ZCC·CT



ZTK series

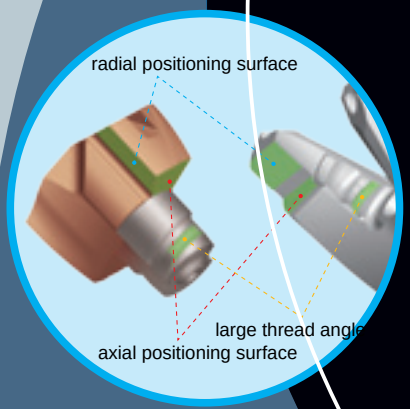
Interchangeable head drill

ZHUZHOU CEMENTED CARBIDE
CUTTING TOOLS CO., LTD.

ZTK Interchangeable head drill series

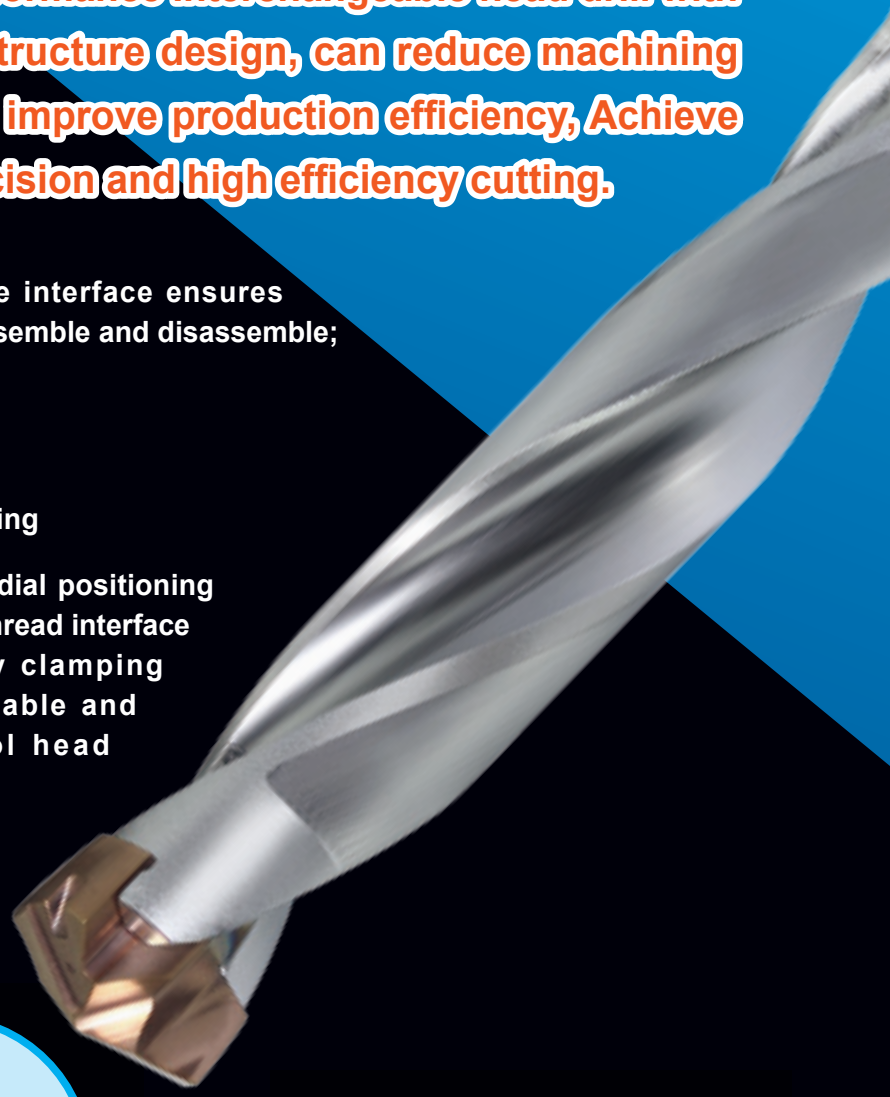
High-performance Interchangeable head drill with unique structure design, can reduce machining cost and improve production efficiency, Achieve high precision and high efficiency cutting.

- Unique large thread angle interface ensures install precision, easy to assemble and disassemble;



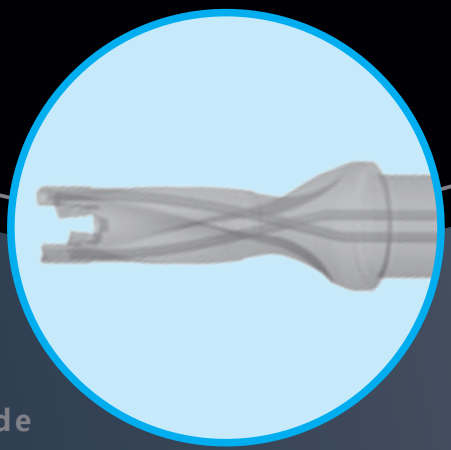
- Double clamping

  Both axial, radial positioning surface and thread interface coordinately clamping to ensure stable and reliable tool head assembly;





- Unique cutting edge design, with good versatility can ensure smooth cutting, achieve low resistance and efficient machining;



- Double helical internal coolant holes, provide accurate cooling supply and good chip control during machining;



Code key of Interchangeable head drill tool holder

ZTK 03 ED160 - G 20 C

Product series	L/D	Tool diameter	Shank type	Shank diameter	Internal identification
	015 1.5D 03 3D 05 5D 08 8D	120-250 12.0mm-25.0mm	G Cylindrical shank XP Weldon shank	16 20 25 32	

Code key of Interchangeable head drill head

EDC 1600 - 080 - GD

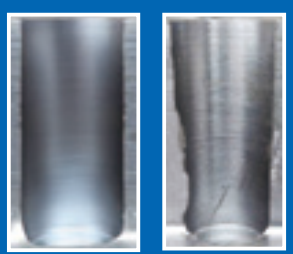
Product series	Tool diameter	Coupling size code	Application range
	1200-2590 12.0mm-25.9mm	060-125	GD General-purpose machining KD For Cast iron LD For AL



Excellent machining accuracy

Case study

Tool holder specification:
ZTK03-ED125-G16C
Tool head specification:
EDC1260-060-GD
Workpiece materials: 42CrMo (HRC30)
Cutting data: Vc=100m/min; f=0.20mm/r; ap=30mm
Cooling type: internal coolant supply



