



## ▶ Code key of Interchangeable head drill tool holder

<b>HYW</b>	<b>3</b>	<b>ED160</b>	<b>-G</b>	<b>20</b>	<b>C</b>
Product series	L/D	Tool diameter	Shank type	Shank diameter	Internal identification
015	1.5D	120-250	G Cylindrical shank	16	
03	3D	12.0mm-25.0mm	XP Weldon shank	20	
05	5D			25	
08	8D			32	

## ▶ Code key of Interchangeable head drill head

<b>EDC</b>	<b>1600</b>	<b>-080</b>	<b>-GD</b>
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:  
HYW03-ED125-G16C  
Tool head specification:  
EDC1260-060-GD  
Workpiece materials: 42CrMo (HRC30)  
Cutting data:  $V_c=100\text{m/min}$ ;  $f=0.20\text{mm/r}$ ;  
 $a_p=30\text{mm}$   
Cooling type: internal coolant supply



HYW Similar products of company A

### Excellent chip-breaking performance

#### Case study

Tool holder specification:  
HYW03-ED160-G20C  
Tool head specification:  
EDC1630-080-GD  
Workpiece materials: 50Mn (HB240)  
Cutting data:  $V_c=120\text{m/min}$ ;  $f=0.30\text{mm/r}$ ;  
 $a_p=30\text{mm}$   
Cooling type: internal coolant supply



HYW 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

#### For Cast iron-KD

Enhanced cutting edge prolong tool life

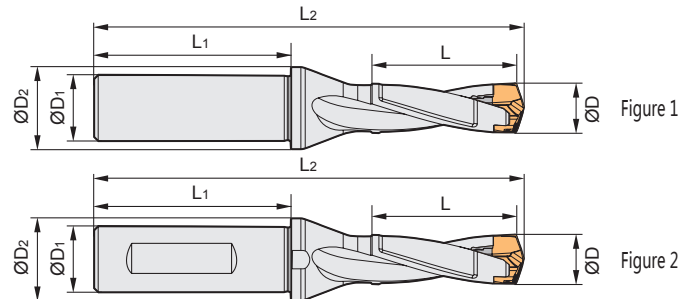
#### For AL-LD

Low resistance design, achieve high efficiency cutting



# HYW015 1.5D

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

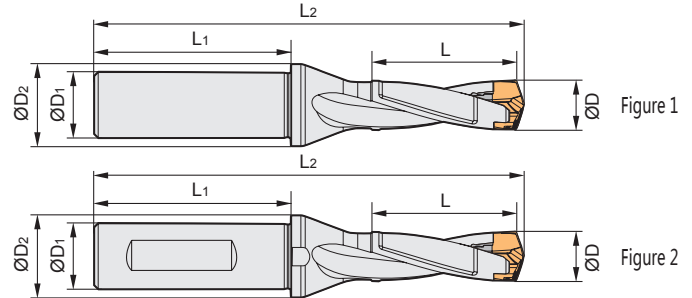


Item	Stock	Dimension(mm)						Coupling	Shank Type	Wrench	
		D	L	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>				
HYW015 Cylindrical shank	-ED120-G16C	▲	12-12.9	18.0	16	20	48	83.0	060	Figure 1	ZTK12-15.9
	-ED130-G16C	▲	13-13.9	19.5	16	20	48	85.5	065	Figure 1	ZTK12-15.9
	-ED140-G16C	▲	14-14.9	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

# HYW03 3D

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

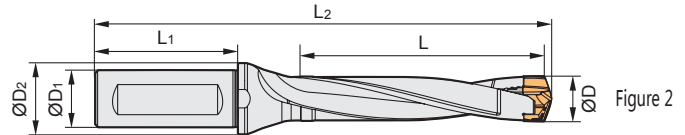
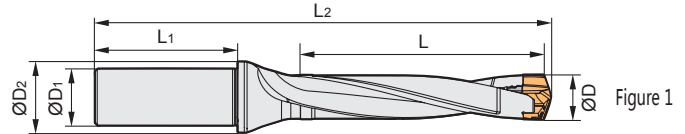


