

## M42 8% Cobalt Zero Flute Countersink & Deburring Tools

For countersinking and deburring in a wide range of ferrous and non-ferrous materials. Radially relieved single cutting edge for fast stock removal without chatter in portable and machine applications.

**M42 8% Cobalt** offers increased wear and heat resistance in alloy steels, stainless steels and other abrasive and difficult materials. Longer tool life in all production applications.

Tools can be re-sharpened using an axial relief sharpening fixture or with a mounted grinding wheel inserted into the hole.

Fraise au cobalt

Avellanador de cobalto



List No. 1753

SIZE	DIA. OF CUT		BODY DIA.	SHANK DIA.		OAL	EDP NO.		
	MIN.	MAX.					60°	82°	90°
#0*	.09	.23	1/4	1/4	1 3/4	<b>25600</b>	<b>25610</b>	<b>25620</b>	
#1	.15	.40	7/16	1/4	1 3/4	<b>25601</b>	<b>25611</b>	<b>25621</b>	
#2	.19	.52	9/16	1/4	2	<b>25602</b>	<b>25612</b>	<b>25622</b>	
#3	.28	.75	1 3/16	1/2	2 5/8	<b>25603</b>	<b>25613</b>	<b>25623</b>	
#4	.46	1.08	1 1/8	1/2	3 1/2	<b>25604</b>	<b>25614</b>	<b>25624</b>	
5-Piece Set, Sizes #0 - #4 In Plastic Case							<b>25609</b>	<b>25619</b>	<b>25629</b>

\*Size #0 is double end.

## Single Flute Countersinks High Speed Steel Treated (Black Oxide)

For chamfering, deburring, and countersinking. Also to enlarge existing holes in thin sheet metal.

Designed for light portable work as well as machine use. Single flute construction provides smoother surface finish. Can be used when multi-flute countersinks chatter.

**STANDARD PACKAGE** All sizes — 1 each

List No. 1752

SIZE	SHANK		OAL	EDP NO.				
	DIA.			60°	82°	90°	100°	120°
1/8	1/8	1 1/2	<b>25567</b>	<b>25568</b>	<b>25569</b>	<b>25570</b>	<b>25639</b>	
1/4	1/4	2	<b>25571</b>	<b>25572</b>	<b>25573</b>	<b>25574</b>	<b>25640</b>	
3/8	1/4	2	<b>25575</b>	<b>25576</b>	<b>25577</b>	<b>25578</b>	<b>25641</b>	
1/2	1/4	2	<b>25579</b>	<b>25580</b>	<b>25581</b>	<b>25582</b>	<b>25642</b>	
5/8	1/2	2 1/4	<b>25583</b>	<b>25584</b>	<b>25585</b>	<b>25586</b>	<b>25643</b>	
3/4	1/2	2 3/4	<b>25587</b>	<b>25588</b>	<b>25589</b>	<b>25590</b>	<b>25644</b>	
1	1/2	2 3/4	<b>25591</b>	<b>25592</b>	<b>25593</b>	<b>25594</b>	<b>25645</b>	
1 1/4	1/2	3	<b>25630</b>	<b>25631</b>	<b>25632</b>	—	—	
1 1/2	3/4	3 1/2	<b>25633</b>	<b>25634</b>	<b>25635</b>	—	—	
2	3/4	3 1/2	<b>25636</b>	<b>25637</b>	<b>25638</b>	—	—	

Fraise

Avellanador

**STANDARD PACKAGE**

All sizes — 1 each



## M42 8% Cobalt Titanium Nitride (TiN) Coated Single Flute Countersinks

For chamfering, deburring, and countersinking. Also to enlarge existing holes in thin sheet metal.

Designed for light portable work as well as machine use. Single flute construction provides smoother surface finish. Can be used when multi-flute countersinks chatter.

**M42 8% Cobalt** offers increased wear and heat resistance in alloy steels, stainless steels and other abrasive and difficult materials. Longer tool life in all production applications.

**Titanium Nitride (TiN) Coating** increases tool surface hardness, wear resistance, heat resistance, chip flow and resists chip welding.

Fraise au cobalt

Avellanador de cobalto



List No. 1754

**STANDARD PACKAGE**

All sizes — 1 each

SIZE	SHANK		OAL	EDP NO.		
	DIA.			60°	82°	90°
1/8	1/8	1-1/2	<b>25650</b>	<b>25658</b>	<b>25666</b>	
1/4	1/4	2	<b>25651</b>	<b>25659</b>	<b>25667</b>	
3/8	1/4	2	<b>25652</b>	<b>25660</b>	<b>25668</b>	
1/2	3/8	2	<b>25653</b>	<b>25661</b>	<b>25669</b>	
5/8	3/8	2-1/4	<b>25654</b>	<b>25662</b>	<b>25670</b>	
3/4	1/2	2-3/4	<b>25655</b>	<b>25663</b>	<b>25671</b>	
1	1/2	2-3/4	<b>25656</b>	<b>25664</b>	<b>25672</b>	
1-1/4	1/2	3	<b>25657</b>	<b>25665</b>	<b>25673</b>	

# Carbide Single Flute Countersinks

For countersinking, chamfering, and deburring holes. Produces a smoother finish. Can be used when multi-flute countersinks chatter.

The 1/8 and 1/4 diameters are solid carbide. The larger diameters are brazed construction.

**Carbide** offers excellent wear resistance, heat resistance and rigidity. Recommended for abrasive materials, difficult-to-drill materials and increased tool life in production applications.