ZTK Similar products of company A

Excellent chip-breaking performance

Case study

Tool holder specification:
ZTK03-ED160-G20C
Tool head specification:
EDC1630-080-GD
Workpiece materials: 50Mn (HB240)
Cutting data: Vc=120m/min; f=0.30mm/r; ap=30mm
Cooling type: internal coolant supply



ZTK Similar products of company A

Three types of drill-head, able to meet requirements for various materials, prolong tool life, achieve machining stability

General-purpose machining-GD
The combination of curve and straight cutting edge generates good universality



-GD

For Cast iron-KD
Enhanced cutting edge prolong tool life



-KD

For AL-LD
Low resistance design, achieve high efficiency cutting

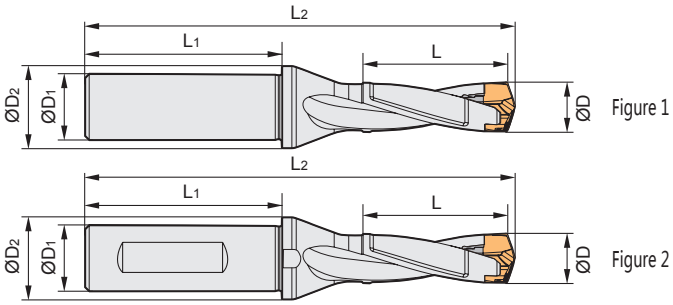


-LD

ZTK015 1.5D

Used for shanks with 12.0mm-25.9mm diameter drill head





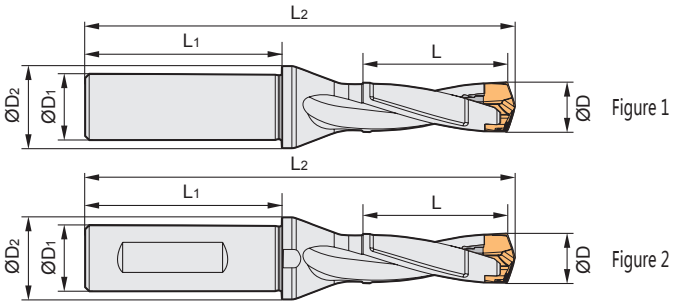
Item		Stock	Dimension(mm)						Coupling	Shank Type	Wrench
			D	L	D_1	D_2	L_1	L_2			
ZTK015 Cylindrical shank	-ED120-G16C	▲	12-12.9	18.0	16	20	48	83.0	060	Figure 1	ZTK12-15.9
	-ED130-G16C	▲	13-13.9	19.5	16	20	48	85.5	065	Figure 1	ZTK12-15.9
	-ED140-G16C	▲	14-14.9	21.0	16	20	48	89.0	070	Figure 1	ZTK12-15.9
	-ED150-G20C	▲	15-15.9	22.5	20	25	50	96.5	075	Figure 1	ZTK12-15.9
	-ED160-G20C	▲	16-16.9	24.0	20	25	50	100.0	080	Figure 1	ZTK16-20.9
	-ED170-G20C	▲	17-17.9	25.5	20	25	50	102.5	085	Figure 1	ZTK16-20.9
	-ED180-G25C	▲	18-18.9	27.0	25	32	56	112.0	090	Figure 1	ZTK16-20.9
	-ED190-G25C	▲	19-19.9	28.5	25	32	56	114.5	095	Figure 1	ZTK16-20.9
	-ED200-G25C	▲	20-20.9	30.0	25	32	56	116.0	100	Figure 1	ZTK16-20.9
	-ED210-G25C	▲	21-21.9	31.5	25	32	56	125.5	105	Figure 1	ZTK21-25.9
	-ED220-G25C	▲	22-22.9	33.0	25	32	56	128.0	110	Figure 1	ZTK21-25.9
	-ED230-G32C	▲	23-23.9	34.5	32	42	60	131.5	115	Figure 1	ZTK21-25.9
	-ED240-G32C	▲	24-24.9	36.0	32	42	60	134.0	120	Figure 1	ZTK21-25.9
	-ED250-G32C	▲	25-25.9	37.5	32	42	60	137.5	125	Figure 1	ZTK21-25.9
Weldon shank	-ED120-XP16C	▲	12-12.9	18.0	16	20	48	83.0	060	Figure 2	ZTK12-15.9
	-ED130-XP16C	▲	13-13.9	19.5	16	20	48	85.5	065	Figure 2	ZTK12-15.9
	-ED140-XP16C	▲	14-14.9	21.0	16	20	48	89.0	070	Figure 2	ZTK12-15.9
	-ED150-XP20C	▲	15-15.9	22.5	20	25	50	96.5	075	Figure 2	ZTK12-15.9
	-ED160-XP20C	▲	16-16.9	24.0	20	25	50	100.0	080	Figure 2	ZTK12-15.9
	-ED170-XP20C	▲	17-17.9	25.5	20	25	50	102.5	085	Figure 2	ZTK12-15.9
	-ED180-XP25C	▲	18-18.9	27.0	25	32	56	112.0	090	Figure 2	ZTK12-15.9
	-ED190-XP25C	▲	19-19.9	28.5	25	32	56	114.5	095	Figure 2	ZTK16-20.9
	-ED200-XP25C	▲	20-20.9	30.0	25	32	56	116.0	100	Figure 2	ZTK16-20.9
	-ED210-XP25C	▲	21-21.9	31.5	25	32	56	125.5	105	Figure 2	ZTK16-20.9
	-ED220-XP25C	▲	22-22.9	33.0	25	32	56	128.0	110	Figure 2	ZTK16-20.9
	-ED230-XP32C	▲	23-23.9	34.5	32	42	60	131.5	115	Figure 2	ZTK16-20.9
	-ED240-XP32C	▲	24-24.9	36.0	32	42	60	134.0	120	Figure 2	ZTK21-25.9
	-ED250-XP32C	▲	25-25.9	37.5	32	42	60	137.5	125	Figure 2	ZTK21-25.9

