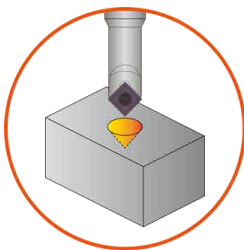


DTN / DTS Series

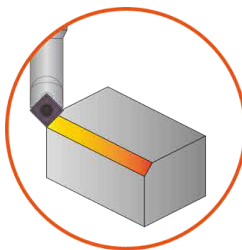
Solid Carbide / Indexable 90° Spotting drill

for Multiple applications

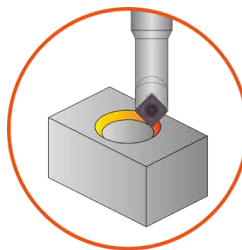
P	M	K	N	S	H
●	●	●	○	○	●



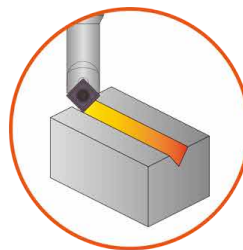
Spotting



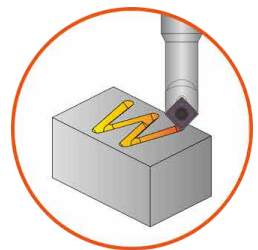
Chamfering



Countersinking

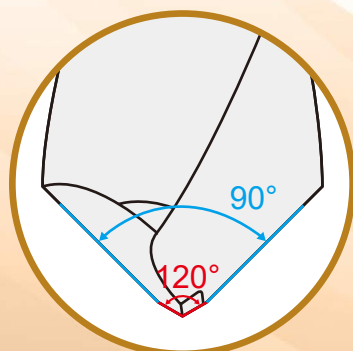


Grooving



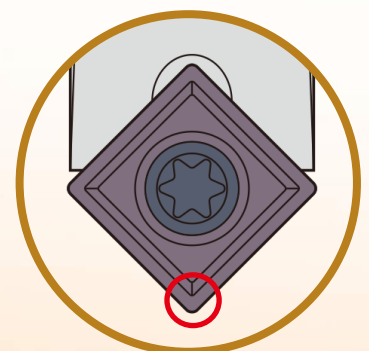
Engraving

DTN Solid Carbide Spotting drill



Anti-cracking design

DTS Indexable Spotting drill



Radius protection design

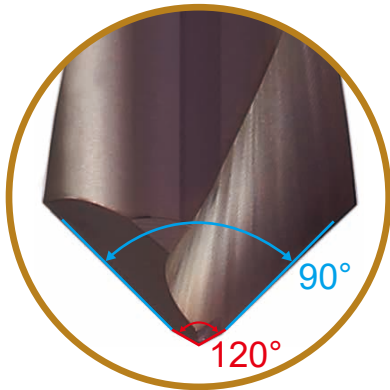
DTN Solid Carbide 90° Spotting drill

FEATURES

- Diameter range : 1.3~12mm
- High accuracy double flutes to reduce burr generation
- For steel, stainless steel, cast iron, pre-hardened steel, from HRC 20 to HRC 60 materials
- Multi-function tool to saving working cost and increasing efficiency, including spotting, 45° chamfering, countersinking, grooving, and engraving
- Applicable for milling machine and lathe

Design

- DTN with double angle tip design in 90°+ 120°, to prevents tip cracking
- Available for wider applications



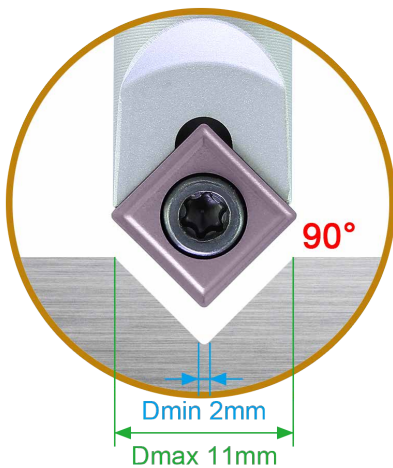
DTS Indexable 90° Spotting drill

FEATURES

- Diameter range : 2~11mm
- 4 cutting edges insert for better cost efficiency
- For steel, stainless steel, cast iron, and pre-hardened steel
- Multi-function tool to saving working cost and increasing efficiency, including spotting, 45° chamfering, countersinking, grooving, and engraving
- Applicable for milling machine and lathe

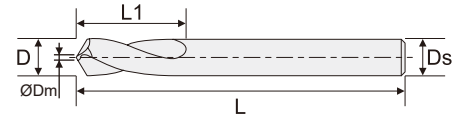
Design

- DTS use with 0.4 radius insert to prevents tip cracking
- Available for wider applications



