800	30	0.1	2000	650	30	0.1
Φ16	2400	2000	35	0.2	2200	750	35	0.1	1760	650	35	0.1
Φ20	2200	1800	40	0.2	2000	700	40	0.1	1600	600	40	0.1

4-Flute Ball End Mill

Work	Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ0.4	28000	600	0.03	0.03	28000	600	0.02	0.03	26600	600	0.03	0.03
Φ0.5	25000	720	0.03	0.03	25000	720	0.02	0.03	23750	720	0.03	0.03
Φ0.6	22000	800	0.03	0.03	22000	800	0.03	0.03	20900	800	0.03	0.03
Φ0.8	20000	1000	0.03	0.03	20000	1000	0.03	0.04	19000	1000	0.03	0.03
Φ1	18000	1200	0.03	0.05	18000	1200	0.03	0.04	17100	1200	0.03	0.05
Φ1.5	16000	1500	0.03	0.05	16000	1500	0.04	0.05	15200	1500	0.03	0.05
Φ2	14800	1560	0.04	0.06	14800	1560	0.04	0.06	14060	1560	0.04	0.06
Φ2.5	14400	1680	0.04	0.06	14400	1680	0.04	0.08	13680	1680	0.04	0.06
Φ3	13000	2000	0.05	0.08	13000	2000	0.04	0.08	12350	2000	0.05	0.08
Φ4	12000	2400	0.05	0.1	12000	2400	0.05	0.1	11400	2400	0.05	0.1
Φ5	10000	2500	0.05	0.1	10000	2500	0.05	0.1	9500	2500	0.05	0.1
Φ6	9000	2800	0.05	0.15	9000	2800	0.05	0.12	8550	2800	0.05	0.15
Φ8	8000	3000	0.05	0.2	8000	3000	0.05	0.15	7600	3000	0.05	0.2
Φ10	7200	3000	0.08	0.25	7200	3000	0.08	0.2	6840	3000	0.08	0.25
Φ12	6400	3000	0.1	0.25	6400	3000	0.08	0.25	6080	3000	0.1	0.25
Φ16	6000	3600	0.1	0.3	6000	3600	0.1	0.25	5700	3600	0.1	0.3

4-Flute Short Corner Radius End Mill

Work	Carebon Steels、Alloy Steels (HRC < 35)				Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ1	14036	726	0.05	0.03	12760	660	0.05	0.03	12760	660	0.05	0.03	9000	500	0.03	0.03
Φ1.5	11495	968	0.05	0.03	10450	880	0.05	0.03	10450	880	0.05	0.03	8800	600	0.03	0.03
Φ2	10890	1815	0.1	0.05	9900	1650	0.1	0.05	9900	1650	0.1	0.05	8500	1000	0.03	0.03
Φ3	10285	2420	0.1	0.05	9350	2200	0.1	0.05	9350	2200	0.1	0.05	8000	1200	0.04	0.04
Φ4	9680	2420	0.2	0.05	8800	2200	0.2	0.05	8800	2200	0.2	0.05	7200	1500	0.05	0.04
Φ6	7260	3025	0.2	0.08	6600	2750	0.2	0.08	6600	2750	0.2	0.08	4500	2000	0.1	0.05
Φ8	6050	3630	0.2	0.1	5500	3300	0.2	0.1	5500	3300	0.2	0.1	3600	2500	0.1	0.05
Φ10	5440	3630	0.2	0.1	4950	3300	0.2	0.1	4950	3300	0.2	0.1	2800	2500	0.2	0.05
Φ12	4840	3630	0.2	0.1	4400	3300	0.2	0.1	4400	3300	0.2	0.1	2400	2000	0.2	0.05