▲Regular Stock △Made-to-order

ZTK03 3D

Used for shanks with 12.0mm-25.9mm diameter drill head





Item		Stock	Dimension(mm)						Coupling	Shank Type	Wrench
			D	L	D_1	D_2	L_1	L_2			
ZTK03 Cylindrical shank	**-ED120-G16C**	▲	12-12.4	36.0	16	20	48	101.0	060	Figure 1	ZTK12-15.9
	-ED125-G16C	▲	12.5-12.9	37.0	16	20	48	103.0	060	Figure 1	ZTK12-15.9
	-ED130-G16C	▲	13-13.4	39.0	16	20	48	105.0	065	Figure 1	ZTK12-15.9
	-ED135-G16C	▲	13.5-13.9	41.0	16	20	48	107.0	065	Figure 1	ZTK12-15.9
	-ED140-G16C	▲	14-14.4	42.0	16	20	48	110.0	070	Figure 1	ZTK12-15.9
	-ED145-G16C	▲	14.5-14.9	44.0	16	20	48	112.0	070	Figure 1	ZTK12-15.9
	-ED150-G20C	▲	15-15.9	45.0	20	25	50	119.0	075	Figure 1	ZTK12-15.9
	-ED160-G20C	▲	16-16.9	48.0	20	25	50	124.0	080	Figure 1	ZTK16-20.9
	-ED170-G20C	▲	17-17.9	51.0	20	25	50	128.0	085	Figure 1	ZTK16-20.9
	-ED180-G25C	▲	18-18.9	54.0	25	32	56	139.0	090	Figure 1	ZTK16-20.9
	-ED190-G25C	▲	19-19.9	57.0	25	32	56	143.0	095	Figure 1	ZTK16-20.9
	-ED200-G25C	▲	20-20.9	60.0	25	32	56	146.0	100	Figure 1	ZTK16-20.9
	-ED210-G25C	▲	21-21.9	63.0	25	32	56	157.0	105	Figure 1	ZTK21-25.9
	-ED220-G25C	▲	22-22.9	66.0	25	32	56	161.0	110	Figure 1	ZTK21-25.9
	-ED230-G32C	▲	23-23.9	69.0	32	42	60	166.0	115	Figure 1	ZTK21-25.9
	-ED240-G32C	▲	24-24.9	72.0	32	42	60	170.0	120	Figure 1	ZTK21-25.9
	-ED250-G32C	▲	25-25.9	75.0	32	42	60	175.0	125	Figure 1	ZTK21-25.9
Weldon shank	**-ED120-XP16C**	▲	12-12.4	36.0	16	20	48	101.0	060	Figure 2	ZTK12-15.9
	-ED125-XP16C	▲	12.5-12.9	37.0	16	20	48	103.0	060	Figure 2	ZTK12-15.9
	-ED130-XP16C	▲	13-13.4	39.0	16	20	48	105.0	065	Figure 2	ZTK12-15.9
	-ED135-XP16C	▲	13.5-13.9	41.0	16	20	48	107.0	065	Figure 2	ZTK12-15.9
	-ED140-XP16C	▲	14-14.4	42.0	16	20	48	110.0	070	Figure 2	ZTK12-15.9
	-ED145-XP16C	▲	14.5-14.9	44.0	16	20	48	112.0	070	Figure 2	ZTK12-15.9
	-ED150-XP20C	▲	15-15.9	45.0	20	25	50	119.0	075	Figure 2	ZTK12-15.9
	-ED160-XP20C	▲	16-16.9	48.0	20	25	50	124.0	080	Figure 2	ZTK16-20.9
	-ED170-XP20C	▲	17-17.9	51.0	20	25	50	128.0	085	Figure 2	ZTK16-20.9
	-ED180-XP25C	▲	18-18.9	54.0	25	32	56	139.0	090	Figure 2	ZTK16-20.9
	-ED190-XP25C	▲	19-19.9	57.0	25	32	56	143.0	095	Figure 2	ZTK16-20.9
	-ED200-XP25C	▲	20-20.9	60.0	25	32	56	146.0	100	Figure 2	ZTK16-20.9
	-ED210-XP25C	▲	21-21.9	63.0	25	32	56	157.0	105	Figure 2	ZTK21-25.9
	-ED220-XP25C	▲	22-22.9	66.0	25	32	56	161.0	110	Figure 2	ZTK21-25.9
	-ED230-XP32C	▲	23-23.9	69.0	32	42	60	166.0	115	Figure 2	ZTK21-25.9
	-ED240-XP32C	▲	24-24.9	72.0	32	42	60	170.0	120	Figure 2	ZTK21-25.9
	-ED250-XP32C	▲	25-25.9	75.0	32	42	60	175.0	125	Figure 2	ZTK21-25.9

