

# NPN

New Product News



## DRILLSPEED

INDEXABLE 3 FLUTE

### New 8xD Holder for Deep Hole Drilling and Head Diameter Expansion



3xD

5xD

8xD

## KEY POINT

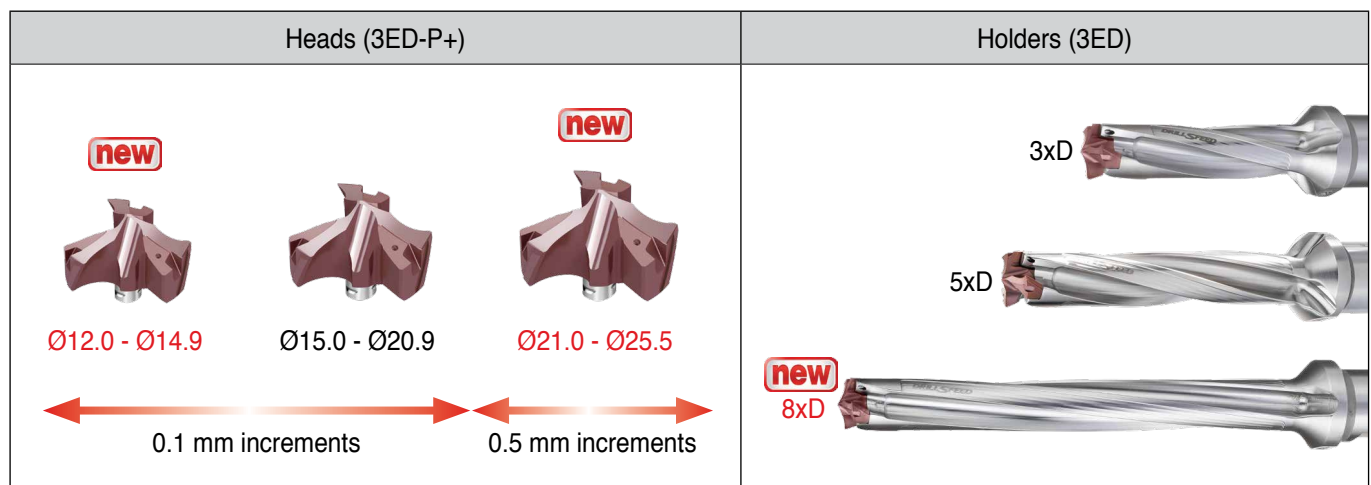
**TaeguTec has significantly expanded the 3-flutes head changeable DRILL-SFEED product line's diameter range with the introduction of a new 8xD drilling depth holder.**

The DRILL-SFEED family of unique 3-flutes geometry drills, which improve productivity, can be applied to various industries with a wider diameter and drilling depths. The drill diameter range has been expanded from Ø15.0-Ø20.9 mm to Ø12.0-Ø25.5 mm, and an 8xD holder has been included for deep hole drilling, enabling the same high tolerance hole precision at various drilling depths.

For further information, please contact the product manager.

### Features

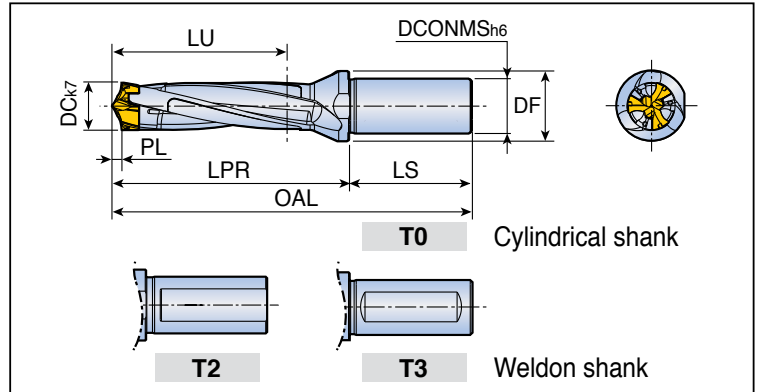
- Wider drill head diameter range: Ø12.0-25.5 mm
  - Ø12.0- Ø20.9: 0.1 mm increments
  - Ø12.0- Ø25.5: 0.5 mm increments
- Line expanded to 8xD following the current 3xD and 5xD depth holders
- 3-flute geometry for improved productivity
- Self-centering P+ geometry for high tolerance hole precision
- Head exchangeable drills reduce tooling downtime



