

# Solid Carbide Spade Drills

Foret à langue d'aspic au carbure

Broca tipo espada de carburo

Recommended for thin sheet applications, shallow hole drilling and spot drilling in a wide range of materials

**Solid Carbide** offers excellent hardness, wear resistance and heat resistance for higher cutting speeds and longer tool life. High rigidity enhances hole accuracy and quality.



List No. 5377

118° Point – Heavy Duty Web

**TOLERANCES**

All sizes +.0000/-0.0005

**STANDARD PACKAGE**

All sizes — 1 each

SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	EDP NO.	SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	EDP NO.
1/32	.0312	3/16	1-1/2	50440	7/32	.2188	19/32	2	50450
3/64	.0469	7/32	1-1/2	50441	1/4	.2500	11/16	2	50451
1/16	.0625	5/16	1-1/2	50442	9/32	.2812	7/8	2-1/2	50452
3/32	.0938	7/16	1-1/2	50443	5/16	.3125	7/8	2-1/2	50453
7/64	.1094	7/16	1-1/2	50444	11/32	.3438	15/16	2-1/2	50454
1/8	.1250	1/2	1-1/2	50445	3/8	.3750	1-1/8	2-1/2	50455
9/64	.1406	1/2	2	50446	13/32	.4062	1-1/8	2-1/2	50456
5/32	.1562	9/16	2	50447	7/16	.4375	1-3/16	2-1/2	50457
11/64	.1719	9/16	2	50448	15/32	.4688	1-3/16	2-1/2	50458
3/16	.1875	11/16	2	50449	1/2	.5000	1-3/16	2-1/2	50459

## TOOL COATINGS

**Tool Coatings** enhance cutting tool performance for increased productivity and lower overall tooling cost. Benefits include increased surface hardness, lubricity & heat resistance and decreased chemical reactivity. Results include reduced friction & torque, higher speeds & feeds, increased tool life, decreased galling & chip welding and improved surface finish.

### TiN – Titanium Nitride

A good general purpose coating for a wide range of ferrous materials. Not recommended for non-ferrous materials. Has higher heat resistance than TiCN coating.

### TiCN – Titanium Carbonitride

Enhanced toughness, hardness & wear resistance for aggressive speeds & feeds. Recommended for difficult-to-machine, gummy & abrasive materials where moderate cutting temperatures are generated.

### TiAlN – Titanium Aluminum Nitride

### AlTiN – Aluminum Titanium Nitride

Excellent all around coatings featuring high heat resistance. Recommended for high thermal stress applications including dry machining, abrasive materials and hard-to-machine materials that generate higher cutting temperatures. AlTiN has higher AL content for increased hardness & heat resistance.

### CrN – Chromium Nitride

### CrC – Chromium Carbide

Especially recommended for titanium and non-ferrous materials including aluminum, copper & brass. CrC has slightly higher hardness than CrN. These coatings resist adhesion of the material being machined and resist chipping and cracking.

### DLC – Diamond Like Carbon

A thin carbon based amorphous (non-crystalline) coating featuring very high hardness & low coefficient of friction. Highly recommended for non-ferrous materials including plastic, aluminum, copper & brass. Typically used on solid carbide tools.