▲Regular Stock △Made-to-order

ZTK05 5D

Used for shanks with 12.0mm-25.9mm diameter drill head



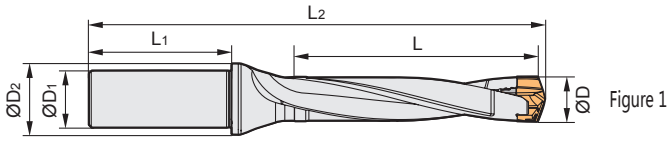


Figure 1

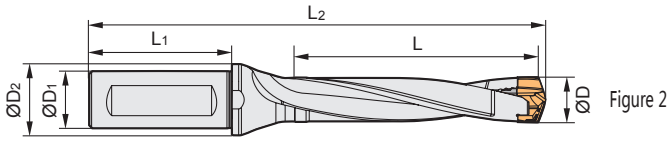


Figure 2

Item		Stock	Dimension(mm)						Coupling	Shank Type	Wrench
			D	L	D_1	D_2	L_1	L_2			
ZTK05 Cylindrical shank	-ED120-G16C	▲	12-12.4	60.0	16	20	48	125.0	060	Figure 1	ZTK12-15.9
	-ED125-G16C	▲	12.5-12.9	62.0	16	20	48	128.0	060	Figure 1	ZTK12-15.9
	-ED130-G16C	▲	13-13.4	65.0	16	20	48	131.0	065	Figure 1	ZTK12-15.9
	-ED135-G16C	▲	13.5-13.9	68.0	16	20	48	134.0	065	Figure 1	ZTK12-15.9
	-ED140-G16C	▲	14-14.4	70.0	16	20	48	139.0	070	Figure 1	ZTK12-15.9
	-ED145-G16C	▲	14.5-14.9	73.0	16	20	48	141.0	070	Figure 1	ZTK12-15.9
	-ED150-G20C	▲	15-15.9	75.0	20	25	50	149.0	075	Figure 1	ZTK12-15.9
	-ED160-G20C	▲	16-16.9	80.0	20	25	50	156.0	080	Figure 1	ZTK16-20.9
	-ED170-G20C	▲	17-17.9	85.0	20	25	50	162.0	085	Figure 1	ZTK16-20.9
	-ED180-G25C	▲	18-18.9	90.0	25	32	56	175.0	090	Figure 1	ZTK16-20.9
	-ED190-G25C	▲	19-19.9	95.0	25	32	56	181.0	095	Figure 1	ZTK16-20.9
	-ED200-G25C	▲	20-20.9	100.0	25	32	56	188.0	100	Figure 1	ZTK16-20.9
	-ED210-G25C	▲	21-21.9	105.0	25	32	56	199.0	105	Figure 1	ZTK21-25.9
	-ED220-G25C	▲	22-22.9	110.0	25	32	56	205.0	110	Figure 1	ZTK21-25.9
	-ED230-G32C	▲	23-23.9	115.0	32	42	60	212.0	115	Figure 1	ZTK21-25.9
	-ED240-G32C	▲	24-24.9	120.0	32	42	60	218.0	120	Figure 1	ZTK21-25.9
	-ED250-G32C	▲	25-25.9	125.0	32	42	60	225.0	125	Figure 1	ZTK21-25.9
Weldon shank	-ED120-XP16C	▲	12-12.4	60.0	16	20	48	125.0	060	Figure 2	ZTK12-15.9
	-ED125-XP16C	▲	12.5-12.9	62.0	16	20	48	128.0	060	Figure 2	ZTK12-15.9
	-ED130-XP16C	▲	13-13.4	65.0	16	20	48	131.0	065	Figure 2	ZTK12-15.9
	-ED135-XP16C	▲	13.5-13.9	68.0	16	20	48	134.0	065	Figure 2	ZTK12-15.9
	-ED140-XP16C	▲	14-14.4	70.0	16	20	48	139.0	070	Figure 2	ZTK12-15.9
	-ED145-XP16C	▲	14.5-14.9	73.0	16	20	48	141.0	070	Figure 2	ZTK12-15.9
	-ED150-XP20C	▲	15-15.9	75.0	20	25	50	149.0	075	Figure 2	ZTK12-15.9
	-ED160-XP20C	▲	16-16.9	80.0	20	25	50	156.0	080	Figure 2	ZTK16-20.9
	-ED170-XP20C	▲	17-17.9	85.0	20	25	50	162.0	085	Figure 2	ZTK16-20.9
	-ED180-XP25C	▲	18-18.9	90.0	25	32	56	175.0	090	Figure 2	ZTK16-20.9
	-ED190-XP25C	▲	19-19.9	95.0	25	32	56	181.0	095	Figure 2	ZTK16-20.9
	-ED200-XP25C	▲	20-20.9	100.0	25	32	56	188.0	100	Figure 2	ZTK16-20.9
	-ED210-XP25C	▲	21-21.9	105.0	25	32	56	199.0	105	Figure 2	ZTK21-25.9
	-ED220-XP25C	▲	22-22.9	110.0	25	32	56	205.0	110	Figure 2	ZTK21-25.9
	-ED230-XP32C	▲	23-23.9	115.0	32	42	60	212.0	115	Figure 2	ZTK21-25.9
	-ED240-XP32C	▲	24-24.9	120.0	32	42	60	218.0	120	Figure 2	ZTK21-25.9
	-ED250-XP32C	▲	25-25.9	125.0	32	42	60	225.0	125	Figure 2	ZTK21-25.9

▲Regular Stock △Made-to-order

ZTK08 8D

Used for shanks with 12.0mm-25.9mm diameter drill head



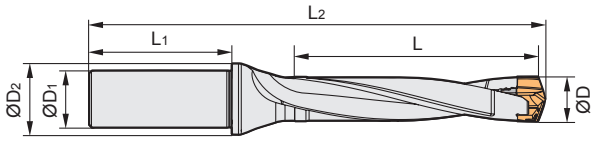


Figure 1

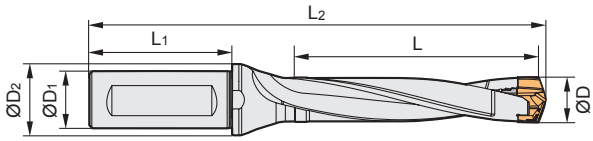


Figure 2

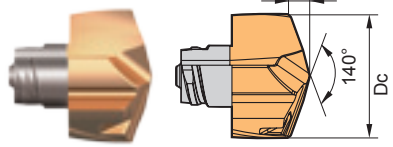
Item		Stock	Dimension(mm)						Coupling	Shank Type	Wrench
			D	L	D1	D2	L1	L2			
ZTK08 Cylindrical shank	-ED120-G16C	▲	12-12.4	96.0	16	20	48	161.0	060	Figure 1	ZTK12-15.9
	-ED125-G16C	▲	12.5-12.9	99.5	16	20	48	165.5	060	Figure 1	ZTK12-15.9
	-ED130-G16C	▲	13-13.4	104.0	16	20	48	170.0	065	Figure 1	ZTK12-15.9
	-ED135-G16C	▲	13.5-13.9	108.5	16	20	48	174.5	065	Figure 1	ZTK12-15.9
	-ED140-G16C	▲	14-14.4	112.0	16	20	48	181.0	070	Figure 1	ZTK12-15.9
	-ED145-G16C	▲	14.5-14.9	116.5	16	20	48	184.5	070	Figure 1	ZTK12-15.9
	-ED150-G20C	▲	15-15.9	120.0	20	25	50	194.0	075	Figure 1	ZTK12-15.9
	-ED160-G20C	▲	16-16.9	128.0	20	25	50	204.0	080	Figure 1	ZTK16-20.9
	-ED170-G20C	▲	17-17.9	136.0	20	25	50	213.0	085	Figure 1	ZTK16-20.9
	-ED180-G25C	▲	18-18.9	144.0	25	32	56	229.0	090	Figure 1	ZTK16-20.9
	-ED190-G25C	▲	19-19.9	152.0	25	32	56	238.0	095	Figure 1	ZTK16-20.9
	-ED200-G25C	▲	20-20.9	160.0	25	32	56	248.0	100	Figure 1	ZTK16-20.9
	-ED210-G25C	▲	21-21.9	168.0	25	32	56	262.0	105	Figure 1	ZTK21-25.9
	-ED220-G25C	▲	22-22.9	176.0	25	32	56	271.0	110	Figure 1	ZTK21-25.9
	-ED230-G32C	▲	23-23.9	184.0	32	42	60	281.0	115	Figure 1	ZTK21-25.9
	-ED240-G32C	▲	24-24.9	192.0	32	42	60	290.0	120	Figure 1	ZTK21-25.9
	-ED250-G32C	▲	25-25.9	200.0	32	42	60	300.0	125	Figure 1	ZTK21-25.9
Weldon shank	-ED120-XP16C	▲	12-12.4	96.0	16	20	48	161.0	060	Figure 2	ZTK12-15.9
	-ED125-XP16C	▲	12.5-12.9	99.5	16	20	48	165.5	060	Figure 2	ZTK12-15.9
	-ED130-XP16C	▲	13-13.4	104.0	16	20	48	170.0	065	Figure 2	ZTK12-15.9
	-ED135-XP16C	▲	13.5-13.9	108.5	16	20	48	174.5	065	Figure 2	ZTK12-15.9
	-ED140-XP16C	▲	14-14.4	112.0	16	20	48	181.0	070	Figure 2	ZTK12-15.9
	-ED145-XP16C	▲	14.5-14.9	116.5	16	20	48	184.5	070	Figure 2	ZTK12-15.9
	-ED150-XP20C	▲	15-15.9	120.0	20	25	50	194.0	075	Figure 2	ZTK12-15.9
	-ED160-XP20C	▲	16-16.9	128.0	20	25	50	204.0	080	Figure 2	ZTK16-20.9
	-ED170-XP20C	▲	17-17.9	136.0	20	25	50	213.0	085	Figure 2	ZTK16-20.9
	-ED180-XP25C	▲	18-18.9	144.0	25	32	56	229.0	090	Figure 2	ZTK16-20.9
	-ED190-XP25C	▲	19-19.9	152.0	25	32	56	238.0	095	Figure 2	ZTK16-20.9
	-ED200-XP25C	▲	20-20.9	160.0	25	32	56	248.0	100	Figure 2	ZTK16-20.9
	-ED210-XP25C	▲	21-21.9	168.0	25	32	56	262.0	105	Figure 2	ZTK21-25.9
	-ED220-XP25C	▲	22-22.9	176.0	25	32	56	271.0	110	Figure 2	ZTK21-25.9
	-ED230-XP32C	▲	23-23.9	184.0	32	42	60	281.0	115	Figure 2	ZTK21-25.9
	-ED240-XP32C	▲	24-24.9	192.0	32	42	60	290.0	120	Figure 2	ZTK21-25.9
	-ED250-XP32C	▲	25-25.9	200.0	32	42	60	300.0	125	Figure 2	ZTK21-25.9