Item	Stock	Dimension(mm)						Coupling	Shank Type	Wrench
		D	L	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>			
HYW03 Cylindrical shank	▲	12-12.4	36.0	16	20	48	101.0	060	Figure 1	ZTK12-15.9
	▲	12.5-12.9	37.0	16	20	48	103.0	060	Figure 1	ZTK12-15.9
	▲	13-13.4	39.0	16	20	48	105.0	065	Figure 1	ZTK12-15.9
	▲	13.5-13.9	41.0	16	20	48	107.0	065	Figure 1	ZTK12-15.9
	▲	14-14.4	42.0	16	20	48	110.0	070	Figure 1	ZTK12-15.9
	▲	14.5-14.9	44.0	16	20	48	112.0	070	Figure 1	ZTK12-15.9
	▲	15-15.9	45.0	20	25	50	119.0	075	Figure 1	ZTK12-15.9
	▲	16-16.9	48.0	20	25	50	124.0	080	Figure 1	ZTK16-20.9
	▲	17-17.9	51.0	20	25	50	128.0	085	Figure 1	ZTK16-20.9
	▲	18-18.9	54.0	25	32	56	139.0	090	Figure 1	ZTK16-20.9
	▲	19-19.9	57.0	25	32	56	143.0	095	Figure 1	ZTK16-20.9
	▲	20-20.9	60.0	25	32	56	146.0	100	Figure 1	ZTK16-20.9
	▲	21-21.9	63.0	25	32	56	157.0	105	Figure 1	ZTK21-25.9
	▲	22-22.9	66.0	25	32	56	161.0	110	Figure 1	ZTK21-25.9
	▲	23-23.9	69.0	32	42	60	166.0	115	Figure 1	ZTK21-25.9
▲	24-24.9	72.0	32	42	60	170.0	120	Figure 1	ZTK21-25.9	
▲	25-25.9	75.0	32	42	60	175.0	125	Figure 1	ZTK21-25.9	
Weldon shank	▲	12-12.4	36.0	16	20	48	101.0	060	Figure 2	ZTK12-15.9
	▲	12.5-12.9	37.0	16	20	48	103.0	060	Figure 2	ZTK12-15.9
	▲	13-13.4	39.0	16	20	48	105.0	065	Figure 2	ZTK12-15.9
	▲	13.5-13.9	41.0	16	20	48	107.0	065	Figure 2	ZTK12-15.9
	▲	14-14.4	42.0	16	20	48	110.0	070	Figure 2	ZTK12-15.9
	▲	14.5-14.9	44.0	16	20	48	112.0	070	Figure 2	ZTK12-15.9
	▲	15-15.9	45.0	20	25	50	119.0	075	Figure 2	ZTK12-15.9
	▲	16-16.9	48.0	20	25	50	124.0	080	Figure 2	ZTK16-20.9
	▲	17-17.9	51.0	20	25	50	128.0	085	Figure 2	ZTK16-20.9
	▲	18-18.9	54.0	25	32	56	139.0	090	Figure 2	ZTK16-20.9
	▲	19-19.9	57.0	25	32	56	143.0	095	Figure 2	ZTK16-20.9
	▲	20-20.9	60.0	25	32	56	146.0	100	Figure 2	ZTK16-20.9
	▲	21-21.9	63.0	25	32	56	157.0	105	Figure 2	ZTK21-25.9
	▲	22-22.9	66.0	25	32	56	161.0	110	Figure 2	ZTK21-25.9
	▲	23-23.9	69.0	32	42	60	166.0	115	Figure 2	ZTK21-25.9
▲	24-24.9	72.0	32	42	60	170.0	120	Figure 2	ZTK21-25.9	
▲	25-25.9	75.0	32	42	60	175.0	125	Figure 2	ZTK21-25.9	

▲Regular Stock    △Made-to-order

# HYW05 5D

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

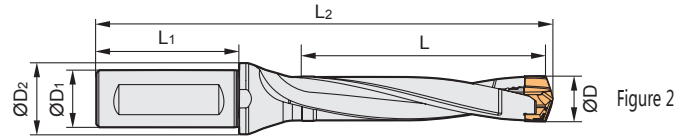
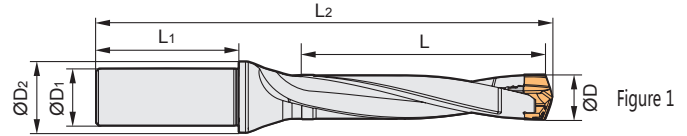


Item	Stock	Dimension(mm)						Coupling	Shank Type	Wrench	
		D	L	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>				
HYW05 Cylindrical shank	-ED120-G16C	▲	12-12.4	60.0	16	20	48	125.0	060	Figure 1	ZTK12-15.9
	-ED125-G16C	▲	12.5-12.9	62.0	16	20	48	128.0	060	Figure 1	ZTK12-15.9
	-ED130-G16C	▲	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

