

4-Flute

Fraise à queue à rainurer double

cortador vertical doble

Double End Mills

High Speed Steel & M42 8% Cobalt

Bright Finish & TiN Coated

Multi-Flute end mills offer higher feed rates, improved surface finish and greater core strength for reduced tool deflection.

Center Cutting end allows for plunge cutting like a drill into solid material.

M42 8% Cobalt offers increased wear and heat resistance for abrasive and difficult materials, higher speeds and feeds and longer life in production applications.



- List No. 1895 High Speed Steel
- List No. 4553 High Speed Steel Center Cutting
- List No. 4553G High Speed Steel Center Cutting
TiN Coated
- List No. 4582 M42 8% Cobalt Center Cutting

Titanium Nitride (TiN) Coating is an excellent coating for machining a wide variety of materials at increased speeds and feeds. TiN coating increases tool surface hardness, lubricity, and heat resistance and resists chip welding.

STANDARD PACKAGE All sizes — 1 each

**Tool Coatings
Also Available**

DIA.	DEC. EQUIV.	SHANK DIA.	LENGTH OF CUT	OAL	1895	4553	4553G	4582
					High Speed Steel NON-CENTER CUTTING EDP NO.	High Speed Steel CENTER CUTTING EDP NO.	High Speed Steel CENTER CUTTING TIN COATED EDP NO.	COBALT CENTER CUTTING EDP NO.
1/8	.1250	3/8	3/8	3 1/16	43266	44251	96000	44580
9/64	.1406	3/8	7/16	3 3/8	43286	43050	—	—
5/32	.1562	3/8	7/16	3 3/8	43267	43051	96002	44581
11/64	.1719	3/8	1/2	3 3/8	43287	43052	—	—
3/16	.1875	3/8	1/2	3 1/4	43268	44252	96004	44582
13/64	.2031	3/8	9/16	3 1/4	43288	43053	—	—
7/32	.2188	3/8	9/16	3 1/4	43269	43054	96006	44583
15/64	.2344	3/8	5/8	3 3/8	43289	43055	—	—
1/4	.2500	3/8	5/8	3 3/8	43270	44253	96008	44584
17/64	.2656	3/8	1 1/16	3 3/8	43290	43056	—	—
9/32	.2812	3/8	1 1/16	3 3/8	43271	43057	96010	44585
19/64	.2969	3/8	3/4	3 1/2	43291	43058	—	—
5/16	.3125	3/8	3/4	3 1/2	43272	44254	96012	44586
21/64	.3281	3/8	3/4	3 1/2	43292	43059	—	—
11/32	.3438	3/8	3/4	3 1/2	43273	43060	96014	44587
23/64	.3594	3/8	3/4	3 1/2	43293	43061	—	—
3/8	.3750	3/8	3/4	3 1/2	43274	44255	96016	44588
25/64	.3906	1/2	1	4 1/8	43294	43062	—	—
13/32	.4062	1/2	1	4 1/8	43275	43063	96018	44589
27/64	.4219	1/2	1	4 1/8	43295	43064	—	—
7/16	.4375	1/2	1	4 1/8	43276	43065	96020	44590
29/64	.4531	1/2	1	4 1/8	43296	43066	—	—
15/32	.4687	1/2	1	4 1/8	43277	43067	96022	—
31/64	.4844	1/2	1	4 1/8	43297	43068	—	—
1/2	.5000	1/2	1	4 1/8	43278	44256	96024	44591
9/16	.5625	5/8	1 3/8	5	43279	43069	—	44592
19/32	.5938	5/8	1 3/8	5	43299*	—	—	—
5/8	.6250	5/8	1 3/8	5	43280	44257	96026	44593
21/32	.6562	3/4	1 5/8	5 5/8	43300*	—	—	—
11/16	.6875	3/4	1 5/8	5 5/8	43281	43070	—	44597
3/4	.7500	3/4	1 5/8	5 5/8	43282	44258	96028	44594
25/32	.7812	7/8	1 7/8	6 1/8	43302*	—	—	—
13/16	.8125	7/8	1 7/8	6 1/8	43283	43071	—	44598
27/32	.8438	7/8	1 7/8	6 1/8	43303*	—	—	—
7/8	.8750	7/8	1 7/8	6 1/8	43284	44259	—	44595
29/32	.9062	1	1 7/8	6 3/8	43304*	—	—	—
15/16	.9375	1	1 7/8	6 3/8	43305	43072	—	44599
31/32	.9688	1	1 7/8	6 3/8	43306*	—	—	—
1	1.0000	1	1 7/8	6 3/8	43285	44260	96032	44596

* Available While Supplies Last

4-Flute Miniature Stub Length Double End Mills

**3/16" Shank — Center Cutting
High Speed Steel & M42 8% Cobalt**

Miniature 3/16" Shank end mills are designed for small diameter milling of slots, keyways and pockets. **Center Cutting** end allows for plunge cutting like a drill into solid material. For maximum rigidity, select the shortest possible length of cut for your application.