▲Regular Stock △Made-to-order

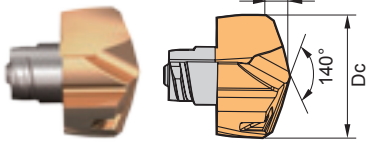
EDC Interchangeable head drill

diameter 12.0mm – 25.9mm

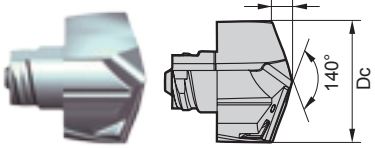
-GD



-KD



-LD



Item	Grade	Dimension(mm)		Compatible tool holder	Coupling	Wrench
	KDG3013	Dc	PL			
EDC1200-060-GD/KD/LD	▲	12.0	2.18	ZTK015-ED120-□□ ZTK03-ED120-□□ ZTK05-ED120-□□ ZTK08-ED120-□□	060	ZTK12-15.9
EDC1210-060-GD/KD/LD	△	12.1	2.20			
EDC1220-060-GD/KD/LD	△	12.2	2.22			
EDC1230-060-GD/KD/LD	△	12.3	2.24			
EDC1240-060-GD/KD/LD	△	12.4	2.26			
EDC1250-060-GD/KD/LD	▲	12.5	2.27	ZTK015-ED120-□□ ZTK03-ED125-□□ ZTK05-ED125-□□ ZTK08-ED125-□□		
EDC1260-060-GD/KD/LD	△	12.6	2.29			
EDC1270-060-GD/KD/LD	△	12.7	2.31			
EDC1280-060-GD/KD/LD	△	12.8	2.33			
EDC1290-060-GD/KD/LD	△	12.9	2.35			
EDC1300-065-GD/KD/LD	▲	13.0	2.36	ZTK015-ED130-□□ ZTK03-ED130-□□ ZTK05-ED130-□□ ZTK08-ED130-□□	065	
EDC1310-065-GD/KD/LD	△	13.1	2.38			
EDC1320-065-GD/KD/LD	△	13.2	2.40			
EDC1330-065-GD/KD/LD	△	13.3	2.42			
EDC1340-065-GD/KD/LD	△	13.4	2.44			
EDC1350-065-GD/KD/LD	▲	13.5	2.46	ZTK015-ED130-□□ ZTK03-ED135-□□ ZTK05-ED135-□□ ZTK08-ED135-□□		
EDC1360-065-GD/KD/LD	△	13.6	2.47			
EDC1370-065-GD/KD/LD	△	13.7	2.49			
EDC1380-065-GD/KD/LD	△	13.8	2.51			
EDC1390-065-GD/KD/LD	△	13.9	2.53			
EDC1400-070-GD/KD/LD	▲	14.0	2.55	ZTK015-ED140-□□ ZTK03-ED140-□□ ZTK05-ED140-□□ ZTK08-ED140-□□	070	
EDC1410-070-GD/KD/LD	△	14.1	2.56			
EDC1420-070-GD/KD/LD	△	14.2	2.58			
EDC1430-070-GD/KD/LD	△	14.3	2.60			
EDC1440-070-GD/KD/LD	△	14.4	2.62			
EDC1450-070-GD/KD/LD	▲	14.5	2.64	ZTK015-ED140-□□ ZTK03-ED145-□□ ZTK05-ED145-□□ ZTK08-ED145 -□□		
EDC1460-070-GD/KD/LD	△	14.6	2.66			
EDC1470-070-GD/KD/LD	△	14.7	2.67			
EDC1480-070-GD/KD/LD	△	14.8	2.69			
EDC1490-070-GD/KD/LD	△	14.9	2.71			
EDC1500-075-GD/KD/LD	▲	15.0	2.73			
EDC1510-075-GD/KD/LD	△	15.1	2.75			
EDC1520-075-GD/KD/LD	△	15.2	2.76			

