

硬质合金中心钻AD-LDS

Carbide Starter Drill

特点 Features P.7

尺寸表 Dimension

AD-LDS P.49

AD-LS-LDS P.50

条件表 Cutting Condition P.55

■ 按钻头直径区分的加工对应表 P.57
Production Table by Drill Diameter

标识种类 Guide for Icons

1 材质 Tool Materials

CARBIDE 硬质合金
Tungsten Carbide

2 表面处理 Surface Treatment

EgiAs EgiAs 涂层
EgiAs Coating

WXL WXL 涂层
WXL Coating

3 直径的容许差 Tolerance for Drill Diameter

h8 表示钻头直径的容许差
Tolerance for drill diameter

4 柄部 Shank

SHANK h7 表示柄部精度
Tolerance for shank diameter

SHRINK FIT 推荐热缩刀柄
Suitable for the shrink holder system

5 螺旋角 Helix Angle

30° 表示钻头排屑槽的螺旋角
Helix angle of flute for drills

6 切削条件 Cutting Conditions

SPEED FEED 表示切削条件基准表所在页面
Indicates page number for cutting conditions

Coating

涂层

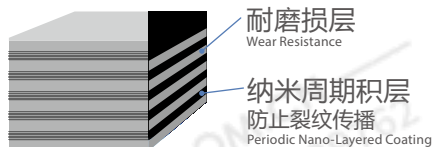
高耐磨损性·韧性的EgiAs涂层

EgiAs coating with high toughness and wear resistance characteristics

提高耐磨损性·耐热性，并优化韧性的涂层，实现长寿命及寿命稳定化。

Constructed with extreme toughness, high wear and heat resistance characteristics to ensure stable and consistent tool life

涂层构造 Coating Structure



涂层色 Coating Color	涂层构造 Coating Structure	硬度 (GPa) Hardness	氧化开始温度 (°C) Oxidation Temperature	耐热性 Heat Resistance	附着力 Adhesion Strength	表面粗糙度 Surface roughness	耐磨损性 Wear Resistance	耐溶性 Welding Resistance	韧性 Toughness
干涉色 Interference Color	Cr, Si系 纳米周期积层 Nano Periodical Layer	40	1,100	◎	◎	○	◎	◎	◎

(标准)
(Fair) ○ → ◎ (最佳)
(Best)

EgiAs是OSG公司的注册商标。 EgiAs is a registered trademark of OSG Corporation.

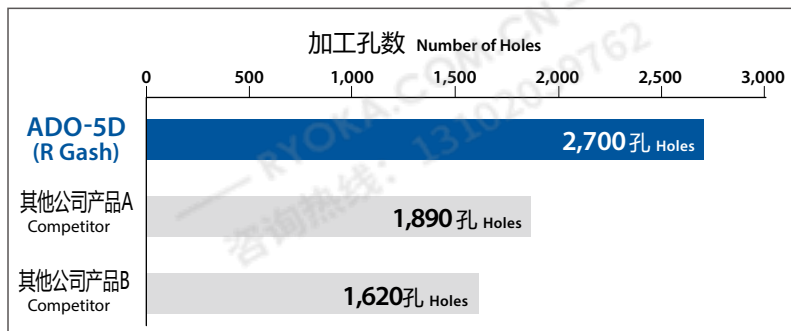
R形月牙槽实现卓越的低阻力和长寿命化

Achieves overwhelmingly low thrust and long tool life with the effect of the R gash

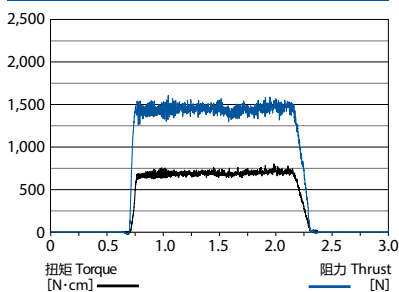
低阻力可进行高进给加工

High feed drilling made possible due to low thrust

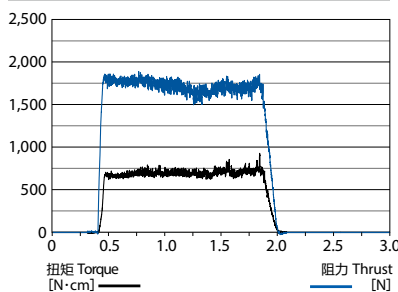
使用工具 Tool	ADO-5D $\phi 8$ (R Gash)
加工材料 Work Material	SCM440
切削速度 Cutting Speed	100m/min (3,979min ⁻¹)
进给速度 Feed	1,591mm/min (0.4mm/rev)
切削深度 Depth of Hole	40mm (盲孔) Blind
切削油剂 Coolant	水溶性切削油剂 (内部供油) Water-Soluble (Internal)
冷却液压力 Coolant Pressure	2MPa
使用机械 Machine	卧式加工中心 (HSK-A63) Horizontal Machining Center

加工2,700孔后
After drilling 2,700 holes加工1,890孔后
After drilling 1,890 holes加工1,620孔后
After drilling 1,620 holes

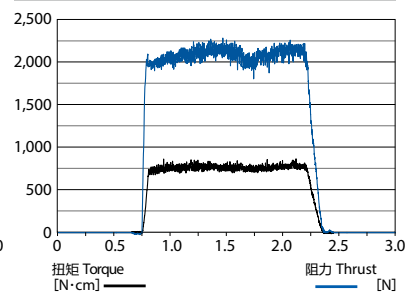
ADO-5D (R Gash)



其他公司产品A Competitor



其他公司产品B Competitor



ADO-3D/5D/8D

全尺寸2021年10月以后的生产依次改为**R Gash**。
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ADO-3D



ADO-5D



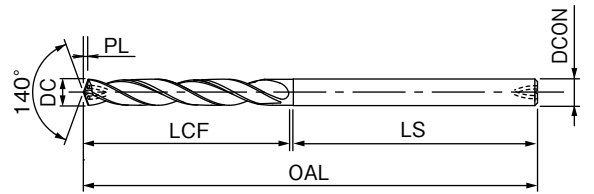
ADO-8D



R Gash



R形横刃
R thinning



CARBIDE EgiAs h8 30° SHRINK FIT SPEED FEED P52

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8690200	2 - 3	3D	12	66	3	51.2	0.4	●
8692200		5D	18	70		49.2	0.4	B ●
8694200		8D	22	75		50.1	0.4	●
8690210	2.1 - 3	3D	13	66	3	50.3	0.4	●
8692210		5D	19	70		48.3	0.4	B ●
8694210		8D	24	75		48.3	0.4	●
8690220	2.2 - 3	3D	14	66	3	49.5	0.4	●
8692220		5D	20	70		47.5	0.4	B ●
8694220		8D	25	75		47.5	0.4	●
8690230	2.3 - 3	3D	14	66	3	49.7	0.4	●
8692230		5D	21	70		46.7	0.4	B ●
8694230		8D	26	75		46.7	0.4	●
8690240	2.4 - 3	3D	15	66	3	48.9	0.4	●
8692240		5D	22	70		45.9	0.4	B ●
8694240		8D	27	75		45.9	0.4	●
8690250	2.5 - 3	3D	15	66	3	49.1	0.5	●
8692250		5D	23	70		45.1	0.5	B ●
8694250		8D	28	75		45.1	0.5	●
8690260	2.6 - 3	3D	16	66	3	48.3	0.5	●
8692260		5D	24	78		52.3	0.5	B ●
8694260		8D	29	80		49.3	0.5	●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8690265	2.65 - 3	3D	16	66	3	48.3	0.5	●
8692265		5D	24	78		52.3	0.5	B ●
8690270	2.7 - 3	3D	17	66	3	47.4	0.5	●
8692270		5D	25	78		51.4	0.5	B ●
8694270		8D	30	80		48.4	0.5	●
8692276	2.76 - 3	5D	25	78	3	51.6	0.5	B ●
8692278	2.78 - 3	5D	26	78	3	50.6	0.5	B ●
8690280	2.8 - 3	3D	17	66	3	47.6	0.5	●
8692280		5D	26	78		50.6	0.5	B ●
8694280		8D	31	80		47.6	0.5	●
8690290	2.9 - 3	3D	18	66	3	46.8	0.5	●
8692290		5D	27	78		49.8	0.5	B ●
8694290		8D	32	80		46.8	0.5	●
8690300	3 - 3	3D	18	66	3	47	0.5	●
8692300		5D	27	78		50	0.5	B ●
8694300		8D	33	80		46	0.5	●
8690310	3.1	3D	19	74	4	52.3	0.6	●
8692310		5D	28	86		55.3	0.6	B ●
8694310		8D	34	95		58.3	0.6	●
8690315	3.15	3D	19	74	4	52.4	0.6	●
8692315		5D	29	86		54.4	0.6	B ●

● = 标准库存品 ● = Standard stock item

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- See p.2 for explanation of icons.
- Drills may have some discoloration, but it does not cause any performance problems.