## 3ED...T...-3D



### Head changeable 3 flute drill holders



- Drilling depth: 3xdiameter



Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
<b>3ED 120-124-16T3/T0-3D</b> <span style="color: red;">new</span>	12.0-12.4	16	20	40.0	60.7	48	2.74	12	K 3ED D12-D13
<b>125-129-16T3/T0-3D</b> <span style="color: red;">new</span>	12.5-12.9	16	20	41.5	62.5	48	2.76	12	K 3ED D12-D13
<b>130-134-16T3/T0-3D</b> <span style="color: red;">new</span>	13.0-13.4	16	20	43.0	64.8	48	2.91	13	K 3ED D12-D13
<b>135-139-16T3/T0-3D</b> <span style="color: red;">new</span>	13.5-13.9	16	20	44.5	66.6	48	2.93	13	K 3ED D12-D13
<b>140-144-16T3/T0-3D</b> <span style="color: red;">new</span>	14.0-14.4	16	20	46.0	68.9	48	3.17	14	K 3ED D14-D15
<b>145-149-16T3/T0-3D</b> <span style="color: red;">new</span>	14.5-14.9	16	20	47.5	70.7	48	3.19	14	K 3ED D14-D15
<b>150-159-20T3/T0-3D</b>	15.0-15.9	20	25	49.0	73.9	50	3.31	15	K 3ED D14-D15
<b>160-169-20T3/T0-3D</b>	16.0-16.9	20	25	52.0	79.0	50	3.70	16	K 3ED D16-D17
<b>170-179-20T3/T0-3D</b>	17.0-17.9	20	25	55.0	84.0	50	3.88	17	K 3ED D16-D17
<b>180-189-25T2/T0-3D</b>	18.0-18.9	25	32	58.0	90.1	56	4.07	18	K 3ED D18-D19
<b>190-199-25T2/T0-3D</b>	19.0-19.9	25	32	61.0	94.7	56	4.26	19	K 3ED D18-D19
<b>200-209-25T2/T0-3D</b>	20.0-20.9	25	32	64.0	99.3	56	4.44	20	K 3ED D20-D21
<b>210-219-25T2/T0-3D</b> <span style="color: red;">new</span>	21.0-21.9	25	32	67.0	103.8	56	4.62	21	K 3ED D20-D21
<b>220-229-25T2/T0-3D</b> <span style="color: red;">new</span>	22.0-22.9	25	32	70.0	108.4	56	4.78	22	K 3ED D22-D23
<b>230-239-32T2/T0-3D</b> <span style="color: red;">new</span>	23.0-23.9	32	42	73.0	112.8	60	5.02	23	K 3ED D22-D23
<b>240-249-32T2/T0-3D</b> <span style="color: red;">new</span>	24.0-24.9	32	42	76.0	117.4	60	5.18	24	K 3ED D24-D25
<b>250-259-32T2/T0-3D</b> <span style="color: red;">new</span>	25.0-25.9	32	42	79.0	122.0	60	5.29	25	K 3ED D24-D25