4-Flute Corner Radius End Mill-Side Milling

Work	Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ1	12760	660	0.05	0.03	11600	600	0.05	0.03	9000	500	0.03	0.03
Φ1.5	10450	880	0.05	0.03	9500	800	0.05	0.03	8800	600	0.03	0.03
Φ2	9900	1650	0.1	0.05	9000	1500	0.1	0.05	8500	1000	0.03	0.03
Φ3	9350	2200	0.1	0.05	8500	2000	0.1	0.05	8000	1200	0.04	0.04
Φ4	8800	2200	0.2	0.05	8000	2000	0.2	0.05	7200	1500	0.05	0.04
Φ6	6600	2750	0.2	0.08	6000	2500	0.2	0.08	4500	2000	0.1	0.05
Φ8	5500	3300	0.2	0.1	5000	3000	0.2	0.1	3600	2500	0.1	0.05
Φ10	4950	3300	0.2	0.1	4500	3000	0.2	0.1	2800	2500	0.2	0.05
Φ12	4400	3300	0.2	0.1	4000	3000	0.2	0.1	2400	2000	0.2	0.05

4-Flute Corner Radius End Mill-Planing

Work	Pre-Hardened Steets (HRC35-45)				Hardened Steets (HRC46-55)				Pre-Hardened Steets (HRC56-65)			
Type No.	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm	Rotate Speed min^{-1}	Feed Speed mm/min	Cutting Depth mm	Cutting Width mm
Φ6	6600	660	0.08	3.5	6000	600	0.05	3.5	4500	500	0.04	3.5
Φ8	5500	880	0.08	4.5	5000	800	0.05	4.5	4200	600	0.04	4.5
Φ10	4950	1100	0.08	6	4500	1000	0.06	6	2800	700	0.05	6
Φ12	4400	1320	0.08	8	4000	1200	0.06	8	2400	800	0.05	8

Processing Parameters of End Mill for Copper Electrode

Number	Specification	Spindle Speed min^{-1}	Feed mm/min	Equal height cutting amount		Plane cutting	
				Cutting Depth mm	Cutting Width mm	Cutting Width mm	Cutting Depth mm
1	0.1*0.2L	24000	180	0.01	0.01	0.04	0.01
2	0.1*0.5H	24000	180	0.01	0.01	0.04	0.01
3	0.2*0.4L	24000	300	0.01	0.03	0.08	0.02
4	0.2*1H	24000	300	0.01	0.03	0.08	0.02
5	0.2*2H	24000	300	0.01	0.03	0.08	0.02
6	0.3*0.6L	24000	420	0.015	0.03	0.15	0.03
7	0.3*1H	24000	420	0.015	0.03	0.15	0.03
8	0.3*2H	24000	420	0.015	0.03	0.15	0.03
9	0.3*3H	24000	360	0.015	0.03	0.15	0.03