特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole
2D/4D

3D/5D/8D

带油孔 with Oil Hole
10D/15D/20D/25D/30D

导向钻
Pilot Drill

中心钻 Starter Drill
AD-LDS

切削条件表
Cutting Conditions

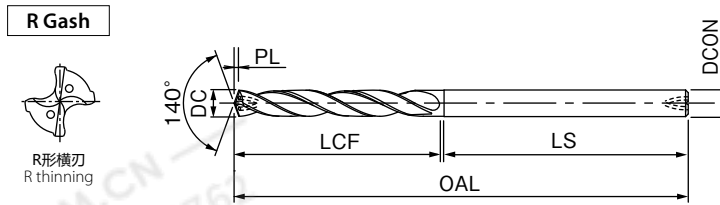
非标品对应表
Production Table
by Drill Diameter

NEXT



ADO-3D/5D/8D

全尺寸2021年10月以后的生产依次改为**R Gash**。
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FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8690320	3.2	3D	20	74	4	51.5	0.6	●
8692320		5D	29	86		54.5	0.6	B ●
8694320		8D	35	95		57.5	0.6	●
8690330	3.3	3D	20	74	4	51.7	0.6	●
8692330		5D	30	86		53.7	0.6	B ●
8694330		8D	36	95		56.7	0.6	●
8690340	3.4	3D	21	74	4	50.9	0.6	●
8692340		5D	31	86		52.9	0.6	B ●
8694340		8D	37	95		55.9	0.6	●
8690350	3.5	3D	21	74	4	51.1	0.6	●
8692350		5D	32	86		52.1	0.6	B ●
8694350		8D	39	95		55	0.6	●
8690360	3.6	3D	22	74	4	50.3	0.7	●
8692360		5D	33	86		51.3	0.7	B ●
8694360		8D	40	95		53.3	0.7	●
8692366	3.66	5D	33	86	4	51.4	0.7	B ●
8692368	3.68	5D	34	86	4	50.4	0.7	B ●
8690370	3.7	3D	23	74	4	49.4	0.7	●
8692370		5D	34	86		50.4	0.7	B ●
8694370		8D	41	95		52.4	0.7	●
8690375	3.75	3D	23	74	4	49.5	0.7	●
8692375		5D	34	86		50.5	0.7	B ●
8690380	3.8	3D	23	74	4	49.6	0.7	●
8692380		5D	35	86		49.6	0.7	B ●
8694380		8D	42	95		51.6	0.7	●
8690390	3.9	3D	24	74	4	48.8	0.7	●
8692390		5D	36	86		48.8	0.7	B ●
8694390		8D	43	95		50.8	0.7	●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8690400	4	3D	24	74	4	49	0.7	●
8692400		5D	36	86		49	0.7	B ●
8694400		8D	44	95		50	0.7	●
8690410	4.1 - 5	3D	25	80	5	52.3	0.7	●
8692410		5D	37	95		55.3	0.7	B ●
8694410		8D	45	105		57.3	0.7	●
8700410	4.1	3D	25	80	6	50.5	0.7	●
8702410		5D	37	95		53.5	0.7	B ●
8704410		8D	45	105		55.5	0.7	●
8690420	4.2 - 5	3D	26	80	5	51.5	0.8	●
8692420		5D	38	95		54.5	0.8	B ●
8694420		8D	46	105		56.5	0.8	●
8700420	4.2	3D	26	80	6	49.6	0.8	●
8702420		5D	38	95		52.6	0.8	B ●
8704420		8D	46	105		54.6	0.8	●
8690430	4.3 - 5	3D	26	80	5	51.7	0.8	●
8692430		5D	39	95		53.7	0.8	B ●
8694430		8D	47	105		55.7	0.8	●
8700430	4.3	3D	26	80	6	49.8	0.8	●
8702430		5D	39	95		51.8	0.8	B ●
8704430		8D	47	105		53.8	0.8	●
8690440	4.4 - 5	3D	27	80	5	50.9	0.8	●
8692440		5D	40	95		52.9	0.8	B ●
8694440		8D	48	105		54.9	0.8	●
8700440	4.4	3D	27	80	6	49	0.8	●
8702440		5D	40	95		51	0.8	B ●
8704440		8D	48	105		53	0.8	●

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FROM

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8690450	4.5 - 5	3D	27	80	5	51.1	0.8	●
8692450		5D	41	95		52.1	0.8	B ●
8694450		8D	50	105		54	0.8	●
8700450	4.5	3D	27	80	6	49.2	0.8	●
8702450		5D	41	95		50.2	0.8	B ●
8704450		8D	50	105		51.2	0.8	●
8690460	4.6 - 5	3D	28	80	5	50.3	0.8	●
8692460		5D	42	95		51.3	0.8	B ●
8694460		8D	51	105		52.3	0.8	●
8700460	4.6	3D	28	80	6	48.4	0.8	●
8702460		5D	42	95		49.4	0.8	B ●
8704460		8D	51	105		50.4	0.8	●
8692462	4.62 - 5	5D	42	95	5	51.3	0.8	B ●
8692464	4.64 - 5	5D	42	95	5	51.3	0.8	B ●
8690470	4.7 - 5	3D	29	80	5	49.4	0.9	●
8692470		5D	43	95		50.4	0.9	B ●
8694470		8D	52	105		51.4	0.9	●
8700470	4.7	3D	29	80	6	47.6	0.9	●
8702470		5D	43	95		48.6	0.9	B ●
8704470		8D	52	105		49.6	0.9	●
8690480	4.8 - 5	3D	29	80	5	49.6	0.9	●
8692480		5D	44	95		49.6	0.9	B ●
8694480		8D	53	105		50.6	0.9	●
8700480	4.8	3D	29	80	6	47.8	0.9	●
8702480		5D	44	95		47.8	0.9	B ●
8704480		8D	53	105		48.8	0.9	●
8690490	4.9 - 5	3D	30	80	5	48.8	0.9	●
8692490		5D	45	95		48.8	0.9	B ●
8694490		8D	54	105		49.8	0.9	●
8700490	4.9	3D	30	80	6	46.9	0.9	●
8702490		5D	45	95		46.9	0.9	B ●
8704490		8D	54	105		47.9	0.9	●
8690500	5 - 5	3D	25	80	5	54	0.9	●
8692500		5D	45	95		49	0.9	B ●
8694500		8D	55	105		49	0.9	●

单位:mm Unit:mm

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8700500	5	3D	25	80	6	52.1	0.9	●
8702500		5D	45	95		47.1	0.9	B ●
8704500		8D	55	105		47.1	0.9	●
8690510	5.1	3D	26	82	6	53.3	0.9	●
8692510		5D	41	100		56.3	0.9	B ●
8704510		8D	56	115		56.3	0.9	●
8690520	5.2	3D	26	82	6	53.5	0.9	●
8692520		5D	42	100		55.5	0.9	B ●
8704520		8D	57	115		55.5	0.9	●
8690525	5.25	3D	27	82	6	52.6	1	●
8692525		5D	42	100		55.6	1	B ●
8690530	5.3	3D	27	82	6	52.7	1	●
8692530		5D	43	100		54.7	1	B ●
8704530		8D	58	115		54.7	1	●
8690540	5.4	3D	27	82	6	52.9	1	●
8692540		5D	44	100		53.9	1	B ●
8704540		8D	59	115		53.9	1	●
8690550	5.5	3D	28	82	6	52.1	1	●
8692550		5D	44	100		54.1	1	B ●
8694550		8D	61	115		52.1	1	●
8692552	5.52	5D	45	100	6	53.1	1	B ●
8692554	5.54	5D	45	100	6	53.1	1	B ●
8690560	5.6	3D	28	82	6	52.3	1	●
8692560		5D	45	100		53.3	1	B ●
8704560		8D	62	115		51.3	1	●
8690570	5.7	3D	29	82	6	51.4	1	●
8692570		5D	46	100		52.4	1	B ●
8704570		8D	63	115		50.4	1	●
8690580	5.8	3D	29	82	6	51.6	1.1	●
8692580		5D	47	100		51.6	1.1	B ●
8704580		8D	64	115		49.6	1.1	●
8690590	5.9	3D	30	82	6	50.8	1.1	●
8692590		5D	48	100		50.8	1.1	B ●
8704590		8D	65	115		48.8	1.1	●

