

# Accurate Positioning...

Perfect hole location



#### Features

- HSS Co material
- TIN coated
- Precise point geometry

#### Benefits

- Perfect hole location
- Offers spotting and chamfering with one tool

## ***SPOTTING DRILL***

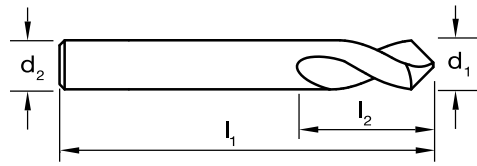
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# Drills NC Spotting



- Precision drill for machine use
- Rigid design for "seat" position accuracy
- 90° offers hole chamfering & spotting with the one tool
- 120° for spotting, matching a typical drill point
- Only drill to the depth of the point



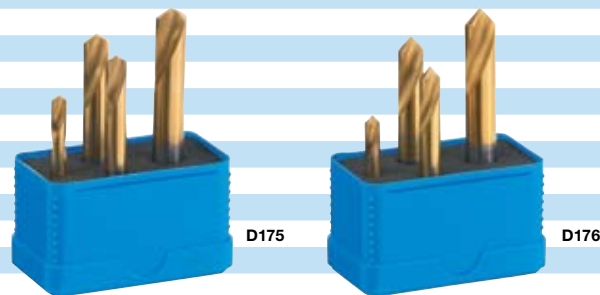
Catalogue Code	D175	D176
Discount Group	A1124	A1124
Material	HSS Co	HSS Co
Surface Finish	TIN	TIN
Colour Ring & Application	NC	NC
Geometry	-	-
Point Type	90°	120°
Shank Tolerance	h9	h9
	Item #	Item #
<b>3.0</b>	D175 0300	D176 0300
<b>4.0</b>	D175 0400	D176 0400
<b>5.0</b>	D175 0500	D176 0500
<b>6.0</b>	D175 0600	D176 0600
<b>8.0</b>	D175 0800	D176 0800
<b>10.0</b>	D175 1000	D176 1000
<b>12.0</b>	D175 1200	D176 1200
<b>16.0</b>	D175 1600	D176 1600
<b>20.0</b>	D175 2000	D176 2000
<b>25.0</b>	D175 2500	D176 2500

## SETS

4 piece

### Contents:

6.0, 8.0, 10.0, 12.0



Materials	HB	N/mm <sup>2</sup>	% Elong.	Material eg.	Vc	Feed No.	Vc	Feed No.
<b>1.0 Steels</b>								
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	RFe100	35	4	35	4
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	C10, C15, ST37, ST52	25	4	25	4
1.3 Plain carbon, low allowed	<300	>350 <850	20	C45, C92D, D95-S	20	4	20	4
1.4 Alloy steels harden. / tempered	<250	>500 <850	30		15	4	15	4
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30	41CrMo4, 36CrNiMo4, X155CrVMo12-1, 90MnV8	15	3	15	3
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12		12	3	12	3
1.7 Hardened Steel 45-50 Rc	<550		<12		10	3	10	3
<b>2.0 Stainless Steels</b>								
2.1 Free machining	<250	<850	25	X8CrNiS18-9	10	3	10	3
2.2 Austenitic	<250	<850	20	X5CrNi18-10	15	2	15	2
2.3 Ferritic + martensitic	<250	<850	20	X20Cr13	10	2	10	2
<b>3.0 Cast Irons</b>								
3.1 Lamellar graphite (Grey soft)	<150	<500	10	GG10, GG40	30	5	30	5
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	GGG40,	20	4	20	4
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10	GGG80	20	4	20	4
<b>6.0 Coppers</b>								
6.1 Pure Copper (electrolytic copper)	<120	<400	12	SF-Cu	50	4	50	4
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	G-CuSn12Ni	30	4	30	4
6.3 Long chip Brass, Bronze	<200	<700	12	G-CuPb20Sn	40	4	40	4
<b>7.0 Aluminiums</b>								
7.1 Aluminium unalloyed	<100	<350	15	Al99.5	50	5	50	5
7.2 Magnesium unalloyed	<150	<350	15	Al99.85Mg0.5	50	4	50	4
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	AlMg1.5	50	4	50	4
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	AlSi10Mg	35	4	35	4
7.5 Al Alloyed > 10% Si	-	<400	N	AlSi17Cu4	30	4	30	4
7.6 Magnesium alloys	-	<400	N	MgAl3Zn	30	4	30	4
<b>8.0 Plastics</b>								
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	ABS, PVC, Polycarbonate	30	4	30	4

Feed No.	Feed Table (f) (mm/rev)								
	Ø								
	3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0
1	0.030	0.040	0.045	0.050	0.060	0.080	0.080	0.100	0.150
2	0.040	0.050	0.055	0.060	0.080	0.100	0.100	0.120	0.200
3	0.050	0.060	0.065	0.080	0.100	0.120	0.120	0.150	0.250
4	0.060	0.080	0.085	0.100	0.120	0.150	0.150	0.200	0.300
5	0.080	0.100	0.110	0.120	0.150	0.200	0.200	0.250	0.400

### LEGEND

n = rev. per minute  
 $v_c$  = cutting speed (m/min)  
 f = feed (mm/rev)  
 $v_f$  = feed rate (mm/min)  
 z = no. cutting edges

### FORMULAS

$n = (v_c \times 1000) / (\phi \times \pi)$   
 $v_c = (\phi \times \pi \times n) / 1000$   
 $v_f = f \times n$

Notes: For calculating revolutions per minute, apply hole diameter  
 For calculating feed, apply large end diameter