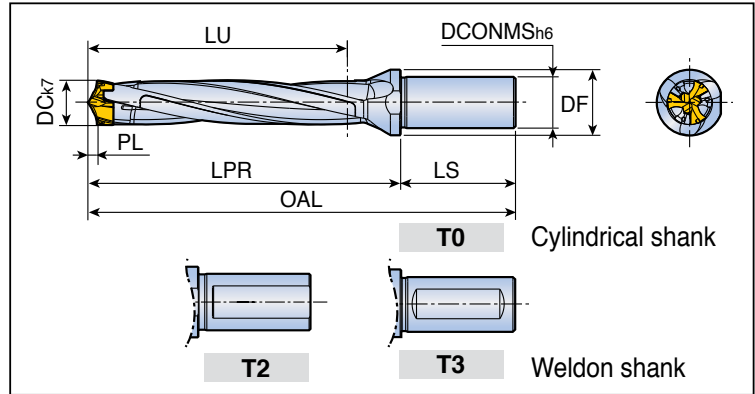
► SSC: Seat size code  
► OAL: LPR+LS

## 3ED...T...-5D

### Head changeable 3 flute drill holders



- Drilling depth: 5xdiameter



Designation	Dimension (mm)									Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC		
<b>3ED 120-124-16T3/T0-5D</b> <b>new</b>	12.0-12.4	16	20	64.0	84.7	48	2.74	12	K 3ED D12-D13	
<b>125-129-16T3/T0-5D</b> <b>new</b>	12.5-12.9	16	20	66.5	87.5	48	2.76	12	K 3ED D12-D13	
<b>130-134-16T3/T0-5D</b> <b>new</b>	13.0-13.4	16	20	69.0	90.8	48	2.91	13	K 3ED D12-D13	
<b>135-139-16T3/T0-5D</b> <b>new</b>	13.5-13.9	16	20	71.5	93.6	48	2.93	13	K 3ED D12-D13	
<b>140-144-16T3/T0-5D</b> <b>new</b>	14.0-14.4	16	20	74.0	96.9	48	3.17	14	K 3ED D14-D15	
<b>145-149-16T3/T0-5D</b> <b>new</b>	14.5-14.9	16	20	76.5	99.7	48	3.19	14	K 3ED D14-D15	
<b>150-159-20T3/T0-5D</b>	15.0-15.9	20	25	79.0	103.9	50	3.31	15	K 3ED D14-D15	
<b>160-169-20T3/T0-5D</b>	16.0-16.9	20	25	84.0	111.0	50	3.70	16	K 3ED D16-D17	
<b>170-179-20T3/T0-5D</b>	17.0-17.9	20	25	89.0	118.0	50	3.88	17	K 3ED D16-D17	
<b>180-189-25T2/T0-5D</b>	18.0-18.9	25	32	94.0	126.1	56	4.07	18	K 3ED D18-D19	
<b>190-199-25T2/T0-5D</b>	19.0-19.9	25	32	99.0	132.7	56	4.26	19	K 3ED D18-D19	
<b>200-209-25T2/T0-5D</b>	20.0-20.9	25	32	104.0	139.3	56	4.44	20	K 3ED D20-D21	
<b>210-219-25T2/T0-5D</b> <b>new</b>	21.0-21.9	25	32	109.0	145.8	56	4.62	21	K 3ED D20-D21	
<b>220-229-25T2/T0-5D</b> <b>new</b>	22.0-22.9	25	32	114.0	152.4	56	4.78	22	K 3ED D22-D23	
<b>230-239-32T2/T0-5D</b> <b>new</b>	23.0-23.9	32	42	119.0	158.8	60	5.02	23	K 3ED D22-D23	
<b>240-249-32T2/T0-5D</b> <b>new</b>	24.0-24.9	32	42	124.0	165.4	60	5.18	24	K 3ED D24-D25	
<b>250-259-32T2/T0-5D</b> <b>new</b>	25.0-25.9	32	42	129.0	172.0	60	5.29	25	K 3ED D24-D25	