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特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole
2D/4D

3D/5D/8D

带油孔 with Oil Hole
10D/15D/20D/25D/30D

导向钻
Pilot Drill

中心钻 Starter Drill
AD-LDS

切削条件表
Cutting Conditions

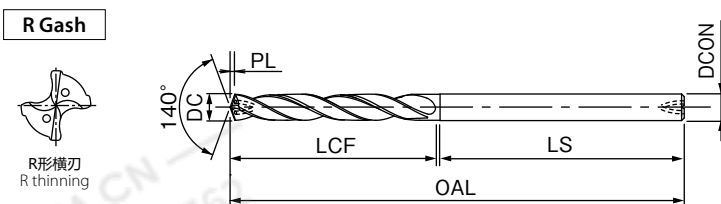
非标品对应表
Production Table
by Drill Diameter

NEXT



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8690600	6	3D	30	82	6	51	1.1	●
8692600		5D	48	100		51	1.1	B ●
8694600		8D	66	115		48	1.1	●
8690610	6.1 - 7	3D	31	88	7	56	1.1	●
8692610		5D	49	109		59	1.1	B ●
8694610		8D	67	125		57	1.1	●
8700610	6.1	3D	31	88	8	52.5	1.1	●
8702610		5D	49	109		55.5	1.1	B ●
8704610		8D	67	125		53.5	1.1	●
8690620	6.2 - 7	3D	31	88	7	56	1.1	●
8692620		5D	50	109		58	1.1	B ●
8694620		8D	68	125		56	1.1	●
8700620	6.2	3D	31	88	8	52.6	1.1	●
8702620		5D	50	109		54.6	1.1	B ●
8704620		8D	68	125		52.6	1.1	●
8690625	6.25 - 7	3D	32	88	7	55	1.1	●
8692625		5D	50	109		58	1.1	B ●
8690630	6.3 - 7	3D	32	88	7	55	1.1	●
8692630		5D	51	109		57	1.1	B ●
8694630		8D	69	125		55	1.1	●
8700630	6.3	3D	32	88	8	51.8	1.1	●
8702630		5D	51	109		53.8	1.1	B ●
8704630		8D	69	125		51.8	1.1	●
8690640	6.4 - 7	3D	32	88	7	55	1.2	●
8692640		5D	52	109		56	1.2	B ●
8694640		8D	70	125		54	1.2	●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8700640	6.4	3D	32	88	8	52	1.2	●
8702640		5D	52	109		53	1.2	B ●
8704640		8D	70	125		51	1.2	●
8690650	6.5 - 7	3D	33	88	7	54	1.2	●
8692650		5D	52	109		56	1.2	B ●
8694650		8D	72	125		52	1.2	●
8700650	6.5	3D	33	88	8	51.2	1.2	●
8702650		5D	52	109		53.2	1.2	B ●
8704650		8D	72	125		49.2	1.2	●
8690660	6.6 - 7	3D	33	88	7	54	1.2	●
8692660		5D	53	109		55	1.2	B ●
8694660		8D	73	125		51	1.2	●
8700660	6.6	3D	33	88	8	51.4	1.2	●
8702660		5D	53	109		52.4	1.2	B ●
8704660		8D	73	125		48.4	1.2	●
8690670	6.7 - 7	3D	34	88	7	53	1.2	●
8692670		5D	54	109		54	1.2	B ●
8694670		8D	74	125		50	1.2	●
8700670	6.7	3D	34	88	8	50.6	1.2	●
8702670		5D	54	109		51.6	1.2	B ●
8704670		8D	74	125		47.6	1.2	●
8690675	6.75 - 7	3D	34	88	7	53	1.2	●
8692675		5D	54	109		54	1.2	B ●
8690680	6.8 - 7	3D	34	88	7	53	1.2	●
8692680		5D	55	109		53	1.2	B ●
8694680		8D	75	125		49	1.2	●

● = 标准库存品 ● = Standard stock item

- 标识说明请参考p.2。
- 涂层可能会有颜色不均的情况，但这并不影响刀具的性能。
- See p.2 for explanation of icons.
- Drills may have some discoloration, but it does not cause any performance problems.

NEXT



全尺寸2021年10月以后的生产依次改为**R Gash**。
All sizes after October 2021 production will be sequentially changed to **R Gash**.

FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8700680	6.8	3D	34	88	8	50.8	1.2	●
8702680		5D	55	109		50.8	1.2	B ●
8704680		8D	75	125		46.8	1.2	●
8690690	6.9 - 7	3D	35	88	7	52	1.3	●
8692690		5D	56	109		52	1.3	B ●
8694690		8D	76	125		48	1.3	●
8700690	6.9	3D	35	88	8	49.9	1.3	●
8702690		5D	56	109		49.9	1.3	B ●
8704690		8D	76	125		45.9	1.3	●
8690700	7 - 7	3D	35	88	7	52	1.3	●
8692700		5D	56	109		52	1.3	B ●
8694700		8D	77	125		47	1.3	●
8700700	7	3D	35	88	8	50.1	1.3	●
8702700		5D	56	109		50.1	1.3	B ●
8704700		8D	77	125		45.1	1.3	●
8690710	7.1	3D	36	94	8	57	1.3	●
8692710		5D	57	118		60	1.3	B ●
8704710		8D	78	140		61	1.3	●
8690720	7.2	3D	36	94	8	57	1.3	●
8692720		5D	58	118		59	1.3	B ●
8704720		8D	79	140		60	1.3	●
8690725	7.25	3D	37	94	8	56	1.3	●
8692725		5D	58	118		59	1.3	B ●
8690730	7.3	3D	37	94	8	56	1.3	●
8692730		5D	59	118		58	1.3	B ●
8704730		8D	80	140		59	1.3	●
8692736	7.36	5D	59	118	8	58	1.3	B ●
8692738	7.38	5D	60	118	8	57	1.3	B ●
8690740	7.4	3D	37	94	8	56	1.3	●
8692740		5D	60	118		57	1.3	B ●
8704740		8D	81	140		58	1.3	●
8690750	7.5	3D	38	94	8	55	1.4	●
8692750		5D	60	118		57	1.4	B ●
8694750		8D	83	140		56	1.4	●
8692752	7.52	5D	61	118	8	56	1.4	B ●
8692754	7.54	5D	61	118	8	56	1.4	B ●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8690760	7.6	3D	38	94	8	55	1.4	●
8692760		5D	61	118		56	1.4	B ●
8704760		8D	84	140		55	1.4	●
8690770	7.7	3D	39	94	8	54	1.4	●
8692770		5D	62	118		55	1.4	B ●
8704770		8D	85	140		54	1.4	●
8690775	7.75	3D	39	94	8	54	1.4	●
8692775		5D	62	118		55	1.4	B ●
8690780	7.8	3D	39	94	8	54	1.4	●
8692780		5D	63	118		54	1.4	B ●
8704780		8D	86	140		53	1.4	●
8690790	7.9	3D	40	94	8	53	1.4	●
8692790		5D	64	118		53	1.4	B ●
8704790		8D	87	140		52	1.4	●
8690800	8	3D	40	94	8	53	1.5	●
8692800		5D	64	118		53	1.5	B ●
8694800		8D	88	140		51	1.5	●
8690810	8.1 - 9	3D	41	101	9	59	1.5	●
8692810		5D	65	128		62	1.5	B ●
8694810		8D	89	150		60	1.5	●
8700810	8.1	3D	41	101	10	55.5	1.5	●
8702810		5D	65	128		58.5	1.5	B ●
8704810		8D	89	150		56.5	1.5	●
8690820	8.2 - 9	3D	41	101	9	59	1.5	●
8692820		5D	66	128		61	1.5	B ●
8694820		8D	90	150		59	1.5	●
8700820	8.2	3D	41	101	10	55.6	1.5	●
8702820		5D	66	128		57.6	1.5	B ●
8704820		8D	90	150		55.6	1.5	●
8690825	8.25 - 9	3D	42	101	9	58	1.5	●
8692825		5D	66	128		61	1.5	B ●
8690830	8.3 - 9	3D	42	101	9	58	1.5	●
8692830		5D	67	128		60	1.5	B ●
8694830		8D	91	150		58	1.5	●
8700830	8.3	3D	42	101	10	54.8	1.5	●
8702830		5D	67	128		56.8	1.5	B ●
8704830		8D	91	150		54.8	1.5	●

