



Super Drill >>>

Ø10mm ~ Ø30mm

Smallest indexable drill from 10mm.

4 cutting edges per insert, same insert for outer and inner insert.

P **M** **K** **H**



Features >>>

▶ Smaller Cutting Chip

- The center and peripheral inserts are positioned in order to divide the cutting chips into smaller spiral shape. It helps the cutting chip to be removed faster and easier.
- Designed for high productivity, high speed cutting.
- With internal coolant.

▶ Better Surface Finish And Better Diameter Accuracy

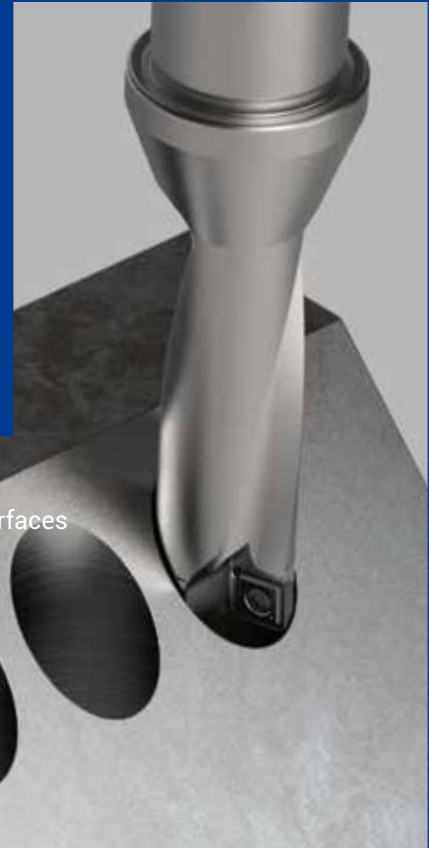
- Special insert positioning to balance the cutting forces, better surface finish and diameter accuracy are achievable.

▶ Application & TECH. >>

Application	Regular Surface 100%	Cross Holes 80%	Stack Drilling 80%~70%	Round Workpiece Offset Drilling 80%~60%	Plunge Drilling 80%	Concave Surfaces 80%	Angled Surfaces 80%~70%	Cone Workpiece Offset Drilling 80%~70%
Workpiece Shape								

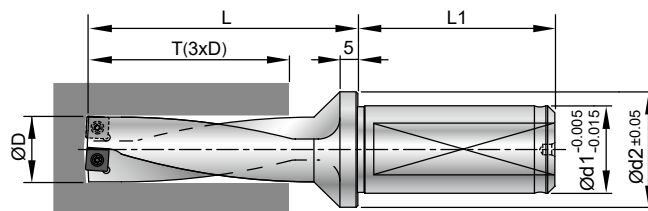


Applications



▶ Angled Surfaces

- Possible to drill into angled surfaces without pre-drilling



▶ Cutting Data

Parts No.	ØD	T	L	d1	d2	L1	Insert Screw / Key	Radial Adjustment	D max.	Work Material	SFM	IPR (inch/rev.)	
99313-10	10.0 (0.394")	30.0 (1.18")	49 (1.93")	20 (0.787")	27 (1.06")	49 (1.93")	N9GX04T002	0.25 (0.010")	10.5 (0.413")	P Carbon steel	200~985	.0010 ~ .0030	
99313-10.3	10.3 (0.406")	30.9 (1.22")	52 (2.05")	20 (0.787")	27 (1.06")	49 (1.93")		0.25 (0.010")	10.8 (0.425")				
99313-10.5	10.5 (0.413")	31.5 (1.24")	52 (2.05")	20 (0.787")	27 (1.06")	49 (1.93")		0.25 (0.010")	11.0 (0.433")	M Stainless steel	200~500	.0010 ~ .0020	
99313-11	11.0 (0.433")	33.0 (1.30")	52 (2.05")	20 (0.787")	27 (1.06")	49 (1.93")		0.20 (0.008")	11.4 (0.449")				
99313-11.5	11.5 (0.453")	34.5 (1.36")	55 (2.17")	20 (0.787")	27 (1.06")	49 (1.93")		NK-T6	0.20 (0.008")	11.9 (0.469")	K Cast iron	265~400	.0020 ~ .0030
99313-12	12.0 (0.472")	36.0 (1.42")	55 (2.17")	20 (0.787")	27 (1.06")	49 (1.93")			0.15 (0.006")	12.3 (0.484")			
99313-12.5	12.5 (0.492")	37.5 (1.48")	58 (2.28")	20 (0.787")	27 (1.06")	49 (1.93")			0.15 (0.006")	12.8 (0.504")	H Hardened steel <HRC50	200~330	.0010 ~ .0020

* Adjust speed and feed percentage by applications.