10	0.4*0.8L	24000	480	0.02	0.03	0.2	0.03
11	0.4*2H	24000	480	0.02	0.03	0.2	0.03
12	0.4*3H	24000	480	0.02	0.03	0.2	0.03
13	0.4*4H	24000	420	0.02	0.03	0.2	0.03
14	0.5*1L	24000	600	0.03	0.04	0.2	0.03
15	0.5*2H	24000	600	0.03	0.04	0.2	0.03
16	0.5*3H	24000	600	0.03	0.04	0.2	0.03
17	0.5*4H	24000	480	0.03	0.04	0.2	0.03
18	0.5*5H	24000	480	0.03	0.04	0.2	0.03
19	0.6*1.2L	24000	720	0.03	0.04	0.3	0.03
20	0.6*2H	24000	720	0.03	0.04	0.3	0.03
21	0.6*3H	24000	720	0.03	0.04	0.3	0.03
22	0.6*4H	24000	480	0.03	0.04	0.3	0.03
23	0.6*5H	24000	420	0.03	0.04	0.3	0.03
24	0.6*6H	24000	360	0.03	0.04	0.3	0.03
25	0.8*1.6L	21600	1200	0.04	0.04	0.35	0.03
26	0.8*2H	21600	1200	0.04	0.04	0.35	0.03
27	0.8*3H	21600	1080	0.04	0.04	0.35	0.03
28	0.8*4H	21600	960	0.04	0.04	0.35	0.03
29	0.8*5H	21600	960	0.04	0.04	0.35	0.03
30	0.8*6H	21600	840	0.04	0.04	0.35	0.03
31	0.8*7H	21600	840	0.04	0.04	0.35	0.03
32	0.8*8H	21600	600	0.04	0.04	0.35	0.03
33	1*3L	21600	1680	0.05	0.05	0.6	0.03
34	1*4L	21600	1680	0.05	0.05	0.6	0.03
35	1*6H	21600	1440	0.05	0.05	0.6	0.03
36	1*8H	21600	1440	0.05	0.05	0.6	0.03
37	1*10H	21600	1200	0.05	0.05	0.6	0.03
38	1*12H	21600	960	0.05	0.05	0.6	0.03
39	1.5*4L	21600	1800	0.05	0.05	0.8	0.03
40	1.5*6H	21600	1800	0.05	0.05	0.8	0.03
41	1.5*8H	21600	1680	0.05	0.05	0.8	0.03
42	1.5*10H	21600	1440	0.05	0.05	0.8	0.03
43	1.5*12H	21600	1200	0.05	0.05	0.8	0.03
44	2*6L	21600	2160	0.05	0.06	1.4	0.04
45	2*8L	21600	2160	0.06	0.06	1.4	0.04
46	2*10H	21600	1800	0.06	0.06	1.4	0.04
47	2*12H	21600	1800	0.06	0.06	1.4	0.04
48	2*14H	21600	1560	0.06	0.06	1.4	0.04
49	2*16H	21600	1200	0.06	0.06	1.4	0.04
50	3*8L	21600	2400	0.06	0.06	2	0.04
51	3*12H	21600	2400	0.06	0.06	2	0.04
52	3*16H	21600	2160	0.06	0.06	2	0.04
53	4*4D*50L	21600	2640	0.07	0.07	2.5	0.04
54	6*6D*50L	14400	3000	0.07	0.07	4	0.04