● = 标准库存品 ● = Standard stock item

NEXT



特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole
2D/4D

3D/5D/8D

带油孔 with Oil Hole
10D/15D/20D/25D/30D

导向钻
Pilot Drill

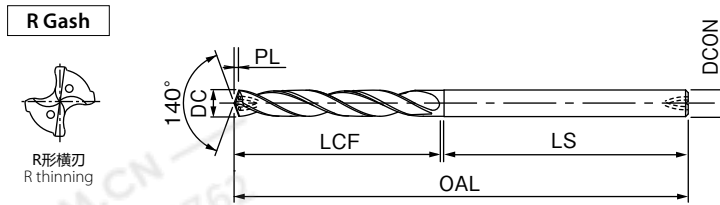
中心钻 Starter Drill
AD-LDS

切削条件表
Cutting Conditions

非标品对应表
Production Table
by Drill Diameter

ADO-3D/5D/8D

全尺寸2021年10月以后的生产依次改为**R Gash**。
All sizes after October 2021 production will be sequentially changed to **R Gash**.



FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8690840	8.4 - 9	3D	42	101	9	58	1.5	●
8692840		5D	68	128		59	1.5	B ●
8694840		8D	92	150		57	1.5	●
8700840	8.4	3D	42	101	10	55	1.5	●
8702840		5D	68	128		56	1.5	B ●
8704840		8D	92	150		54	1.5	●
8690850	8.5 - 9	3D	43	101	9	57	1.5	●
8692850		5D	68	128		59	1.5	B ●
8694850		8D	94	150		55	1.5	●
8700850	8.5	3D	43	101	10	54.2	1.5	●
8702850		5D	68	128		56.2	1.5	B ●
8704850		8D	94	150		52.2	1.5	●
8690860	8.6 - 9	3D	43	101	9	57	1.6	●
8692860		5D	69	128		58	1.6	B ●
8694860		8D	95	150		54	1.6	●
8700860	8.6	3D	43	101	10	54.4	1.6	●
8702860		5D	69	128		55.4	1.6	B ●
8704860		8D	95	150		51.4	1.6	●
8690870	8.7 - 9	3D	44	101	9	56	1.6	●
8692870		5D	70	128		57	1.6	B ●
8694870		8D	96	150		53	1.6	●
8700870	8.7	3D	44	101	10	53.6	1.6	●
8702870		5D	70	128		54.6	1.6	B ●
8704870		8D	96	150		50.6	1.6	●
8690875	8.75 - 9	3D	44	101	9	56	1.6	●
8692875		5D	70	128		57	1.6	B ●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8690880	8.8 - 9	3D	44	101	9	56	1.6	●
8692880		5D	71	128		56	1.6	B ●
8694880		8D	97	150		52	1.6	●
8700880	8.8	3D	44	101	10	53.8	1.6	●
8702880		5D	71	128		53.8	1.6	B ●
8704880		8D	97	150		49.8	1.6	●
8690890	8.9 - 9	3D	45	101	9	55	1.6	●
8692890		5D	72	128		55	1.6	B ●
8694890		8D	98	150		51	1.6	●
8700890	8.9	3D	45	101	10	52.9	1.6	●
8702890		5D	72	128		52.9	1.6	B ●
8704890		8D	98	150		48.9	1.6	●
8690900	9 - 9	3D	45	101	9	55	1.6	●
8692900		5D	72	128		55	1.6	B ●
8694900		8D	99	150		50	1.6	●
8700900	9	3D	45	101	10	53.1	1.6	●
8702900		5D	72	128		53.1	1.6	B ●
8704900		8D	99	150		48.1	1.6	●
8690910	9.1	3D	46	106	10	59	1.7	●
8692910		5D	73	136		62	1.7	B ●
8704910		8D	100	160		59	1.7	●
8690920	9.2	3D	46	106	10	59	1.7	●
8692920		5D	74	136		61	1.7	B ●
8704920		8D	101	160		58	1.7	●
8692924	9.24	5D	74	136	10	61	1.7	B ●
8690925	9.25	3D	47	106	10	58	1.7	●
8692925		5D	74	136		61	1.7	B ●

● = 标准库存品 ● = Standard stock item

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NEXT



全尺寸2021年10月以后的生产依次改为**R Gash**。
All sizes after October 2021 production will be sequentially changed to **R Gash**.

FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8692926	9.26	5D	75	136	10	60	1.7	B ●
8690930		3D	47	106		58	1.7	●
8692930	9.3	5D	75	136	10	60	1.7	B ●
8704930		8D	102	160		57	1.7	●
8692936	9.36	5D	75	136	10	60	1.7	B ●
8692938	9.38	5D	76	136	10	59	1.7	B ●
8690940		3D	47	106		58	1.7	●
8692940	9.4	5D	76	136	10	59	1.7	B ●
8704940		8D	103	160		56	1.7	●
8690950		3D	48	106		57	1.7	●
8692950	9.5	5D	76	136	10	59	1.7	B ●
8694950		8D	105	160		54	1.7	●
8692952	9.52	5D	77	136	10	58	1.7	B ●
8692954	9.54	5D	77	136	10	58	1.7	B ●
8690960		3D	48	106		57	1.7	●
8692960	9.6	5D	77	136	10	58	1.7	B ●
8704960		8D	106	160		53	1.7	●
8690970		3D	49	106		56	1.8	●
8692970	9.7	5D	78	136	10	57	1.8	B ●
8704970		8D	107	160		52	1.8	●
8690975		3D	49	106		56	1.8	●
8692975	9.75	5D	78	136	10	57	1.8	B ●
8690980		3D	49	106		56	1.8	●
8692980	9.8	5D	79	136	10	56	1.8	B ●
8704980		8D	108	160		51	1.8	●
8690990		3D	50	106		55	1.8	●
8692990	9.9	5D	80	136	10	55	1.8	B ●
8704990		8D	109	160		50	1.8	●
8691000		3D	50	106		55	1.8	●
8693000	10	5D	80	136	10	55	1.8	B ●
8695000		8D	110	160		49	1.8	●
8691010		3D	51	113		61	1.8	●
8693010	10.1 - 11	5D	81	146	11	64	1.8	B ●
8695010		8D	111	182		70	1.8	●
8701010		3D	51	113		57.5	1.8	●
8703010	10.1	5D	81	146	12	60.5	1.8	B ●
8705010		8D	111	182		66.5	1.8	●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8691020		3D	51	113		61	1.9	●
8693020	10.2 - 11	5D	82	146	11	63	1.9	B ●
8695020		8D	112	182		69	1.9	●
8701020		3D	51	113		57.6	1.9	●
8703020	10.2	5D	82	146	12	59.6	1.9	B ●
8705020		8D	112	182		65.6	1.9	●
8691025		3D	52	113		60	1.9	●
8693025	10.25 - 11	5D	82	146	11	63	1.9	B ●
8691030		3D	52	113		60	1.9	●
8693030	10.3 - 11	5D	83	146	11	62	1.9	B ●
8695030		8D	113	182		68	1.9	●
8701030		3D	52	113		56.8	1.9	●
8703030	10.3	5D	83	146	12	58.8	1.9	B ●
8705030		8D	113	182		64.8	1.9	●
8691040		3D	52	113		60	1.9	●
8693040	10.4 - 11	5D	84	146	11	61	1.9	B ●
8695040		8D	114	182		67	1.9	●
8701040		3D	52	113		57	1.9	●
8703040	10.4	5D	84	146	12	58	1.9	B ●
8705040		8D	114	182		64	1.9	●
8691050		3D	53	113		59	1.9	●
8693050	10.5 - 11	5D	84	146	11	61	1.9	B ●
8695050		8D	116	182		65	1.9	●
8701050		3D	53	113		56.2	1.9	●
8703050	10.5	5D	84	146	12	58.2	1.9	B ●
8705050		8D	116	182		62.2	1.9	●
8691060		3D	53	113		59	1.9	●
8693060	10.6 - 11	5D	85	146	11	60	1.9	B ●
8695060		8D	117	182		64	1.9	●
8701060		3D	53	113		56.4	1.9	●
8703060	10.6	5D	85	146	12	57.4	1.9	B ●
8705060		8D	117	182		61.4	1.9	●
8691070		3D	54	113		58	1.9	●
8693070	10.7 - 11	5D	86	146	11	59	1.9	B ●
8695070		8D	118	182		63	1.9	●