# HYW08 8D

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

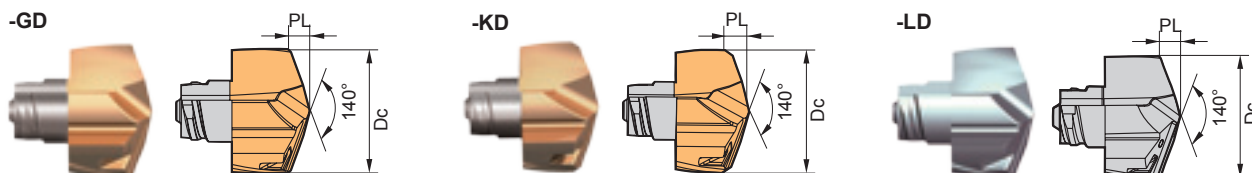


Item	Stock	Dimension(mm)						Coupling	Shank Type	Wrench
		D	L	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>			
HYW08 Cylindrical shank	▲	12-12.4	96.0	16	20	48	161.0	060	Figure 1	ZTK12-15.9
	▲	12.5-12.9	99.5	16	20	48	165.5	060	Figure 1	ZTK12-15.9
	▲	13-13.4	104.0	16	20	48	170.0	065	Figure 1	ZTK12-15.9
	▲	13.5-13.9	108.5	16	20	48	174.5	065	Figure 1	ZTK12-15.9
	▲	14-14.4	112.0	16	20	48	181.0	070	Figure 1	ZTK12-15.9
	▲	14.5-14.9	116.5	16	20	48	184.5	070	Figure 1	ZTK12-15.9
	▲	15-15.9	120.0	20	25	50	194.0	075	Figure 1	ZTK12-15.9
	▲	16-16.9	128.0	20	25	50	204.0	080	Figure 1	ZTK16-20.9
	▲	17-17.9	136.0	20	25	50	213.0	085	Figure 1	ZTK16-20.9
	▲	18-18.9	144.0	25	32	56	229.0	090	Figure 1	ZTK16-20.9
	▲	19-19.9	152.0	25	32	56	238.0	095	Figure 1	ZTK16-20.9
	▲	20-20.9	160.0	25	32	56	248.0	100	Figure 1	ZTK16-20.9
	▲	21-21.9	168.0	25	32	56	262.0	105	Figure 1	ZTK21-25.9
	▲	22-22.9	176.0	25	32	56	271.0	110	Figure 1	ZTK21-25.9
	▲	23-23.9	184.0	32	42	60	281.0	115	Figure 1	ZTK21-25.9
Weldon shank	▲	12-12.4	96.0	16	20	48	161.0	060	Figure 2	ZTK12-15.9
	▲	12.5-12.9	99.5	16	20	48	165.5	060	Figure 2	ZTK12-15.9
	▲	13-13.4	104.0	16	20	48	170.0	065	Figure 2	ZTK12-15.9
	▲	13.5-13.9	108.5	16	20	48	174.5	065	Figure 2	ZTK12-15.9
	▲	14-14.4	112.0	16	20	48	181.0	070	Figure 2	ZTK12-15.9
	▲	14.5-14.9	116.5	16	20	48	184.5	070	Figure 2	ZTK12-15.9
	▲	15-15.9	120.0	20	25	50	194.0	075	Figure 2	ZTK12-15.9
	▲	16-16.9	128.0	20	25	50	204.0	080	Figure 2	ZTK16-20.9
	▲	17-17.9	136.0	20	25	50	213.0	085	Figure 2	ZTK16-20.9
	▲	18-18.9	144.0	25	32	56	229.0	090	Figure 2	ZTK16-20.9
	▲	19-19.9	152.0	25	32	56	238.0	095	Figure 2	ZTK16-20.9
	▲	20-20.9	160.0	25	32	56	248.0	100	Figure 2	ZTK16-20.9
	▲	21-21.9	168.0	25	32	56	262.0	105	Figure 2	ZTK21-25.9
	▲	22-22.9	176.0	25	32	56	271.0	110	Figure 2	ZTK21-25.9
	▲	23-23.9	184.0	32	42	60	281.0	115	Figure 2	ZTK21-25.9

▲Regular Stock    △Made-to-order

# EDC Interchangeable head drill

diameter 12.0mm – 25.9mm



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	
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	ZTK16-20.9
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			