Processing Parameters of Ball End Mill for Copper Electrode

Number	Specification	Spindle Speed min^{-1}	Feed mm/min	Equal height cutting amount		Plane cutting	
				Cutting Depth mm	Cutting Width mm	Cutting Width mm	Cutting Depth mm
55	R0.05*0.15L	26400	180	0.005	0.01	0.005	0.005
56	R0.05*0.5H	26400	180	0.005	0.01	0.005	0.005
57	R0.1*0.4L	26400	240	0.01	0.02	0.01	0.01
58	R0.1*1H	26400	240	0.01	0.02	0.01	0.01
59	R0.1*2H	26400	300	0.015	0.02	0.01	0.01
60	R0.15*0.6L	21600	300	0.015	0.025	0.015	0.015
61	R0.15*1H	21600	360	0.015	0.025	0.015	0.15
62	R0.15*2H	21600	300	0.015	0.025	0.015	0.015
63	R0.15*3H	21600	300	0.015	0.025	0.015	0.015
64	R0.2*0.8L	21600	480	0.02	0.025	0.015	0.02
65	R0.2*2H	21600	420	0.02	0.025	0.015	0.02
66	R0.2*3H	21600	420	0.02	0.025	0.015	0.02
67	R0.2*4H	21600	360	0.02	0.025	0.015	0.02
68	R0.25*1L	21600	600	0.02	0.025	0.02	0.02
69	R0.25*2H	21600	540	0.02	0.025	0.02	0.02
70	R0.25*3H	21600	540	0.02	0.025	0.02	0.02
71	R0.25*4H	21600	480	0.02	0.025	0.02	0.02
72	R0.25*5H	21600	360	0.02	0.025	0.02	0.02
73	R0.3*1.2L	21600	660	0.025	0.025	0.02	0.02
74	R0.3*2H	21600	660	0.025	0.025	0.025	0.025
75	R0.3*3H	21600	600	0.025	0.025	0.025	0.025
76	R0.3*4H	21600	540	0.025	0.025	0.025	0.025
77	R0.3*5H	21600	480	0.025	0.025	0.025	0.025
78	R0.3*6H	21600	420	0.025	0.025	0.025	0.025
79	R0.4*1.6L	21600	960	0.03	0.03	0.03	0.03
80	R0.4*2H	21600	960	0.03	0.03	0.03	0.03
81	R0.4*3H	21600	960	0.03	0.03	0.03	0.03
82	R0.4*4H	21600	960	0.03	0.03	0.03	0.03
83	R0.4*5H	21600	720	0.03	0.03	0.03	0.03
84	R0.4*6H	21600	720	0.03	0.03	0.03	0.03
85	R0.4*7H	21600	600	0.03	0.03	0.03	0.03
86	R0.4*8H	21600	540	0.03	0.03	0.03	0.03
87	R0.5*2L	21600	1440	0.04	0.04	0.035	0.035
88	R0.5*4H	21600	1440	0.04	0.04	0.035	0.035
89	R0.5*6H	21600	1440	0.04	0.04	0.035	0.035
90	R0.5*8H	21600	1200	0.04	0.04	0.035	0.035
91	R0.5*10H	21600	1200	0.04	0.04	0.035	0.035
92	R0.5*12H	21600	840	0.04	0.04	0.035	0.035
93	R0.75*3L	21600	1680	0.045	0.045	0.04	0.035
94	R0.75*4H	21600	1680	0.045	0.045	0.04	0.035
95	R0.75*6H	21600	1680	0.045	0.045	0.04	0.035
96	R0.75*8H	21600	1560	0.045	0.045	0.04	0.035
97	R0.75*10H	21600	1440	0.045	0.045	0.04	0.035
98	R0.75*12H	21600	1200	0.045	0.045	0.04	0.035
99	R1*4L	21600	2640	0.05	0.05	0.05	0.045
100	R1*6H	21600	2640	0.05	0.05	0.05	0.045
101	R1*8H	21600	2640	0.05	0.05	0.05	0.045
102	R1*10H	21600	2640	0.05	0.05	0.05	0.045
103	R1*12H	21600	2400	0.05	0.05	0.05	0.045
104	R1*14H	21600	2160	0.05	0.05	0.05	0.045
105	R1*16H	21600	1800	0.05	0.05	0.05	0.045
106	R1.5*6L	21600	2640	0.05	0.06	0.055	0.05
107	R1.5*12H	21600	2520	0.05	0.06	0.055	0.05
108	R1.5*16H	21600	2160	0.06	0.06	0.055	0.05
109	R2*4D*50L	21600	3000	0.06	0.07	0.06	0.06
110	R3*6D*50L	14400	3000	0.06	0.07	0.08	0.07