● = 标准库存品 ● = Standard stock item

特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole
2D/4D

3D/5D/8D

带油孔 with Oil Hole
10D/15D/20D/25D/30D

导向钻
Pilot Drill

中心钻 Starter Drill
AD-LDS

切削条件表
Cutting Conditions

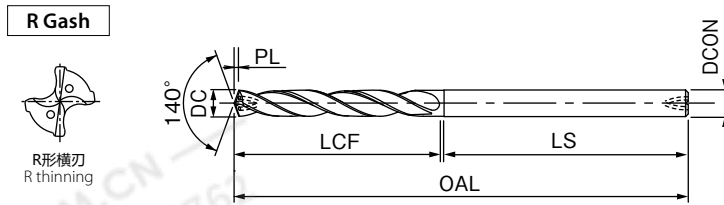
非标品对应表
Production Table
by Drill Diameter

NEXT



ADO-3D/5D/8D

全尺寸2021年10月以后的生产依次改为**R Gash**.
All sizes after October 2021 production will be sequentially changed to **R Gash**.



CARBIDE EgiAs h8 30° SHRINK FIT SPEED FEED P52

FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8701070	10.7	3D	54	113	12	55.6	1.9	●
8703070		5D	86	146		56.6	1.9	B ●
8705070		8D	118	182		60.6	1.9	●
8691075	10.75 - 11	3D	54	113	11	58	2	B ●
8693075		5D	86	146		59	2	●
8691080	10.8 - 11	3D	54	113	11	58	2	●
8693080		5D	87	146		58	2	B ●
8695080		8D	119	182		62	2	●
8701080	10.8	3D	54	113	12	55.8	2	●
8703080		5D	87	146		55.8	2	B ●
8705080		8D	119	182		59.8	2	●
8691090	10.9 - 11	3D	55	113	11	57	2	●
8693090		5D	88	146		57	2	B ●
8695090		8D	120	182		61	2	●
8701090	10.9	3D	55	113	12	54.9	2	●
8703090		5D	88	146		54.9	2	B ●
8705090		8D	120	182		58.9	2	●
8691100	11 - 11	3D	55	113	11	57	2	●
8693100		5D	88	146		57	2	B ●
8695100		8D	121	182		60	2	●
8701100	11	3D	55	113	12	55.1	2	●
8703100		5D	88	146		55.1	2	B ●
8705100		8D	121	182		58.1	2	●
8691110	11.1	3D	56	120	12	63	2	●
8693110		5D	89	156		66	2	B ●
8705110		8D	122	194		71	2	●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8691120	11.2	3D	56	120	12	63	2	●
8693120		5D	90	156		65	2	B ●
8705120		8D	123	194		70	2	●
8693122	11.22	5D	90	156	12	65	2	B ●
8693124	11.24	5D	90	156	12	65	2	B ●
8691130	11.3	3D	57	120	12	62	2.1	●
8693130		5D	91	156		64	2.1	B ●
8705130		8D	124	194		69	2.1	●
8693136	11.36	5D	91	156	12	64	2.1	B ●
8693138	11.38	5D	92	156	12	63	2.1	B ●
8691140	11.4	3D	57	120	12	62	2.1	●
8693140		5D	92	156		63	2.1	B ●
8705140		8D	125	194		68	2.1	●
8691150	11.5	3D	58	120	12	61	2.1	●
8693150		5D	92	156		63	2.1	B ●
8695150		8D	127	194		66	2.1	●
8691160	11.6	3D	58	120	12	61	2.1	●
8693160		5D	93	156		62	2.1	B ●
8705160		8D	128	194		65	2.1	●
8691170	11.7	3D	59	120	12	60	2.1	●
8693170		5D	94	156		61	2.1	B ●
8705170		8D	129	194		64	2.1	●
8691180	11.8	3D	59	120	12	60	2.1	●
8693180		5D	95	156		60	2.1	B ●
8705180		8D	130	194		63	2.1	●
8691190	11.9	3D	60	120	12	59	2.2	●
8693190		5D	96	156		59	2.2	B ●
8705190		8D	131	194		62	2.2	●

● = 标准库存品 ● = Standard stock item

- 标识说明请参考p.2.
- 涂层可能会有颜色不均的情况, 但这并不影响刀具的性能.
- See p.2 for explanation of icons.
- Drills may have some discoloration, but it does not cause any performance problems.

NEXT



全尺寸2021年10月以后的生产依次改为R Gash.
All sizes after October 2021 production will be sequentially changed to R Gash.

FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8691200	12	3D	60	120	12	59	2.2	●
8693200		5D	96	156		59	2.2	B ●
8695200		8D	132	194		61	2.2	●
8691210	12.1 - 13	3D	61	128	13	66	2.2	●
8693210		5D	97	167		69	2.2	B ●
8701210	12.1	3D	61	128	14	62.5	2.2	●
8703210		5D	97	167		65.5	2.2	B ●
8705210		8D	133	206		68.5	2.2	●
8691220	12.2 - 13	3D	61	128	13	66	2.2	●
8693220		5D	98	167		68	2.2	B ●
8701220	12.2	3D	61	128	14	62.6	2.2	●
8703220		5D	98	167		64.6	2.2	B ●
8705220		8D	134	206		67.6	2.2	●
8691230	12.3 - 13	3D	62	128	13	65	2.2	●
8693230		5D	99	167		67	2.2	B ●
8701230	12.3	3D	62	128	14	61.8	2.2	●
8703230		5D	99	167		63.8	2.2	B ●
8705230		8D	135	206		66.8	2.2	●
8691240	12.4 - 13	3D	62	128	13	65	2.3	●
8693240		5D	100	167		66	2.3	B ●
8701240	12.4	3D	62	128	14	62	2.3	●
8703240		5D	100	167		63	2.3	B ●
8705240		8D	136	206		66	2.3	●
8691250	12.5 - 13	3D	63	128	13	64	2.3	●
8693250		5D	100	167		66	2.3	B ●
8695250		8D	138	206		67	2.3	●
8701250	12.5	3D	63	128	14	61.2	2.3	●
8703250		5D	100	167		63.2	2.3	B ●
8705250		8D	138	206		64.2	2.3	●
8691260	12.6 - 13	3D	63	128	13	64	2.3	●
8693260		5D	101	167		65	2.3	B ●
8701260	12.6	3D	63	128	14	61.4	2.3	●
8703260		5D	101	167		62.4	2.3	B ●
8705260		8D	139	206		63.4	2.3	●
8691270	12.7 - 13	3D	64	128	13	63	2.3	●
8693270		5D	102	167		64	2.3	B ●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8701270	12.7	3D	64	128	14	60.6	2.3	●
8703270		5D	102	167		61.6	2.3	B ●
8705270		8D	140	206		62.6	2.3	●
8691275	12.75 - 13	3D	64	128	13	63	2.3	●
8693275		5D	103	167		63	2.3	B ●
8691280	12.8 - 13	3D	64	128	13	63	2.3	●
8693280		5D	103	167		63	2.3	B ●
8701280	12.8	3D	64	128	14	60.8	2.3	●
8703280		5D	103	167		60.8	2.3	B ●
8705280		8D	141	206		61.8	2.3	●
8691290	12.9 - 13	3D	65	128	13	62	2.3	●
8693290		5D	104	167		62	2.3	B ●
8701290	12.9	3D	65	128	14	59.9	2.3	●
8703290		5D	104	167		59.9	2.3	B ●
8705290		8D	142	206		60.9	2.3	●
8691300	13 - 13	3D	65	128	13	62	2.4	●
8693300		5D	104	167		62	2.4	B ●
8695300		8D	143	206		62	2.4	●
8701300	13	3D	65	128	14	60.1	2.4	●
8703300		5D	104	167		60.1	2.4	B ●
8705300		8D	143	206		60.1	2.4	●
8691310	13.1	3D	66	134	14	67	2.4	●
8693310		5D	105	176		70	2.4	B ●
8705310		8D	144	218		73	2.4	●
8691320	13.2	3D	66	134	14	67	2.4	●
8693320		5D	106	176		69	2.4	B ●
8705320		8D	145	218		72	2.4	●
8693325	13.25	5D	106	176	14	69	2.4	B ●
8691330	13.3	3D	67	134	14	66	2.4	●
8693330		5D	107	176		68	2.4	B ●
8705330		8D	146	218		71	2.4	●
8691340	13.4	3D	67	134	14	66	2.4	●
8693340		5D	108	176		67	2.4	B ●
8705340		8D	147	218		70	2.4	●
8691350	13.5	3D	68	134	14	65	2.5	●
8693350		5D	108	176		67	2.5	B ●
8705350		8D	149	218		68	2.5	●