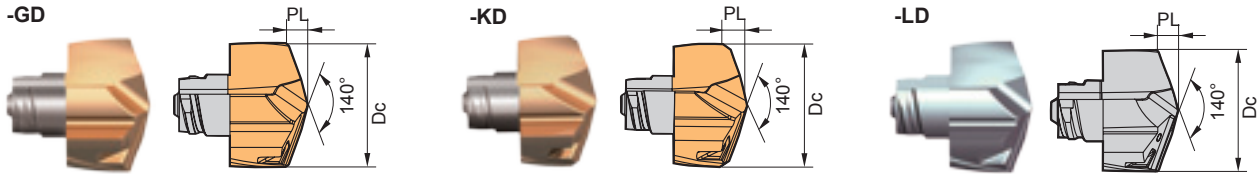
▲Regular Stock    △Made-to-order

▶▶ 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



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	ZTK015-ED200-□□ ZTK03-ED200-□□ ZTK05-ED200-□□ ZTK08-ED200-□□	100	
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			
EDC2010-100-GD/KD/LD	△	20.1	3.66			
EDC2020-100-GD/KD/LD	△	20.2	3.67	ZTK015-ED210-□□ ZTK03-ED210-□□ ZTK05-ED210-□□ ZTK08-ED210-□□	105	
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	ZTK21-25.9		
EDC2090-100-GD/KD/LD	△	20.9	3.80			
EDC2100-105-GD/KD/LD	▲	21.0	3.82			
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	ZTK015-ED230-□□ ZTK03-ED230-□□ ZTK05-ED230-□□ ZTK08-ED230-□□	115	
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			
EDC2310-105-GD/KD/LD	△	23.1	4.20			
EDC2320-115-GD/KD/LD	△	23.2	4.22	ZTK015-ED240-□□ ZTK03-ED240-□□ ZTK05-ED240-□□ ZTK08-ED240-□□	120	
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			
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			

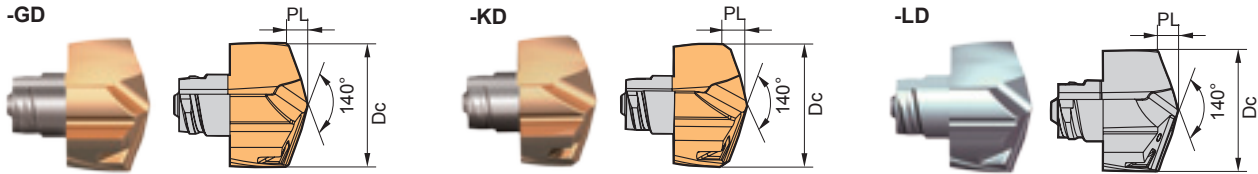
▲Regular Stock    △Made-to-order

➤ 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



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 <sup>-1</sup>	Feed rate mm/r	revolution speed min <sup>-1</sup>	Feed rate mm/r	revolution speed min <sup>-1</sup>	Feed rate mm/r	revolution speed min <sup>-1</sup>	Feed rate mm/r	revolution speed min <sup>-1</sup>	Feed rate mm/r	revolution speed min <sup>-1</sup>	Feed rate mm/r	revolution speed min <sup>-1</sup>	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 ).

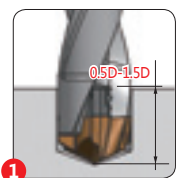
Criteria: for 1.5D、3D、5D=80% or below,8D=60% or below.

Cooling: adopt internal cooling or external cooling drilling no more than 2D, dry cutting is prohibited!

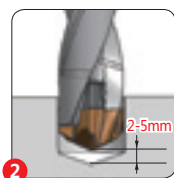
### ★ Cooling requirement

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

### ★ User guide for drills with 8D shanks



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



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;



Apply normal cutting data in drilling operation.

## Assembly instructions :

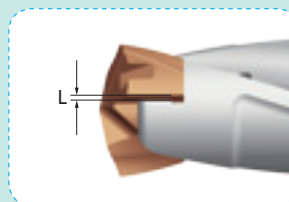


Assembly



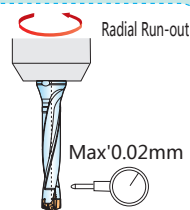
Disassembly

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



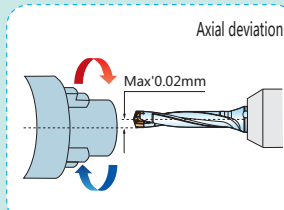
There will be a gap on radial direction after tightening with wrench  $L=0.05-0.1\text{mm}$  (the gap will be eliminated in cutting automatically).

## Maximum deviation in assembly :



Radial Run-out

Max'0.02mm



Axial deviation

Max'0.02mm

### ★ Compatible workpiece shape

Machining parts	Workpiece	Shape machining
Plane surface		<ol style="list-style-type: none"> <li>1. For Stainless steel machining, suggest set up feed rate below 1.5mm/rev from entrance to 0.5D 0.5D depth position;</li> <li>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.</li> </ol>
Overlapping plate		<ol style="list-style-type: none"> <li>1. In order to prevent dislocation, when processing the overlapping plate,The workpieces needed to be fixed.</li> </ol>
Concave hole		<ol style="list-style-type: none"> <li>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.</li> <li>2. Adopt micro-adjustment method when long chipping occurs.</li> </ol>
Cylindrical surface hole		<ol style="list-style-type: none"> <li>1. It can be used for hole machining on the central axis of the shaft.</li> <li>2. The curve part not recommend.</li> </ol> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  Center part machining         </div> <div style="text-align: center;">  Curve part machining         </div> </div>

### ★ Workpiece shape not recommend

Machining content	Overlapped hole	Slope	Half-section	Reaming
workpiece shape				