

# Left Hand Helix Straight Shank Chucking Reamers

High Speed Steel — Right Hand Cut

45° Chamfer for reaming of most materials. **Left Hand Helix**, for through holes only, pushes chips ahead of the reamer, bridges interruptions and provides better finish and sizing than straight flute reamers.

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
5/64	.0781	.0720	3/4	3	4	21885*
3/32	.0938	.0880	3/4	3	4	21886*
7/64	.1094	.1030	7/8	3 1/2	4	21887*
1/8	.1250	.1190	7/8	3 1/2	4	21888*
9/64	.1406	.1350	1	4	4	21889*
5/32	.1562	.1510	1	4	6	21890*
11/64	.1719	.1645	1 1/8	4 1/2	6	21891*
13/64	.2031	.1945	1 1/4	5	6	21893*
7/32	.2188	.2075	1 1/4	5	6	21894*
15/64	.2344	.2265	1 1/2	6	6	21895*
1/4	.2500	.2405	1 1/2	6	6	21896*
9/32	.2812	.2485	1 1/2	6	6	21898*
19/64	.2969	.2792	1 1/2	6	6	21899*
5/16	.3125	.2792	1 1/2	6	6	21900*
21/64	.3281	.2792	1 1/2	6	6	21901*
23/64	.3594	.3105	1 3/4	7	6	21903*
25/64	.3906	.3105	1 3/4	7	6	21905*
13/32	.4062	.3105	1 3/4	7	6	21906*
27/64	.4219	.3730	1 3/4	7	6	21907*
7/16	.4375	.3730	1 3/4	7	6	21908*
29/64	.4531	.3730	1 3/4	7	6	21909*
15/32	.4688	.3730	1 3/4	7	6	21910*

\* Available While Supplies Last

# Taper Shank Chucking Reamers

High Speed Steel — Morse Taper Shank  
Straight Flute — Right Hand Cut

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1/4	1	.2500	1 1/2	6	6	22311
5/16	1	.3125	1 1/2	6	6	22313
11/32	1	.3438	1 1/2	6	6	22314
3/8	1	.3750	1 3/4	7	6	22315
13/32	1	.4062	1 3/4	7	6	22316
7/16	1	.4375	1 3/4	7	6	22317
15/32	1	.4688	1 3/4	7	6	22318
1/2	1	.5000	2	8	6	22319
17/32	1	.5313	2	8	6	22320
9/16	1	.5625	2	8	8	22321
19/32	1	.5938	2	8	8	22322
5/8	2	.6250	2 1/4	9	8	22323
21/32	2	.6562	2 1/4	9	8	22324
11/16	2	.6875	2 1/4	9	8	22325
23/32	2	.7188	2 1/4	9	8	22326
3/4	2	.7500	2 1/2	9 1/2	8	22327

Alésoir machine

Rima de máquina



## List No. 1652

Diameter Tolerances

up to 1/2" — +.0002/-0

over 1/2" to 5/8" — +.0003/-0

over 5/8" to 1 1/2" — +.0001/+0.0004

STANDARD PACKAGE All sizes — 1 each

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
31/64	.4844	.4355	2	8	6	21911*
17/32	.5313	.4355	2	8	6	21913*
9/16	.5625	.4355	2	8	8	21914*
19/32	.5938	.4355	2	8	8	21915*
21/32	.6562	.5615	2 1/4	9	8	21917*
11/16	.6875	.5615	2 1/4	9	8	21918*
23/32	.7188	.5615	2 1/4	9	8	21919*
3/4	.7500	.6240	2 1/2	9 1/2	8	21920*
27/32	.8438	.6240	2 1/2	9 1/2	8	21923*
29/32	.9062	.7490	2 5/8	10	8	21925*
15/16	.9375	.7490	2 5/8	10	8	21926*
31/32	.9688	.7490	2 5/8	10	8	21927*
1	1.0000	.8740	2 3/4	10 1/2	8	21928*
11/16	1.0625	.8740	2 3/4	10 1/2	8	21929*
13/16	1.1875	.9990	2 7/8	11	10	21931*
1 1/4	1.2500	.9990	3	11 1/2	10	21932*
15/16	1.3125	.9990	3	11 1/2	10	21933*
1 3/8	1.3750	.9990	3 1/4	12	10	21934*
17/16	1.4375	1.2490	3 1/4	12	10	21935*
1 1/2	1.5000	1.2490	3 1/2	12 1/2	10	21936*

Alésoir machine

Rima de máquina



## List No. 1656

45° Chamfer for reaming of most materials.