● =标准库存品 ● =Standard stock item

NEXT



特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole
2D/4D

3D/5D/8D

带油孔 with Oil Hole
10D/15D/20D/25D/30D

导向钻
Pilot Drill

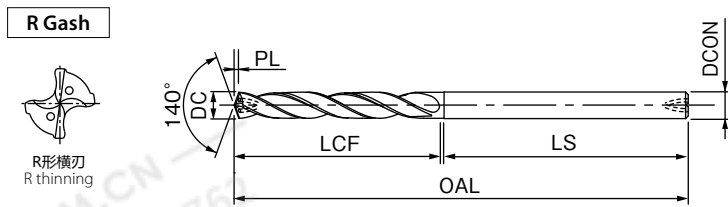
中心钻 Starter Drill
AD-LDS

切削条件表
Cutting Conditions

非标品对应表
Production Table
by Drill Diameter

ADO-3D/5D/8D

全尺寸2021年10月以后的生产依次改为**R Gash**.
All sizes after October 2021 production will be sequentially changed to **R Gash**.



FROM

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8691360	13.6	3D	68	134	14	65	2.5	●
8693360		5D	109	176		66	2.5	B ●
8705360		8D	150	218		67	2.5	●
8691370	13.7	3D	69	134	14	64	2.5	●
8693370		5D	110	176		65	2.5	B ●
8705370		8D	151	218		66	2.5	●
8691380	13.8	3D	69	134	14	64	2.5	●
8693380		5D	111	176		64	2.5	B ●
8705380		8D	152	218		65	2.5	●
8691390	13.9	3D	70	134	14	63	2.5	●
8693390		5D	112	176		63	2.5	B ●
8705390		8D	153	218		64	2.5	●
8691400	14	3D	70	134	14	63	2.5	●
8693400		5D	112	176		63	2.5	B ●
8705400		8D	154	218		63	2.5	●
8691410	14.1 - 15	3D	71	140	15	68	2.6	●
8693410		5D	113	185		71	2.6	B ●
8701410	14.1	3D	71	140	16	64.5	2.6	●
8703410		5D	113	185		67.5	2.6	B ●
8705410		8D	155	230		70.5	2.6	●
8691420	14.2 - 15	3D	71	140	15	68	2.6	●
8693420		5D	114	185		70	2.6	B ●
8701420	14.2	3D	71	140	16	64.6	2.6	●
8703420		5D	114	185		66.6	2.6	B ●
8705420		8D	156	230		69.6	2.6	●
8691430	14.3 - 15	3D	72	140	15	67	2.6	●
8693430		5D	115	185		69	2.6	B ●

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8701430	14.3	3D	72	140	16	63.8	2.6	●
8703430		5D	115	185		65.8	2.6	B ●
8705430		8D	157	230		68.8	2.6	●
8691440	14.4 - 15	3D	72	140	15	67	2.6	●
8693440		5D	116	185		68	2.6	B ●
8701440	14.4	3D	72	140	16	64	2.6	●
8703440		5D	116	185		65	2.6	B ●
8705440		8D	158	230		68	2.6	●
8691450	14.5 - 15	3D	73	140	15	66	2.6	●
8693450		5D	116	185		68	2.6	B ●
8701450	14.5	3D	73	140	16	63.2	2.6	●
8703450		5D	116	185		65.2	2.6	B ●
8705450		8D	160	230		66.2	2.6	●
8691460	14.6 - 15	3D	73	140	15	66	2.7	●
8693460		5D	117	185		67	2.7	B ●
8701460	14.6	3D	73	140	16	63.4	2.7	●
8703460		5D	117	185		64.4	2.7	B ●
8705460		8D	161	230		65.4	2.7	●
8691470	14.7 - 15	3D	74	140	15	65	2.7	●
8693470		5D	118	185		66	2.7	B ●
8701470	14.7	3D	74	140	16	62.6	2.7	●
8703470		5D	118	185		63.6	2.7	B ●
8705470		8D	162	230		64.6	2.7	●
8691480	14.8 - 15	3D	74	140	15	65	2.7	●
8693480		5D	119	185		65	2.7	B ●
8701480	14.8	3D	74	140	16	62.8	2.7	●
8703480		5D	119	185		62.8	2.7	B ●
8705480		8D	163	230		63.8	2.7	●

● =标准库存品 ● =Standard stock item

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- See p.2 for explanation of icons.
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NEXT



全尺寸2021年10月以后的生产依次改为**R Gash**.
All sizes after October 2021 production will be sequentially changed to **R Gash**.

FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8691490	14.9 - 15	3D	75	140	15	64	2.7	●
8693490		5D	120	185		64	2.7	●
8701490	14.9	3D	75	140	16	61.9	2.7	●
8703490		5D	120	185		61.9	2.7	●
8705490		8D	164	230		62.9	2.7	●
8691500	15 - 15	3D	75	140	15	64	2.7	●
8693500		5D	120	185		64	2.7	●
8701500	15	3D	75	140	16	62.1	2.7	●
8703500		5D	120	185		62.1	2.7	●
8705500		8D	165	230		62.1	2.7	●
8691510	15.1	3D	76	145	16	68	2.7	●
8693510		5D	121	193		71	2.7	●
8705510		8D	166	241		74	2.7	●
8691520	15.2	3D	76	145	16	68	2.8	●
8693520		5D	122	193		70	2.8	●
8705520		8D	167	241		73	2.8	●
8693525	15.25	5D	122	193	16	70	2.8	●
8691530	15.3	3D	77	145	16	67	2.8	●
8693530		5D	123	193		69	2.8	●
8705530		8D	168	241		72	2.8	●
8691540	15.4	3D	77	145	16	67	2.8	●
8693540		5D	124	193		68	2.8	●
8705540		8D	169	241		71	2.8	●
8691550	15.5	3D	78	145	16	66	2.8	●
8693550		5D	124	193		68	2.8	●
8705550		8D	171	241		69	2.8	●
8691560	15.6	3D	78	145	16	66	2.8	●
8693560		5D	125	193		67	2.8	●
8705560		8D	172	241		68	2.8	●
8691570	15.7	3D	79	145	16	65	2.9	●
8693570		5D	126	193		66	2.9	●
8705570		8D	173	241		67	2.9	●