Item	Grade	Dimension(mm)		Compatible tool holder	Coupling	Wrench
	KDG3013	Dc	PL			
EDC1530-075-GD/KD/LD	△	15.3	2.78	ZTK015-ED150-□□ ZTK03-ED150-□□ ZTK05-ED150-□□ ZTK08-ED150-□□	075	ZTK12-15.9
EDC1540-075-GD/KD/LD	△	15.4	2.80			
EDC1550-075-GD/KD/LD	▲	15.5	2.82			
EDC1560-075-GD/KD/LD	△	15.6	2.84			
EDC1570-075-GD/KD/LD	△	15.7	2.86			
EDC1580-075-GD/KD/LD	△	15.8	2.87			
EDC1590-075-GD/KD/LD	△	15.9	2.89			
EDC1600-080-GD/KD/LD	▲	16.0	2.91	ZTK015-ED160-□□ ZTK03-ED160-□□ ZTK05-ED160-□□ ZTK08-ED160-□□	080	ZTK16-20.9
EDC1610-080-GD/KD/LD	△	16.1	2.93			
EDC1620-080-GD/KD/LD	△	16.2	2.95			
EDC1630-080-GD/KD/LD	△	16.3	2.96			
EDC1640-080-GD/KD/LD	△	16.4	2.98			
EDC1650-080-GD/KD/LD	▲	16.5	3.00			
EDC1660-080-GD/KD/LD	△	16.6	3.02			
EDC1670-080-GD/KD/LD	△	16.7	3.04			
EDC1680-080-GD/KD/LD	△	16.8	3.06			
EDC1690-080-GD/KD/LD	△	16.9	3.07			
EDC1700-085-GD/KD/LD	▲	17.0	3.09	ZTK015-ED170-□□ ZTK03-ED170-□□ ZTK05-ED170-□□ ZTK08-ED170-□□	085	
EDC1710-085-GD/KD/LD	△	17.1	3.11			
EDC1720-085-GD/KD/LD	△	17.2	3.13			
EDC1730-085-GD/KD/LD	△	17.3	3.15			
EDC1740-085-GD/KD/LD	△	17.4	3.16			
EDC1750-085-GD/KD/LD	▲	17.5	3.18			
EDC1760-085-GD/KD/LD	△	17.6	3.20			
EDC1770-085-GD/KD/LD	△	17.7	3.22			
EDC1780-085-GD/KD/LD	△	17.8	3.24			
EDC1790-085-GD/KD/LD	△	17.9	3.26			
EDC1800-090-GD/KD/LD	▲	18.0	3.27	ZTK015-ED180-□□ ZTK03-ED180-□□ ZTK05-ED180-□□ ZTK08-ED180-□□	090	
EDC1810-090-GD/KD/LD	△	18.1	3.29			
EDC1820-090-GD/KD/LD	△	18.2	3.31			
EDC1830-090-GD/KD/LD	△	18.3	3.33			

▲Regular Stock △Made-to-order

Workpiece materials application table

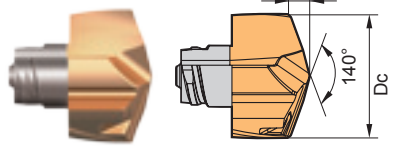
◎Very Suitable ○Suitable

Workpiece materials										
Soft steel HB≤180	Carbon steel Alloy steel	Pre-hardened steel、Hardened steel			Stainless steel	Cast iron	Nodular cast iron	Aluminum alloy	Copper alloy	Heat resistant alloy
		~40HRC	~50HRC	~60HRC						
○	◎	◎			○	◎	◎	◎		

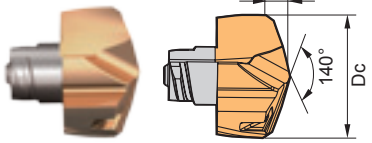
EDC Interchangeable head drill

diameter 12.0mm – 25.9mm

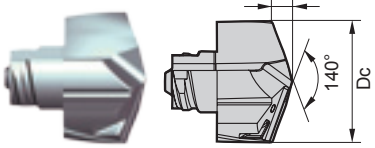
-GD



-KD



-LD



Item	Grade	Dimension(mm)		Compatible tool holder	Coupling	Wrench
	KDG3013	Dc	PL			
EDC1840-090-GD/KD/LD	△	18.4	3.35	ZTK015-ED180-□□ ZTK03-ED180-□□ ZTK05-ED180-□□ ZTK08-ED180-□□	090	ZTK16-20.9
EDC1850-090-GD/KD/LD	▲	18.5	3.36			
EDC1860-090-GD/KD/LD	△	18.6	3.38			
EDC1870-090-GD/KD/LD	△	18.7	3.40			
EDC1880-090-GD/KD/LD	△	18.8	3.42			
EDC1890-090-GD/KD/LD	△	18.9	3.44			
EDC1900-095-GD/KD/LD	▲	19.0	3.46	ZTK015-ED190-□□ ZTK03-ED190-□□ ZTK05-ED190-□□ ZTK08-ED190-□□	095	
EDC1910-095-GD/KD/LD	△	19.1	3.47			
EDC1920-095-GD/KD/LD	△	19.2	3.49			
EDC1930-095-GD/KD/LD	△	19.3	3.51			
EDC1940-095-GD/KD/LD	△	19.4	3.53			
EDC1950-095-GD/KD/LD	▲	19.5	3.55			
EDC1960-095-GD/KD/LD	△	19.6	3.56			
EDC1970-095-GD/KD/LD	△	19.7	3.58			
EDC1980-095-GD/KD/LD	△	19.8	3.60			
EDC1990-095-GD/KD/LD	△	19.9	3.62			
EDC2000-100-GD/KD/LD	▲	20.0	3.64	ZTK015-ED200-□□ ZTK03-ED200-□□ ZTK05-ED200-□□ ZTK08-ED200-□□	100	
EDC2010-100-GD/KD/LD	△	20.1	3.66			
EDC2020-100-GD/KD/LD	△	20.2	3.67			
EDC2030-100-GD/KD/LD	△	20.3	3.69			
EDC2040-100-GD/KD/LD	△	20.4	3.71			
EDC2050-100-GD/KD/LD	▲	20.5	3.73			
EDC2060-100-GD/KD/LD	△	20.6	3.75			
EDC2070-100-GD/KD/LD	△	20.7	3.77			
EDC2080-100-GD/KD/LD	△	20.8	3.78			
EDC2090-100-GD/KD/LD	△	20.9	3.80			
EDC2100-105-GD/KD/LD	▲	21.0	3.82	ZTK015-ED210-□□ ZTK03-ED210-□□ ZTK05-ED210-□□ ZTK08-ED210-□□	105	ZTK21-25.9
EDC2110-105-GD/KD/LD	△	21.1	3.84			
EDC2120-105-GD/KD/LD	△	21.2	3.86			
EDC2130-105-GD/KD/LD	△	21.3	3.88			