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
25/32	2	.7812	2 1/2	9 1/2	8	22328
13/16	2	.8125	2 1/2	9 1/2	8	22329
27/32	2	.8438	2 1/2	9 1/2	8	22330
7/8	2	.8750	2 5/8	10	8	22331
29/32	2	.9062	2 5/8	10	8	22332
15/16	3	.9375	2 5/8	10	8	22333
31/32	3	.9688	2 5/8	10	8	22334
1	3	1.0000	2 3/4	10 1/2	8	22335
1 1/16	3	1.0625	2 3/4	10 1/2	8	22336
1 1/8	3	1.1250	2 7/8	11	10	22337
13/16	3	1.1875	2 7/8	11	10	22338
1 1/4	4	1.2500	3	11 1/2	10	22339
15/16	4	1.3125	3	11 1/2	10	22340
1 3/8	4	1.3750	3 1/4	12	10	22341
17/16	4	1.4375	3 1/4	12	10	22342
1 1/2	4	1.5000	3 1/2	12 1/2	10	22343

# Carbide Tipped Taper Shank Chucking Reamers

**Carbide Tipped** offers excellent wear resistance for general reaming of steel, cast iron, plastics, and other abrasive non-ferrous materials. Longer tool life in production applications.

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1/4	1	.2500	1 1/2	6	4	55416
9/32	1	.2812	1 1/2	6	4	55418
5/16	1	.3125	1 1/2	6	4	55420
11/32	1	.3437	1 1/2	6	4	55422
3/8	1	.3750	1 3/4	7	4	55424
13/32	1	.4062	1 3/4	7	4	55426
7/16	1	.4375	1 3/4	7	4	55428
15/32	1	.4687	1 3/4	7	4	55430
1/2	1	.5000	2	8	6	55432
17/32	1	.5312	2	8	6	55434
9/16	1	.5625	2	8	6	55436
19/32	1	.5938	2	8	6	55438
5/8	2	.6250	2 1/4	9	6	55440
21/32	2	.6562	2 1/4	9	6	55442
11/16	2	.6875	2 1/4	9	6	55444
23/32	2	.7187	2 1/4	9	6	55446

Alésoir à pointe au carbure Rima con punta de carburo



List No. 5656

Straight Flute – Morse Taper Shank

Standard Tolerance **+.0003"/-.0000"**

**STANDARD PACKAGE** All sizes — 1 each

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
3/4	2	.7500	2 1/2	9 1/2	6	55448
25/32	2	.7812	2 1/2	9 1/2	6	55450
13/16	2	.8125	2 1/2	9 1/2	6	55452
27/32	2	.8437	2 1/2	9 1/2	6	55454
7/8	2	.8750	2 5/8	10	6	55456
29/32	2	.9062	2 5/8	10	6	55458
15/16	3	.9375	2 5/8	10	8	55460
31/32	3	.9687	2 5/8	10	8	55462
1	3	1.0000	2 3/4	10 1/2	8	55464
11/16	3	1.0625	2 3/4	10 1/2	8	55466
1 1/8	3	1.1250	2 7/8	11	8	55468
1 3/16	3	1.1875	2 7/8	11	8	55470
1 1/4	4	1.2500	3	11 1/2	8	55472
1 7/16	4	1.4375	3 1/4	12	8	55477*

\* Available While Supplies Last

# Carbide Tipped Flute Long Carbide Taper Shank Chucking Reamers

**Carbide Full Length of Flutes** specially designed for precision reaming in **deep holes** and for long production runs. **Carbide Tipped** offers excellent wear resistance for general reaming of steel, cast iron, plastics, and other abrasive non-ferrous materials. Longer tool life in production applications.

