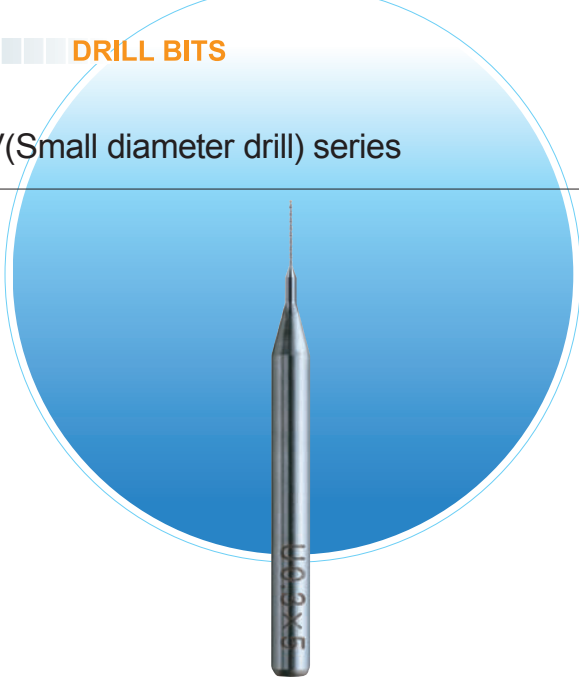


UC/UV(Small diameter drill) series



An under cut type drill for a wide range of applications that need either small through holes or via interconnects. The design balances the needs for improved inner hole wall quality, while maintaining good hole registration accuracy. Made from a tungsten carbide alloy with a high modulus of elasticity, this range is perfect for today's demanding high density multi-layer boards.



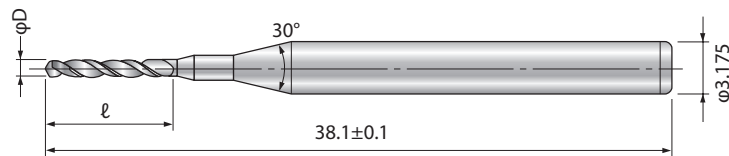
SIZE : $\phi$  0.30~ $\phi$  0.55

An under cut type drill designed to improve the inner hole wall quality while maintaining good hole registration accuracy.



SIZE : $\phi$  0.30~ $\phi$  0.75

Under cut type drill with small diameter designed to improve the inner hole wall quality while maintaining excellent hole registration accuracy.



Please see the recommended models on the next page.

Recommended models

φ Dmm	ℓ mm	Advantages *1		Series name	Label description	Part No.
		Balanced	Hole wall quality			
0.30	5.0	O		UV	UV	118-W300
	5.5			UC	UC	132-W302
	6(5.8)				NHU	132-W300
	6.5			O		132-W316
0.35	5.0	O		UV	UV	118-W304
	5.5			UC	UC	118-W350
	5.6				NHU	132-W351
	5.5(6.0)			UV	UV	132-W350
	6.5				NHUV	118-W353
	7.0			UV	UV	118-W352
0.40	6.5			UV	UV	118-W354
				UC	NHU	118-W400
0.45		O		UC	UC	132-W401
				UV	UV	118-W450
0.50	7.0	O		UC	UC	132-W451
				UV	UV	118-W500
				UC	UC	118-W501
0.55	6.5	O		UV	UV	118-W550
				UC	UC	132-W551
0.60	8.5	O		UV	UV	118-W551
0.65					UV	118-W600
0.70					UV	118-W650
0.75					UV	118-7000
0.75					UV	118-7500

\*1 Advantages  
 Balanced : Good balance with hole registration accuracy and inner hole wall quality.  
 Hole wall quality : Developed focus on the Improvement in inner hole wall quality .  
 \* Model recommendation/specification may change as part of our policy to improve performance and quality.

Parameters

Double-sided~4 layers						
φ D	Spindle speed	Infeed rate	Chip load	Board thickness and stack height		
mm	k rpm	m/min	μ m/rev	0.8mm	1.0-1.2mm	1.6mm
0.30	120	2.4	20	3-4	2-3	2-3
0.35	100	2.3	23			
0.40	95	2.4	25			
0.45	85	2.1	28			
0.50	75	2.0	30	4-5	3-4	3-4
0.55	70					
0.60	65	1.8				
0.65						
0.70						
0.75	60					

FR-4 6~8 layers						
φ D	Spindle speed	Infeed rate	Chip load	Board thickness and stack height		
mm	k rpm	m/min	μ m/rev	0.8mm	1.0-1.2mm	1.6mm
0.30	120	2.4	20	3-4		1-2
0.35	100	2.0				
0.40	95	2.2	23		2-3	2-3
0.45	85	2.0				
0.50	75		1.8	26	4-5	3-4
0.55	70					
0.60	65	1.7				
0.65						
0.70						
0.75	60					

These are general parameters recommended for normal conditions. However they may vary depending on the material and machine/spindle rigidity.  
 Please refer to the "technical database" contained on our web site for more detail technical support information. <http://www.usuniontool.com>