

# Expansion Straight Shank Chucking Reamers

Alésoir expansible en bout

Rima de expansión



List No. 1733

**STANDARD PACKAGE** All sizes — 1 each

**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.

High Speed Steel

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.

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
3/8	.3750	5/16	3/4	7	6	22901
13/32	.4062	5/16	3/4	7	6	22902
7/16	.4375	3/8	7/8	7	6	22903
15/32	.4688	3/8	7/8	7	6	22904
1/2	.5000	7/16	1	8	6	22905
17/32	.5313	7/16	1	8	6	22906
9/16	.5625	7/16	1 1/8	8	6	22907
19/32	.5938	7/16	1 1/8	8	6	22908
5/8	.6250	9/16	1 1/4	9	6	22909
21/32	.6562	9/16	1 1/4	9	6	22910
11/16	.6875	9/16	1 1/4	9	6	22911
23/32	.7188	9/16	1 1/4	9	6	22912
3/4	.7500	5/8	1 3/8	9 1/2	6	22913
25/32	.7812	5/8	1 3/8	9 1/2	6	22914
13/16	.8125	5/8	1 3/8	9 1/2	6	22915
27/32	.8438	5/8	1 3/8	9 1/2	6	22916
7/8	.8750	3/4	1 1/2	10	6	22917
29/32	.9062	3/4	1 1/2	10	6	22918
15/16	.9375	3/4	1 1/2	10	6	22919
31/32	.9688	3/4	1 1/2	10	6	22920
1	1.0000	7/8	1 5/8	10 1/2	8	22921
1 1/16	1.0625	7/8	1 5/8	10 1/2	8	22922
1 1/8	1.1250	7/8	1 3/4	11	8	22923
1 3/16	1.1875	1	1 3/4	11	8	22924
1 1/4	1.2500	1	1 7/8	11 1/2	8	22925

# Carbide Tipped Expansion Straight Shank Chucking Reamers

Alésoir à pointe au carbure

Rima con punta de carburo



List No. 5733

**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

Straight Flute — Right Hand Cut

**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.

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
3/8	.3750	5/16	1	7	4	56003
7/16	.4375	3/8	1	7	4	56004
1/2	.5000	7/16	1	8	6	56005
9/16	.5625	7/16	1 1/8	8	6	56007
5/8	.6250	9/16	1 1/4	9	6	56009
11/16	.6875	9/16	1 1/4	9	6	56011
3/4	.7500	5/8	1 3/8	9 1/2	6	56013

(continued)

# Carbide Tipped Expansion Chucking Reamers (continued)

List No. 5733

Alésoir à pointe au carbure

Rima con punta de carburo

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1 <sup>3</sup> / <sub>16</sub>	.8125	5 <sup>8</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	6	56015
2 <sup>7</sup> / <sub>32</sub>	.8437	5 <sup>8</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	6	56016*
7 <sup>8</sup> / <sub>8</sub>	.8750	3 <sup>4</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	10	6	56017
1 <sup>9</sup> / <sub>16</sub>	.9375	3 <sup>4</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	10	8	56019
1	1.000	7 <sup>8</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	8	56021
1 <sup>1</sup> / <sub>16</sub>	1.0625	7 <sup>8</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	8	56023
1 <sup>1</sup> / <sub>8</sub>	1.1250	7 <sup>8</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	11	8	56025
1 <sup>3</sup> / <sub>16</sub>	1.1875	1	1 <sup>3</sup> / <sub>4</sub>	11	8	56026
1 <sup>1</sup> / <sub>4</sub>	1.2500	1	1 <sup>7</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	8	56027
1 <sup>3</sup> / <sub>8</sub>	1.3750	1	2	12	8	56029
1 <sup>1</sup> / <sub>2</sub>	1.5000	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	8	56031
1 <sup>11</sup> / <sub>16</sub>	1.6875	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	8	56039*
1 <sup>13</sup> / <sub>16</sub>	1.8125	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	8	56040*
1 <sup>7</sup> / <sub>8</sub>	1.8750	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	8	56041*
1 <sup>15</sup> / <sub>16</sub>	1.9375	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	8	56042*