Processing Parameters of Corner Radius End Mill for Copper Electrode

Number	Specification	Spindle Speed min^{-1}	Feed mm/min	Equal height cutting amount		Plane cutting	
				Cutting Depth mm	Cutting Width mm	Cutting Width mm	Cutting Depth mm
111	0.2R0.02*1H	26400	240	0.015	0.015	0.1	0.03
112	0.2R0.02*2H	26400	240	0.015	0.015	0.1	0.03
113	0.2R0.05*1H	26400	240	0.015	0.015	0.1	0.03
114	0.2R0.05*2H	26400	240	0.015	0.015	0.1	0.03
115	0.3R0.05*1H	24000	360	0.015	0.02	0.1	0.03
116	0.3R0.05*2H	24000	360	0.015	0.02	0.1	0.03
117	0.3R0.05*3H	24000	300	0.015	0.02	0.1	0.03
118	0.4R0.05*1H	24000	420	0.02	0.02	0.15	0.03
119	0.4R0.05*2H	24000	420	0.02	0.025	0.15	0.03
120	0.4R0.05*3H	24000	420	0.02	0.025	0.15	0.03
121	0.4R0.05*4H	24000	360	0.02	0.025	0.15	0.03
122	0.4R0.1*1H	24000	420	0.02	0.025	0.15	0.03
123	0.4R0.1*2H	24000	420	0.02	0.025	0.15	0.03
124	0.4R0.1*3H	24000	420	0.02	0.025	0.15	0.03
125	0.4R0.1*4H	24000	360	0.02	0.025	0.15	0.03
126	0.5R0.05*2H	24000	600	0.02	0.03	0.2	0.03
127	0.5R0.05*3H	24000	600	0.02	0.03	0.2	0.03
128	0.5R0.05*4H	24000	540	0.02	0.03	0.2	0.03
129	0.5R0.05*5H	24000	480	0.02	0.03	0.2	0.03
130	0.5R0.1*2H	24000	600	0.02	0.03	0.2	0.03
131	0.5R0.1*3H	24000	600	0.02	0.03	0.2	0.03
132	0.5R0.1*4H	24000	540	0.02	0.03	0.2	0.03
133	0.5R0.1*5H	24000	480	0.02	0.03	0.2	0.03
134	0.6R0.05*2H	24000	720	0.025	0.03	0.2	0.03
135	0.6R0.05*3H	24000	720	0.025	0.03	0.2	0.03
136	0.6R0.05*4H	24000	600	0.025	0.03	0.2	0.03
137	0.6R0.05*5H	24000	540	0.025	0.03	0.2	0.03
138	0.6R0.05*6H	24000	480	0.025	0.03	0.2	0.03
139	0.6R0.1*2H	24000	720	0.03	0.03	02	0.03
140	0.6R0.1*3H	24000	660	0.03	0.03	0.2	0.03
141	0.6R0.1*4H	24000	660	0.03	0.03	0.2	0.03
142	0.6R0.1*5H	24000	540	0.03	0.03	0.2	0.03
143	0.6R0.1*6H	24000	480	0.03	0.03	0.2	0.03
144	0.8R0.05*2H	21600	1020	0.035	0.035	0.3	0.03
145	0.8R0.05*3H	21600	960	0.035	0.035	0.3	0.03
146	0.8R0.05*4H	21600	960	0.035	0.035	0.3	0.03
147	0.8R0.05*5H	21600	720	0.035	0.035	0.3	0.03
148	0.8R0.05*6H	21600	720	0.035	0.035	0.3	0.03
149	0.8R0.05*7H	21600	660	0.035	0.035	0.3	0.03
150	0.8R0.05*8H	21600	600	0.035	0.035	0.3	0.03
151	0.8R0.1*2H	21600	1080	0.035	0.035	0.3	0.03
152	0.8R0.1*3H	21600	960	0.035	0.035	0.3	0.03
153	0.8R0.1*4H	21600	960	0.035	0.035	0.3	0.03
154	0.8R0 1*5H	21600	840	0.035	0.035	0.3	0.03
155	0.8R0.1*6H	21600	720	0.035	0.035	0.3	0.03
156	0.8R0.1*7H	21600	660	0.035	0.035	0.3	0.03
157	0.8R0.1*8H	21600	600	0.035	0.035	0.3	0.03
158	1R0.1*3L	21600	1560	0.04	0.04	0.5	0.03
159	1R0.1*4H	21600	1440	0.04	0.04	0.5	0.03
160	1R0.1*6H	21600	1440	0.04	0.04	0.5	0.03
161	1RO.1*8H	21600	1200	0.04	0.04	0.5	0.03
162	1R0.1*10H	21600	960	0.04	0.04	0.5	0.03
163	1R0.1*12H	21600	960	0.04	0.04	0.5	0.03
164	1R0.2*3L	21600	1560	0.04	0.04	0.5	0.03
165	1R0.2*4H	21600	1560	0.04	0.04	0.5	0.03
166	1R0.2*6H	21600	1440	0.04	0.04	0.5	0.03