Fraise au carbure

Avellanador de carburo



List No. 5752

STANDARD PACKAGE All sizes — 1 each

SIZE	SHANK			EDP NO.				
	DIA.	OAL		60°	82°	90°	100°	120°
1/8	1/8	1 1/2		56101	56102	56103	56119	56120
1/4	1/4	2		56104	56105	56106	56121	56122
3/8	1/4	2		56107	56108	56109	56123	56124
1/2	1/4	2 1/2		56110	56111	56112	56125	56126
3/4	3/8	3		56113	56114	56115	56127	56128
1	1/2	3		56116	56117	56118	56129	56130

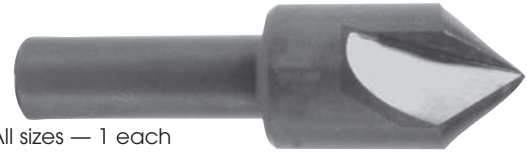
# Center Reamers

High Speed Steel - 3-Flute Treated (Black Oxide)

Designed for countersinking holes for rivets, flat head screws and centers.

Fraise conique une taille à centrer

Escariador para centrar



List No. 1750

STANDARD PACKAGE All sizes — 1 each

SIZE	SHANK			EDP NO.			
	DIA.	OAL		60°	82°	90°	100°
1/4	1/4	2		23501	23502	23503	23504
3/8	1/4	2		23505	23506	23507	23508
1/2	3/8	2		23509	23510	23511	23512
5/8	3/8	2 1/4		23513	23514	23515	23516
3/4	1/2	2 3/4		23517	23518	23519	23520
1	1/2	2 3/4		23521	23522	23523	—

# Carbide Three Flute Countersinks

For countersinking, chamfering, and deburring holes.

Three flutes allow higher feed rates than single flute countersinks and greater chip clearance than six flute countersinks.

The 1/8 and 1/4 diameters are solid carbide. The larger diameters are brazed construction.

**Carbide** offers excellent wear resistance, heat resistance and rigidity. Recommended for abrasive materials, difficult-to-drill materials and increased tool life in production applications.

STANDARD PACKAGE All sizes — 1 each

Fraise au carbure

Avellanador de carburo



List No. 5753

SIZE	SHANK			EDP NO.				
	DIA.	OAL		60°	82°	90°	100°	120°
1/8	1/8	1 1/2		56163	56171	56179	56187	56193
1/4	1/4	2		56164	56172	56180	56188	56194
3/8	1/4	2 1/2		56165	56173	56181	56189	56195
1/2	1/4	2 1/2		56166	56174	56182	56190	56196
3/4	3/8	3		56167	56175	56183	56191	56197
1	1/2	3		56168	56176	56184	56192	56198
1 1/4	3/4	3 1/2		56169	56177	56185	—	—
1 1/2	3/4	3 1/2		56170	56178	56186	—	—

# Machine Countersinks

High Speed Steel - 4-Flute Treated (Black Oxide)

Designed primarily for countersinking holes. The longer shank length is ideal for use in turret lathes for screw machine work.

STANDARD PACKAGE All sizes — 1 each

Fraise

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List No. 1751

SIZE	SHANK DIA.	SHANK LENGTH	OAL	EDP NO.		
				60°	82°	90°
1/2	1/2	2 1/4	3 7/8	25551	25552	25561
5/8	1/2	2 1/4	4	25553	25554	—
3/4	1/2	2 1/4	4 1/4	25555	25556	25563
7/8	1/2	2 1/4	4 1/4	25557	25558	—
1	1/2	2 1/4	4 3/8	25559	25560	25565

# M42 8% Cobalt Titanium Nitride (TiN) Coated Six Flute Chatterless Countersinks

Cutting edge geometry designed to reduce chatter and harmonics. Six flutes allow higher feed rates and provide longer tool life due to distributing the cutting load over a greater number of teeth.

**M42 8% Cobalt** offers increased wear and heat resistance in alloy steels, stainless steels and other abrasive and difficult materials. Longer tool life in all production applications.

Fraise au cobalt

Avellanador de cobalto



List No. 1755

**STANDARD PACKAGE** All sizes — 1 each

**Titanium Nitride (TiN) Coating** increases tool surface hardness, wear resistance, heat resistance, chip flow and resists chip welding.

SIZE	SHANK		EDP NO.		
	DIA.	OAL	60°	82°	90°
1/4	1/4	2	25680	25687	25694
3/8	1/4	2	25681	25688	25695
1/2	3/8	2	25682	25689	25696
5/8	3/8	2-1/4	25683	25690	25697
3/4	1/2	2-3/4	25684	25691	25698
1	1/2	2-3/4	25685	25692	25699
1-1/4	1/2	3	25686	25693	25700

# Carbide Six Flute Chatterless Countersinks

Cutting edge geometry designed to reduce chatter and harmonics. Six flutes allow higher feed rates and provide longer tool life due to distributing the cutting load over a greater number of teeth.

The 1/4 diameter is solid carbide. The larger diameters are brazed construction.

Carbide offers excellent wear resistance, heat resistance and rigidity. Recommended for abrasive materials, difficult-to-drill materials and increased tool life in production applications.

Fraise au carbure

Avellanador de carburo



List No. 5754

**STANDARD PACKAGE** All sizes — 1 each

SIZE	SHANK		EDP NO.				
	DIA.	OAL	60°	82°	90°	100°	120°
1/4	1/4	2	56132	56139	56146	56153	56158
3/8	1/4	2	56133	56140	56147	56154	56159
1/2	1/4	2-1/2	56134	56141	56148	56155	56160
3/4	3/8	3	56135	56142	56149	56156	56161
1	1/2	3	56136	56143	56150	56157	56162
1-1/4	3/4	3-1/2	56137	56144	56151	—	—
1-1/2	3/4	3-1/2	56138	56145	56152	—	—

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