► SSC: Seat size code  
► OAL: LPR+LS

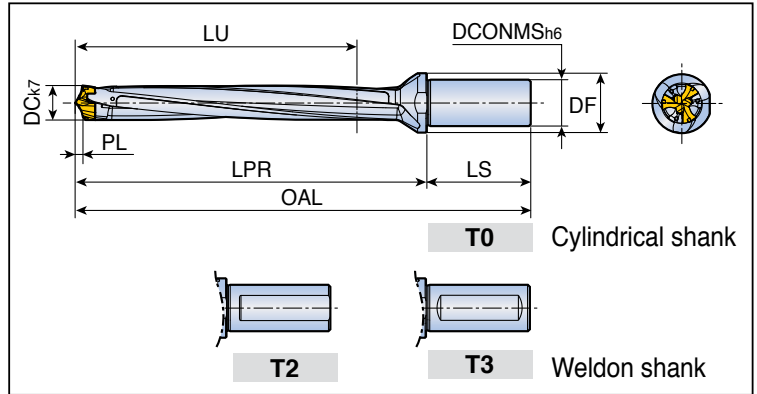
## 3ED...T...-8D **new**



### Head changeable 3 flute drill holders



• Drilling depth: 8xDiameter

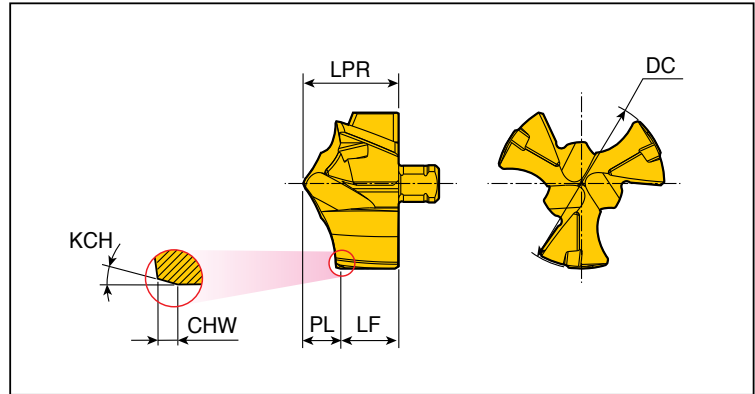


Designation	Dimension (mm)								Clamping key
	DC	DCONMS	DF	LU	LPR	LS	PL	SSC	
<b>3ED 120-124-16T3/T0-8D</b>	12.0-12.4	16	20	100	120.7	48	2.74	12	K 3ED D12-D13
<b>125-129-16T3/T0-8D</b>	12.5-12.9	16	20	104	125.0	48	2.76	12	K 3ED D12-D13
<b>130-134-16T3/T0-8D</b>	13.0-13.4	16	20	108	129.8	48	2.91	13	K 3ED D12-D13
<b>135-139-16T3/T0-8D</b>	13.5-13.9	16	20	112	134.1	48	2.93	13	K 3ED D12-D13
<b>140-144-16T3/T0-8D</b>	14.0-14.4	16	20	116	138.9	48	3.17	14	K 3ED D14-D15
<b>145-149-16T3/T0-8D</b>	14.5-14.9	16	20	120	143.2	48	3.19	14	K 3ED D14-D15
<b>150-159-20T3/T0-8D</b>	15.0-15.9	20	25	124	148.9	50	3.31	15	K 3ED D14-D15
<b>160-169-20T3/T0-8D</b>	16.0-16.9	20	25	132	159.0	50	3.70	16	K 3ED D16-D17
<b>170-179-20T3/T0-8D</b>	17.0-17.9	20	25	140	169.0	50	3.88	17	K 3ED D16-D17
<b>180-189-25T2/T0-8D</b>	18.0-18.9	25	32	148	180.1	56	4.07	18	K 3ED D18-D19
<b>190-199-25T2/T0-8D</b>	19.0-19.9	25	32	156	189.7	56	4.26	19	K 3ED D18-D19
<b>200-209-25T2/T0-8D</b>	20.0-20.9	25	32	164	199.3	56	4.44	20	K 3ED D20-D21
<b>210-219-25T2/T0-8D</b>	21.0-21.9	25	32	172	208.8	56	4.62	21	K 3ED D20-D21
<b>220-229-25T2/T0-8D</b>	22.0-22.9	25	32	180	218.4	56	4.78	22	K 3ED D22-D23
<b>230-239-32T2/T0-8D</b>	23.0-23.9	32	42	188	227.8	60	5.02	23	K 3ED D22-D23
<b>240-249-32T2/T0-8D</b>	24.0-24.9	32	42	196	237.4	60	5.18	24	K 3ED D24-D25
<b>250-259-32T2/T0-8D</b>	25.0-25.9	32	42	204	247.0	60	5.29	25	K 3ED D24-D25