Processing Parameters of Corner Radius End Mill for Copper Electrode

Number	Specification	Spindle Speed min^{-1}	Feed mm/min	Equal height cutting amount		Plane cutting	
				Cutting Depth mm	Cutting Width mm	Cutting Width mm	Cutting Depth mm
167	1R0.2*8H	21600	1200	0.04	0.04	0.5	0.03
168	1R0.2*10H	21600	960	0.04	0.04	0.5	0.03
169	1R0.2*12H	21600	960	0.04	0.04	0.5	0.03
170	1.5R0.1*4L	21600	1680	0.045	0.045	0.6	0.03
171	1.5R0.1*6H	21600	1440	0.045	0.045	0.6	0.03
172	1.5R0.1*8H	21600	1440	0.045	0.045	0.6	0.03
173	1.5R0.1*10H	21600	1200	0.045	0.045	0.6	0.03
174	1.5R0.1*12H	21600	1200	0.045	0.045	0.6	0.03
175	1.5R0.2*4L	21600	1680	0.045	0.045	0.6	0.03
176	1.5R0.2*6H	21600	1440	0.045	0.045	0.6	0.03
177	1.5R0.2*8H	21600	1440	0.045	0.045	0.6	0.03
178	1.5R0.2*10H	21600	1200	0.045	0.045	0.6	0.03
179	1.5R0.2*12H	21600	1200	0.045	0.045	0.6	0.03
180	2R0.1*6L	21600	1920	0.05	0.05	1.2	0.04
181	2R0.1*8H	21600	1680	0.05	0.05	1.2	0.04
182	2R0.1*10H	21600	1440	0.05	0.05	1.2	0.04
183	2R0.1*12H	21600	1440	0.05	0.05	1.2	0.04
184	2R0.1*14H	21600	1440	0.05	0.05	1.2	0.04
185	2R0.1*16H	21600	1200	0.05	0.05	1.2	0.04
186	2R0.2*6L	21600	1920	0.05	0.05	1.2	0.04
187	2R0.2*8H	21600	1680	0.05	0.05	1.2	0.04
188	2R0.2*10H	21600	1440	0.05	0.05	1.2	0.04
189	2R0.2*12H	21600	1440	0.05	0.05	1.2	0.04
190	2R0.2*14H	21600	1440	0.05	0.05	1.2	0.04
191	2R0.2*16H	21600	1200	0.05	0.05	1.2	0.04
192	3R0.2*8L	21600	2400	0.06	0.06	1.8	0.04
193	3R0.2*12H	21600	2400	0.06	0.06	1.8	0.04
194	3R0.2*16H	21600	2160	0.06	0.06	1.8	0.04
195	4R0.2*4D*50L	21600	2640	0.07	0.07	2.5	0.04
196	4R0.5*4D*50L	21600	2640	0.07	0.07	2.5	0.04
197	6R0.2*6D*50L	14400	1440	0.08	0.08	3.5	0.04
198	6R0.5*6D*50L	14400	1440	0.08	0.08	3.5	0.04

Brazed Gun Drills Cutting Parameters

Material	Alloyed Tempered Steel Tool Steel(< 900N/mm²)	Structural steel High Carbon Low Alloy Machining Steel Case-Hardened Steel Tool Steel(< 900N/mm²) Easy Processable	Stainless Steel(316) And Related
Linear velocity	60-80m	70-100m	40-60m
Drill bit diameter	Feed rate mm/rev		
	Feed area mm/rev	Feed area mm/rev	Feed area mm/rev
2.5-3.0	0.0050-0.0080	0.0050-0.0100	0.0050-0.0100
3.0-3.5	0.0050-0.0100	0.0070-0.0150	0.0080-0.0100
3.5-4.0	0.0080-0.0100	0.0090-0.0150	0.0100-0.0150
4.0-4.5	0.0080-0.0150	0.0150-0.0200	0.0100-0.0150
4.5-5.0	0.0100-0.0150	0.0150-0.0200	0.0100-0.0150
5.0-6.0	0.0150-0.0200	0.0150-0.0250	0.0150-0.0200
6.0-7.0	0.0150-0.0250	0.0200-0.0300	0.0150-0.0200
7.0-8.0	0.0200-0.0250	0.0200-0.0350	0.0150-0.0200
8.0-9.0	0.0200-0.0300	0.0250-0.0350	0.0200-0.0250
9.0-10.0	0.0250-0.0350	0.0300-0.0400	0.0200-0.0300
10.0-12.0	0.0250-0.0400	0.0300-0.0600	0.0250-0.0350
12.0-14.0	0.0300-0.0450	0.0350-0.0600	0.0300-0.0400
14.0-16.0	0.0350-0.0500	0.0400-0.0700	0.0350-0.0450
16.0-18.0	0.0400-0.0550	0.0500-0.0800	0.0450-0.0500
18.0-20.0	0.0450-0.0600	0.0550-0.0900	0.0450-0.0650
20.0-24.0	0.0500-0.0700	0.0600-0.1100	0.0500-0.0700
24.0-28.0	0.0550-0.0800	0.0700-0.1200	0.0500-0.0850
28.0-32.0	0.0600-0.0850	0.0800-0.1500	0.0600-0.0900
32.0-40.0	0.0650-0.100	0.0850-0.1600	0.0650-0.100
40.0-45.0	0.0700-0.1100	0.0900-0.1700	0.0700-0.1100