\*Available While Supplies Last

## Right Hand Helix Straight Shank Chucking Reamers

High Speed Steel — 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. 1653

45° Chamfer for reaming of most materials

STANDARD All sizes — 1 each  
PACKAGE

SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1 <sup>1</sup> / <sub>16</sub>	.0625	1 <sup>2</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	4	21701
5 <sup>64</sup> / <sub>64</sub>	.0781	3 <sup>4</sup> / <sub>4</sub>	3	4	21702
3 <sup>32</sup> / <sub>32</sub>	.0938	3 <sup>4</sup> / <sub>4</sub>	3	4	21703
7 <sup>64</sup> / <sub>64</sub>	.1094	7 <sup>8</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	4	21704
1 <sup>8</sup> / <sub>8</sub>	.1250	7 <sup>8</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	4	21705
9 <sup>64</sup> / <sub>64</sub>	.1406	1	4	4	21706
5 <sup>32</sup> / <sub>32</sub>	.1562	1	4	6	21707
1 <sup>1</sup> / <sub>64</sub>	.1719	1 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	6	21708
3 <sup>16</sup> / <sub>16</sub>	.1875	1 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	6	21709
1 <sup>3</sup> / <sub>64</sub>	.2031	1 <sup>1</sup> / <sub>4</sub>	5	6	21710
7 <sup>32</sup> / <sub>32</sub>	.2188	1 <sup>1</sup> / <sub>4</sub>	5	6	21711
1 <sup>5</sup> / <sub>64</sub>	.2344	1 <sup>1</sup> / <sub>2</sub>	6	6	21712
1 <sup>4</sup> / <sub>4</sub>	.2500	1 <sup>1</sup> / <sub>2</sub>	6	6	21713
1 <sup>7</sup> / <sub>64</sub>	.2656	1 <sup>1</sup> / <sub>2</sub>	6	6	21714
9 <sup>32</sup> / <sub>32</sub>	.2812	1 <sup>1</sup> / <sub>2</sub>	6	6	21715
1 <sup>9</sup> / <sub>64</sub>	.2969	1 <sup>1</sup> / <sub>2</sub>	6	6	21716
5 <sup>16</sup> / <sub>16</sub>	.3125	1 <sup>1</sup> / <sub>2</sub>	6	6	21717
2 <sup>1</sup> / <sub>64</sub>	.3281	1 <sup>1</sup> / <sub>2</sub>	6	6	21718
1 <sup>1</sup> / <sub>32</sub>	.3438	1 <sup>1</sup> / <sub>2</sub>	6	6	21719
2 <sup>3</sup> / <sub>64</sub>	.3594	1 <sup>3</sup> / <sub>4</sub>	7	6	21720
3 <sup>8</sup> / <sub>8</sub>	.3750	1 <sup>3</sup> / <sub>4</sub>	7	6	21721
2 <sup>5</sup> / <sub>64</sub>	.3906	1 <sup>3</sup> / <sub>4</sub>	7	6	21722
1 <sup>3</sup> / <sub>32</sub>	.4062	1 <sup>3</sup> / <sub>4</sub>	7	6	21723
2 <sup>7</sup> / <sub>64</sub>	.4219	1 <sup>3</sup> / <sub>4</sub>	7	6	21724
7 <sup>16</sup> / <sub>16</sub>	.4375	1 <sup>3</sup> / <sub>4</sub>	7	6	21725
2 <sup>9</sup> / <sub>64</sub>	.4531	1 <sup>3</sup> / <sub>4</sub>	7	6	21726
1 <sup>5</sup> / <sub>32</sub>	.4688	1 <sup>3</sup> / <sub>4</sub>	7	6	21727

SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
3 <sup>1</sup> / <sub>64</sub>	.4844	2	8	6	21728
1 <sup>2</sup> / <sub>2</sub>	.5000	2	8	6	21729
1 <sup>7</sup> / <sub>32</sub>	.5313	2	8	6	21730
9 <sup>16</sup> / <sub>16</sub>	.5625	2	8	8	21731
1 <sup>9</sup> / <sub>32</sub>	.5938	2	8	8	21732
5 <sup>8</sup> / <sub>8</sub>	.6250	2 <sup>1</sup> / <sub>4</sub>	9	8	21733
2 <sup>1</sup> / <sub>32</sub>	.6562	2 <sup>1</sup> / <sub>4</sub>	9	8	21734
1 <sup>1</sup> / <sub>16</sub>	.6875	2 <sup>1</sup> / <sub>4</sub>	9	8	21735
2 <sup>3</sup> / <sub>32</sub>	.7188	2 <sup>1</sup> / <sub>4</sub>	9	8	21736
3 <sup>4</sup> / <sub>4</sub>	.7500	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	8	21737
2 <sup>5</sup> / <sub>32</sub>	.7812	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	8	21738
1 <sup>3</sup> / <sub>16</sub>	.8125	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	8	21739
2 <sup>7</sup> / <sub>32</sub>	.8438	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	8	21740
7 <sup>8</sup> / <sub>8</sub>	.8750	2 <sup>5</sup> / <sub>8</sub>	10	8	21741
2 <sup>9</sup> / <sub>32</sub>	.9062	2 <sup>5</sup> / <sub>8</sub>	10	8	21742
1 <sup>5</sup> / <sub>16</sub>	.9375	2 <sup>5</sup> / <sub>8</sub>	10	8	21743
3 <sup>1</sup> / <sub>32</sub>	.9688	2 <sup>5</sup> / <sub>8</sub>	10	8	21744
1	1.0000	2 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>2</sub>	8	21745
1 <sup>1</sup> / <sub>16</sub>	1.0625	2 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>2</sub>	8	21746
1 <sup>1</sup> / <sub>8</sub>	1.1250	2 <sup>7</sup> / <sub>8</sub>	11	10	21747
1 <sup>3</sup> / <sub>16</sub>	1.1875	2 <sup>7</sup> / <sub>8</sub>	11	10	21748
1 <sup>1</sup> / <sub>4</sub>	1.2500	3	11 <sup>1</sup> / <sub>2</sub>	10	21749
1 <sup>5</sup> / <sub>16</sub>	1.3125	3	11 <sup>1</sup> / <sub>2</sub>	10	21750
1 <sup>3</sup> / <sub>8</sub>	1.3750	3 <sup>1</sup> / <sub>4</sub>	12	10	21751
1 <sup>7</sup> / <sub>16</sub>	1.4375	3 <sup>1</sup> / <sub>4</sub>	12	10	21752
1 <sup>1</sup> / <sub>2</sub>	1.5000	3 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>	10	21753

# Carbide Tipped Right Hand Helix Straight Shank Chuckling Reamers

Alésoir à pointe au carbure Rima con punta de carburo



List No. 5653

Diameter Tolerance  $+.0003/-0$

**STANDARD PACKAGE** All sizes — 1 each

## 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. **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	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1/4	.2500	15/64	1 1/2	6	4	55151*
9/32	.2812	15/64	1 1/2	6	4	55152*
7/16	.4375	3/8	1 3/4	7	4	55157*
15/32	.4687	3/8	1 3/4	7	4	55158*
17/32	.5312	7/16	2	8	6	55168*
9/16	.5625	7/16	2	8	6	55160*
19/32	.5938	7/16	2	8	6	55169*

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
11/16	.6875	9/16	2 1/4	9	6	55162*
25/32	.7812	9/16	2 1/2	9 1/2	6	55172*
13/16	.8125	5/8	2 1/2	9 1/2	6	55164*
27/32	.8437	5/8	2 1/2	9 1/2	6	55173*
29/32	.9062	3/4	2 5/8	10	6	55174*
31/32	.9687	3/4	2 5/8	10	8	55175*
1 1/8	1.1250	7/8	2 7/8	11	8	55177*

\* Available While Supplies Last

# Carbide Tipped Left Hand Helix Straight Shank Chuckling Reamers

Alésoir à pointe au carbure Rima con punta de carburo



List No. 5651

Tools are furnished to a  $+.0003$   $-.0000$  diameter tolerance.

## Right Hand Cut

**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.

**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	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
1/4	.2500	15/64	1 1/2	6	4	55101*
9/32	.2812	15/64	1 1/2	6	4	55102*
5/16	.3125	9/32	1 1/2	6	4	55103*
7/16	.4375	3/8	1 3/4	7	4	55107*
15/32	.4688	3/8	1 3/4	7	4	55108*
9/16	.5625	7/16	2	8	6	55110*
19/32	.5938	7/16	2	8	6	55119*

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	EDP NO.
11/16	.6875	9/16	2 1/4	9	6	55112*
23/32	.7188	9/16	2 1/4	9	6	55121*
27/32	.8438	5/8	2 1/2	9 1/2	6	55123*
29/32	.9062	3/4	2 5/8	10	6	55124*
15/16	.9375	3/4	2 5/8	10	8	55116*
31/32	.9688	3/4	2 5/8	10	8	55125*
1 3/16	1.1875	1	2 7/8	11	8	55128*
1 1/4	1.2500	1	3	11 1/2	8	55129*

\* Available While Supplies Last

# Left Hand Helix Straight Shank Chuckling 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 Chuckling 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
19/32	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