► SSC: Seat size code  
► OAL: LPR+LS

## 3ED...-P+

### 3 flute self-centering drill heads



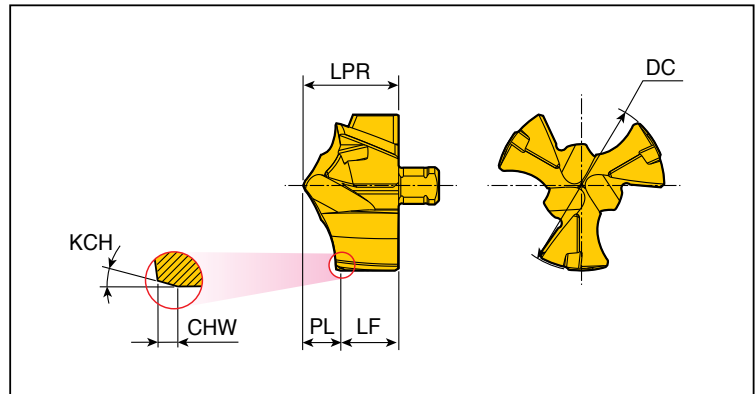
Designation	Dimension (mm)							Grade	
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130	
<b>3ED- 120-P+</b> <span style="color:red">new</span>	12.0	6.7	2.74	3.96	0.4	15	12	●	
<b>121-P+</b> <span style="color:red">new</span>	12.1	6.7	2.74	3.96	0.4	15	12	●	
<b>122-P+</b> <span style="color:red">new</span>	12.2	6.7	2.74	3.96	0.4	15	12	●	
<b>123-P+</b> <span style="color:red">new</span>	12.3	6.7	2.74	3.96	0.4	15	12	●	
<b>124-P+</b> <span style="color:red">new</span>	12.4	6.7	2.74	3.96	0.4	15	12	●	
<b>125-P+</b> <span style="color:red">new</span>	12.5	6.7	2.76	3.94	0.4	15	12	●	
<b>126-P+</b> <span style="color:red">new</span>	12.6	6.7	2.76	3.94	0.4	15	12	●	
<b>127-P+</b> <span style="color:red">new</span>	12.7	6.7	2.76	3.94	0.4	15	12	●	
<b>128-P+</b> <span style="color:red">new</span>	12.8	6.7	2.76	3.94	0.4	15	12	●	
<b>129-P+</b> <span style="color:red">new</span>	12.9	6.7	2.76	3.94	0.4	15	12	●	
<b>130-P+</b> <span style="color:red">new</span>	13.0	7.3	2.91	4.39	0.4	15	13	●	
<b>131-P+</b> <span style="color:red">new</span>	13.1	7.3	2.91	4.39	0.4	15	13	●	
<b>132-P+</b> <span style="color:red">new</span>	13.2	7.3	2.91	4.39	0.4	15	13	●	
<b>133-P+</b> <span style="color:red">new</span>	13.3	7.3	2.91	4.39	0.4	15	13	●	
<b>134-P+</b> <span style="color:red">new</span>	13.4	7.3	2.91	4.39	0.4	15	13	●	
<b>135-P+</b> <span style="color:red">new</span>	13.5	7.3	2.93	4.37	0.4	15	13	●	
<b>136-P+</b> <span style="color:red">new</span>	13.6	7.3	2.93	4.37	0.4	15	13	●	
<b>137-P+</b> <span style="color:red">new</span>	13.7	7.3	2.93	4.37	0.4	15	13	●	
<b>138-P+</b> <span style="color:red">new</span>	13.8	7.3	2.93	4.37	0.4	15	13	●	
<b>139-P+</b> <span style="color:red">new</span>	13.9	7.3	2.93	4.37	0.4	15	13	●	
<b>140-P+</b> <span style="color:red">new</span>	14.0	7.9	3.17	4.73	0.4	15	14	●	
<b>141-P+</b> <span style="color:red">new</span>	14.1	7.9	3.17	4.73	0.4	15	14	●	
<b>142-P+</b> <span style="color:red">new</span>	14.2	7.9	3.17	4.73	0.4	15	14	●	
<b>143-P+</b> <span style="color:red">new</span>	14.3	7.9	3.17	4.73	0.4	15	14	●	
<b>144-P+</b> <span style="color:red">new</span>	14.4	7.9	3.17	4.73	0.4	15	14	●	
<b>145-P+</b> <span style="color:red">new</span>	14.5	7.9	3.19	4.71	0.4	15	14	●	
<b>146-P+</b> <span style="color:red">new</span>	14.6	7.9	3.19	4.71	0.4	15	14	●	
<b>147-P+</b> <span style="color:red">new</span>	14.7	7.9	3.19	4.71	0.4	15	14	●	
<b>148-P+</b> <span style="color:red">new</span>	14.8	7.9	3.19	4.71	0.4	15	14	●	
<b>149-P+</b> <span style="color:red">new</span>	14.9	7.9	3.19	4.71	0.4	15	14	●	