Brazed Gun Drills Cutting Parameters

Material	Caet Iron Grey Cast Iron(< 300N/mm²) Ductile Cast Iron(< 400N/mm²) General Steel Casting	Aluminium + Caet Aluminium	Spring Steel Titanium Alloy High-Temp Steel Cast Steel
Linear velocity	60-90m	80-160m	25-60m
Drill bit diameter	Feed rate mm/rev		
	Feed area mm/rev	Feed area mm/rev	Feed area mm/rev
2.5-3.0	0.0080-0.0300	0.0050-0.0250	0.0020-0.0050
3.0-3.5	0.0100-0.0400	0.0060-0.0400	0.0020-0.0100
3.5-4.0	0.0100-0.0450	0.0070-0.0550	0.0050-0.0100
4.0-4.5	0.0150-0.0500	0.0080-0.0700	0.0080-0.0100
4.5-5.0	0.0150-0.0550	0.0090-0.1000	0.0080-0.0100
5.0-6.0	0.0200-0.0650	0.0100-0.1100	0.0100-0.0150
6.0-7.0	0.0250-0.0700	0.0150-0.1300	0.0150-0.0200
7.0-8.0	0.0300-0.0850	0.0200-0.1500	0.0150-0.0200
8.0-9.0	0.0350-0.0950	0.0200-0.1500	0.0200-0.0250
9.0-10.0	0.0350-0.1100	0.0250-0.1600	0.0200-0.0250
10.0-12.0	0.0450-0.1200	0.0250-0.1800	0.0250-0.0300
12.0-14.0	0.0500-0.1300	0.0300-0.1800	0.0300-0.0350
14.0-16.0	0.0550-0.1400	0.0350-0.2000	0.0300-0.0400
16.0-18.0	0.0600-0.1600	0.0500-0.2000	0.0350-0.0450
18.0-20.0	0.0650-0.1750	0.0550-0.2500	0.0400-0.0450
20.0-24.0	0.0700-0.1900	0.0600-0.2500	0.0400-0.0550
24.0-28.0	0.0750-0.2000	0.0700-0.3000	0.0450-0.0600
28.0-32.0	0.0800-0.2500	0.0850-0.4000	0.0500-0.0650
32.0-40.0	0.0850-0.2300	0.1000-0.5000	0.0550-0.0650
40.0-45.0	0.0900-0.2400	0.1000-0.5000	0.0550-0.0700

Brazed Gun Drills Cutting Parameters

Material	Alloyed Tempered Steel Tool Steel(< 900N/mm²)	Structural steel High Carbon Low Alloy Machining Steel Case-Hardened Steel Tool Steel(< 900N/mm²) Easy Processable	Stainless Steel(316) And Related
Linear velocity	65-85m	75-105m	35-70m
Drill bit diameter	Feed rate mm/rev		
	Feed area mm/rev	Feed area mm/rev	Feed area mm/rev
0.9-1.0	0.0010-0.0020	0.0010-0.0030	0.0015-0.0020
1.1-1.2	0.0015-0.0025	0.0010-0.0035	0.0016-0.0025
1.2-1.3	0.0015-0.0030	0.0015-0.0040	0.0020-0.0030
1.3-1.4	0.0020-0.0040	0.0020-0.0040	0.0025-0.0030
1.4-1.5	0.0020-0.0040	0.0020-0.0050	0.0025-0.0035
1.5-1.6	0.0025-0.0050	0.0020-0.0055	0.0025-0.0035
1.6-1.7	0.0025-0.0055	0.0020-0.0070	0.0025-0.0040
1.7-1.8	0.0030-0.0060	0.0030-0.0075	0.0030-0.0050
1.8-1.9	0.0035-0.0075	0.0030-0.0095	0.0040-0.0065
1.9-2.5	0.0035-0.0085	0.0040-0.0150	0.0050-0.0075
2.5-3.0	0.0040-0.0100	0.0050-0.0180	0.0060-0.0095
3.0-3.5	0.0050-0.0150	0.0080-0.0200	0.0080-0.0140
3.5-4.0	0.0070-0.0150	0.0090-0.0250	0.0100-0.0150
4.0-4.5	0.0080-0.0200	0.0150-0.0250	0.0100-0.0200
4.5-5.0	0.0100-0.0250	0.0150-0.0300	0.0150-0.0250
5.0-6.0	0.0150-0.0250	0.0150-0.0400	0.0150-0.0250
6.0-8.0	0.0150-0.0350	0.0200-0.0500	0.0200-0.0300
8.0-12.0	0.0180-0.0400	0.0200-0.0550	0.0200-0.0350