Alésoir à pointe au carbure Rima con punta de carburo



List No. 5660

Straight Flute – Morse Taper Shank

Standard Tolerance **+.0003"/-.0000"**

**STANDARD PACKAGE** All sizes — 1 each

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1/4	1	.2500	1 1/2	6	4	55616*
9/32	1	.2812	1 1/2	6	4	55618*
5/16	1	.3125	1 1/2	6	4	55620*
11/32	1	.3437	1 1/2	6	4	55622*
3/8	1	.3750	1 3/4	7	4	55624*
13/32	1	.4062	1 3/4	7	4	55626*
7/16	1	.4375	1 3/4	7	4	55628*
15/32	1	.4687	1 3/4	7	4	55630*
1/2	1	.5000	2	8	6	55632*
17/32	1	.5312	2	8	6	55634*
9/16	1	.5625	2	8	6	55636*
19/32	1	.5938	2	8	6	55638*
5/8	2	.6250	2	9	6	55640*

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
21/32	2	.6562	2	9	6	55642*
11/16	2	.6875	2	9	6	55644*
23/32	2	.7187	2	9	6	55646*
3/4	2	.7500	2	9 1/2	6	55648*
13/16	2	.8125	2	9 1/2	6	55652*
27/32	2	.8437	2	9 1/2	6	55654*
7/8	2	.8750	2 1/4	10	6	55656*
29/32	2	.9062	2 1/4	10	6	55658*
1 1/8	3	1.1250	2 1/4	11	8	55668*
1 3/16	3	1.1875	2 1/4	11	8	55670*
1 1/4	4	1.2500	2 1/2	11 1/2	8	55672*
1 5/16	4	1.3125	2 1/2	11 1/2	8	55674*
1 1/2	4	1.5000	2 1/2	12 1/2	8	55678*

\* Available While Supplies Last

# Expansion Taper Shank Chucking Reamers

High Speed Steel — Morse Taper Shank  
Straight Flute — Right Hand Cut

Expansion Reamers are expandable to permit many regrinds to the original reamer size. Recommended for reaming a wide range of materials.

Alésoir expansible en bout

Rima de expansión



List No. 1734

**NOTE:** Expansion feature is for expansion and regrind to the original reamer size only. Not to be used as an adjustable reamer for producing different hole sizes. Expansion screw should never be loosened to achieve a smaller reamer size.

**STANDARD PACKAGE** All sizes — 1 each

SIZE	DEC. EQUIV.	MORSE TAPER NO.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
3/8	.3750	1	3/4	7	6	22951
7/16	.4375	1	7/8	7	6	22952
1/2	.5000	1	1	8	6	22953
9/16	.5625	1	1 1/8	8	6	22955
1 9/32	.5938	1	1 1/8	8	6	22956*
5/8	.6250	2	1 1/4	9	6	22957
21/32	.6562	2	1 1/4	9	6	22958*
1 1/16	.6875	2	1 1/4	9	6	22959
23/32	.7188	2	1 1/4	9	6	22960*
3/4	.7500	2	1 1/2	9 1/2	6	22961
13/16	.8125	2	1 1/2	9 1/2	6	22962
7/8	.8750	2	1 1/2	10	6	22963
15/16	.9375	3	1 1/2	10	6	22964
1	1.0000	3	1 3/8	10 1/2	8	22965
1 1/16	1.0625	3	1 3/8	10 1/2	8	22966
1 1/8	1.1250	3	1 3/4	11	8	22967
1 3/16	1.1875	3	1 3/4	11	8	22968
1 1/4	1.2500	4	1 7/8	11 1/2	8	22969
1 5/16	1.3125	4	1 7/8	11 1/2	8	22970
1 3/8	1.3750	4	2	12	8	22971
1 7/16	1.4375	4	2	12	10	22972
1 1/2	1.5000	4	2 1/8	12 1/2	10	22973

\* Available While Supplies Last

# Carbide Tipped Expansion Taper Shank Chucking Reamers

Morse Taper Shank — Right Hand Cut  
Straight Flute

Expansion Reamers are expandable to permit many regrinds to the original reamer size. **Carbide Tipped** offers excellent wear resistance for general reaming of steel, cast iron, plastics, and other abrasive non-ferrous materials. Longer tool life in production applications.