► SSC: Seat size code

●: Standard items

## 3ED...-P+

### 3 flute self-centering drill heads



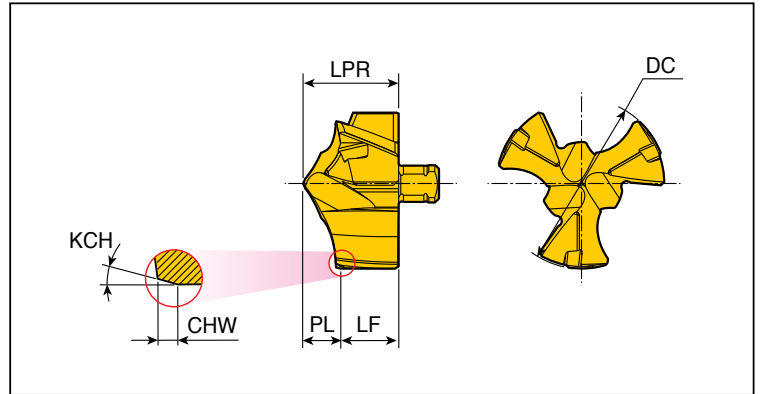
Designation	Dimension (mm)							Grade
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130
<b>3ED- 150-P+</b>	15.0	8.4	3.31	5.09	0.5	30	15	●
<b>151-P+</b>	15.1	8.4	3.31	5.09	0.5	30	15	●
<b>152-P+</b>	15.2	8.4	3.31	5.09	0.5	30	15	●
<b>153-P+</b>	15.3	8.4	3.31	5.09	0.5	30	15	●
<b>154-P+</b>	15.4	8.4	3.31	5.09	0.5	30	15	●
<b>155-P+</b>	15.5	8.4	3.32	5.08	0.5	30	15	●
<b>156-P+</b>	15.6	8.4	3.32	5.08	0.5	30	15	●
<b>157-P+</b>	15.7	8.4	3.32	5.08	0.5	30	15	●
<b>158-P+</b>	15.8	8.4	3.32	5.08	0.5	30	15	●
<b>159-P+</b>	15.9	8.4	3.32	5.08	0.5	30	15	●
<b>160-P+</b>	16.0	9.0	3.70	5.30	0.7	30	16	●
<b>161-P+</b>	16.1	9.0	3.70	5.30	0.7	30	16	●
<b>162-P+</b>	16.2	9.0	3.70	5.30	0.7	30	16	●
<b>163-P+</b>	16.3	9.0	3.70	5.30	0.7	30	16	●
<b>164-P+</b>	16.4	9.0	3.70	5.30	0.7	30	16	●
<b>165-P+</b>	16.5	9.0	3.71	5.29	0.7	30	16	●
<b>166-P+</b>	16.6	9.0	3.71	5.29	0.7	30	16	●
<b>167-P+</b>	16.7	9.0	3.71	5.29	0.7	30	16	●
<b>168-P+</b>	16.8	9.0	3.71	5.29	0.7	30	16	●
<b>169-P+</b>	16.9	9.0	3.71	5.29	0.7	30	16	●
<b>170-P+</b>	17.0	9.5	3.88	5.62	0.7	30	17	●
<b>171-P+</b>	17.1	9.5	3.88	5.62	0.7	30	17	●
<b>172-P+</b>	17.2	9.5	3.88	5.62	0.7	30	17	●
<b>173-P+</b>	17.3	9.5	3.88	5.62	0.7	30	17	●
<b>174-P+</b>	17.4	9.5	3.88	5.62	0.7	30	17	●
<b>175-P+</b>	17.5	9.5	3.89	5.61	0.7	30	17	●
<b>176-P+</b>	17.6	9.5	3.89	5.61	0.7	30	17	●
<b>177-P+</b>	17.7	9.5	3.89	5.61	0.7	30	17	●
<b>178-P+</b>	17.8	9.5	3.89	5.61	0.7	30	17	●
<b>179-P+</b>	17.9	9.5	3.89	5.61	0.7	30	17	●