Brazed Gun Drills Cutting Parameters

Material	Caet Iron Grey Cast Iron(< 300N/mm²) Ductile Cast Iron(< 400N/mm²) General Steel Casting	Aluminium + Caet Aluminium	Spring Steel Titanium Alloy High-Temp Steel Cast Steel
Linear velocity	65-95m	85-165m	30-70m
Drill bit diameter	Feed rate mm/rev		
	Feed area mm/rev	Feed area mm/rev	Feed area mm/rev
0.9-1.0	0.0015-0.0025	0.0020-0.0025	0.0011-0.0025
1.1-1.2	0.0020-0.0030	0.0020-0.0025	0.0015-0.0030
1.2-1.3	0.0025-0.0035	0.0025-0.0030	0.0020-0.0035
1.3-1.4	0.0030-0.0040	0.0025-0.0035	0.0025-0.0040
1.4-1.5	0.0040-0.0050	0.0025-0.0045	0.0025-0.0040
1.5-1.6	0.0050-0.0060	0.003-0.0055	0.0030-0.0040
1.6-1.7	0.0050-0.0070	0.0035-0.0065	0.0030-0.0045
1.7-1.8	0.0065-0.0095	0.0040-0.0085	0.0035-0.0055
1.8-1.9	0.0070-0.0150	0.0050-0.0100	0.0040-0.0065
1.9-2.5	0.0100-0.0250	0.0050-0.0200	0.0050-0.0075
2.5-3.0	0.0150-0.0350	0.0060-0.0350	0.0060-0.0095
3.0-3.5	0.0150-0.0400	0.0080-0.0550	0.0080-0.0100
3.5-4.0	0.0180-0.0500	0.0100-0.0750	0.0090-0.0155
4.0-4.5	0.0200-0.0550	0.0150-0.0950	0.0100-0.0150
4.5-5.0	0.0250-0.0650	0.0150-0.1500	0.0100-0.0180
5.0-6.0	0.0250-0.0750	0.0150-0.1550	0.0150-0.0250
6.0-8.0	0.0300-0.1000	0.0200-0.2000	0.0150-0.0300
8.0-12.0	0.0350-0.1500	0.0200-0.2000	0.0180-0.0350

Indexable Gun Drills Cutting Parameters

Material	Cutting Speed	Drill Bit Dia/Feed Rate mm/rev		
	Vc m/min	Φ12.00-22.00mm	Φ22.50-26.00mm	Φ26.50-35.00mm
construction steel < 700/mm	80-100	0.055-0.100	0.080-0.110	0.100-0.140
case hardened steel < 700/mm	80-100	0.055-0.100	0.080-0.110	0.100-0.140
case hardened steel < 1100/mm	70-80	0.070-0.100	0.080-0.110	0.100-0.130
heat treated < 700/mm	70-90	0.070-0.100	0.080-0.110	0.100-0.140
heat treated < 1100/mm	55-75	0.070-0.100	0.080-0.110	0.100-0.130
Nitriding steel < 1100/mm	55-75	0.070-0.090	0.080-0.100	0.090-0.120
Ferritic steel < 900/mm	60-80	0.070-0.100	0.080-0.110	0.100-0.140
Austenitic steel	60-80	0.070-0.090	0.080-0.100	0.100-0.120
Heat resisting steel/Tool Steel	50-70	0.070-0.090	0.080-0.100	0.100-0.120
Steel castings < 700/mm	60-80	0.070-0.100	0.080-0.100	0.100-0.140
Nodular cast iron < 700/mm	65-80	0.090-0.120	0.100-0.130	0.120-0.150
Cast iron alloyed and unalloyed	70-100	0.090-0.120	0.100-0.130	0.120-0.150
Aluminiuum	100-200	0.080-0.110	0.090-0.120	0.100-0.140
Copper Cu-content <99%	120-300	0.050-0.090	0.060-0.100	0.080-0.120