Alésoir à pointe au carbure

Rima con punta de carburo



List No. 5734

**NOTE:** Expansion feature is for expansion and regrind to the original reamer size only. Not to be used as an adjustable reamer for producing different hole sizes. Expansion screw should never be loosened to achieve a smaller reamer size.

**STANDARD PACKAGE** All sizes — 1 each

SIZE	DEC. EQUIV.	MORSE TAPER NO.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
7/16	.4375	1	1	7	4	56054*
15/32	.4687	1	1	7	4	56084*
17/32	.5313	1	1	8	6	56056*
9/16	.5625	1	1 1/8	8	6	56057*
15/16	.9375	3	1 1/2	10	8	56069*
1 1/16	1.0625	3	1 1/2	10 1/2	8	56073*
1 1/8	1.1250	3	1 3/4	11	8	56075*
1 3/16	1.1875	3	1 3/4	11	8	56076*
1 13/16	1.8125	4	2 1/8	12 1/2	10	56089*
1 7/8	1.8750	4	2 1/8	12 1/2	10	56090*
1 15/16	1.9375	4	2 1/8	12 1/2	10	56091*

\* Available While Supplies Last

# Right Hand Helix Taper Shank Chucking Reamers

High Speed Steel — Morse Taper Shank  
Right Hand Cut

**Right Hand Helix** pulls chips out of the hole in blind hole and through hole applications, bridges interruptions and provides better finish and sizing than straight flute reamers. Recommended for reaming a wide range of materials.

Alésoir machine

Rima de máquina



## List No. 1654

45° Chamfer for reaming of most materials

### Diameter Tolerances

up to 1/2" — +.0002/-0

over 1/2" to 5/8" — +.0003/-0

over 5/8" to 1 1/2" — +.0001/+0.0004

**STANDARD PACKAGE** All sizes — 1 each

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1/4	1	.2500	1 1/2	6	6	21851
5/16	1	.3125	1 1/2	6	6	21853
11/32	1	.3438	1 1/2	6	6	21854
3/8	1	.3750	1 3/4	7	6	21855
13/32	1	.4062	1 3/4	7	6	21856
7/16	1	.4375	1 3/4	7	6	21857
15/32	1	.4687	1 3/4	7	6	21858
1/2	1	.5000	2	8	6	21859
17/32	1	.5313	2	8	6	21860
9/16	1	.5625	2	8	8	21861
5/8	2	.6250	2 1/4	9	8	21863
21/32	2	.6562	2 1/4	9	8	21864
11/16	2	.6875	2 1/4	9	8	21865
23/32	2	.7188	2 1/4	9	8	21866
3/4	2	.7500	2 1/2	9 1/2	8	21867
25/32	2	.7812	2 1/2	9 1/2	8	21868

SIZE	MORSE TAPER NO.	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
19/16	2	.8125	2 1/2	9 1/2	8	21869
27/32	2	.8438	2 1/2	9 1/2	8	21870
7/8	2	.8750	2 5/8	10	8	21871
29/32	2	.9062	2 5/8	10	8	21872
15/16	3	.9375	2 5/8	10	8	21873
31/32	3	.9688	2 5/8	10	8	21874
1	3	1.0000	2 3/4	10 1/2	8	21875
1 1/16	3	1.0625	2 3/4	10 1/2	8	21876
1 1/8	3	1.1250	2 7/8	11	10	21877
1 3/16	3	1.1875	2 7/8	11	10	21878
1 1/4	4	1.2500	3	11 1/2	10	21879
1 5/16	4	1.3125	3	11 1/2	10	21880
1 3/8	4	1.3750	3 1/4	12	10	21881
1 7/16	4	1.4375	3 1/4	12	10	21882
1 1/2	4	1.5000	3 1/2	12 1/2	10	21883

## 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.