► SSC: Seat size code

●: Standard items

## 3ED...-P+

### 3 flute self-centering drill heads



Designation	Dimension (mm)							Grade
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130
<b>3ED- 180-P+</b>	18.0	10.1	4.07	6.03	0.7	30	18	●
<b>181-P+</b>	18.1	10.1	4.07	6.03	0.7	30	18	●
<b>182-P+</b>	18.2	10.1	4.07	6.03	0.7	30	18	●
<b>183-P+</b>	18.3	10.1	4.07	6.03	0.7	30	18	●
<b>184-P+</b>	18.4	10.1	4.07	6.03	0.7	30	18	●
<b>185-P+</b>	18.5	10.1	4.08	6.02	0.7	30	18	●
<b>186-P+</b>	18.6	10.1	4.08	6.02	0.7	30	18	●
<b>187-P+</b>	18.7	10.1	4.08	6.02	0.7	30	18	●
<b>188-P+</b>	18.8	10.1	4.08	6.02	0.7	30	18	●
<b>189-P+</b>	18.9	10.1	4.08	6.02	0.7	30	18	●
<b>190-P+</b>	19.0	10.7	4.26	6.44	0.7	30	19	●
<b>191-P+</b>	19.1	10.7	4.26	6.44	0.7	30	19	●
<b>192-P+</b>	19.2	10.7	4.26	6.44	0.7	30	19	●
<b>193-P+</b>	19.3	10.7	4.26	6.44	0.7	30	19	●
<b>194-P+</b>	19.4	10.7	4.26	6.44	0.7	30	19	●
<b>195-P+</b>	19.5	10.7	4.27	6.43	0.7	30	19	●
<b>196-P+</b>	19.6	10.7	4.27	6.43	0.7	30	19	●
<b>197-P+</b>	19.7	10.7	4.27	6.43	0.7	30	19	●
<b>198-P+</b>	19.8	10.7	4.27	6.43	0.7	30	19	●
<b>199-P+</b>	19.9	10.7	4.27	6.43	0.7	30	19	●
<b>200-P+</b>	20.0	11.3	4.44	6.86	0.7	30	20	●
<b>201-P+</b>	20.1	11.3	4.44	6.86	0.7	30	20	●
<b>202-P+</b>	20.2	11.3	4.44	6.86	0.7	30	20	●
<b>203-P+</b>	20.3	11.3	4.44	6.86	0.7	30	20	●
<b>204-P+</b>	20.4	11.3	4.44	6.86	0.7	30	20	●
<b>205-P+</b>	20.5	11.3	4.45	6.85	0.7	30	20	●
<b>206-P+</b>	20.6	11.3	4.45	6.85	0.7	30	20	●
<b>207-P+</b>	20.7	11.3	4.45	6.85	0.7	30	20	●
<b>208-P+</b>	20.8	11.3	4.45	6.85	0.7	30	20	●
<b>209-P+</b>	20.9	11.3	4.45	6.85	0.7	30	20	●