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8691580	15.8	3D	79	145	16	65	2.9	●
8693580		5D	127	193		65	2.9	●
8705580		8D	174	241		66	2.9	●
8691590	15.9	3D	80	145	16	64	2.9	●
8693590		5D	128	193		64	2.9	●
8705590		8D	175	241		65	2.9	●
8691600	16	3D	80	145	16	64	2.9	●
8693600		5D	128	193		64	2.9	●
8705600		8D	176	241		64	2.9	●
	16.1	3D	81	150	18	64.5	2.9	□
		5D	129	201		67.5	2.9	□
	16.2	3D	81	150	18	64.7	2.9	□
		5D	130	201		66.6	2.9	□
	16.3	3D	82	150	18	63.8	3	□
		5D	131	201		65.8	3	□
	16.4	3D	82	150	18	64	3	□
		5D	132	201		65	3	□
8691650	16.5 - 17	3D	83	150	17	66	3	●
8693650		5D	132	201		68	3	●
8701650	16.5	3D	83	150	18	63.2	3	●
8703650		5D	132	201		65.2	3	●
	16.6	3D	83	150	18	63.4	3	□
		5D	133	201		64.4	3	□
	16.7	3D	84	150	18	62.6	3	□
		5D	134	201		63.6	3	□
	16.8	3D	84	150	18	62.8	3.1	□
		5D	135	201		62.8	3.1	□
	16.9	3D	85	150	18	61.9	3.1	□
		5D	136	201		61.9	3.1	□
8691700	17 - 17	3D	85	150	17	64	3.1	●
8693700		5D	136	201		64	3.1	●

● = 标准库存品 ● = Standard stock item
□ = 特定代理店库存品 □ = Stocked by specific distributors.
Contact us for price & availability.

特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole
2D/4D

3D/5D/8D

带油孔 with Oil Hole
10D/15D/20D/25D/30D

导向钻
Pilot Drill

中心钻 Starter Drill
AD-LDS

切削条件表
Cutting Conditions

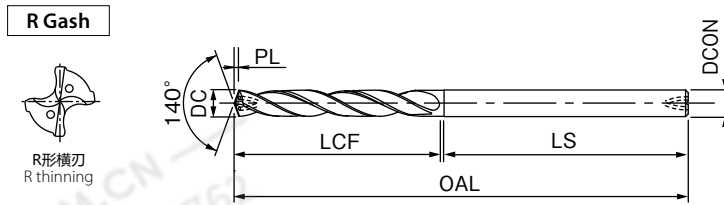
非标品对应表
Production Table
by Drill Diameter

NEXT



ADO-3D/5D/8D

全尺寸2021年10月以后的生产依次改为**R Gash**.
All sizes after October 2021 production will be sequentially changed to **R Gash**.



CARBIDE EgiAs h8 30° SHRINK FIT SPEED FEED P52

FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
8701700	17	3D	85	150	18	62.1	3.1	●
8703700		5D	136	201		62.1	3.1	●
	17.1	3D	86	155	18	68	3.1	□
		5D	137	209		71	3.1	□
	17.2	3D	86	155	18	68	3.1	□
		5D	138	209		70	3.1	□
	17.3	3D	87	155	18	67	3.1	□
		5D	139	209		69	3.1	□
	17.4	3D	87	155	18	67	3.2	□
		5D	140	209		68	3.2	□
8691750	17.5	3D	88	155	18	66	3.2	●
8693750		5D	140	209		68	3.2	●
	17.6	3D	88	155	18	66	3.2	□
		5D	141	209		67	3.2	□
	17.7	3D	89	155	18	65	3.2	□
		5D	142	209		66	3.2	□
	17.8	3D	89	155	18	65	3.2	□
		5D	143	209		65	3.2	□
	17.9	3D	90	155	18	64	3.3	□
		5D	144	209		64	3.3	□
8691800	18	3D	90	155	18	64	3.3	●
8693800		5D	144	209		64	3.3	●
	18.1	3D	91	160	20	64.5	3.3	□
		5D	145	217		67.5	3.3	□
	18.2	3D	91	160	20	64.6	3.3	□
		5D	146	217		66.6	3.3	□

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
	18.3	3D	92	160	20	63.8	3.3	□
		5D	147	217		65.8	3.3	□
	18.4	3D	92	160	20	64	3.3	□
		5D	148	217		65	3.3	□
8691850	18.5 - 19	3D	93	160	19	66	3.4	●
8693850		5D	148	217		68	3.4	●
8701850	18.5	3D	93	160	20	63.2	3.4	●
8703850		5D	148	217		65.2	3.4	●
	18.6	3D	93	160	20	63.4	3.4	□
		5D	149	217		64.4	3.4	□
	18.7	3D	94	160	20	62.6	3.4	□
		5D	150	217		63.6	3.4	□
	18.8	3D	94	160	20	62.8	3.4	□
		5D	151	217		62.8	3.4	□
	18.9	3D	95	160	20	61.9	3.4	□
		5D	152	217		61.9	3.4	□
8691900	19 - 19	3D	95	160	19	64	3.5	●
8693900		5D	152	217		64	3.5	●
8701900	19	3D	95	160	20	62.1	3.5	●
8703900		5D	152	217		62.1	3.5	●
	19.1	3D	96	165	20	68	3.5	□
		5D	153	225		71	3.5	□
	19.2	3D	96	165	20	68	3.5	□
		5D	154	225		70	3.5	□
	19.3	3D	97	165	20	67	3.5	□
		5D	155	225		69	3.5	□

- 标识说明请参考p.2.
- 涂层可能会有颜色不均的情况, 但这并不影响刀具的性能.
- See p.2 for explanation of icons.
- Drills may have some discoloration, but it does not cause any performance problems.

- = 标准库存品 ● = Standard stock item
 - = 特定代理店库存品 □ = Stocked by specific distributors.
- Contact us for price & availability.



全尺寸2021年10月以后的生产依次改为**R Gash**.
All sizes after October 2021 production will be sequentially changed to **R Gash**.

FROM

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
	19.4	3D	97	165	20	67	3.5	<input type="checkbox"/>
		5D	156	225		68	3.5	<input type="checkbox"/>
8691950	19.5	3D	98	165	20	66	3.5	●
8693950		5D	156	225		68	3.5	●
	19.6	3D	98	165	20	66	3.6	<input type="checkbox"/>
		5D	157	225		67	3.6	<input type="checkbox"/>
	19.7	3D	99	165	20	65	3.6	<input type="checkbox"/>
		5D	158	225		66	3.6	<input type="checkbox"/>

单位:mm Unit:mm

商品号 EDP No.	直径 - 柄径 DC - DCON	类型 Type	槽长 LCF	全长 OAL	柄径 DCON	柄长 LS	先端 PL	库存 Stock
	19.8	3D	99	165	20	65	3.6	<input type="checkbox"/>
		5D	159	225		65	3.6	<input type="checkbox"/>
	19.9	3D	100	165	20	64	3.6	<input type="checkbox"/>
		5D	160	225		64	3.6	<input type="checkbox"/>
8692000	20	3D	100	165	20	64	3.6	●
8694000		5D	160	225		64	3.6	●

● = 标准库存品 ● = Standard stock item
□ = 特定代理店库存品 □ = Stocked by specific distributors.
Contact us for price & availability.