Item	Grade	Dimension(mm)		Compatible tool holder	Coupling	Wrench
	KDG3013	Dc	PL			
EDC2140-105-GD/KD/LD	△	21.4	3.89	ZTK015-ED210-□□ ZTK03-ED210-□□ ZTK05-ED210-□□ ZTK08-ED210-□□	105	ZTK21-25.9
EDC2150-105-GD/KD/LD	▲	21.5	3.91			
EDC2160-105-GD/KD/LD	△	21.6	3.93			
EDC2170-105-GD/KD/LD	△	21.7	3.95			
EDC2180-105-GD/KD/LD	△	21.8	3.97			
EDC2190-105-GD/KD/LD	△	21.9	3.98			
EDC2200-110-GD/KD/LD	▲	22.0	4.00	ZTK015-ED220-□□ ZTK03-ED220-□□ ZTK05-ED220-□□ ZTK08-ED220-□□	110	
EDC2210-110-GD/KD/LD	△	22.1	4.02			
EDC2220-110-GD/KD/LD	△	22.2	4.04			
EDC2230-110-GD/KD/LD	△	22.3	4.06			
EDC2240-110-GD/KD/LD	△	22.4	4.08			
EDC2250-110-GD/KD/LD	▲	22.5	4.09			
EDC2260-110-GD/KD/LD	△	22.6	4.11			
EDC2270-110-GD/KD/LD	△	22.7	4.13			
EDC2280-110-GD/KD/LD	△	22.8	4.15			
EDC2290-100-GD/KD/LD	△	22.9	4.17			
EDC2300-105-GD/KD/LD	▲	23.0	4.18	ZTK015-ED230-□□ ZTK03-ED230-□□ ZTK05-ED230-□□ ZTK08-ED230-□□	115	
EDC2310-105-GD/KD/LD	△	23.1	4.20			
EDC2320-115-GD/KD/LD	△	23.2	4.22			
EDC2330-115-GD/KD/LD	△	23.3	4.24			
EDC2340-115-GD/KD/LD	△	23.4	4.26			
EDC2350-115-GD/KD/LD	▲	3.5	4.27			
EDC2360-115-GD/KD/LD	△	23.6	4.29			
EDC2370-115-GD/KD/LD	△	23.7	4.31			
EDC2380-115-GD/KD/LD	△	23.8	4.33			
EDC2390-115-GD/KD/LD	△	23.9	4.35			
EDC2400-120-GD/KD/LD	▲	24.0	4.37	ZTK015-ED240-□□ ZTK03-ED240-□□ ZTK05-ED240-□□ ZTK08-ED240-□□	120	
EDC2410-120-GD/KD/LD	△	24.1	4.38			
EDC2420-120-GD/KD/LD	△	24.2	4.40			
EDC2430-120-GD/KD/LD	△	24.3	4.42			
EDC2440-120-GD/KD/LD	△	24.4	4.44			

▲Regular Stock △Made-to-order

Workpiece materials application table

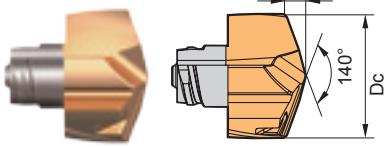
◎Very Suitable ○Suitable

Workpiece materials										
Soft steel HB≤180	Carbon steel Alloy steel	Pre-hardened steel、Hardened steel			Stainless steel	Cast iron	Nodular cast iron	Aluminum alloy	Copper alloy	Heat resistant alloy
		~40HRC	~50HRC	~60HRC						
○	◎	◎			○	◎	◎	◎		

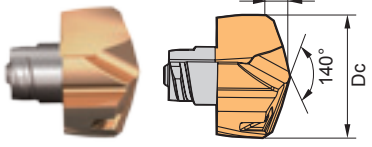
EDC Interchangeable head drill

diameter 12.0mm – 25.9mm

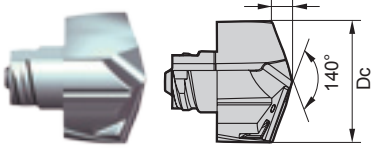
-GD



-KD



-LD



Item	Grade	Dimension(mm)		Compatible tool holder	Coupling	Wrench
	KDG3013	Dc	PL			
EDC2450-120-GD/KD/LD	▲	24.5	4.46	ZTK015-ED240-□□ ZTK03-ED240-□□ ZTK05-ED240-□□ ZTK08-ED240-□□	120	ZTK21-25.9
EDC2460-120-GD/KD/LD	△	24.6	4.48			
EDC2470-120-GD/KD/LD	△	24.7	4.49			
EDC2480-120-GD/KD/LD	△	24.8	4.51			
EDC2490-120-GD/KD/LD	△	24.9	4.53			
EDC2500-125-GD/KD/LD	▲	25.0	4.55	ZTK015-ED250-□□ ZTK03-ED250-□□ ZTK05-ED250-□□ ZTK08-ED250-□□	125	
EDC2510-125-GD/KD/LD	△	25.1	4.57			
EDC2520-125-GD/KD/LD	△	25.2	4.58			
EDC2530-125-GD/KD/LD	△	25.3	4.60			
EDC2540-125-GD/KD/LD	△	25.4	4.62			
EDC2550-125-GD/KD/LD	▲	25.5	4.64			
EDC2560-125-GD/KD/LD	△	25.6	4.66			
EDC2570-125-GD/KD/LD	△	25.7	4.68			
EDC2580-125-GD/KD/LD	△	25.8	4.69			
EDC2590-125-GD/KD/LD	△	25.9	4.70			

▲Regular Stock △Made-to-order

Workpiece materials application table

◎Very Suitable ○Suitable

Workpiece materials										
Soft steel HB≤180	Carbon steel Alloy steel	Pre-hardened steel、Hardened steel			Stainless steel	Cast iron	Nodular cast iron	Aluminum alloy	Copper alloy	Heat resistant alloy
		~40HRC	~50HRC	~60HRC						
○	◎	◎			○	◎	◎	◎		

Geometry chose and hole tolerance

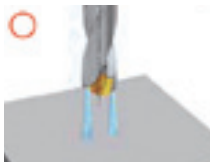
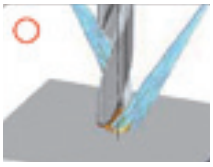
Geometry	-GD				-KD				-LD			
Application range	P、M、K				K				N			
L/D	1.5D、3D、5D		8D		1.5D、3D、5D		8D		1.5D、3D、5D		8D	
	12-18mm	18-26mm	12-18mm	18-26mm	12-18mm	18-26mm	12-18mm	18-26mm	12-18mm	18-26mm	12-18mm	18-26mm
Tolerance of hole	0/+0.043	0/+0.052	0/+0.070	0/+0.084	0/+0.043	0/+0.052	0/+0.070	0/+0.084	0/+0.043	0/+0.052	0/+0.070	0/+0.084