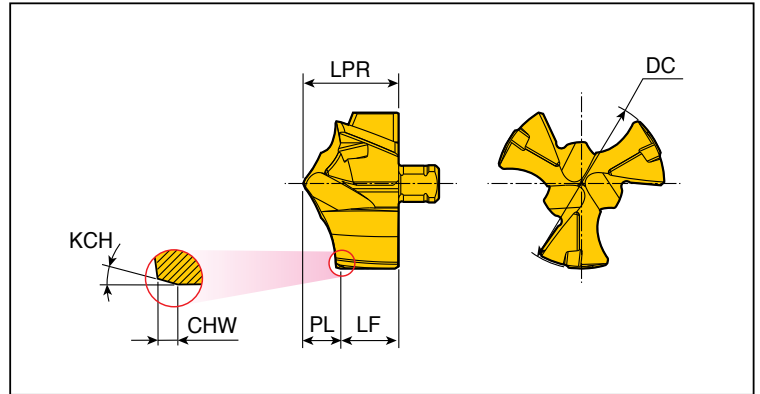
► SSC: Seat size code

●: Standard items



### 3ED...-P+

3 flute self-centering drill heads



Designation	Dimension (mm)							Grade	
	DC	LPR	PL	LF	CHW	KCH	SSC	TT5130	
<b>3ED- 210-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	21.0	11.8	4.62	7.18	0.4	15	21	●	
<b>215-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	21.5	11.8	4.64	7.16	0.4	15	21	●	
<b>220-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	22.0	12.4	4.78	7.62	0.4	15	22	●	
<b>225-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	22.5	12.4	4.80	7.60	0.4	15	22	●	
<b>230-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	23.0	12.8	5.02	7.78	0.4	15	23	●	
<b>235-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	23.5	12.8	5.04	7.76	0.4	15	23	●	
<b>240-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	24.0	13.4	5.18	8.22	0.4	15	24	●	
<b>245-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	24.5	13.4	5.20	8.20	0.4	15	24	●	
<b>250-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	25.0	14.0	5.29	8.71	0.4	15	25	●	
<b>255-P+</b> <span style="border: 1px solid red; padding: 1px;">new</span>	25.5	14.0	5.31	8.69	0.4	15	25	●	

► SSC: Seat size code

●: Standard items

## Recommended Cutting Conditions

ISO	Material	Condition	Tensile Strength (N/mm <sup>2</sup> )	Hardness HB	Material Group No	Cutting Speed Vc (m/min)	Feed vs. Drill Diameter (mm/rev)			
							Ø12-Ø13.9	Ø14-Ø15.9	Ø16-Ø19.9	Ø20-Ø25.9
P	Non-alloy steel and cast steel, free cutting steel	<0.25%C Annealed	420	125	1	80-140	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
		>=0.25%C Annealed	650	190	2	80-130	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
		<0.55%C Quenched and tempered	850	250	3	80-120	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
		>=0.55%C Annealed	750	220	4	70-110	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
		Quenched and tempered	1000	300	5	50-90	0.25-0.45	0.30-0.50	0.35-0.55	0.40-0.60
	Low alloy steel and cast steel (less than 5% of alloying elements)	Annealed	600	200	6	80-120	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
		Quenched and tempered	930	275	7	70-110	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
			1000	300	8	50-90	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
	High alloy steel, cast steel and tool steel	Quenched and tempered	1200	350	9	40-70	0.20-0.40	0.25-0.45	0.30-0.50	0.35-0.55
			Annealed	680	200	10	50-90	0.20-0.35	0.25-0.40	0.30-0.45
K	Grey cast iron (GG)	Ferritic		160	15	90-160	0.35-0.50	0.40-0.60	0.45-0.65	0.50-0.70
		Pearlitic		250	16	80-140	0.35-0.50	0.40-0.60	0.45-0.65	0.50-0.70
	Cast iron nodular (GGG)	Ferritic		180	17	90-180	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65
		Pearlitic		260	18	80-140	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65
	Malleable cast iron	Ferritic		130	19	90-160	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65
		Pearlitic		230	20	80-140	0.30-0.45	0.35-0.55	0.40-0.60	0.45-0.65

■ Steel ■ Cast iron

► For 8xD drill holder, reduce the feed by 30%.