Fraise à queue à rainurer double

cortador vertical doble



List No. 4569 High Speed Steel

List No. 4569C M42 8% Cobalt

M42 8% Cobalt offers increased wear and heat resistance for abrasive and difficult materials, higher speeds and feeds and long life in production applications.

STANDARD PACKAGE All sizes — 1 each

DIA.	DEC. EQUIV.	LENGTH OF CUT	OAL	High Speed Steel	
				4569 EDP NO.	4569C COBALT EDP NO.
1/16	.0625	3/32	2	44120	44126
3/32	.0938	9/64	2	44121	44128
1/8	.1250	3/16	2	44122	44130
5/32	.1562	15/64	2	44123	44132
3/16	.1875	3/8	2	44124	44134

4-Flute Miniature Regular Length Double End Mills

**3/16" Dia. Shank — Center Cutting
High Speed Steel & M42 8% Cobalt**

Miniature 3/16" Shank end mills are designed for small diameter milling of slots, keyways and pockets. **Center Cutting** end allows for plunge cutting like a drill into solid material. For maximum rigidity, select the shortest possible length of cut for your application.

Fraise à queue à rainurer double

cortador vertical doble



List No. 1895 High Speed Steel

List No. 1895C M42 8% Cobalt

M42 8% Cobalt offers increased wear and heat resistance for abrasive and difficult materials, higher speeds and feeds and long life in production applications.

STANDARD PACKAGE All sizes — 1 each

DIA.	DEC. EQUIV.	LENGTH OF CUT	OAL	High Speed Steel	
				1895 EDP NO.	1895C COBALT EDP NO.
1/16	.0625	3/16	2 1/4	43261	43220
3/32	.0938	9/32	2 1/4	43262	43222
1/8	.1250	3/8	2 1/4	43263	43224
5/32	.1562	7/16	2 1/4	43264	43226
3/16	.1875	1/2	2 1/4	43265	43228

TOOL COATING SERVICE

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. **PLEASE INQUIRE.**

TiN — Titanium Nitride

TiCN — Titanium Carbonitride

TiAlN — Titanium Aluminum Nitride

AlTiN — Aluminum Titanium Nitride

CrN — Chromium Nitride

CrC — Chromium Carbide

DLC — Diamond Like Carbon

4-Flute Miniature Long Length Double End Mills

3/16" Dia. Shank — Center Cutting
High Speed Steel & M42 8% Cobalt

Miniature 3/16" Shank end mills are designed for small diameter milling of slots, keyways and pockets. **Center Cutting** end allows for plunge cutting like a drill into solid material. For maximum rigidity, select the shortest possible length of cut for your application.

DIA.	DEC. EQUIV.	LENGTH OF CUT	OAL	1893	1893C
				High Speed Steel	COBALT
				EDP NO.	EDP NO.
1/16	.0625	7/32	2 1/2	43241	44320
3/32	.0938	9/32	2 5/8	43242	44321
1/8	.1250	3/4	3 1/8	43243	44322
5/32	.1562	7/8	3 1/4	43244	44323
3/16	.1875	1	3 3/8	43245	44324

Tool Coatings Also Available

Fraise à queue à rainurer double

cortador vertical doble



List No. 1893 High Speed Steel
List No. 1893C M42 8% Cobalt

M42 8% Cobalt offers increased wear and heat resistance for abrasive and difficult materials, higher speeds and feeds and long life in production applications.

STANDARD PACKAGE All sizes — 1 each

4-Flute Stub Length Double End Mills

High Speed Steel

Multi-Flute end mills offer higher feed rates, improved surface finish and greater core strength for reduced tool deflection.

DIA.	DEC. EQUIV.	SHANK DIA.	LENGTH OF CUT	OAL	EDP NO.
1/8	.1250	3/8	3/16	2 3/4	44193
5/32	.1562	3/8	15/64	2 3/4	44194
3/16	.1875	3/8	9/32	2 3/4	44195
7/32	.2188	3/8	21/64	2 3/4	44196
1/4	.2500	3/8	3/8	2 3/4	44197

Fraise à queue à rainurer double

cortador vertical doble



List No. 4561 High Speed Steel

STANDARD PACKAGE All sizes — 1 each

Stub Length provides increased rigidity in shallow milling applications.

Left Hand Cut 4-Flute Double End Mills

High Speed Steel - Left Hand Cut

Left Hand Cut end mills feature a left hand helix and left hand cut for use in applications with left hand spindle rotation.

DIA.	DEC. EQUIV.	SHANK DIA.	LENGTH OF CUT	OAL	EDP NO.	DIA.	DEC. EQUIV.	SHANK DIA.	LENGTH OF CUT	OAL	EDP NO.
3/16	.1875	3/8	1/2	3 1/4	43353*	1/2	.5000	1/2	1	4 1/8	43357*
1/4	.2500	3/8	5/8	3 3/8	43354*	3/4	.7500	3/4	1 5/8	5 5/8	43359*
5/16	.3125	3/8	3/4	3 1/2	43355*						

* Available While Supplies Last

Fraise à queue à rainurer double

cortador vertical doble



List No. 1895L

STANDARD PACKAGE All sizes — 1 each