Recommended cutting data

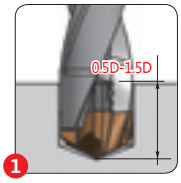
Workpiece materials	Soft steel HB ≤ 180		Carbon steel Alloy steel ~ 30HRC		Pre-hardened steel ~ 40HRC		Stainless steel		Cast iron		Modular cast iron		Aluminum alloy	
Cutting speed	80-150m/min		80-150m/min		50-80m/min		50-80m/min		80-150m/min		60-120m/min		90-200m/min	
Diameter mm	revolution speed min^{-1}	Feed rate mm/r	revolution speed min^{-1}	Feed rate mm/r	revolution speed min^{-1}	Feed rate mm/r	revolution speed min^{-1}	Feed rate mm/r	revolution speed min^{-1}	Feed rate mm/r	revolution speed min^{-1}	Feed rate mm/r	revolution speed min^{-1}	Feed rate mm/r
12	3200	0.20~0.30	3200	0.20~0.30	1900	0.20~0.30	1600	0.12~0.20	3200	0.20~0.30	2400	0.20~0.30	4000	0.25~0.35
14	2700	0.22~0.35	2700	0.22~0.35	1600	0.22~0.35	1300	0.13~0.22	2700	0.22~0.35	2100	0.22~0.35	3400	0.28~0.38
16	2400	0.25~0.36	2400	0.25~0.36	1400	0.25~0.36	1200	0.14~0.25	2400	0.25~0.36	1800	0.25~0.36	3000	0.30~0.40
18	2100	0.28~0.38	2100	0.28~0.38	1200	0.28~0.38	1050	0.15~0.28	2100	0.28~0.38	1600	0.28~0.38	2600	0.33~0.43
20	1900	0.30~0.40	1900	0.30~0.40	1100	0.30~0.40	950	0.16~0.30	1900	0.30~0.40	1400	0.30~0.40	2400	0.35~0.45
25	1500	0.32~0.42	1500	0.32~0.42	900	0.32~0.42	700	0.17~0.32	1500	0.32~0.42	1100	0.32~0.42	2000	0.40~0.50

Note: please set feed rate below to the recommendation parameter referring to the drill head diameters increasing (1.5D→3D→5D→8D) .
Criteria: for 1.5D、3D, 5D=80% or below,8D=60% or below.
Cooling: adopt internal cooling or external cooling drilling no more than 2D, dry cutting is prohibited!

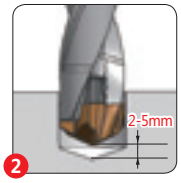
Cooling requirement

Internal coolant supply	External coolant supply (Drilling depth < 2D)	Prohibit dry cutting
		

User guide for drills with 8D shanks



1 Pre-drilling with standard 1.5xD drills, hole depth: 0.5D~1.5D;



2 Drilling to 2~5mm above the pre-drilled hole with low cutting speed, Turn on the internal cooling supply and hover for 2 to 3 seconds;



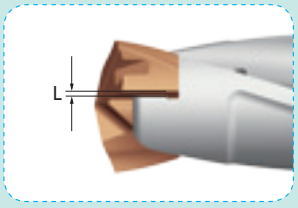
3 Apply normal cutting data in drilling operation.

Assembly instructions :



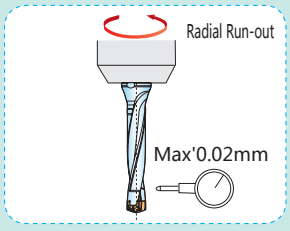


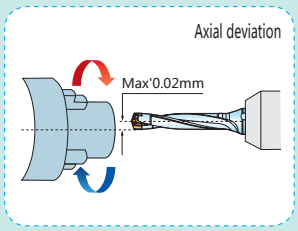
After inserting the tip into the shanks,tighten it with a wrench.
When removing,turn the wrench in the opposite direction.



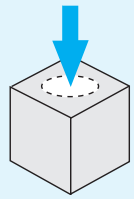
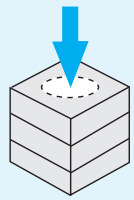
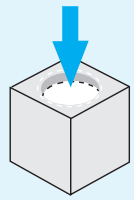
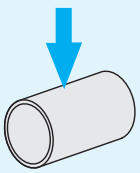
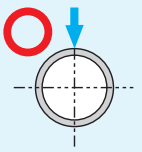
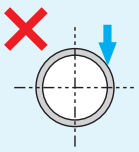
There will be a gap on radial direction after tightening with wrench L=0.05-0.1mm(the gap will be eliminated in cutting automatically).

Maximum deviation in assembly :

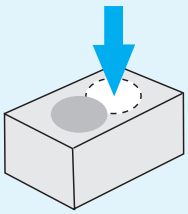
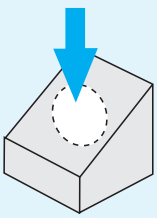
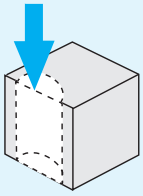
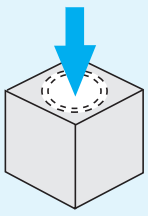




Compatible workpiece shape

Machining parts	Workpiece	Shape machining
Plane surface		1、For Stainless steel machining, suggest set up feed rate below 1.5mm/rev from entrance to 0.5D 0.5D depth position; 2、In order to removal chip, suggest internal cooling,Recommend internal coolant for better chip control, combine internal and external coolant when machining stainless steel materials.
Overlapping plate		1、In order to prevent dislocation, when processing the overlapping plate,The workpieces needed to be fixed.
Concave hole		1、It is possible to involve interrupted cutting. Before peripheral edge entering into the hole entirely, Please set Feed rate half below the recommended parameters. 2、Adopt micro-adjustment method when long chipping occurs.
Cylindrical surface hole		1、It can be used for hole machining on the central axis of the shaft. 2、The curve part not recommend.  Center part machining  Curve part machining

Workpiece shape not recommend

Machining content	Overlapped hole	Slope	Half-section	Reaming
workpiece shape				

ZHUZHOU CEMENTED CARBIDE CUTTING TOOLS CO., LTD.

Address: Huanghe Southern Road, Tianyuan Zone, Zhuzhou, Hunan Province, China
Postcode: 412007
Asia: 0086-731-22889050, 0086-731-22884423
South America: 0086-731-22887837
North America: 001-734-997-3811
Europe: 0049-211-989240-0
Other regions: 0086-731-22887833
Fax: 0086-731-2288-9023, 0086-22889025
Website: eng.zccct.com\www.zccct-europe.com\www.zccusa.com
E-mail: export@zccct.com