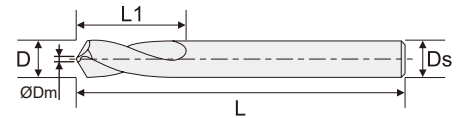
	DTN Solid Carbide 90° Spotting drill	DTS Indexable 90° Spotting drill
Diameter	0.3 ~ 12 mm	2 ~ 11 mm
Tool cost	Average	Economical
Reusability	Regrinding	4 cutting edges
Cutting flute	2 flutes	Single flute
Cutting velocity	Good	Excellent
Stability	Excellent	Good
Surface roughness	Excellent	Good

DTN Solid Carbide 90° Spotting drill



Order No.	ØDm	Diameter (D)	Flute (L1)	OAL (L)	Shank (Ds)
DTN01300901	0.3	1.30	4	50	3
DTN01700901	0.4	1.70	5	50	3
DTN03000901	0.8	3.00	8	50	3
DTN04000901	1.0	4.00	10	50	4
DTN05000901	1.3	5.00	13	50	5
DTN06000901	1.5	6.00	15	50	6
DTN08000901	2.0	8.00	20	60	8
DTN10000901	2.5	10.00	25	75	10
DTN12000901	3.0	12.00	30	75	12

DTN Solid Carbide 90° Spotting drill - Long shank



Order No.	ØDm	Diameter (D)	Flute (L1)	OAL (L)	Shank (Ds)
DTN04000911	1.0	4	10	75	4
DTN05000911	1.3	5	13	75	5
DTN06000911	1.5	6	15	100	6
DTN08000911	2.0	8	20	125	8
DTN10000911	2.5	10	25	150	10
DTN12000911	3.0	12	30	150	12

※(1) ØDm stands for available minimum hole size. (2) To choose uncoated tool for aluminum materials machining.

DTS Indexable 90° Spotting drill



Fig.1

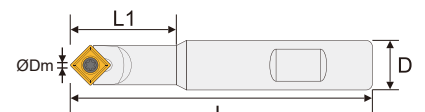


Fig.2

Order No.	ØDm	Flute (L1)	OAL (L)	Shank (Ds)	Degree	Fig	Insert
IDTS10100090-09	2	29	100	10	90°	1	SCMX09T3
IDTS12100090-09	2	29	100	12	90°	2	
IDTS16100090-09	2	29	100	16	90°	2	
IDTS16130090-09	2	29	130	16	90°	2	

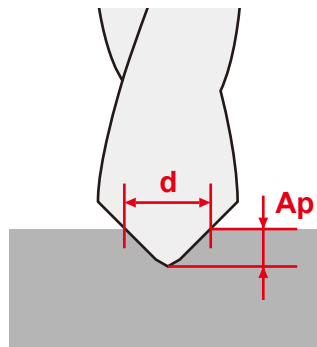
Insert	Order No.	Recommend working materials						Figure
		P	M	K	N	S	H	
	SCMX09T304-SP-CX31NA	●	●	●	●	●	○	
	SCMX09T304-MP-CX31NA	●	●	●		○	●	

※(1) ØDm stands for available minimum hole size. (2) To choose uncoated SCMX09T304-SP insert for aluminum materials machining.

Recommended Cutting Conditions

DTN Solid Carbide 90° Spotting drill

	Material	VC (m/min)	Fr (mm/rev)
P	Carbon steel	55~75	0.04~0.14
	Alloy steel	60~70	0.03~0.10
M	Stainless steel	10~20	0.02~0.10
K	Cast iron	55~85	0.04~0.13
H	Pre-hardened	10~20	0.02~0.06



$$d \cong (A_p + 0.3) \times 2$$

$$S = \frac{V_c \times 1000}{d \times \pi}$$

DTS Indexable 90° Spotting drill

Spotting

	Material	VC (m/min)	Fr (mm/rev)
P	Carbon steel	60~220	0.05~0.10
	Alloy steel	50~180	0.04~0.08
M	Stainless steel	30~120	0.03~0.06
K	Cast iron	40~130	0.05~0.10
H	Pre-hardened	20~60	0.03~0.08

Chamfering / Countersinking / Grooving

	Material	VC (m/min)	Fr (mm/rev)
P	Carbon steel	60~270	0.15~0.24
	Alloy steel	50~220	0.12~0.20
M	Stainless steel	35~120	0.10~0.20
K	Cast iron	60~220	0.15~0.25
H	Pre-hardened	20~60	0.03~0.08

Working Demonstration

DTN Solid Carbide 90° Spotting drill

Tool ØD	Material	RPM	Feed	Depth	Coolant	Tool life
4 mm	S50C	4000 rpm	400 mm	1.5mm	Oil	Over than 4,000 holes

DTS Indexable 90° Spotting drill



Cutting parameter	
Material	SUS304
RPM	4500 rpm
Feed	800 mm
Process	Porcess spotting and chamfering by one tool

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