特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole
2D/4D

3D/5D/8D

带油孔 with Oil Hole
10D/15D/20D/25D/30D

导向钻
Pilot Drill

中心钻 Starter Drill
AD-LDS

切削条件表
Cutting Conditions

非标准品对应表
Production Table
by Drill Diameter

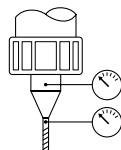


ADO-3D/5D/8D

加工材料 Work Material	软钢·低碳素钢 Mild Steel · Low Carbon Steel SS400 · S10C ~150HB ~500N/mm ²		碳素钢 Carbon Steel S35C · S50C ~210HB ~710N/mm ²		合金钢 Alloy Steel SCM · SCr · SNCM 16 ~ 28HRC 710 ~ 900N/mm ²		合金钢 Alloy Steel SCM · SCr · SNCM 28 ~ 35HRC 900 ~ 1,100N/mm ²		
	80~120m/min		80~160m/min		80~120m/min		60~90m/min		
切削速度 Cutting Speed	直径 Drill Dia. (mm)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)
	2	12,700	0.04 ~ 0.08	12,700	0.04 ~ 0.08	12,700	0.04 ~ 0.08	11,100	0.04 ~ 0.08
	3	10,600	0.06 ~ 0.12	10,600	0.06 ~ 0.12	10,600	0.06 ~ 0.12	7,400	0.06 ~ 0.12
	4	8,000	0.08 ~ 0.16	8,000	0.08 ~ 0.16	8,000	0.08 ~ 0.16	5,600	0.08 ~ 0.16
	5	6,400	0.1 ~ 0.2	6,400	0.1 ~ 0.2	6,400	0.1 ~ 0.2	4,500	0.1 ~ 0.2
	6	5,300	0.12 ~ 0.24	5,300	0.12 ~ 0.24	5,300	0.12 ~ 0.24	3,700	0.12 ~ 0.24
	7	4,500	0.14 ~ 0.26	4,500	0.14 ~ 0.26	4,500	0.14 ~ 0.26	3,200	0.14 ~ 0.26
	8	4,000	0.16 ~ 0.28	4,000	0.16 ~ 0.28	4,000	0.16 ~ 0.28	2,800	0.16 ~ 0.28
	9	3,500	0.18 ~ 0.3	3,500	0.18 ~ 0.3	3,500	0.18 ~ 0.3	2,500	0.18 ~ 0.3
	10	3,200	0.2 ~ 0.3	3,200	0.2 ~ 0.3	3,200	0.2 ~ 0.3	2,200	0.2 ~ 0.3
	11	2,900	0.2 ~ 0.3	2,900	0.2 ~ 0.3	2,900	0.2 ~ 0.3	2,000	0.2 ~ 0.3
	12	2,700	0.21 ~ 0.3	2,700	0.21 ~ 0.3	2,700	0.21 ~ 0.3	1,900	0.21 ~ 0.3
	14	2,300	0.22 ~ 0.35	2,300	0.22 ~ 0.35	2,300	0.22 ~ 0.35	1,600	0.22 ~ 0.35
	16	2,000	0.25 ~ 0.36	2,000	0.25 ~ 0.36	2,000	0.25 ~ 0.36	1,400	0.25 ~ 0.36
	18	1,800	0.28 ~ 0.38	1,800	0.28 ~ 0.38	1,800	0.28 ~ 0.38	1,200	0.28 ~ 0.38
	20	1,600	0.3 ~ 0.4	1,600	0.3 ~ 0.4	1,600	0.3 ~ 0.4	1,100	0.3 ~ 0.4

加工材料 Work Material	铸铁 Cast Iron FC250 ~350N/mm ²		球墨铸铁 Ductile Cast Iron FCD450 FCD600 400~600N/mm ²		不锈钢 Stainless Steel SUS300系 SUS400系 480~800N/mm ²		特殊钢·调质钢·预硬钢 Special Alloy Steel · Hardened Steel · Prehardened Steel SKD61(非调质)(unquenched) 34 ~ 40HRC 1,060~1,250N/mm ²		
	80~120m/min		60~100m/min		40~80m/min		30~60m/min		
切削速度 Cutting Speed	直径 Drill Dia. (mm)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)	转速 Speed (min ⁻¹)	进给量 Feed Rate (mm/rev)
	2	12,700	0.04 ~ 0.08	12,700	0.04 ~ 0.08	9,500	0.04 ~ 0.08	7,200	0.04 ~ 0.06
	3	10,600	0.06 ~ 0.12	8,500	0.06 ~ 0.12	6,400	0.06 ~ 0.12	4,800	0.06 ~ 0.09
	4	8,000	0.08 ~ 0.16	6,400	0.08 ~ 0.16	4,800	0.08 ~ 0.16	3,600	0.08 ~ 0.12
	5	6,400	0.1 ~ 0.2	5,100	0.1 ~ 0.2	3,800	0.1 ~ 0.2	2,900	0.1 ~ 0.15
	6	5,300	0.12 ~ 0.24	4,200	0.12 ~ 0.24	3,200	0.12 ~ 0.24	2,400	0.12 ~ 0.18
	7	4,500	0.14 ~ 0.26	3,600	0.14 ~ 0.26	2,700	0.14 ~ 0.26	2,000	0.14 ~ 0.21
	8	4,000	0.16 ~ 0.28	3,200	0.16 ~ 0.28	2,400	0.16 ~ 0.28	1,800	0.16 ~ 0.24
	9	3,500	0.18 ~ 0.3	2,800	0.18 ~ 0.3	2,100	0.18 ~ 0.3	1,600	0.18 ~ 0.27
	10	3,200	0.2 ~ 0.3	2,500	0.2 ~ 0.3	1,900	0.2 ~ 0.3	1,400	0.2 ~ 0.3
	11	2,900	0.2 ~ 0.3	2,300	0.2 ~ 0.3	1,700	0.2 ~ 0.3	1,300	0.2 ~ 0.3
	12	2,700	0.21 ~ 0.3	2,100	0.21 ~ 0.3	1,600	0.21 ~ 0.3	1,200	0.21 ~ 0.3
	14	2,300	0.22 ~ 0.35	1,800	0.22 ~ 0.35	1,400	0.22 ~ 0.35	1,000	0.22 ~ 0.35
	16	2,000	0.25 ~ 0.36	1,600	0.25 ~ 0.36	1,200	0.25 ~ 0.36	900	0.25 ~ 0.36
	18	1,800	0.28 ~ 0.38	1,400	0.28 ~ 0.38	1,100	0.28 ~ 0.38	800	0.28 ~ 0.38
	20	1,600	0.3 ~ 0.4	1,300	0.3 ~ 0.4	1,000	0.3 ~ 0.4	700	0.3 ~ 0.4

1. 此切削条件基准表适用于水溶性切削油剂或油雾式冷却加工。
2. 请使用稀释20倍以下的优质水溶性切削油剂。
3. 使用油性切削油剂或水溶性切削油剂稀释倍率超过20倍时，切削速度请下调30%。
4. 此切削条件基准表适用于孔深在8D 以下的情况。
5. 安装钻头时，请使用无损伤、无油污的夹具，钻头振动控制在0.02mm 以下。
6. 请保持加工材料在不变形、不弯曲、不振动的状态下。
7. 油孔堵塞是造成折损问题的原因，请务必安装供油装置的过滤器。
8. 加工高硬度材料或8D用时，请根据情况进行1D~2D的阶梯式加工。
9. 根据使用环境，也有可能无法达到高速条件。
10. 加工镁合金时，请务必使用切削油剂厂家推荐的切削油剂。还有，处理切屑时请注意，以免造成火灾。



1. The indicated speeds and feeds are for drilling with water-soluble coolant or MQL.
2. Water-soluble high density coolant (less than 20 times dilution) is recommended.
3. When using non-water-soluble or water-soluble coolant (over 20 times dilution), reduce cutting speed by 30%.
4. These conditions are for drilling depth less than 8 times the drill diameter.
5. Equip the drill with a scratch- and dust-free collet and minimize drill deflection to less than 0.02mm.
6. Fasten the work material to reduce the possibility of work deformation, deflection of machined surface, or vibration.
7. A clogged oil hole can lead to a breakage. Make sure that a filter is attached to the oil feeder.
8. 1D - 2D step feeding may be required for drilling high hardened steels and mid-range (8D) work.
9. Depending on actual operation environment, high speed cutting parameters listed above may not be applicable.
10. Please always use the appropriate cutting fluid recommended by the cutting fluid manufacturer in the machining of magnesium alloys. Be cautious with the cutting chips as they are highly flammable and may pose a serious fire risk if not properly handled.

特点
Feature

加工数据
Cutting Data

无油孔 Non Oil Hole

2D/4D

3D/5D/8D

带油孔 with Oil Hole

10D/15D/20D/25D/30D

导向钻
Pilot Drill

中心钻 Starter Drill

AD-LDS

切削条件表
Cutting Conditions

非标品对应表
Production Table
by Drill Diameter

